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Helicopter Noise Definition Report

UH-60A, S-76, A-109, 206-L

Report No. FAA-EE-81-16

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Helicopter Noise
Definition Report

UH-60A, 2-18 A-100, 200-



NOTICE

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| 16. Abstract This document presents noise data for the Sikorsky UH-60A Blackhawk, the Sikorsky S-76 Spirit, the Agusta A-109 and the Bell 206-L. The acoustical data are accompanied by phototheodolite tracking data, cockpit instrument panel photo data, and meteorological data acquired from radiosonde balloons. Acoustical metrics include both noise certification metrics (EPNL, PNLT, PNL) as well as community/airport noise assessment metrics (SEL, dBA). Noise data have been acquired systematically to identify variations in level with variations in helicopter airspeed and altitude. Data contained in this report provide essential information for development of helicopter noise exposure contours as well as further evaluation of ICAO helicopter noise certification standards. Accordingly, this information will be of interest to helicopter manufacturers, airport planning consultants, acoustical engineers and airport managers. This report serves as a noise definition document establishing baseline acoustical characteristics of the test helicopters. | | | | | |
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PREFACE

This report presents a large volume of acoustical and tracking data for three new technology helicopters, (UH-60A, S-76, and A-109) and a fourth current technology helicopter, the Bell 206-L. Much of the information provided in this document has been released previously in piecemeal fashion in the form of ICAO working papers, preliminary reports, SAE-A21 Committee working papers and information transmittals directly to the participating manufacturers. This document has been prepared in order to chronicle formally the information gathered during the tests. While some brief analyses are provided, a comprehensive integrated data analysis has been left as the topic of a separate report.

Acknowledgements

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Our special thanks are extended to the following participating organizations:

- U.S. Army Blackhawk DR CPM-BH/ABRADCOM and Ft. Eustis Training Command provided the UH-60A Blackhawk
- Agusta, Costruzioni Aeronautiche, Italy, provided the A-109
- Sikorsky Aircraft Division, provided the S-76 Spirit
- FAA, Hanger 6 Operations provided the Bell 206-L
- FAA Technical Center

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|-----------------|--|
| A | As Measured Noise Data |
| B | Corrected Noise Data |
| C | Flight Path Tracking Plots and Position Data |
| D | Helicopter Cockpit Data |
| E | Meteorological Data - Temperature, Relative Humidity and Wind Data |

LIST OF SYMBOLS AND ABBREVIATIONS

| | |
|-----------|---|
| dBAm | Maximum A-weighted sound pressure level, expressed in decibels |
| SEL | Sound Exposure Level expressed in decibels, the integration of the dBA time history normalized to 1 second. This appears as NEL (Noise Exposure Level) in Appendices A and B. Values of NEL have been computed using the "10 dB-down" time history. |
| SPL | Sound Pressure Level expressed in decibels |
| EPNL | Effective Perceived Noise Level |
| PNLT | Tone Corrected Perceived Noise Level |
| PNL | Perceived Noise Level |
| OASPL | Overall Sound Pressure Level |
| DUR(A) | "10 dB-Down" Duration of dBA time history |
| DUR(P) | "10 dB-Down" Duration of PNL time history |
| CPA | Closest point of approach. Subscripts typically refer to the reference or test flight paths (CPA _R and CPA _T) |
| dB | Decibels |
| Δ | Delta, or change in value |
| Delta ATM | Correction to PNLTM obtained by applying atmospheric absorption correction to the measured PNLTM spectra |
| Delta DIS | Correction to PNLTM obtained by applying spherical spreading losses to the measured PNLTM spectra |
| Delta 1 | Correction term obtained by correcting SPL values for atmospheric absorption and flight track deviations per FAR 36, Amendment 9, Appendix A, Section A36.11, Paragraph d $\Delta 1 = \Delta \text{ATM} + \Delta \text{DIS}$ |
| Delta 2 | Correction term accounting for changes in event duration with deviations from the reference flight path |
| kts | Knots |
| NWS | National Weather Service |
| TSC | Department of Transportation, Transportation Systems Center |
| FAATC | Federal Aviation Administration Technical Center |

| | |
|----------|---|
| EV | Event, test run number |
| ICAO | International Civil Aviation Organization |
| IRIG-B | Inter-Range Instrumentation Group B (established technical standard) |
| k(P) | The constant used to correct EPNL for distance duration effects in Delta 2(P) |
| k(A) | The constant used to correct SEL for distance duration effects in Delta 2(A) |
| RH | Relative humidity in percent |
| SL | Sideline |
| SL-N | Sideline-north microphone location |
| SL-S | Sideline-south microphone location |
| SPL | Sound pressure level |
| SR | Slant range distance, distance from the noise source to the receiver. Subscripts typically refer to the reference or test slant ranges (SR_R and SR_t or SR_1 and SR_2) |
| A | Approach operational mode |
| T/O | Takeoff operational mode |
| LFO | Level flyover operational mode |
| VASI | Visual approach slope indicator |
| V_H | Maximum speed in level flight with maximum continuous power |
| V_{NE} | Never-exceed speed |
| V_y | Speed for best rate of climb |
| V_T | Test velocity (airspeed) |
| V_R | Reference velocity (airspeed) |

NOTE: Other terms used in the Appendices are defined within the text or on the page where they are used.

1.0 Introduction

1.1 Overview - An extensive helicopter noise measurement program was conducted by the FAA during the summer of 1980. Since that time several analyses, reports and working papers have been published, each based on the test results. This document has been prepared to make available a full set of acoustical, tracking and meteorological data from which the reader can pursue a variety of useful analyses. The paragraphs below present an overview of the test series, the participants and the objectives.

| | |
|--|---|
| Test Sponsor, Program Management and Data Analysis | Federal Aviation Administration (FAA) Office of Environment and Energy (AEE) |
| Test Facility | Federal Aviation Administration Technical Center (FAATC) formerly the National Aviation Facilities Experimental Center (NAFEC), located near Atlantic City, New Jersey |
| Flight Track Data Processing and Data Analysis | FAA-AEE Noise Abatement Division, Noise Technology Branch, (AEE-120) |
| Noise Data Measurement, Processing and Analysis | Transportation Systems Center (TSC) Noise Measurement and Assessment Facility |
| Radiosonde Data Acquisition and Processing | National Weather Services (NWS) Eastern Regional Office |
| Program Objectives | <ol style="list-style-type: none">a. In support of helicopter noise prediction efforts; acquire noise data relatively free of ground plane interference effects through use of 10m and surface mounted microphones.b. In support of noise data correction capabilities; investigate the variation in noise level with variations in helicopter speed over the range 0.7 (V_H or V_{NE}) to 0.9 (V_H or V_{NE})c. In support of noise data corrections capabilities; empirically determine the duration correction constant (K) for each test helicopter.d. In order to expand the FAA data base of helicopter noise information. |

e. In support of noise data correction capabilities; investigate data variability associated with differences in propagation path, temperature and relative humidity.

f. In support of the Integrated Noise Model data base development; acquire position referenced, standard day normalized helicopter noise data.

Test Helicopters

a. Sikorsky, UH-60A, "Blackhawk", approximately 20,250 lbs gross weight, provided through the courtesy of the U.S. Army.

b. Sikorsky, S-76, "Spirit," 10,000 lbs gross weight, provided through the courtesy of Sikorsky.

c. Agusta, A-109, 5,000 lbs gross weight, provided through the courtesy of Agusta.

d. Bell 206-L, "Long Ranger", 4,000 lbs gross weight, FAA aircraft.

1.2 Measurement Locations - An array of nine microphones was used during the test. The microphones were distributed among six different measurement sites and at several heights above surrounding ground level, as follows:

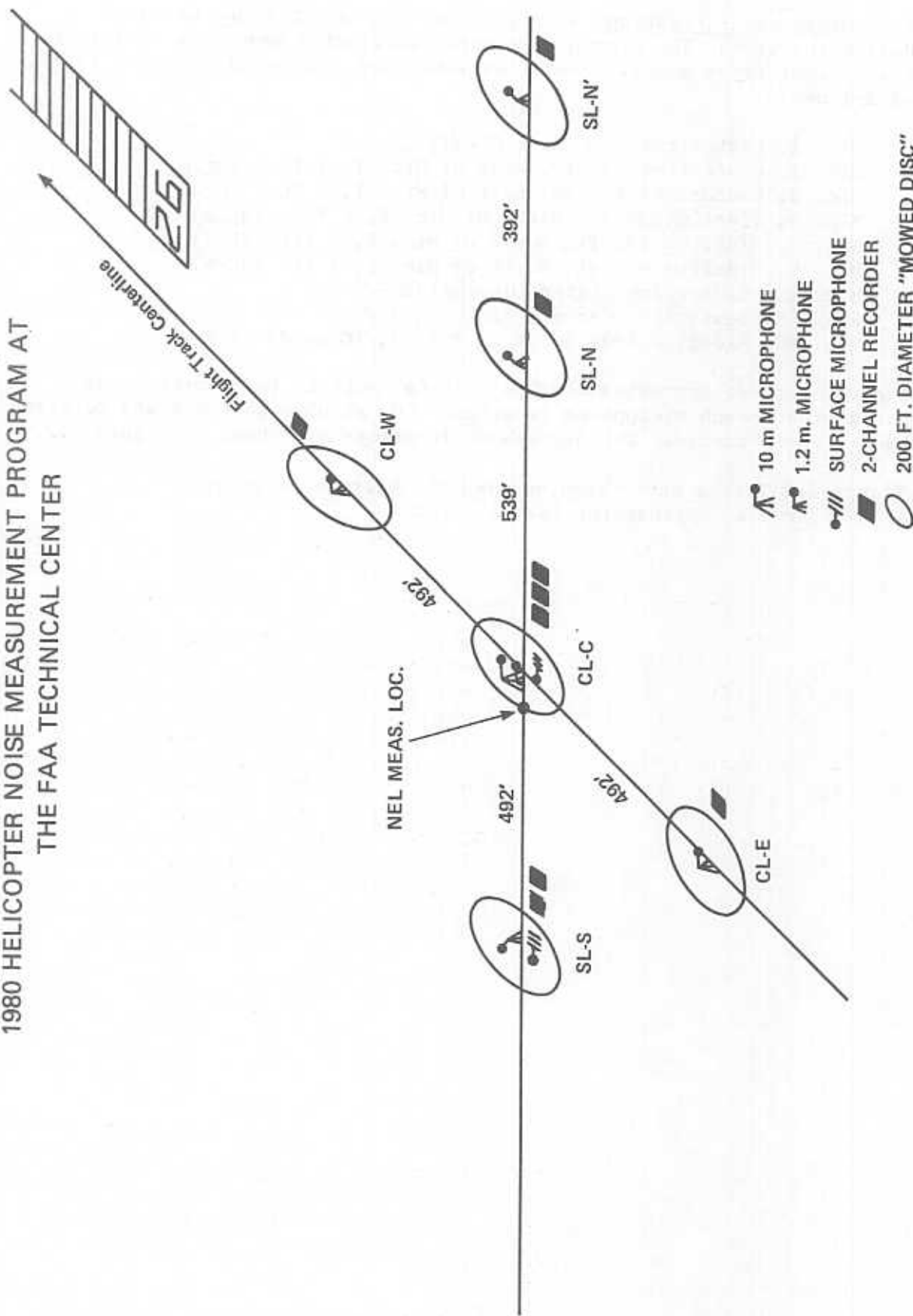
- Mic. 1, Centerline-Center, 4 ft. (CL-C)
- Mic. 2, Centerline 492 ft. West of Mic. 1, 4 ft. (CL-W)
- Mic. 3, Centerline 492 ft. East of Mic. 1, 4 ft. (CL-E)
- Mic. 4, Sideline 539 ft. North of Mic. 1, 4 ft. (SL-W)
- Mic. 5, Sideline 492 ft. South of Mic. 1, 4 ft. (SL-S)
- Mic. 6, Sideline 931 ft. North of Mic. 1, 4 ft (SL-N)
- Mic. 1G, Centerline Center (Ground) (CL-C)
- Mic. 1H, Centerline Center, 33 ft. (CL-C)
- Mic. 5G, Sideline 150m South of Mic. 1, (Ground) (SL-S)

A clear circle, approximately 200 feet (61 meters) in diameter, was mowed around each microphone location. Low scrub bush and grass bordered each cleared circle. The microphone locations are shown in Figure 1.2.1.

Figure 1.2.2 is a photograph showing the microphone array as seen from an approaching test aircraft.

FIGURE 1.2.1

MICROPHONE AND RECORDING SYSTEM DEPLOYMENT; JUNE
 1980 HELICOPTER NOISE MEASUREMENT PROGRAM AT
 THE FAA TECHNICAL CENTER



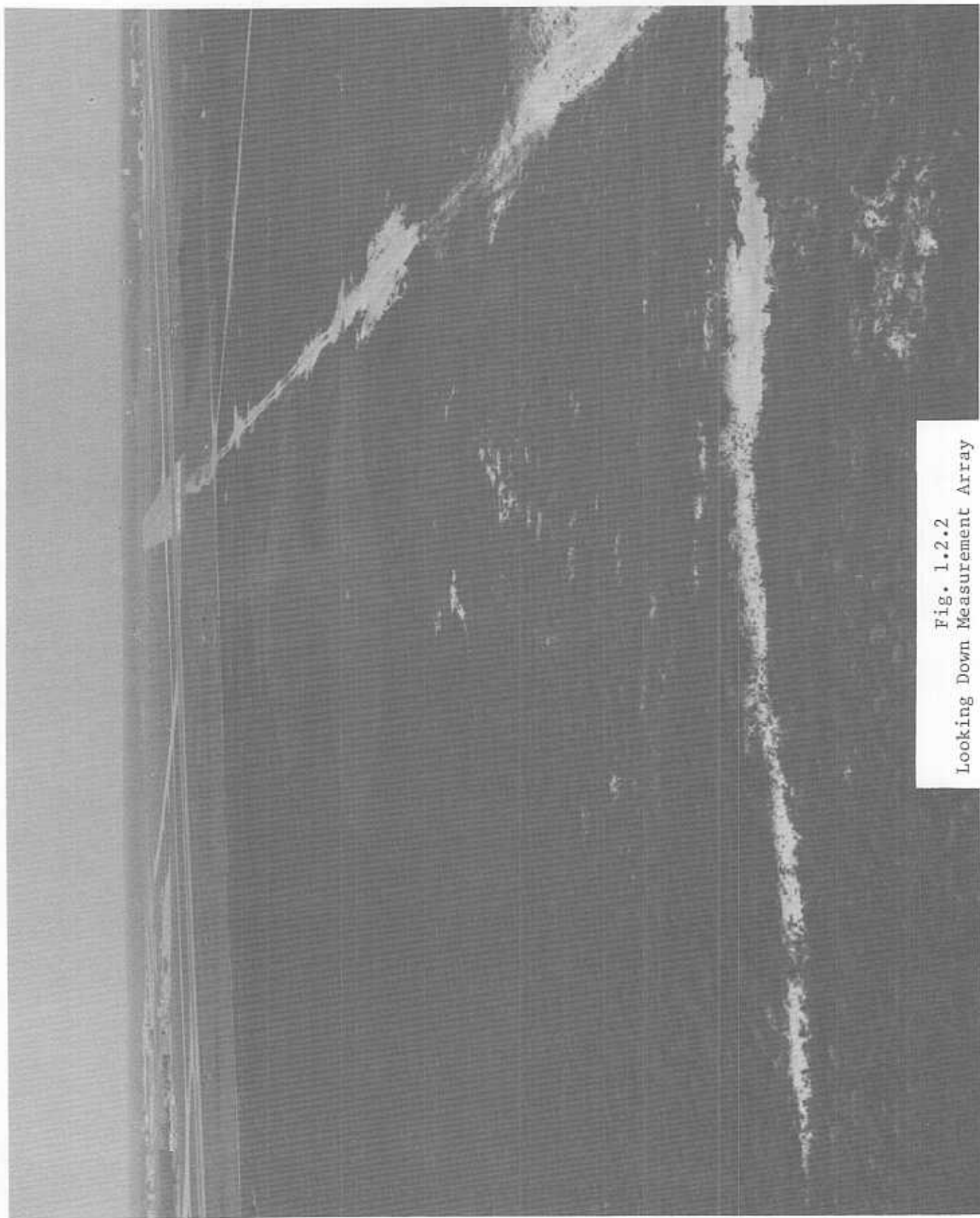


Fig. 1.2.2
Looking Down Measurement Array

1.3 Orientation of Flight Paths/Flight Path Assistance - The reference ground track was parallel to and 75 feet (23 meters) to the left of the Runway 26 centerline. Level flyovers were conducted in both the 260° and the 080° directions. Approach operations were conducted from the east to the west on a heading of 260°. On the first day of testing (June 22) the takeoff operations were conducted from the east to the west. In order to increase the obstruction clear distance for level flight prior to takeoff rotation, all subsequent takeoffs were conducted from the west to the east.

Visual cues (squares of plywood painted bright yellow) were provided to define the rotation point for takeoffs and the break off point for both takeoffs and approaches. A standard red/white visual approach slope indicator (VASI) set at a 6° glide slope angle was used for the approach portion of the test. In addition, the rotorcraft flight profile and track were monitored in real-time by FAATC range control personnel who transmitted flight track correction information to the pilot, as required. In addition, the VASI ground crew monitored the approach events and advised pilots of any deviation greater than ± 0.5 degrees from an approach angle of 6 degrees.

Three portable battery-powered (non-strobe) spotlights, similar to the sealed beam type used in emergency lighting systems, were also deployed at the visual cue and VASI sites to assist pilots in maintaining the array centerline during the early morning portion of the test.

1.4 Acoustical Measurement Instrumentation - TSC personnel deployed Nagra two-channel direct-mode tape recorders operating with preemphasis on one channel. The preemphasis network rolled off those frequencies below 10,000 Hz at 20 dB per decade. The filtered signal was then amplified to achieve signal levels within the top 20 dB of the linear recording range. The use of preemphasis is necessary in order to boost the high frequency portion of the acoustical signal (such as a helicopter spectrum) characterized by large level differences (30 to 60 dB) between the high and low frequencies. Recording gains were adjusted so that the best possible signal-to-noise ratio would be achieved while allowing enough "head room" to comply with applicable distortion avoidance requirements.

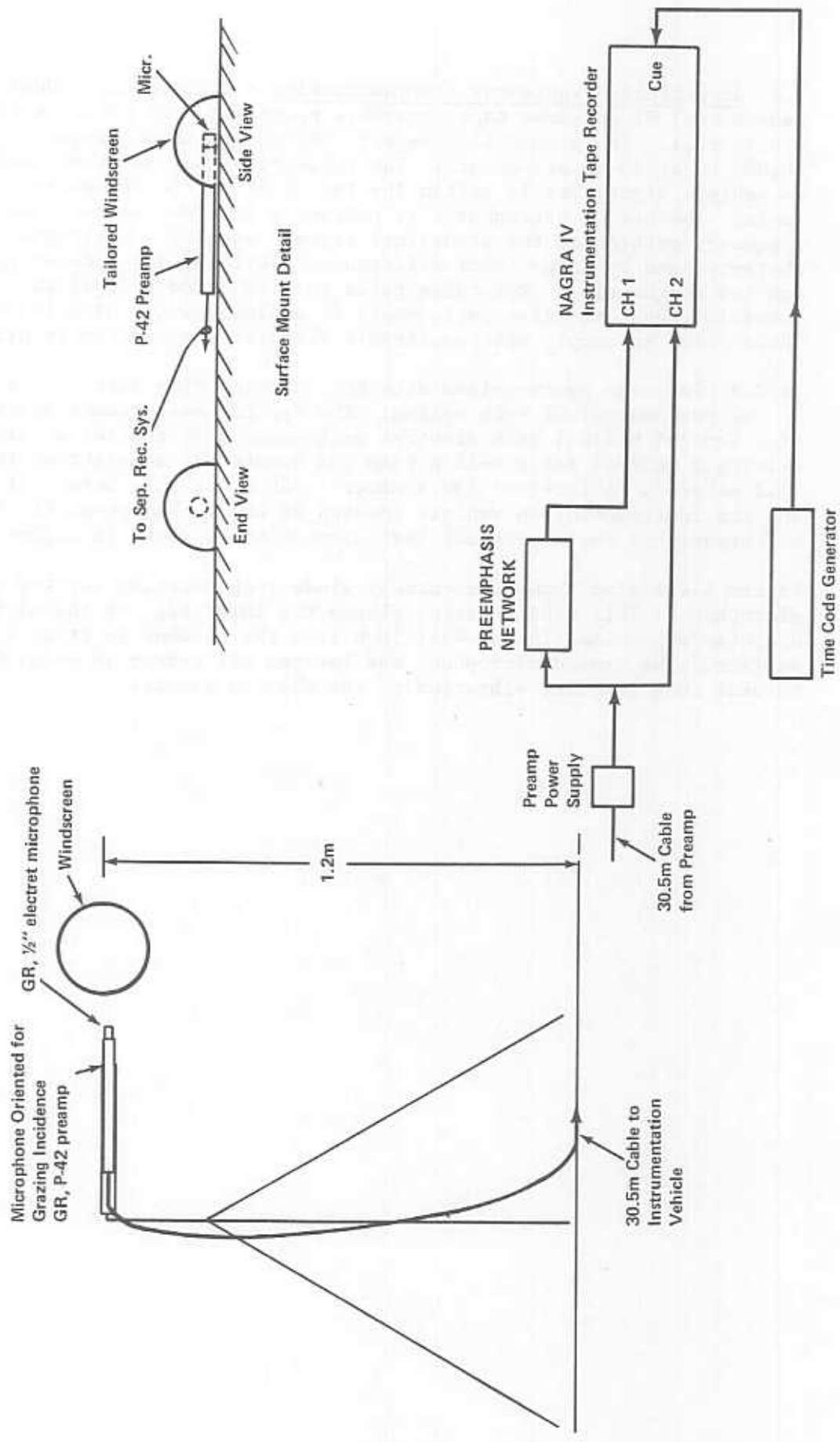
IRIG-B time code synchronized with the tracking time base was recorded on the cue channel of each system. The typical measurement system consisted of a General Radio $\frac{1}{2}$ inch electret microphone oriented for grazing incidence driving a General Radio P-42 preamp and mounted at a height of four feet (1.2 meters). A 100-foot (30.5 meters) cable was used between the tripod and the instrumentation vehicle located at the perimeter of the test circle. A schematic of the acoustical instrumentation is shown in Figure 1.4.1.

Figure 1.4.1 also shows the cutaway windscreen mounting for the ground microphone. This configuration places the lower edge of the microphone diaphragm approximately one-half inch from the plywood (4 ft by 4 ft) surface. The ground microphone was located off center in order to avoid natural mode resonant vibration of the plywood square.



FIGURE 1.4.1

ACOUSTICAL MEASUREMENT INSTRUMENTATION



1.5 Tracking - The FAATC phototheodolite tracking system was used for aircraft position determination. The accuracy of the system is approximately +2 feet for the distance encountered between the targets and the tracking towers. The phototheodolite operators were instructed to track the main rotor hub. Three dimensional coordinates were provided for each 0.1 second interval. A photograph of a typical phototheodolite tracking station is shown in Figure 1.5.1.

The final format of tracking data consists of X, Y, Z and time expressed in units of feet and seconds referenced to the tracking origin and provided in BCD format on 1/2-inch, 9-track magnetic tape recorded at a density of 800 BPI.

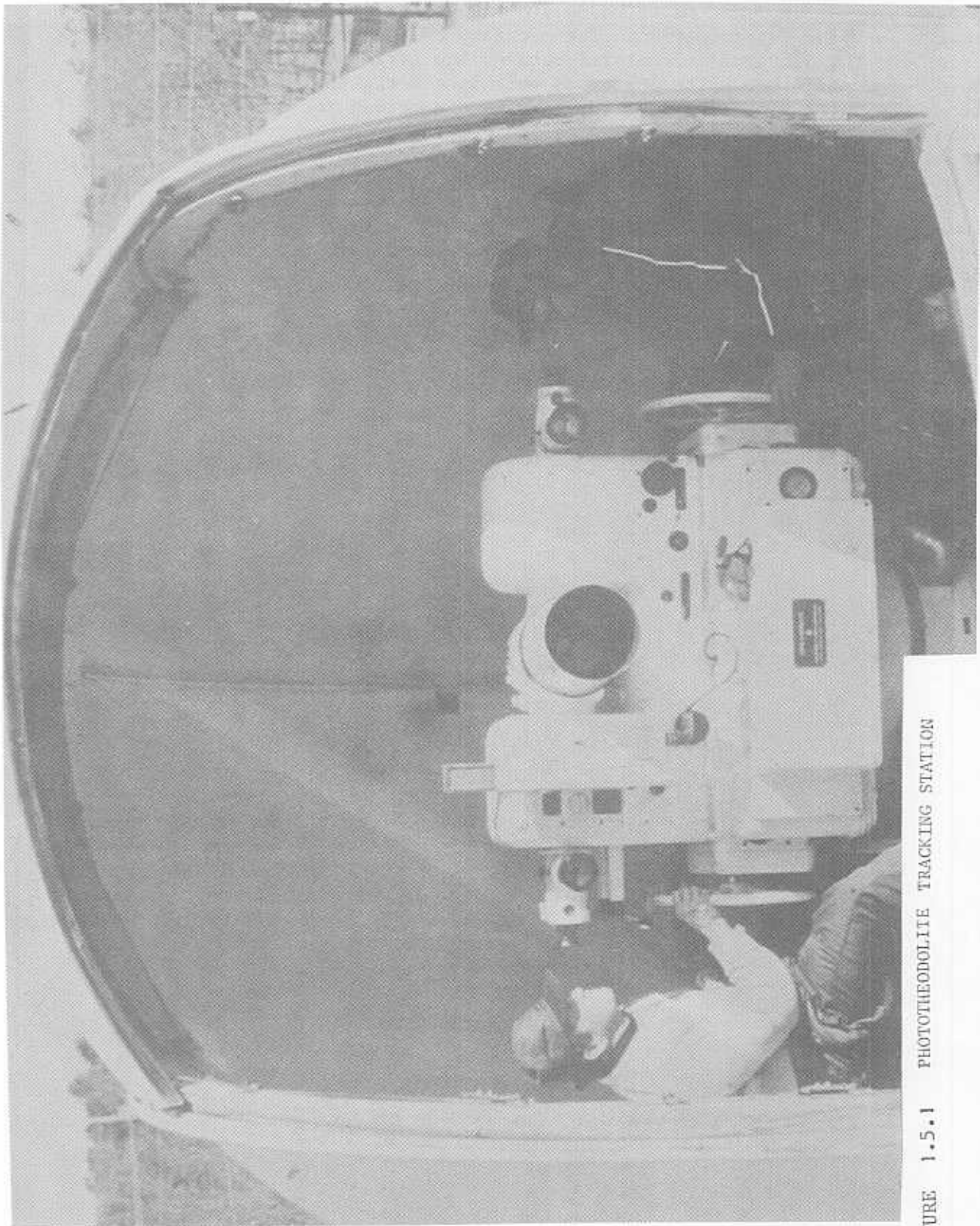


FIGURE 1.5.1 PHOTOTHEODOLITE TRACKING STATION

1.6 Meteorological Data - The National Weather Service (NWS) supported the test program by providing meteorological radiosonde data, consisting of dew point depression, temperature, and wind vector information from ground level through the highest test altitude. Using a standard conversion program the relative humidity has been computed for each value of temperature and dew point depression. An extensive summary of meteorological data is contained in Appendix E.

For the purpose of data corrections in Appendix B (atmospheric absorption corrections), the radiosonde data have been used to establish 10-meter correction values for temperature and relative humidity.

The National Weather Service specifications for the radiosondes used in the test are as follows:

Temperature: +1 degree Celsius
Relative Humidity: +5 percent
Windspeed: +1 knot

These values encompass the full range of baseline calibration errors +3 standard deviations. However, it is noted that bias errors in the base station or non-linearities in instrument response may introduce additional errors. The radiosonde hygistor and thermistor transducers also are subject to a certain response lag or time constant. The influence of these characteristics may also introduce some errors.

The radiosonde system is a good means to assess accurately temperature and wind vector information; however, it is recognized that the relative humidity is less reliable

1.7 Cockpit Data Acquisition - A 35mm color slide of the instrument panel was taken at the midpoint of each data run, approximately overhead the center centerline microphone position. A time-synchronized, sweep-second-hand clock was mounted on a convenient location on the instrument panel. Time correlated altitude, airspeed, rotor RPM, torque, vertical speed and heading were taken from each slide. These data have been provided to supplement phototheodolite tracking data and verify operational procedures. Typical cockpit instrument photographs are shown in figures 1.7.1 through 1.7.4.

1.8 Ambient Noise - Careful steps were taken to ensure as low an ambient noise condition as possible during the tests. Flight-line operations were curtailed during the tests, and all controlled air traffic operations were kept away from the airfield through cooperation of the Air Traffic Control Tower. Further a Notice to Airmen (NOTAM) was issued to effectively close the airport during the tests.

In addition, the local Air National Guard Fighter Interceptor Squadron curtailed its F-106 run-up operations during the test period.

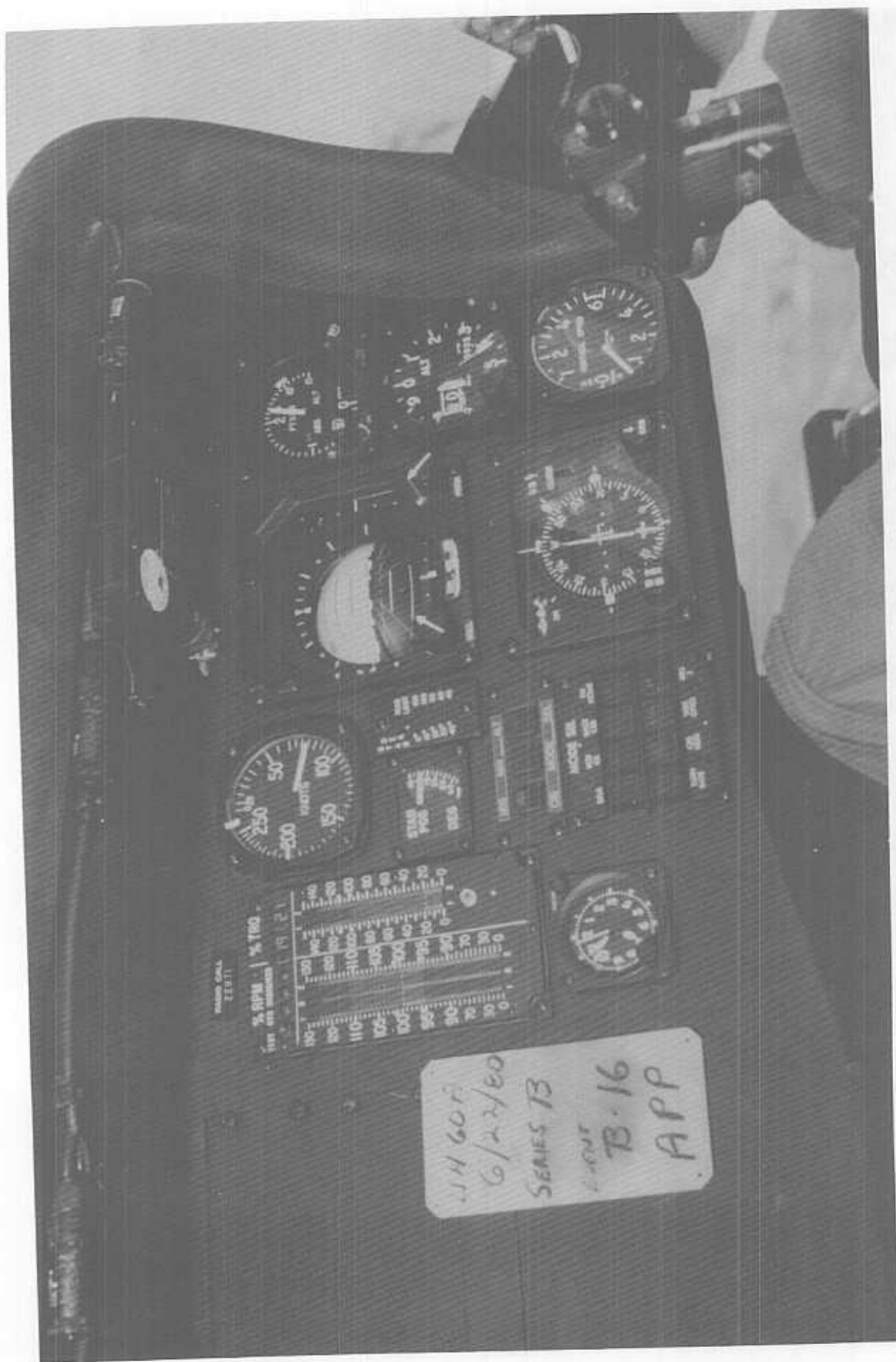


Fig. 1.7.1
Sikorsky UH-60A Blackhawk Approach Event
B-16 on 6/22

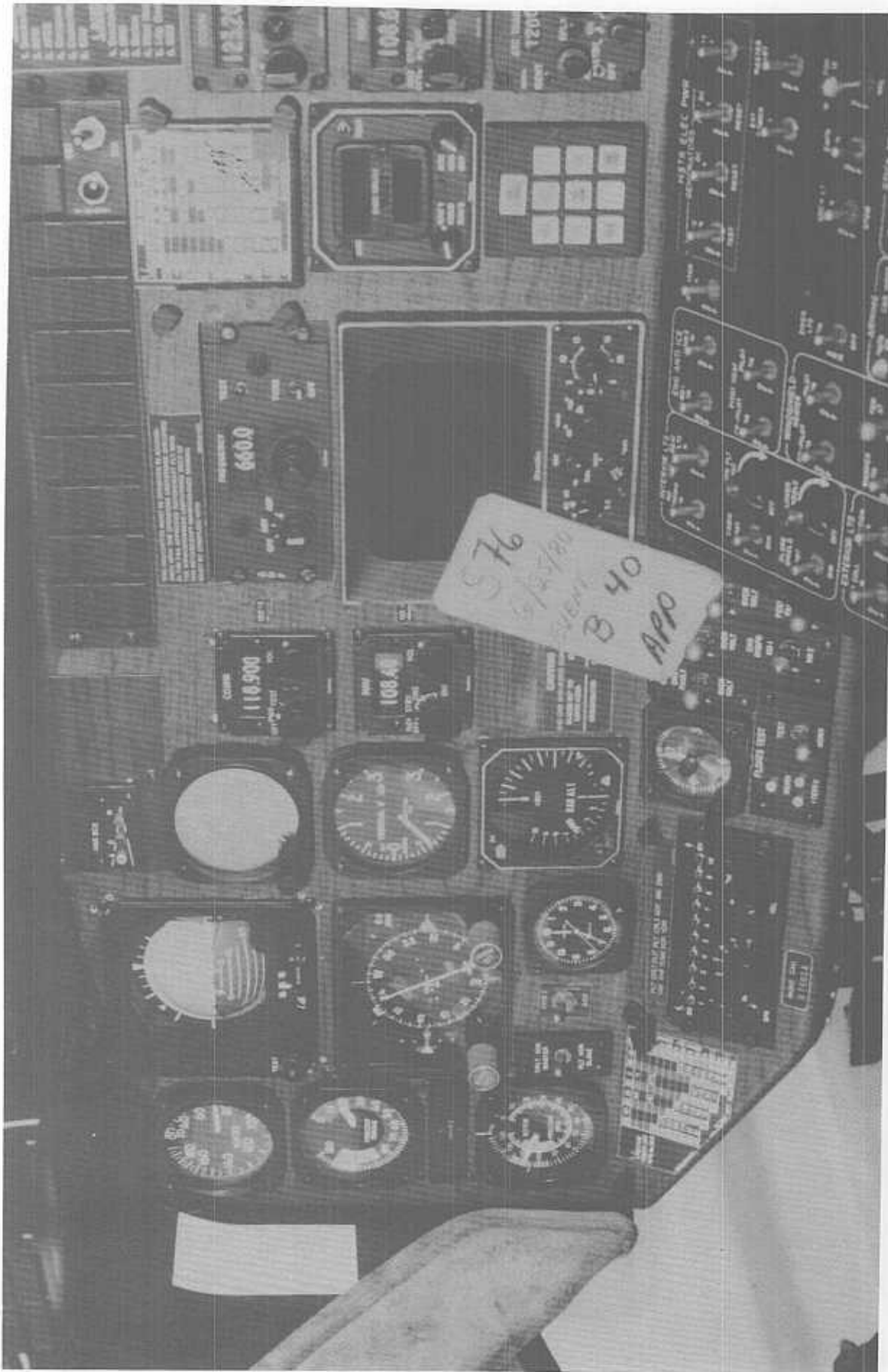


Fig. 1.7.2
Sikorsky S-76, Spirit Approach Event B-40
on 6/25

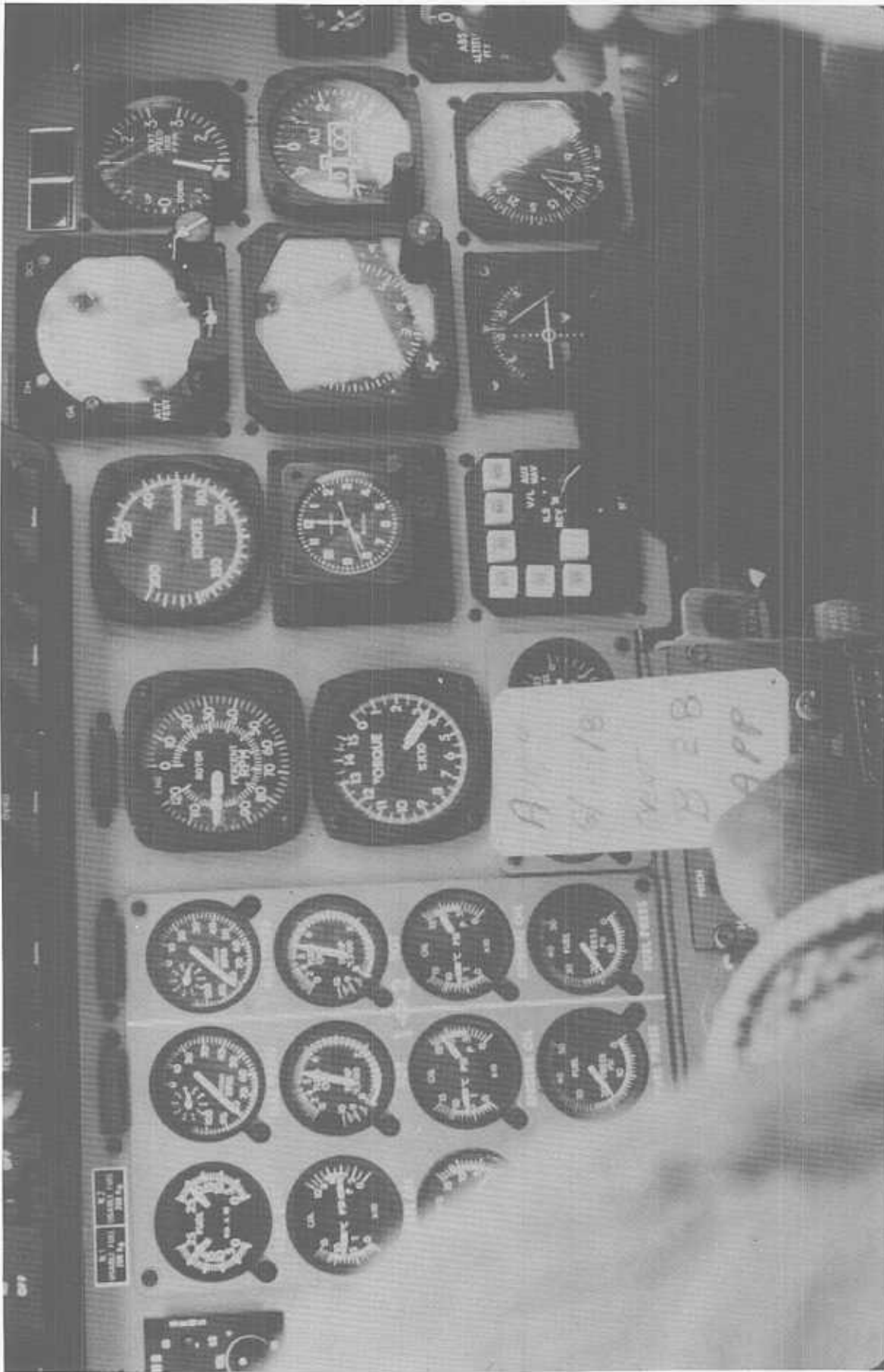


Fig. 1.7.3
Agusta A-109 Approach Event B-28 on 6/24

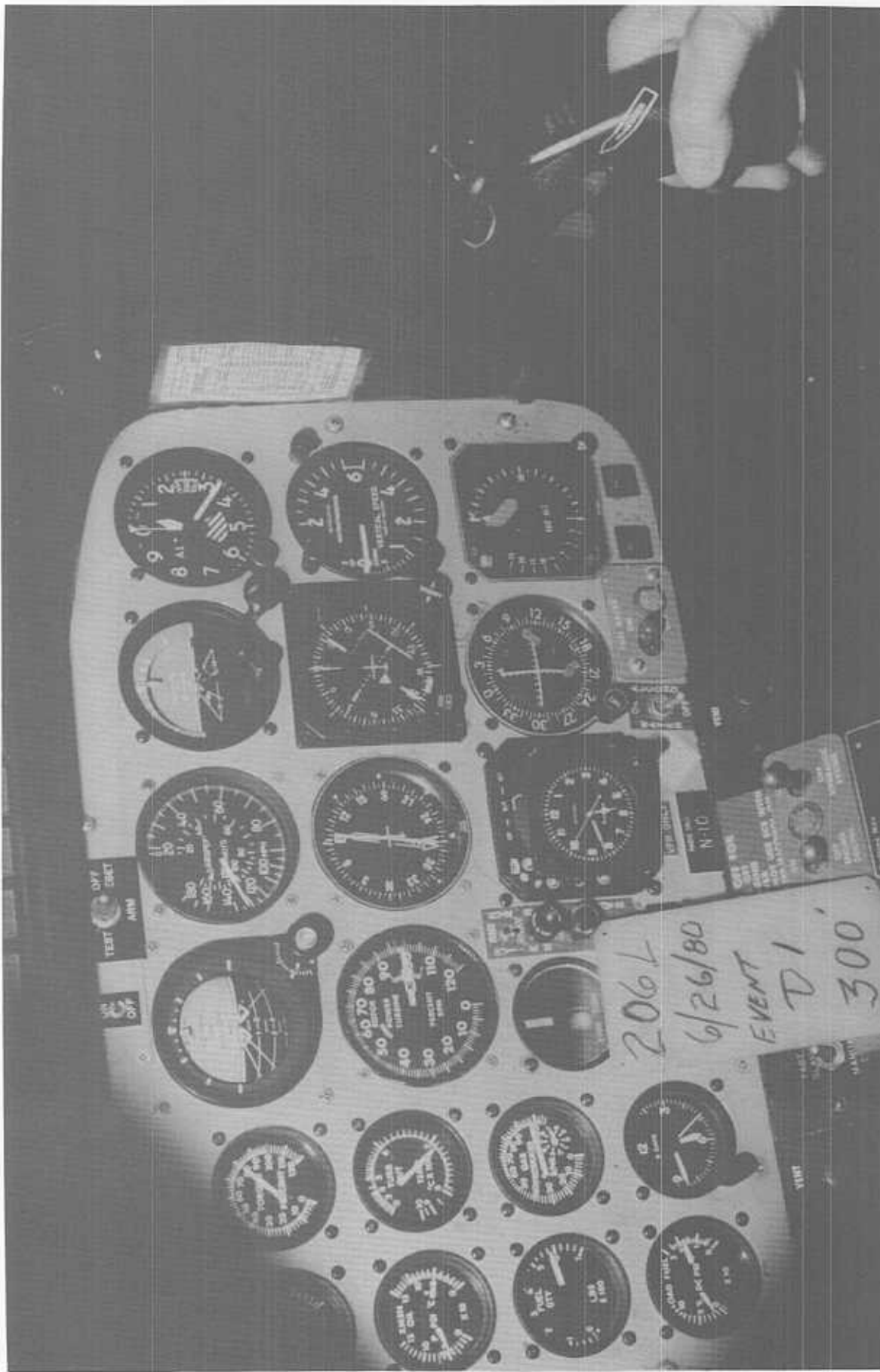


Fig. 1.7.4
Bell 206-L 300 Ft. LFO, Event D1 on 6/26

2.0 Helicopter Operation and Description

2.1 Helicopter Operational Procedures - Prior to the test all participants were briefed on the various flight procedures to be used during the test. Strong emphasis was placed on careful adherence to prescribed reference test procedures, especially the anticipation of the takeoff rotation point and execution of accurate 6 degree approaches.

Participants were also encouraged to practice each test series, if possible.

An FAA observer in the cockpit of each helicopter assisted the pilot with test procedures

a. Test Series Identification - A handy cross reference useful in identifying each particular event with a given test series is the Appendix D "Helicopter Cockpit Data Tables." The slide run number on each photo is preceded by a letter prefix which identifies the test series and associated reference or target conditions.

Test Series A consisted of 1000-foot level flyovers with rotor speed at the maximum normal operating RPM airspeed stabilized at either 90 percent V_H (maximum speed in level flight with maximum continuous power) or 90 percent V_{NE} (never exceed speed), whichever is less.

Test Series B consisted of alternating takeoffs and landings in accordance with the conditions specified in figures 2.1.2 and 2.2.2.

Test Series C consisted of level flyovers at an altitude of 500 feet above ground level. In this test series the airspeed was varied to assess speed affects on noise level. Figure 2.1.3 provides a detailed procedure for the $0.9 V_H$ or $0.9 V_{NE}$ level flyovers.

Test Series D consisted of level flyovers at different altitudes at a constant airspeed of $0.9 V_H$ or $0.9 V_{NE}$ whichever is less. Figure 2.1.3 again specifies the proper operating conditions (except for altitude).

Test Series E repeated Series A to provide a means for assessing repeatability and changes in absorption characteristics between the start and finish of a test.

Test Series H consisted of hover events at a constant heading.

b. Special Cases - Notable deviations from the reference conditions specified above include all test scenarios for the S-76 on 6/23 in which the main rotor RPM was 100 percent rather than 107 percent which is the maximum normal operating RPM (top of the green).

The other significant variation was the UH-60A takeoff and approach test on June 26 in which alternative torque and speed parameters were used.

FIGURE 2.1.1

TAKE-OFF PROCEDURE

The take-off flight path shall be established as follows:

- a) the helicopter shall be established in level flight at the best rate of climb speed, $V_Y \pm 3$ knots, of the maximum speed of the curve contiguous to the ordinate of the limiting height-speed envelope ± 3 knots (± 3 knots), whichever is greater, and, at a height of 20 m (66 ft) above the ground until a point 500 m (1,640 ft) before the flight path reference point is reached;
- b) upon reaching the point specified in a) above, the power shall be increased to maximum take-off power and a steady climb initiated and maintained over the noise measurement time period;
- c) airspeed established in a) above shall be maintained throughout the take-off reference procedure;
- d) the steady climb shall be made with the rotor speed stabilized at the maximum rpm for power-on operations
- e) a constant take-off configuration selected by the applicant shall be maintained throughout the take-off reference procedure except that the landing gear may be retracted; and
- f) the weight of the helicopter shall be the maximum take-off weight.

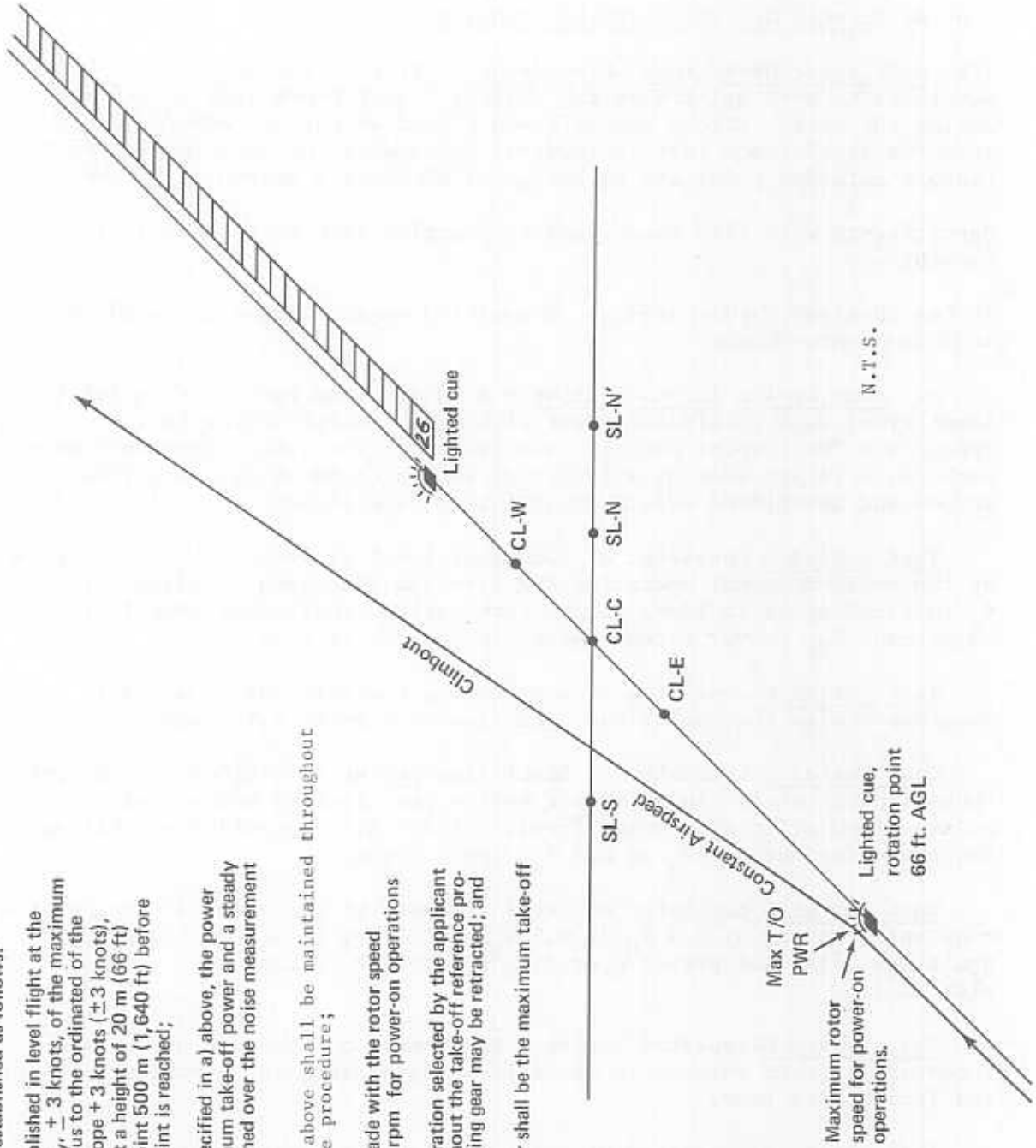


FIGURE 2.1.1.2

APPROACH PROCEDURE

The approach procedure shall be established as follows:

- a) the helicopter shall be stabilized and following a 6.0° approach path;
- b) the approach shall be made at a stabilized airspeed equal to the best rate of climb speed $V_Y \pm 3$ knots, or the maximum speed of the curve contiguous to the ordinate of the limiting height-speed envelope $+ 3$ knots (± 3 knots), whichever is the greater, with power stabilized during the approach and over the flight path reference point, and continued to 50 feet above ground level;
- c) the approach shall be made with the rotor speed stabilized at the maximum rpm for power-on operations;
- d) the constant approach configuration used in airworthiness certification tests, with the landing gear extended, shall be maintained throughout the approach reference procedure; and
- e) the weight of the helicopter shall be the maximum landing weight

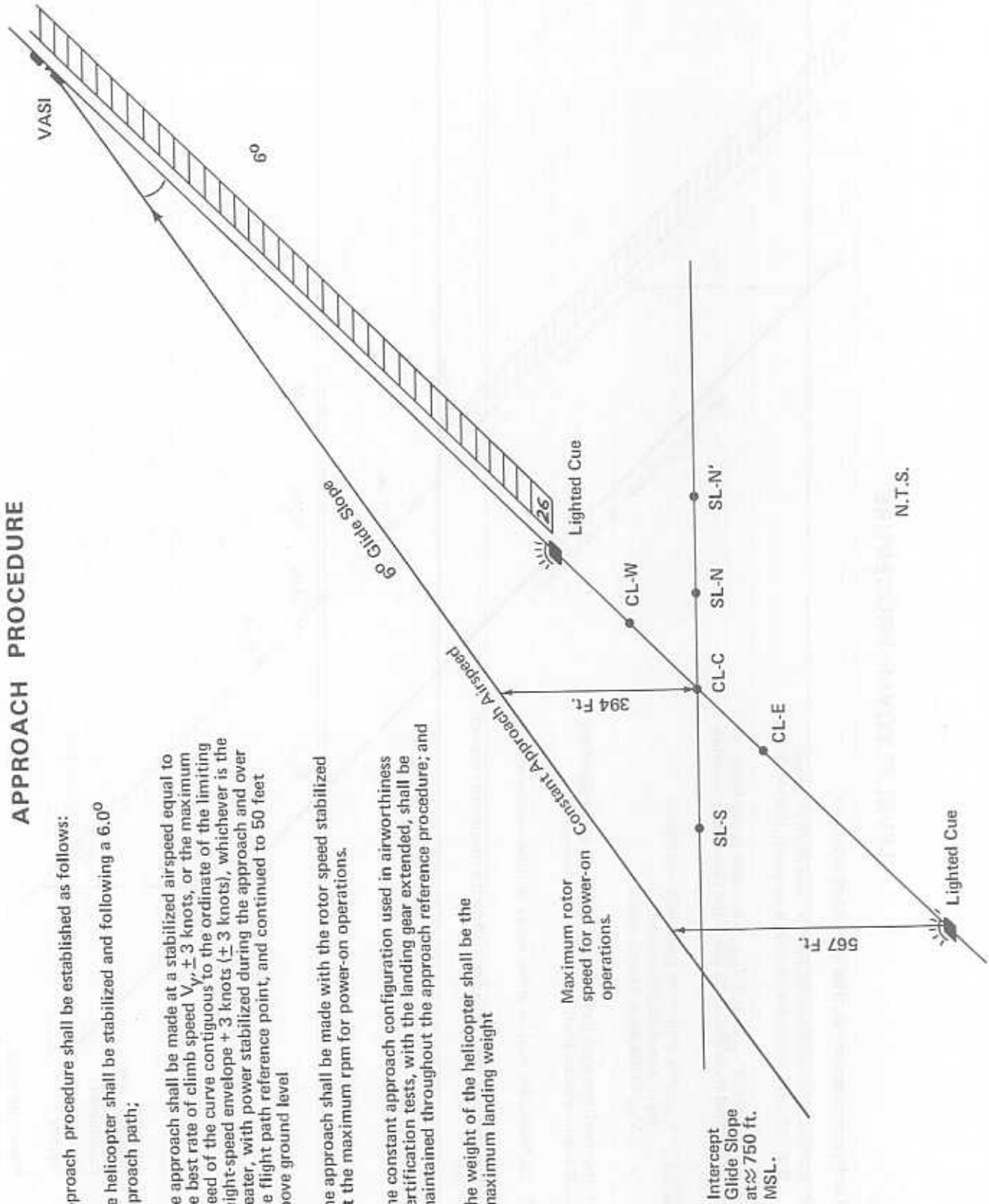


FIGURE 2.1.3

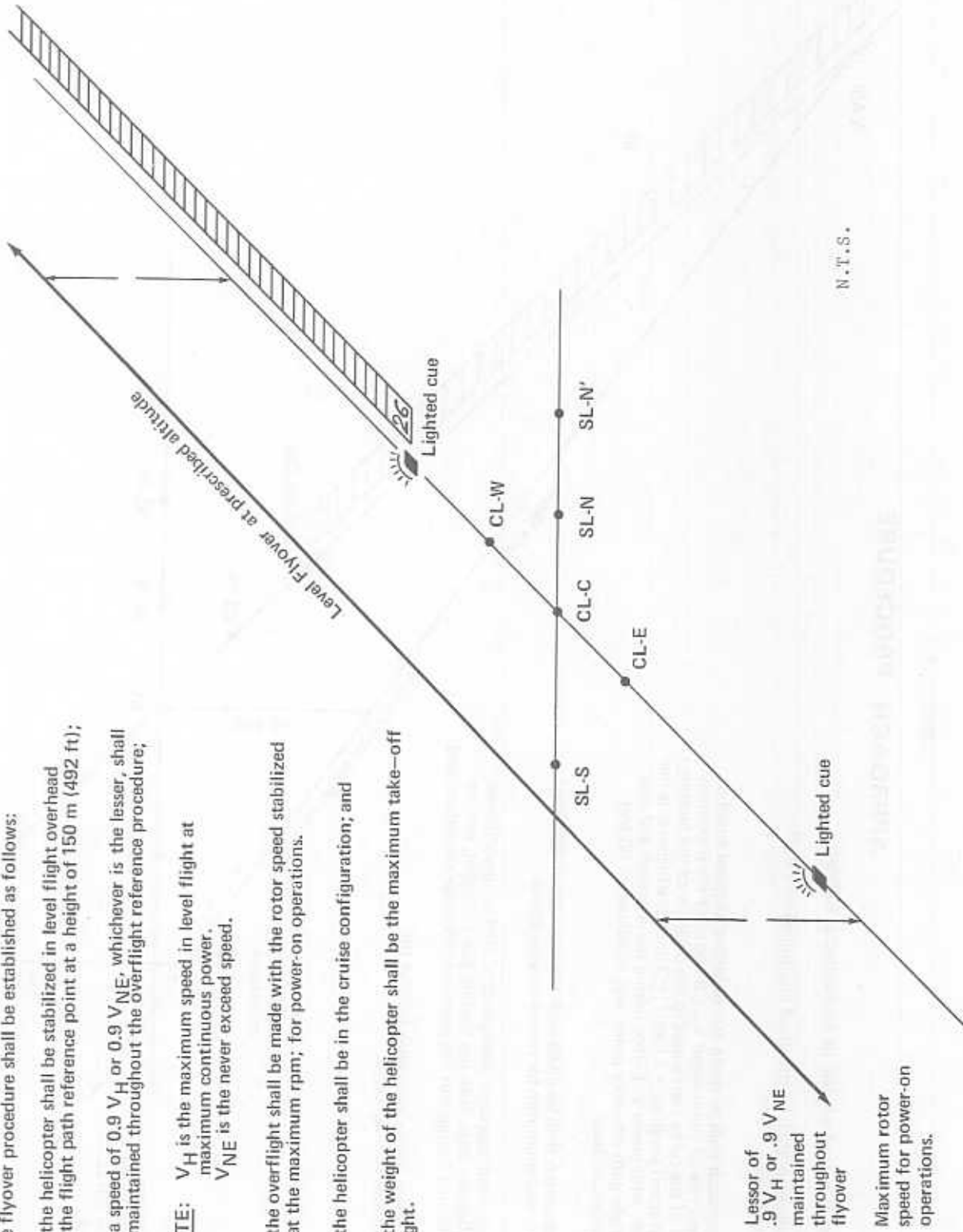
LEVEL FLYOVER PROCEDURE

The flyover procedure shall be established as follows:

- the helicopter shall be stabilized in level flight overhead the flight path reference point at a height of 150 m (492 ft);
- a speed of $0.9 V_H$ or $0.9 V_{NE}$, whichever is the lesser, shall be maintained throughout the overflight reference procedure;

NOTE: V_H is the maximum speed in level flight at maximum continuous power.
 V_{NE} is the never exceed speed.

- the overflight shall be made with the rotor speed stabilized at the maximum rpm; for power-on operations.
- the helicopter shall be in the cruise configuration; and
- the weight of the helicopter shall be the maximum take-off weight.



2.2 Reference Flight Paths - Appendix B of this report contains acoustical data corrected for actual flight path divergence from selected reference flight paths (as well as corrections for non-standard atmospheric absorption and duration effects).

In the case of level flyover events, the reference altitude is the specified target altitude.

For approaches, the reference path is a 6 degree glide slope along the microphone array centerline with a ground plane intercept at a point 3,754 feet (1144 met) from the centerline-center microphone (CL-C). This path yields a CPA of 394 f. at the CL-C location.

The takeoff reference flight paths have been determined from information provided by the helicopter manufacturers or from pilot operating handbooks. It is noted that different representatives of same helicopter manufacturer may provide slightly different reference parameters for V_y and best rate of climb for a given weight, temperature and pressure. This observation is made to point out that although the climb angles given in Table 2.2.1 are certainly representative, it is reasonable to examine or entertain alternative climbout profiles associated with other performance assumptions.

The necessary empirical data and test information has been provided to allow the reader to adjust Appendix A data to other "reference" profiles. It is noted that all of the corrections applied in Appendix B relate to acoustical propagation and assume that the "reference position" could be realized without changing the helicopter acoustical radiation characteristics.

Table 2.2.1

Takeoff Reference Climbout Paths for 77°F, Sea Level Standard Day Pressure

| <u>Helicopter</u> | <u>Test Date</u> | <u>Rate of Climb (Feet Per Min)</u> | <u>Airspeed (Knots)</u> | <u>Climb Angle (Degrees)</u> | <u>Gross Weight (Lbs.)</u> | <u>Main Rotor Speed</u> |
|-------------------|------------------|---|-----------------------------|--------------------------------------|------------------------------------|---------------------------------|
| UH60A | June 22 (N.2) | 1950 | 80 | 13.9 | 20,250 | 258 RPM, 100% |
| UH60A | June 26 (N.1) | 1950 | 80 | 13.9 | 20,250 | 258 RPM, 100% |
| A109 | June 24 | 1450 | 60 | 13.7 | 5,730 | 385 RPM, 100% |
| S76 (100%) | June 23 | 1350 | 74 | 10.3 | 10,000 | 293 RPM, 100% |
| S76 (107%) | June 25 | 1240 | 74 | 9.5 | 10,000 | 314 RPM, Top of Green, 107% |

NOTES:

- N.1 Takeoff torque reduced to Hover+10% from 100%, thus rate of climb and climb angle reference values are not strictly applicable. The Appendix A, "As Measured" data are of most interest in this case especially in comparison with the 100% torque takeoffs.
- N.2 The pilots selected Vy=69 knots for the test day temperature (54°F) rather than 80 knots. The rate of climb as shown in Appendix D was on the order of 2200 fpm.

Table 2.3.1
HELICOPTER PHYSICAL/OPERATIONAL PARAMETERS

| | | | | |
|---|--|---------------------------------|--|--|
| MANUFACTURER | SIKORSKY | BELL | AGUSTA | SIKORSKY |
| COUNTRY | U.S.A. | U.S.A. | ITALY | U.S.A. |
| MODEL | S-76 | 206L | A-109 | Sikorsky S-70, Military Disignation UH60A Blackhawk |
| NUMBER OF ENGINES | 2 Allison 250-C30 | 1 Allison 250-C28B | 2 Allison 250-C20B | 2 GE-T700-GE-700 |
| MAX TAKEOFF WEIGHT | 4545.9 kg 10,000 lbs | 1814 kg 4000 lbs | 2599.0 kg 5730 lbs | 9185.2 kg 20,250 lbs |
| SHAFT HORSEPOWER (SHP) | -RATED 650 shp ea -T-O, 610 shp ea -MAX CONT, 600 shp ea -NORM CRUISE, 450 shp ea | - MAX CONT. = 489 shp | -T/O, 420 shp ea -MAX CONT = 385 shp ea | -RATED 1543 shp ea. -MAX CONT = 1327 shp ea. |
| SPECIFIC FUEL CONSUMPTION MAX POWER lb/hp/hr | 0.63 | 0.63 | 0.65 | |
| "MAX CONTINUOUS SPEED" | LEVEL FLIGHT w/MAX CONT POWER 146 kts. | MAX LEVEL SPEED AT S/L 130 kts. | MAX SPEED IN LEVEL FLIGHT w/MAX CONT PWR 142 kts * | MAX SPEED IN LEVEL FLIGHT w/MAX CONT PWR 165 kts. |
| NEVER EXCEED SPEED (Knots) | 155 kts. | 130 kts | 158 kts | 195 kts. |
| MAX CRUISE SPEED (Knots) | 145 kts | AT 5000 ft. MSL 116 kts | AT MAX CONT PWR 144 kts * | AT 4000 FT MSL 145 kts |
| ROTOR SPEED | 293 RPM at 100% 314 RPM at 107% | 394 RPM, 100% | 385 RPM, 100% | 285 RPM, 100% |

| MAIN AND TAIL ROTORS | SIKORSKY S-76 | | BELL 206-L AGUSTA A-109 | | SIKORSKY UH-60A | | | |
|---|---------------|-------|-------------------------|-------|-----------------|-------|--------|--------|
| | MAIN | TAIL | MAIN | TAIL | MAIN | TAIL | MAIN | TAIL |
| DIAMETER (ft, in) | 44' 0" | 8' 0" | 37' 0" | 5' 5" | 35' 1" | 6' 8" | 53' 8" | 11' 0" |
| NUMBER OF BLADES | 4 | 4 | 2 | 2 | 4 | 2 | 4 | 4 |
| CHORD | 15.6" | 6.5" | 13.0" | 5.2" | 13.2" | 7.9" | 20.7" | |
| BLADE LOAD (lb/ft ²) | 88 | 86.3 | 97.3 | | 72.3 | 85.0 | | |
| PERIPHERAL VELOCITY (fps) | 675 | 674 | 763 | | 728 | 728 | 696 | 657 |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| *NOTE: DIFFERENT SOURCES USED SLIGHTLY DIFFERENT TERMINOLOGY AND PROVIDED SLIGHTLY DIFFERENT INFORMATION. | | | | | | | | |
| REFERENCES: PERSONAL COMMUNICATION FROM HELICOPTER MANUFACTURERS AND 1979-1980, JANES, ALL THE WORLDS AIRCRAFT. | | | | | | | | |
| | | | | | | | | |

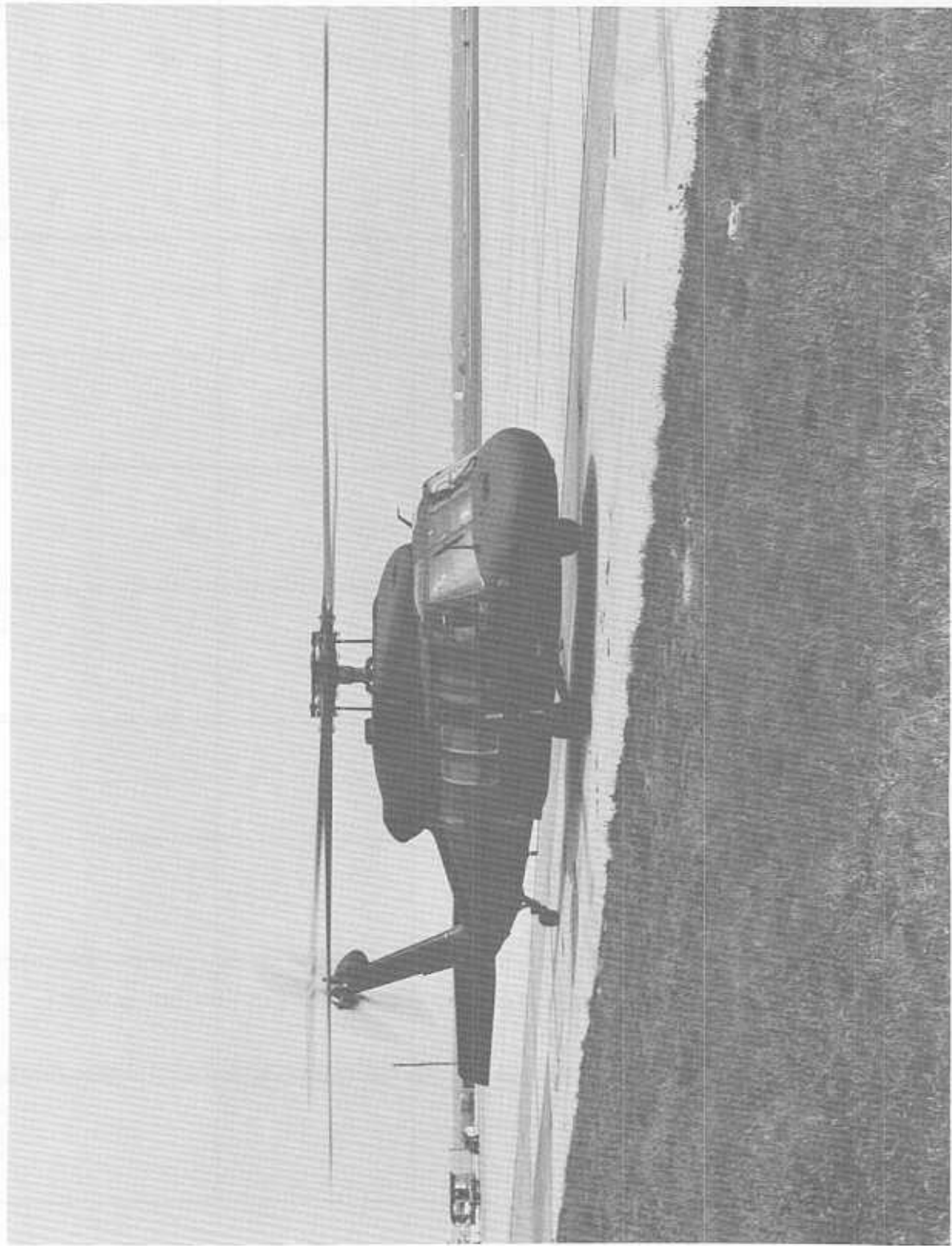


Fig. 2.3.1
Sikorsky UH-60A, "Blackhawk"

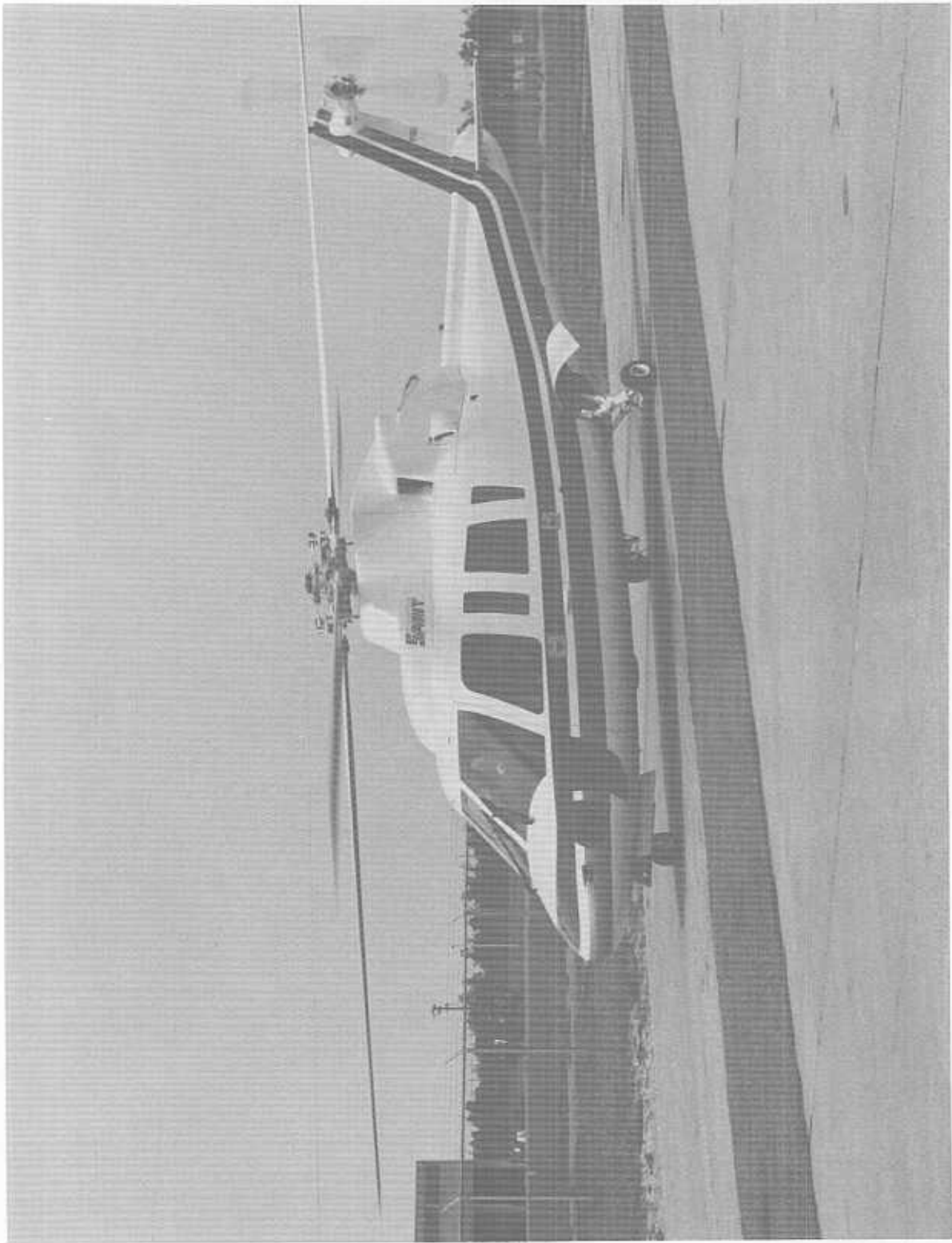


Fig. 2.3.3.2
Sikorsky S-76, "Spirit"



Fig. 2.3.3
Agusta A-109



Fig. 2.3.4
Bell, 206-L

3.0 Noise Data Reduction - The analog magnetic tape recordings analyzed at the TSC facility in Cambridge, Massachusetts, were fed into magnetic disc storage after filtering and digitizing using the GenRad 1921 one-third octave real-time analyzer. Recording system frequency response adjustments were applied, assuring overall linearity of the recording reduction system. The stored 24, one-third octave sound pressure levels (SPLs) for each of the one-half second integration periods making up each event comprise the base of "raw data." Data reduction followed the basic procedures defined in Federal Aviation Regulation (FAR) Part 36. The following sections describe the steps involved in arriving at final values of EPNL.

3.1 Spectral Shaping - The raw spectral data were adjusted by sloping the spectrum shape at -2 dB per one-third octave for those one-third octaves (above 1.25 kHz) where the signal-to-noise ratio was less than 5 dB. This procedure was applied in cases involving no more than 9 "missing" one-third octaves. The shaping of the spectrum over this range (9 bands) was conducted in order to minimize EPNL data loss. This spectral shaping methodology deviates from the FAR 36 procedures in that the extrapolation includes four more missing bands than normally allowed. However, in this specific case, it is felt that use of the technique is justified as the high frequency spectral shape for most helicopter is observed to fall off regularly at 2 dB per one-third octave.

3.2 Bandsharing of Tones - All calculations of PNLTM included testing for the presence of band sharing and adjustment in accordance with the procedures defined in FAR 36, Appendix B, Section B 36.2.3.3.

3.3. Tone Corrections - Tone corrections are computed using the full spectra containing 24, one-third octave bands. Computations begin with band 1 rather than band 3 (as specified for CTOL aircraft in FAR 36 in recognition of the strong low frequency tonal content of helicopter spectra.

3.4 Low Frequency Influence on Tone Corrections - In order to portray the prominence of low frequency influence on tone corrections values, the EPNL has also been computed with the deletion of all tone corrections below 800 Hz. The difference between the full spectrum procedure and the abbreviated procedure is shown as Delta EPNL in Appendix A.

3.5 Corrected Data: Position and Atmospheric Absorption Corrections - "As Measured" data were used as the basis from which to compute the "Corrected" data. The process of correcting data for position and atmospheric absorption included:

- Adjusting the measured 24 one-third octave SPLs of the PNLTM spectra to the standard acoustical data conditions utilizing 10 meter meteorological data interpolated from NWS radiosonde data.
- Adjusting for the change in atmospheric absorption associated with the difference in slant range between the actual and reference position of the helicopter at the time of PNLTM.
- Adjusting for spherical spreading attenuation associated with the difference in slant range between the actual and reference position of the helicopter at the time of PNLTM.

3.6 Distance-Duration and Speed Corrections - The traditional methodology for correcting single event cumulative metrics (EPNL or SEL) for non-reference duration (associated with non-reference altitude) is to use the expression $10 \log (d_1/d_2)$, which follows from the equation $SEL=10 \log(DUR)+C$. This latter relationship can be derived from consideration of source directivity as an idealized monopole, dipole or quadrupole radiator of acoustical energy. In each case the equation is supplemented by the addition of a specific constant (C) appropriate to the particular directivity characteristic. This constant eventually cancels out of the equation for "change in level." In any event the methodology assumes the aircraft radiates acoustical energy in an orderly, classically theoretical manner. In the case of helicopters the acoustical radiation patterns are hybrids; combinations of monopoles, dipoles, quadrupoles and various other anomalous acoustical interactions. Accordingly, the $10 \log (d_1/d_2)$ methodology (a first order approximation) may be improved upon. In order to make the most accurate correction of non-reference data to reference conditions a technique has been developed which uses empirical data rather than the $10 \log(d_1/d_2)$ technique.

This procedure uses "As Measured" acoustical data (see Appendix A) to develop "k" values (as substitutes for "10" in the equation above) for each acoustical event; thus relating the 10 dB down duration time (in seconds) to the energy metric (SEL or EPNL). The "k" values are derived as follows:

$$SEL=dBAm+k(A) \log (DUR(A)) \text{ then}$$

$$k(A)=(SEL-dBAm)/\log(DUR(A))$$

In the case of PNLT-based metrics, it is necessary to modify the equation in order to account for the EPNL normalizing time constant (10 seconds) where

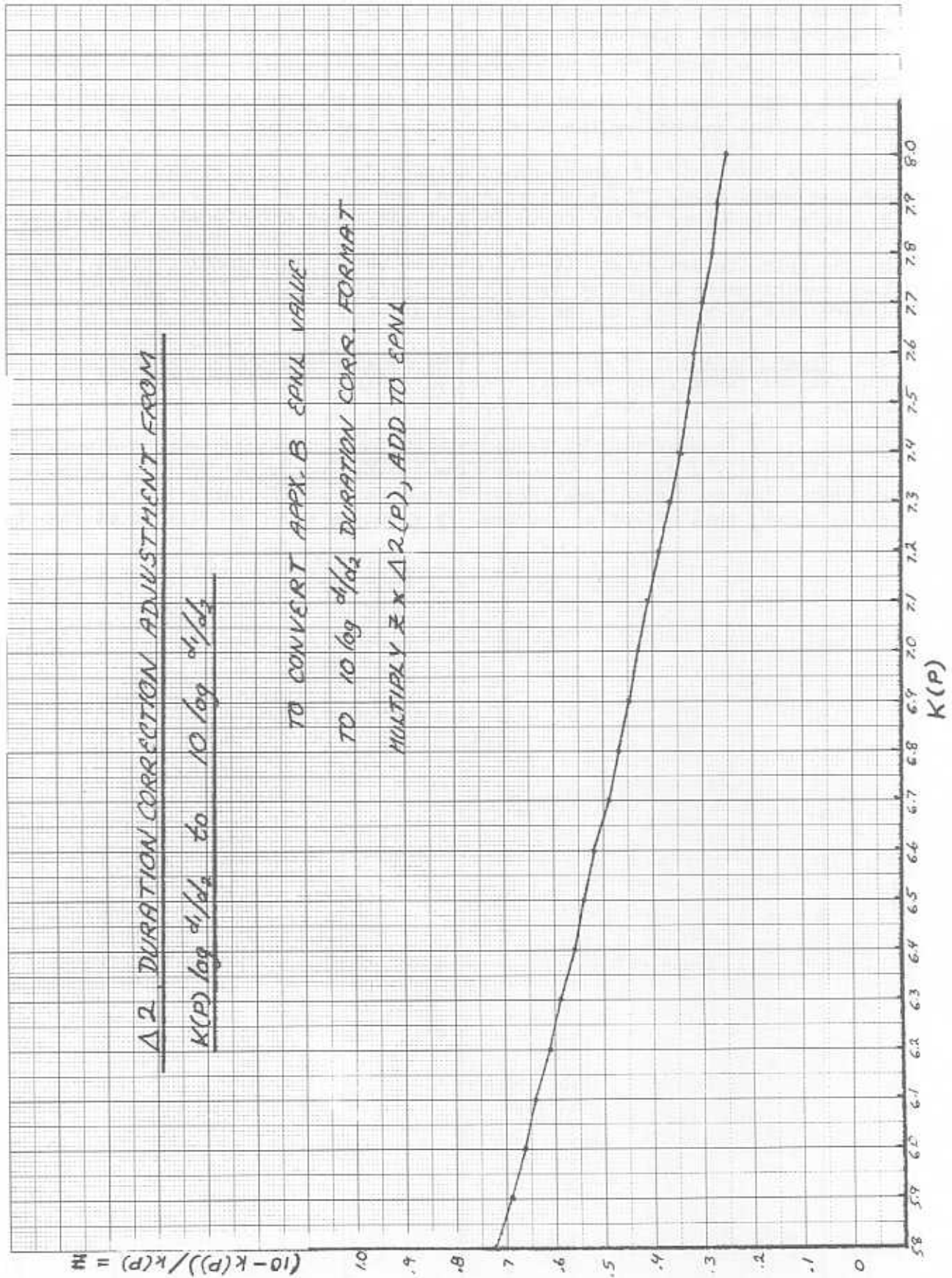
$$EPNL=PNLTM+k(P) \log (DUR(P))-10$$

$$k(P)=(EPNL+10-PNLTM)/\log(DUR(P))$$

As the event duration is influenced by both speed and distance, $k \log(d_1/d_2)$ can be used to account for distance duration affects while $k \log (V_2/V_1)$ could be used to account for speed duration affects. The only assumptions are that 10dB down duration time is directly proportional to distance and inversely proportional to speed. This is a reasonable assumption for slant distance encountered in this test. Thus a complete equation for all duration affects could be written $\Delta 2=k \log(d_1/d_2)+k \log(V_2/V_1)$.

While the necessary information is available in this report for application of speed-duration corrections no such corrections have been applied to Appendix B data. This course has been taken in order to allow the reader the flexibility of utilizing his own technique(s) and in recognition that speed affects on helicopter noise remains a developmental and often controversial topic.

FIGURE 3.6.1



Also on the topic of duration corrections, some readers might be interested in seeing how the Appendix B, EPNL values would change if the traditional $10 \log (d_1/d_2)$ methodology had been used. Figure 3.6.1 provides a quick technique in which the $k(P)$ value for any event is used to find a constant "Z". The adjustment is accomplished by simply multiplying "Z" times $\Delta 2(P)$ and adding the produce to the listed EPNL.

Regarding the topic of source-speed corrections the relationship between maximum sound level "L", (dBAm or PNLTM) and airspeed can be easily determined. By taking the slope of the curve $\frac{dL}{dv}$ at the point of interest and multiplying

by the velocity deviation, $(V_T - V_R)$ one can obtain a correction value. Again, this report makes no source-speed corrections, however it does provide the information necessary for the reader to do so.

3.7 Other Metrics - In addition to the EPNL/PNLT family of metrics and the SEL/dBA family, the overall sound pressure level is presented as part of the "As Measured" data set in Appendix A.

3.8 Analysis System Time Constant/Slow Response - The TSC data analysis system utilizes a dynamic response time in the processing software which is equivalent to the sound level meter "slow response" characteristics. As cited above, this effective response is required under provisions of FAR-36.

4.0 Data Organization/Appendix Structure - The remainder of this report contains the data sets acquired during the measurement program. Each appendix contains its own table of contents or structural outline at the beginning. Relevant information and cross references are also provided and special abbreviations are identified. The appendices are presented in the following order:

Appendix

- A "As Measured" Noise Data - This appendix contains acoustical data prior to application of any correction.

- B Corrected Noise Data - This appendix contains acoustical data corrected to reference conditions. Tracking and position data used for corrections are then presented in Appendix C.

- C Flight Path Tracking Plots and Position Data - These plots and tables provide tracking and position information in great detail.

- D Helicopter Cockpit Data - These tables present cockpit instrument readings transcribed from color slides taken during individual flyover events .

- E Meteorological Data - The tables and plots provide detailed temperature, relative humidity, and wind vector information taken during the measurement program.

APPENDIX A

"AS MEASURED ACOUSTICAL DATA"

Appendix A

Appendix A is the "heart" of this report in that it presents the basic acoustical data set.

Appendix B which provides corrected data is subject to all of the usual debate which surrounds aircraft noise data correction procedures.

A brief synopsis of Appendix A data column headings is presented below:

| | |
|---------|---|
| EV | Event Number which corresponds across the board to other appendices referenced by test date. |
| EPNL | Effective Perceived Noise Level, the International noise certification metric. |
| NEL | Noise Exposure Level considered herein as synonymous with Sound Exposure Level (SEL), the time integration of the dBA time history over the 10dB down time. SEL is the metric most useful in developing noise contours. |
| dBAm | A-Weighted Sound Level (maximum), often abbreviated dB(A) the most widely used metric in community noise assessment. |
| OASPL | Overall Sound Pressure Level, the measure of maximum (slow response) acoustic pressure. |
| PNL(M) | Perceived Noise Level, a metric used in developing PNLT and EPNL. |
| PNLTM | Tone corrected perceived noise level, an adjusted PNL which accounts for additional annoyance associated with audible tones. |
| DUR(A) | The 10dB down duration time for the dBA time history. |
| DUR(P) | The 10dB down duration time for the PNLT time history. |
| TC | Tone Correction |
| Delta** | The change in EPNL assuming tones 800 Hz and below are pseudotones and excluding them from the PNLT calculations |

Each set of data is headed by the microphone location, site number and test date. The target reference condition is specified above each data subset. Actual testing parameters can be verified by crosschecking with Appendix C and Appendix D (tracking and cockpit data).

TABLE NO. A.1-1.1 (REV.1)

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
8/26/81

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 1

CENTERLINE - CENTER

JUNE 22, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|--|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| APPROACH | | | | | | | | | | |
| 16 | 97.2 | 92.9 | 84.2 | 94.1 | 98.2 | 99.0 | 15.0 | 15.0 | 0.8 | -0.6 |
| 17 | 99.1 | 94.4 | 87.7 | 99.1 | 102.2 | 102.9 | 11.5 | 10.5 | 0.8 | -0.5 |
| 18 | 99.2 | 94.4 | 87.5 | 99.5 | 102.0 | 102.9 | 11.5 | 10.5 | 0.8 | -0.5 |
| 19 | 98.9 | 94.1 | 87.2 | 99.1 | 101.7 | 102.6 | 12.0 | 11.5 | 0.8 | -0.6 |
| 20 | 99.2 | 94.5 | 87.3 | 99.2 | 102.0 | 103.0 | 11.5 | 10.5 | 0.9 | -0.5 |
| 21 | 99.0 | 94.3 | 87.7 | 99.1 | 102.1 | 102.8 | 12.0 | 10.5 | 0.7 | -0.5 |
| 22 | 98.8 | 94.0 | 87.0 | 98.9 | 101.7 | 102.5 | 11.0 | 10.0 | 0.8 | -0.5 |
| 23 | 99.7 | 95.1 | 89.0 | 99.9 | 103.1 | 103.8 | 11.0 | 10.5 | 0.8 | -0.6 |
| 24 | 99.2 | 94.6 | 87.7 | 98.6 | 102.1 | 102.9 | 11.0 | 9.5 | 0.9 | -0.7 |
| Avg. | 98.9 | 94.3 | 87.2 | 98.6 | 101.7 | 102.5 | 11.8 | 10.9 | 0.8 | -0.5 |
| Std Dv | 0.7 | 0.6 | 1.3 | 1.7 | 1.4 | 1.4 | 1.2 | 1.6 | 0.1 | 0.1 |
| TAKEOFF | | | | | | | | | | |
| 8 | 89.8 | 85.4 | 77.1 | 86.7 | 89.7 | 91.3 | 14.0 | 14.0 | 1.6 | -0.8 |
| 9 | 88.8 | 84.5 | 75.9 | 84.1 | 87.8 | 89.9 | 16.5 | 22.5 | 2.0 | -0.8 |
| 10 | 88.0 | 83.9 | 74.0 | 84.0 | 87.6 | 89.7 | 18.5 | 17.5 | 2.1 | -0.9 |
| 11 | 87.7 | 83.6 | 73.6 | 83.3 | 86.7 | 88.9 | 21.0 | 19.0 | 2.4 | -0.9 |
| 12 | 88.3 | 84.2 | 74.3 | 83.6 | 88.2 | 90.4 | 23.0 | 17.5 | 2.2 | -0.8 |
| 13 | 88.6 | 84.4 | 74.5 | 84.2 | 88.1 | 90.1 | 20.5 | 18.5 | 2.0 | -0.9 |
| 14 | 89.1 | 84.8 | 74.3 | 83.0 | 87.9 | 90.2 | 25.0 | 23.0 | 2.3 | -1.0 |
| 15 | 88.9 | 84.7 | 74.0 | 83.9 | 87.7 | 90.0 | 24.0 | 22.5 | 2.3 | -0.9 |
| Avg. | 88.7 | 84.4 | 74.7 | 84.1 | 87.9 | 90.1 | 20.3 | 19.3 | 2.1 | -0.9 |
| Std Dv | 0.7 | 0.5 | 1.2 | 1.1 | 0.8 | 0.7 | 3.8 | 3.2 | 0.2 | 0.1 |
| 500 FT. FLYOVER @ 100 KTS INDICATED AIRSPEED | | | | | | | | | | |
| 52 | 91.1 | 87.4 | 80.3 | 89.4 | 92.3 | 93.6 | 11.5 | 12.0 | 1.3 | -0.8 |
| Avg. | 91.1 | 87.4 | 80.3 | 89.4 | 92.3 | 93.6 | 11.5 | 12.0 | 1.3 | -0.8 |
| Std Dv | - | - | - | - | - | - | - | - | - | - |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.1-2.1

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
9/ 9/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 1

CENTERLINE - CENTER

JUNE 22, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|--|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| 500 FT. FLYOVER @ 115 KTS INDICATED AIRSPEED | | | | | | | | | | |
| 27 | 93.7 | 90.0 | 81.9 | 91.3 | 94.4 | 95.2 | 16.0 | 16.0 | 0.9 | -0.8 |
| 30 | 92.6 | 89.1 | 82.1 | 89.9 | 94.3 | 95.0 | 11.0 | 11.5 | 0.8 | -0.7 |
| 33 | 94.1 | 90.5 | 82.1 | 91.0 | 94.0 | 95.1 | 14.0 | 14.5 | 1.3 | -0.8 |
| 36 | 92.3 | 88.6 | 81.2 | 91.4 | 93.3 | 94.6 | 12.0 | 12.0 | 1.4 | -0.7 |
| Avg. | 93.2 | 89.5 | 81.8 | 90.9 | 94.0 | 95.0 | 13.2 | 13.5 | 1.1 | -0.8 |
| Std Dv | 0.8 | 0.9 | 0.4 | 0.7 | 0.5 | 0.3 | 2.2 | 2.1 | 0.3 | 0.0 |
| 500 FT. FLYOVER @ 132 KTS INDICATED AIRSPEED | | | | | | | | | | |
| 26 | 94.5 | 91.1 | 84.1 | 94.9 | 96.1 | 97.1 | 10.0 | 11.0 | 1.6 | -0.8 |
| 29 | 94.9 | 91.5 | 83.9 | 93.8 | 95.9 | 97.4 | 11.5 | 11.5 | 1.6 | -0.8 |
| 32 | 94.4 | 91.1 | 85.1 | 93.4 | 97.3 | 98.0 | 10.0 | 10.5 | 0.7 | -0.5 |
| 35 | 94.4 | 90.7 | 83.2 | 93.4 | 95.4 | 96.5 | 11.5 | 12.0 | 1.3 | -0.7 |
| Avg. | 94.5 | 91.1 | 84.0 | 93.9 | 96.2 | 97.2 | 10.7 | 11.2 | 1.3 | -0.7 |
| Std Dv | 0.2 | 0.3 | 0.8 | 0.7 | 0.8 | 0.6 | 0.9 | 0.6 | 0.4 | 0.1 |
| 500 FT. FLYOVER @ 152 KTS INDICATED AIRSPEED | | | | | | | | | | |
| 25 | 96.1 | 92.6 | 84.2 | 97.1 | 96.5 | 97.7 | 12.0 | 12.5 | 1.1 | -0.6 |
| 28 | 95.9 | 92.0 | 86.0 | 97.4 | 98.4 | 99.3 | 9.5 | 12.5 | 0.9 | -0.6 |
| 31 | 97.5 | 94.2 | 87.7 | 98.5 | 99.7 | 101.1 | 10.0 | 10.0 | 1.4 | -0.7 |
| 34 | 97.1 | 93.7 | 86.6 | 98.2 | 99.1 | 100.1 | 10.5 | 10.5 | 1.2 | -0.6 |
| Avg. | 96.6 | 93.1 | 86.1 | 97.8 | 98.4 | 99.5 | 10.5 | 11.4 | 1.2 | -0.6 |
| Std Dv | 0.8 | 1.0 | 1.5 | 0.7 | 1.4 | 1.5 | 1.1 | 1.3 | 0.2 | 0.1 |
| 500 FT. FLYOVER @ 165 KTS INDICATED AIRSPEED | | | | | | | | | | |
| 49 | 95.6 | 91.5 | 84.2 | 99.9 | 97.4 | 98.6 | 11.5 | 11.5 | 1.3 | -0.5 |
| 50 | 97.6 | 93.6 | 87.2 | 100.3 | 99.6 | 100.6 | 9.5 | 12.0 | 1.0 | -0.5 |
| 51 | 95.9 | 91.9 | 84.2 | 99.3 | 97.0 | 98.1 | 12.0 | 12.5 | 1.1 | -0.6 |
| Avg. | 96.4 | 92.3 | 85.2 | 99.8 | 98.0 | 99.1 | 11.0 | 12.0 | 1.1 | -0.5 |
| Std Dv | 1.1 | 1.1 | 1.7 | 0.5 | 1.4 | 1.3 | 1.3 | 0.5 | 0.2 | 0.0 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - / \ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.1-3.1

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
9/ 9/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 1

CENTERLINE - CENTER

JUNE 22, 1980

| EV | EPNL | NEL | DBA(M) | DASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|---|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| 300 FT. FLYOVER @ 150 KTS INDICATED AIRSPEED | | | | | | | | | | |
| 43 | - | 94.5 | 89.1 | 100.9 | 101.4 | 102.5 | 6.0 | - | 1.0 | - |
| 44 | 98.9 | 95.3 | 89.3 | 101.9 | 102.1 | 103.2 | 7.5 | 7.5 | 1.1 | -0.6 |
| Avg. | 98.9 | 94.9 | 89.2 | 101.4 | 101.8 | 102.8 | 6.7 | 7.5 | 1.1 | -0.6 |
| Std Dv | - | 0.6 | 0.1 | 0.7 | 0.5 | 0.5 | 1.1 | - | 0.0 | - |
| 700 FT. FLYOVER @ 150 KTS INDICATED AIRSPEED | | | | | | | | | | |
| 41 | 92.9 | 90.0 | 81.8 | 93.5 | 93.9 | 95.1 | 14.0 | 14.5 | 1.4 | -0.6 |
| 42 | 93.2 | 90.0 | 81.9 | 94.0 | 93.4 | 94.4 | 16.5 | 17.5 | 1.4 | -0.6 |
| Avg. | 93.1 | 90.0 | 81.8 | 93.8 | 93.6 | 94.7 | 15.2 | 16.0 | 1.4 | -0.6 |
| Std Dv | 0.2 | 0.0 | 0.1 | 0.4 | 0.4 | 0.5 | 1.8 | 2.1 | 0.0 | 0.0 |
| 1000 FT. FLYOVER @ 150 KTS INDICATED AIRSPEED | | | | | | | | | | |
| 1 | 91.6 | 88.6 | 80.4 | 93.3 | 92.3 | 93.1 | 14.5 | 15.5 | 1.0 | -0.6 |
| 2 | 91.6 | 88.3 | 78.4 | 92.5 | 90.5 | 92.0 | 20.0 | 19.5 | 1.7 | -0.8 |
| 3 | 91.4 | 88.3 | 78.1 | 92.1 | 89.9 | 91.4 | 20.5 | 19.5 | 1.5 | -0.6 |
| 4 | 91.9 | 89.1 | 79.7 | 91.4 | 90.3 | 91.6 | 19.5 | 21.5 | 1.6 | -0.8 |
| 5 | 91.3 | 88.5 | 79.5 | 91.9 | 90.9 | 92.0 | 17.0 | 20.0 | 1.2 | -0.5 |
| 6 | 92.2 | 89.3 | 80.1 | 92.6 | 91.9 | 93.6 | 17.0 | 17.0 | 1.9 | -0.8 |
| 40 | 91.4 | 88.7 | 79.3 | 91.9 | 90.7 | 91.9 | 17.5 | 16.5 | 1.2 | -0.7 |
| 47 | 90.0 | 87.2 | 78.1 | 91.2 | 90.0 | 90.9 | 22.5 | 22.5 | 0.9 | -0.8 |
| 48 | 90.4 | 87.5 | 78.8 | 90.9 | 90.0 | 91.1 | 16.5 | 19.5 | 1.3 | -0.5 |
| Avg. | 91.3 | 88.4 | 79.2 | 92.0 | 90.7 | 92.0 | 18.3 | 19.1 | 1.4 | -0.7 |
| Std Dv | 0.7 | 0.7 | 0.9 | 0.8 | 0.9 | 0.9 | 2.5 | 2.3 | 0.3 | 0.1 |
| 1500 FT. FLYOVER @ 150 KTS INDICATED AIRSPEED | | | | | | | | | | |
| 37 | - | 86.2 | 76.0 | 89.9 | 87.5 | 89.0 | 21.0 | - | 1.4 | - |
| 38 | - | 85.8 | 75.9 | 88.4 | 86.8 | 88.2 | 22.5 | - | 1.4 | - |
| 45 | 88.5 | 86.0 | 75.2 | 89.2 | 86.9 | 88.2 | 29.5 | 27.5 | 1.3 | -0.7 |
| 46 | 89.7 | 86.8 | 76.3 | 91.1 | 88.8 | 90.1 | 23.0 | 19.5 | 1.3 | -0.8 |
| Avg. | 89.1 | 86.2 | 75.8 | 89.7 | 87.5 | 88.9 | 24.0 | 23.5 | 1.4 | -0.7 |
| Std Dv | 0.9 | 0.4 | 0.5 | 1.2 | 0.9 | 0.9 | 3.8 | 5.7 | 0.1 | 0.0 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

TABLE NO. A.1-1.1G

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
9/29/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 1G

CENTERLINE - CENTER (FLUSH)

JUNE 22, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|----------|-------|------|--------|-------|--------|---------|--------|--------|-----|------|
| APPROACH | | | | | | | | | | |
| 16 | 102.2 | 97.9 | 88.9 | 99.7 | 102.1 | 102.7 | 16.5 | 16.5 | 0.6 | -0.3 |
| 17 | 101.2 | 96.9 | 89.6 | 100.0 | 103.3 | 103.8 | 12.0 | 12.0 | 0.4 | -0.2 |
| 18 | 102.0 | 97.5 | 90.2 | 101.8 | 104.3 | 104.6 | 12.0 | 11.5 | 0.5 | 0.1 |
| 19 | 101.9 | 97.5 | 90.1 | 101.4 | 104.1 | 104.5 | 12.5 | 12.5 | 0.4 | -0.1 |
| 20 | 102.3 | 97.8 | 90.2 | 101.2 | 104.5 | 105.2 | 11.5 | 11.0 | 0.6 | -0.1 |
| 21 | 102.1 | 97.7 | 90.7 | 102.1 | 104.6 | 104.9 | 11.5 | 11.0 | 0.2 | -0.2 |
| 22 | 101.9 | 97.5 | 90.1 | 101.1 | 104.4 | 105.0 | 11.0 | 10.5 | 0.6 | -0.2 |
| 23 | 102.4 | 98.0 | 91.9 | 102.2 | 105.1 | 105.4 | 10.5 | 11.5 | 0.3 | -0.1 |
| 24 | 101.9 | 97.6 | 90.5 | 100.9 | 104.1 | 104.7 | 11.0 | 11.0 | 0.7 | -0.2 |
| Avg. | 102.0 | 97.6 | 90.2 | 101.2 | 104.1 | 104.5 | 12.1 | 11.9 | 0.5 | -0.2 |
| Std Dv | 0.3 | 0.3 | 0.8 | 0.9 | 0.9 | 0.8 | 1.8 | 1.8 | 0.1 | 0.1 |

TAKEOFF

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|------|------|-----|------|
| 8 | 94.1 | 89.4 | 81.3 | 89.9 | 93.6 | 95.3 | 13.5 | 14.5 | 2.0 | -1.0 |
| 9 | 93.0 | 88.7 | 80.0 | 87.4 | 91.6 | 93.5 | 16.0 | 17.5 | 1.8 | -1.0 |
| 10 | 92.3 | 88.0 | 78.9 | 87.2 | 90.7 | 92.5 | 17.0 | 18.0 | 1.8 | -1.0 |
| 11 | 91.7 | 87.6 | 78.1 | 85.9 | 89.6 | 91.3 | 19.5 | 20.5 | 2.5 | -1.0 |
| 12 | 92.2 | 87.9 | 78.5 | 87.2 | 90.6 | 92.6 | 17.5 | 18.0 | 2.5 | -1.0 |
| 13 | 93.9 | 89.5 | 79.9 | 87.8 | 92.6 | 94.3 | 18.5 | 18.0 | 2.1 | -1.0 |
| 14 | 93.5 | 89.1 | 79.1 | 87.1 | 91.7 | 93.4 | 20.5 | 21.0 | 1.7 | -1.0 |
| 15 | 92.9 | 88.7 | 78.8 | 87.3 | 91.2 | 93.3 | 19.0 | 18.5 | 2.5 | -0.9 |
| Avg. | 92.9 | 88.6 | 79.3 | 87.5 | 91.4 | 93.3 | 17.7 | 18.2 | 2.1 | -1.0 |
| Std Dv | 0.8 | 0.7 | 1.0 | 1.1 | 1.3 | 1.2 | 2.2 | 2.0 | 0.3 | 0.0 |

500 FT. FLYOVER @ 100 KTS INDICATED AIRSPEED

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|------|------|-----|------|
| 52 | 95.1 | 91.5 | 84.4 | 93.2 | 96.5 | 97.7 | 10.5 | 12.0 | 1.2 | -0.5 |
| Avg. | 95.1 | 91.5 | 84.4 | 93.2 | 96.5 | 97.7 | 10.5 | 12.0 | 1.2 | -0.5 |
| Std Dv | - | - | - | - | - | - | - | - | - | - |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.1-2.1G

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
9/10/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 1G

CENTERLINE - CENTER (FLUSH)

JUNE 22, 1980

| EV | EPNL | NEL | DBA(M) | DASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|--|-------|------|--------|-------|--------|---------|--------|--------|-----|------|
| 500 FT. FLYOVER @ 115 KTS INDICATED AIRSPEED | | | | | | | | | | |
| 27 | 97.3 | 93.5 | 85.7 | 95.1 | 98.2 | 99.5 | 14.5 | 15.5 | 1.3 | -0.4 |
| 30 | 96.3 | 92.5 | 85.7 | 94.5 | 98.4 | 99.0 | 10.5 | 11.0 | 0.9 | -0.4 |
| 33 | 97.9 | 94.3 | 86.3 | 95.4 | 98.6 | 99.6 | 13.0 | 13.5 | 1.0 | -0.3 |
| 36 | 96.5 | 92.6 | 85.4 | 96.0 | 97.6 | 98.6 | 11.5 | 12.5 | 1.2 | -0.6 |
| Avg. | 97.0 | 93.2 | 85.8 | 95.2 | 98.2 | 99.2 | 12.4 | 13.1 | 1.1 | -0.4 |
| Std Dv | 0.8 | 0.8 | 0.4 | 0.6 | 0.4 | 0.5 | 1.7 | 1.9 | 0.2 | 0.2 |
| 500 FT. FLYOVER @ 132 KTS INDICATED AIRSPEED | | | | | | | | | | |
| 26 | 98.0 | 94.5 | 87.5 | 97.8 | 99.9 | 100.9 | 9.0 | 10.0 | 1.1 | -0.4 |
| 29 | 98.9 | 95.4 | 88.2 | 97.8 | 100.4 | 101.6 | 10.0 | 11.5 | 1.1 | -0.4 |
| 32 | 98.4 | 94.9 | 88.0 | 97.4 | 100.6 | 101.6 | 10.5 | 10.5 | 1.3 | -0.4 |
| 35 | 98.5 | 94.9 | 87.3 | 97.4 | 99.9 | 100.7 | 11.0 | 12.0 | 1.0 | -0.4 |
| Avg. | 98.5 | 94.9 | 87.8 | 97.6 | 100.2 | 101.2 | 10.1 | 11.0 | 1.1 | -0.4 |
| Std Dv | 0.4 | 0.4 | 0.5 | 0.2 | 0.4 | 0.5 | 0.9 | 0.9 | 0.1 | 0.0 |
| 500 FT. FLYOVER @ 152 KTS INDICATED AIRSPEED | | | | | | | | | | |
| 25 | 99.7 | 96.1 | 88.2 | 99.4 | 100.5 | 101.5 | 11.0 | 12.5 | 1.2 | -0.4 |
| 28 | 99.3 | 95.3 | 89.1 | 99.4 | 101.9 | 103.0 | 9.0 | 11.5 | 1.1 | -0.4 |
| 31 | 101.1 | 97.8 | 91.3 | 101.0 | 103.1 | 104.2 | 9.5 | 9.5 | 1.1 | -0.4 |
| 34 | 100.4 | 96.7 | 89.8 | 100.7 | 102.7 | 103.9 | 10.5 | 10.0 | 1.2 | -0.5 |
| Avg. | 100.1 | 96.5 | 89.6 | 100.1 | 102.1 | 103.2 | 10.0 | 10.9 | 1.2 | -0.4 |
| Std Dv | 0.8 | 1.1 | 1.3 | 0.8 | 1.1 | 1.2 | 0.9 | 1.4 | 0.0 | 0.1 |
| 500 FT. FLYOVER @ 165 KTS INDICATED AIRSPEED | | | | | | | | | | |
| 49 | 100.8 | 96.9 | 90.9 | 102.3 | 102.9 | 103.8 | 9.5 | 10.5 | 1.2 | -0.3 |
| 50 | 101.4 | 97.6 | 91.6 | 102.6 | 104.0 | 104.9 | 9.5 | 11.0 | 0.8 | -0.5 |
| 51 | 99.9 | 95.9 | 89.1 | 101.5 | 101.1 | 102.1 | 11.0 | 12.0 | 1.2 | -0.5 |
| Avg. | 100.7 | 96.8 | 90.5 | 102.1 | 102.7 | 103.6 | 10.0 | 11.2 | 1.1 | -0.4 |
| Std Dv | 0.8 | 0.8 | 1.3 | 0.5 | 1.5 | 1.4 | 0.9 | 0.8 | 0.2 | 0.1 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.1-3.1G

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
9/10/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 1G

CENTERLINE - CENTER (FLUSH)

JUNE 22, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|---|-------|------|--------|-------|--------|---------|--------|--------|-----|------|
| 300 FT. FLYOVER @ 150 KTS INDICATED AIRSPEED | | | | | | | | | | |
| 43 | - | 99.2 | 94.3 | 104.1 | 106.5 | 107.5 | 6.0 | - | 1.0 | - |
| 44 | 102.6 | 99.0 | 93.6 | 104.3 | 106.0 | 107.2 | 6.5 | 7.0 | 1.2 | -0.4 |
| Avg. | 102.6 | 99.1 | 93.9 | 104.2 | 106.3 | 107.3 | 6.2 | 7.0 | 1.1 | -0.4 |
| Std Dv | - | 0.2 | 0.5 | 0.2 | 0.3 | 0.2 | 0.4 | - | 0.1 | - |
| 700 FT. FLYOVER @ 150 KTS INDICATED AIRSPEED | | | | | | | | | | |
| 41 | 97.1 | 93.8 | 86.0 | 96.2 | 98.0 | 99.0 | 13.5 | 15.0 | 1.0 | -0.3 |
| 42 | 97.2 | 93.7 | 85.6 | 97.0 | 97.5 | 99.0 | 16.5 | 16.0 | 1.5 | -0.5 |
| Avg. | 97.1 | 93.8 | 85.8 | 96.6 | 97.7 | 99.0 | 15.0 | 15.5 | 1.3 | -0.4 |
| Std Dv | 0.1 | 0.1 | 0.3 | 0.6 | 0.3 | 0.0 | 2.1 | 0.7 | 0.4 | 0.1 |
| 1000 FT. FLYOVER @ 150 KTS INDICATED AIRSPEED | | | | | | | | | | |
| 1 | 95.3 | 92.1 | 83.5 | 95.1 | 95.8 | 96.6 | 14.5 | 16.0 | 0.9 | -0.4 |
| 2 | 95.3 | 91.7 | 81.5 | 94.5 | 93.6 | 95.1 | 19.5 | 20.0 | 1.7 | -0.5 |
| 3 | 95.4 | 91.9 | 82.3 | 94.9 | 94.5 | 96.0 | 19.5 | 19.0 | 1.6 | -0.5 |
| 4 | 96.0 | 93.0 | 84.5 | 94.7 | 95.2 | 96.7 | 16.0 | 19.0 | 1.5 | -0.4 |
| 5 | 95.5 | 92.6 | 83.7 | 94.5 | 95.5 | 96.3 | 16.5 | 18.0 | 0.9 | -0.3 |
| 6 | 96.4 | 93.3 | 83.9 | 95.4 | 95.9 | 96.9 | 16.5 | 17.0 | 1.0 | -0.5 |
| 39 | 95.6 | 92.4 | 82.9 | 94.6 | 94.8 | 95.9 | 17.0 | 20.0 | 1.0 | -0.4 |
| 40 | 95.1 | 92.1 | 82.6 | 94.1 | 95.1 | 96.1 | 18.0 | 16.5 | 0.9 | -0.5 |
| 47 | 94.9 | 91.6 | 82.3 | 94.4 | 94.3 | 95.3 | 22.0 | 22.0 | 1.2 | -0.4 |
| 48 | 94.9 | 91.8 | 83.0 | 93.8 | 94.7 | 95.8 | 16.5 | 17.0 | 1.3 | -0.4 |
| Avg. | 95.5 | 92.2 | 83.0 | 94.6 | 94.9 | 96.1 | 17.6 | 18.4 | 1.2 | -0.4 |
| Std Dv | 0.5 | 0.6 | 0.9 | 0.5 | 0.7 | 0.6 | 2.2 | 1.9 | 0.3 | 0.1 |
| 1500 FT. FLYOVER @ 150 KTS INDICATED AIRSPEED | | | | | | | | | | |
| 37 | - | 90.1 | 79.7 | 92.6 | 92.1 | 93.2 | 19.0 | - | 1.1 | - |
| 38 | - | 93.7 | 83.9 | 96.9 | 96.0 | 97.0 | 23.5 | - | 1.0 | - |
| 45 | 92.8 | 89.9 | 79.5 | 91.9 | 91.4 | 92.5 | 26.0 | 25.0 | 1.1 | -0.4 |
| 46 | 93.7 | 90.5 | 80.0 | 93.6 | 92.5 | 94.1 | 23.0 | 19.5 | 1.7 | -0.5 |
| Avg. | 93.2 | 91.1 | 80.8 | 93.7 | 93.0 | 94.2 | 22.9 | 22.3 | 1.2 | -0.5 |
| Std Dv | 0.7 | 1.8 | 2.1 | 2.2 | 2.0 | 2.0 | 2.9 | 3.9 | 0.3 | 0.0 |

* - INDEXES (A,D, ,ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

TABLE NO. A.1-1.1H

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
9/ 9/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 1H

CENTERLINE - CENTER 10 METER

JUNE 22, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|--|-------|------|--------|-------|--------|---------|--------|--------|-----|------|
| APPROACH | | | | | | | | | | |
| 16 | 96.3 | 92.1 | 83.0 | 92.5 | 97.0 | 97.5 | 16.5 | 15.5 | 0.5 | -0.3 |
| 17 | 99.3 | 94.7 | 87.1 | 99.0 | 101.7 | 102.3 | 12.5 | 10.5 | 0.6 | -0.2 |
| 18 | 100.1 | 95.1 | 87.7 | 100.7 | 102.9 | 103.4 | 12.0 | 10.5 | 0.5 | -0.2 |
| 19 | 100.3 | 95.5 | 88.3 | 101.2 | 103.3 | 103.9 | 12.0 | 10.0 | 0.6 | -0.3 |
| 20 | 100.8 | 96.2 | 89.2 | 101.4 | 104.2 | 104.9 | 11.0 | 9.5 | 0.7 | -0.2 |
| 21 | 100.7 | 95.8 | 89.1 | 102.3 | 103.9 | 104.2 | 10.5 | 10.0 | 0.4 | -0.3 |
| 22 | 100.3 | 95.7 | 88.9 | 101.4 | 103.9 | 104.5 | 10.5 | 9.0 | 0.6 | -0.2 |
| 23 | 99.4 | 95.0 | 88.9 | 101.0 | 102.9 | 103.1 | 11.0 | 10.0 | 0.2 | -0.1 |
| 24 | 99.1 | 94.5 | 87.8 | 100.1 | 102.5 | 103.2 | 10.0 | 9.5 | 0.7 | -0.3 |
| Avg. | 99.6 | 95.0 | 87.8 | 100.0 | 102.5 | 103.0 | 11.8 | 10.5 | 0.5 | -0.2 |
| Std Dv | 1.4 | 1.2 | 1.9 | 3.0 | 2.2 | 2.2 | 2.0 | 1.9 | 0.1 | 0.0 |
| TAKEOFF | | | | | | | | | | |
| 8 | 90.2 | 85.5 | 77.4 | 86.0 | 90.5 | 92.0 | 14.5 | 14.0 | 1.7 | -0.9 |
| 9 | 89.3 | 84.9 | 76.1 | 83.6 | 88.5 | 90.0 | 22.0 | 22.5 | 2.2 | -0.9 |
| 10 | 88.6 | 84.3 | 74.6 | 83.6 | 87.5 | 89.4 | 24.0 | 23.0 | 2.4 | -0.9 |
| 11 | 88.1 | 84.0 | 74.0 | 82.4 | 86.0 | 88.3 | 26.5 | 25.5 | 2.6 | -0.8 |
| 12 | 88.4 | 84.4 | 74.5 | 83.8 | 87.2 | 89.5 | 30.5 | 21.5 | 2.7 | -0.4 |
| 13 | 91.4 | 86.8 | 77.0 | 85.7 | 89.9 | 92.2 | 24.0 | 22.0 | 2.5 | -0.9 |
| 14 | 90.8 | 86.4 | 75.8 | 85.1 | 88.9 | 91.4 | 27.5 | 25.0 | 2.5 | -0.8 |
| 15 | - | 86.2 | 75.6 | 85.4 | 88.9 | 91.5 | 26.0 | - | 2.6 | - |
| Avg. | 89.6 | 85.3 | 75.6 | 84.5 | 88.4 | 90.6 | 24.4 | 21.9 | 2.4 | -0.8 |
| Std Dv | 1.3 | 1.1 | 1.2 | 1.3 | 1.5 | 1.4 | 4.7 | 3.8 | 0.3 | 0.2 |
| 500 FT. FLYOVER @ 100 KTS INDICATED AIRSPEED | | | | | | | | | | |
| 52 | 90.8 | 87.2 | 80.2 | 85.6 | 92.2 | 93.3 | 11.5 | 13.0 | 1.1 | -0.6 |
| Avg. | 90.8 | 87.2 | 80.2 | 85.6 | 92.2 | 93.3 | 11.5 | 13.0 | 1.1 | -0.6 |
| Std Dv | - | - | - | - | - | - | - | - | - | - |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - / \ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.1-2.1H

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
9/10/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 1H

CENTERLINE - CENTER 10 METER

JUNE 22, 1980

| EV | EPNL | NEL | DBA(M) | DASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|--|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| 500 FT. FLYOVER @ 115 KTS INDICATED AIRSPEED | | | | | | | | | | |
| 27 | 93.3 | 89.4 | 81.4 | 91.8 | 94.6 | 95.2 | 16.0 | 16.0 | 0.7 | -0.6 |
| 30 | 92.6 | 88.6 | 81.3 | 91.8 | 94.6 | 95.1 | 11.0 | 12.0 | 0.5 | -0.5 |
| 33 | 94.0 | 90.2 | 82.0 | 91.9 | 94.8 | 95.6 | 14.5 | 14.0 | 1.1 | -0.6 |
| 36 | 92.6 | 88.7 | 81.8 | 91.7 | 94.2 | 94.9 | 11.5 | 13.5 | 0.7 | -0.6 |
| Avg. | 93.1 | 89.2 | 81.6 | 91.8 | 94.5 | 95.2 | 13.2 | 13.9 | 0.7 | -0.6 |
| Std Dv | 0.6 | 0.7 | 0.3 | 0.1 | 0.3 | 0.3 | 2.4 | 1.7 | 0.3 | 0.0 |
| 500 FT. FLYOVER @ 132 KTS INDICATED AIRSPEED | | | | | | | | | | |
| 26 | 94.3 | 90.4 | 83.1 | 94.2 | 96.1 | 97.1 | 10.0 | 11.0 | 1.4 | -0.4 |
| 29 | 94.7 | 91.0 | 84.1 | 94.1 | 96.7 | 97.8 | 10.0 | 11.0 | 1.4 | -0.5 |
| 32 | 94.8 | 91.2 | 84.5 | 93.4 | 97.5 | 98.1 | 10.5 | 10.5 | 0.7 | -0.4 |
| 35 | 94.4 | 90.6 | 83.2 | 93.6 | 96.2 | 96.8 | 12.0 | 12.5 | 0.6 | -0.6 |
| Avg. | 94.5 | 90.8 | 83.7 | 93.8 | 96.6 | 97.5 | 10.6 | 11.2 | 1.1 | -0.5 |
| Std Dv | 0.2 | 0.3 | 0.7 | 0.4 | 0.6 | 0.6 | 0.9 | 0.9 | 0.4 | 0.1 |
| 500 FT. FLYOVER @ 152 KTS INDICATED AIRSPEED | | | | | | | | | | |
| 25 | 95.9 | 92.0 | 84.4 | 96.6 | 96.8 | 97.9 | 11.0 | 11.5 | 1.1 | -0.7 |
| 28 | 95.9 | 91.8 | 84.9 | 96.4 | 97.7 | 98.5 | 12.5 | 13.0 | 0.8 | -0.6 |
| 31 | 97.1 | 93.5 | 86.6 | 96.9 | 98.9 | 100.2 | 10.0 | 10.0 | 1.4 | -0.7 |
| 34 | 96.7 | 93.0 | 86.0 | 96.5 | 98.6 | 99.9 | 11.0 | 11.0 | 1.5 | -0.8 |
| Avg. | 96.4 | 92.6 | 85.5 | 96.6 | 98.0 | 99.1 | 11.1 | 11.4 | 1.2 | -0.7 |
| Std Dv | 0.6 | 0.8 | 1.0 | 0.2 | 0.9 | 1.1 | 1.0 | 1.2 | 0.3 | 0.1 |
| 500 FT. FLYOVER @ 165 KTS INDICATED AIRSPEED | | | | | | | | | | |
| 49 | 97.7 | 93.6 | 87.3 | 99.0 | 100.0 | 100.8 | 10.0 | 10.5 | 1.2 | -0.7 |
| 50 | 98.6 | 94.5 | 88.0 | 99.5 | 100.9 | 101.6 | 10.5 | 11.5 | 1.0 | -0.5 |
| 51 | 96.6 | 92.2 | 85.9 | 98.5 | 98.3 | 99.1 | 9.5 | 11.5 | 1.3 | -0.7 |
| Avg. | 97.7 | 93.4 | 87.1 | 99.0 | 99.7 | 100.5 | 10.0 | 11.2 | 1.2 | -0.6 |
| Std Dv | 1.0 | 1.1 | 1.1 | 0.5 | 1.3 | 1.3 | 0.5 | 0.6 | 0.2 | 0.1 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.1-3.1H

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC

9/10/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 1H

CENTERLINE - CENTER 10 METER

JUNE 22, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|---|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| 300 FT. FLYOVER @ 150 KTS INDICATED AIRSPEED | | | | | | | | | | |
| 44 | 99.7 | 96.1 | 90.3 | 101.1 | 103.5 | 104.3 | 7.0 | 7.5 | 0.9 | -0.5 |
| Avg. | 99.7 | 96.1 | 90.3 | 101.1 | 103.5 | 104.3 | 7.0 | 7.5 | 0.8 | -0.5 |
| Std Dv | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 700 FT. FLYOVER @ 150 KTS INDICATED AIRSPEED | | | | | | | | | | |
| 41 | 93.4 | 90.0 | 81.8 | 93.2 | 94.5 | 95.6 | 13.5 | 14.0 | 1.2 | -0.6 |
| 42 | 94.1 | 90.4 | 82.4 | 93.3 | 94.4 | 95.6 | 16.0 | 16.0 | 1.2 | -0.7 |
| Avg. | 93.8 | 90.2 | 82.1 | 93.2 | 94.4 | 95.6 | 14.7 | 15.0 | 1.2 | -0.7 |
| Std Dv | 0.5 | 0.3 | 0.4 | 0.0 | 0.1 | 0.0 | 1.8 | 1.4 | 0.0 | 0.1 |
| 1000 FT. FLYOVER @ 150 KTS INDICATED AIRSPEED | | | | | | | | | | |
| 1 | 88.4 | 86.0 | 77.1 | 86.4 | 88.2 | 89.2 | 14.5 | 15.5 | 1.3 | -0.6 |
| 2 | 87.7 | 84.8 | 74.5 | 86.1 | 86.1 | 87.9 | 19.5 | 19.0 | 1.8 | -0.8 |
| 3 | 88.4 | 85.6 | 76.3 | 86.1 | 87.8 | 89.0 | 18.0 | 19.0 | 1.5 | -0.7 |
| 4 | 88.7 | 86.4 | 77.9 | 86.6 | 88.4 | 89.7 | 17.0 | 17.0 | 1.4 | -0.9 |
| 5 | 88.6 | 86.3 | 77.7 | 85.6 | 89.1 | 90.2 | 15.5 | 15.5 | 1.1 | -0.7 |
| 6 | 89.0 | 86.5 | 77.8 | 86.4 | 88.2 | 89.6 | 15.5 | 16.5 | 1.4 | -0.8 |
| 39 | - | 88.4 | 78.5 | 90.6 | 90.4 | 92.1 | 21.0 | - | 1.7 | - |
| 40 | 91.3 | 88.2 | 78.4 | 90.6 | 90.5 | 91.9 | 18.0 | 16.5 | 1.6 | -0.7 |
| 47 | 91.7 | 88.3 | 78.6 | 91.5 | 90.7 | 92.3 | 24.0 | 22.5 | 1.6 | -0.9 |
| 48 | 91.8 | 88.5 | 79.3 | 90.9 | 91.1 | 92.5 | 19.5 | 19.5 | 1.4 | -0.6 |
| Avg. | 89.5 | 86.9 | 77.6 | 88.1 | 89.1 | 90.5 | 18.2 | 17.8 | 1.5 | -0.7 |
| Std Dv | 1.6 | 1.3 | 1.4 | 2.4 | 1.6 | 1.6 | 2.9 | 2.3 | 0.2 | 0.1 |
| 1500 FT. FLYOVER @ 150 KTS INDICATED AIRSPEED | | | | | | | | | | |
| 37 | - | 85.6 | 75.6 | 88.3 | 87.0 | 88.6 | 18.0 | - | 1.6 | - |
| 38 | 88.5 | 85.6 | 75.7 | 87.1 | 87.6 | 89.2 | 22.5 | 21.5 | 1.6 | -0.7 |
| 45 | 89.3 | 86.3 | 75.5 | 88.4 | 87.9 | 89.7 | 28.5 | 26.0 | 1.9 | -0.8 |
| 46 | 90.7 | 87.1 | 78.3 | 91.7 | 91.0 | 91.6 | 20.0 | 19.5 | 0.6 | -0.7 |
| Avg. | 89.5 | 86.2 | 76.3 | 88.9 | 88.3 | 89.8 | 22.2 | 22.3 | 1.4 | -0.7 |
| Std Dv | 1.1 | 0.7 | 1.4 | 2.0 | 1.8 | 1.3 | 4.6 | 3.3 | 0.5 | 0.0 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

TABLE NO. A.1-1.2

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
9/10/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 2

CENTERLINE - 150 M. WEST

JUNE 22, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|----------|-------|------|--------|-------|--------|---------|--------|--------|-----|------|
| APPROACH | | | | | | | | | | |
| 16 | 97.7 | 92.8 | 84.9 | 94.5 | 99.2 | 99.9 | 12.5 | 12.0 | 0.7 | -0.6 |
| 17 | 99.2 | 94.5 | 86.5 | 97.5 | 101.1 | 101.7 | 12.0 | 11.5 | 0.6 | -0.4 |
| 18 | 100.3 | 95.4 | 88.3 | 100.7 | 103.3 | 104.0 | 11.5 | 10.0 | 0.7 | -0.4 |
| 19 | 100.3 | 95.5 | 88.4 | 100.7 | 103.2 | 103.9 | 11.5 | 10.5 | 0.7 | -0.5 |
| 20 | 100.7 | 96.0 | 89.0 | 100.9 | 103.8 | 104.5 | 11.0 | 9.5 | 0.8 | -0.5 |
| 21 | 100.8 | 95.9 | 89.5 | 101.2 | 104.1 | 104.9 | 10.0 | 10.0 | 0.8 | -0.6 |
| 22 | 100.3 | 95.6 | 89.0 | 100.8 | 103.8 | 104.6 | 10.5 | 9.5 | 0.8 | -0.5 |
| 23 | 100.4 | 95.8 | 89.4 | 100.9 | 103.8 | 104.5 | 10.0 | 9.5 | 0.7 | -0.4 |
| 24 | 100.6 | 96.0 | 89.3 | 100.4 | 103.6 | 104.3 | 10.5 | 9.5 | 0.7 | -0.5 |
| Avg. | 100.0 | 95.3 | 88.3 | 99.7 | 102.9 | 103.6 | 11.1 | 10.2 | 0.7 | -0.5 |
| Std Dv | 1.0 | 1.0 | 1.6 | 2.2 | 1.7 | 1.7 | 0.9 | 0.9 | 0.1 | 0.1 |

TAKEOFF

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|------|------|-----|------|
| 8 | - | 83.7 | 75.6 | 84.7 | 88.2 | 89.8 | 13.0 | - | 1.7 | - |
| 9 | - | 82.3 | 74.3 | 83.0 | 87.5 | 89.6 | 13.0 | - | 2.1 | - |
| 10 | 87.7 | 83.8 | 73.5 | 81.5 | 86.8 | 88.9 | 27.5 | 20.0 | 2.2 | -0.9 |
| 11 | 88.0 | 84.0 | 73.0 | 81.4 | 86.1 | 88.5 | 33.0 | 30.0 | 2.4 | -0.9 |
| 12 | 88.0 | 84.0 | 73.5 | 82.1 | 87.1 | 89.2 | 23.5 | 21.5 | 2.2 | -1.0 |
| 13 | 88.1 | 83.9 | 73.8 | 82.5 | 86.8 | 88.9 | 24.0 | 23.0 | 2.1 | -1.0 |
| 14 | 87.6 | 83.4 | 72.4 | 81.7 | 86.2 | 88.5 | 26.5 | 23.0 | 2.3 | -1.0 |
| 15 | 87.4 | 83.3 | 72.8 | 81.9 | 85.9 | 88.1 | 24.0 | 22.0 | 2.2 | -1.0 |
| Avg. | 87.8 | 83.6 | 73.6 | 82.3 | 86.8 | 88.9 | 23.1 | 23.3 | 2.2 | -1.0 |
| Std Dv | 0.3 | 0.6 | 1.0 | 1.1 | 0.8 | 0.6 | 6.9 | 3.5 | 0.2 | 0.0 |

500 FT. FLYOVER @ 100 KTS INDICATED AIRSPEED

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|------|------|-----|------|
| 52 | 92.4 | 88.2 | 81.6 | 89.0 | 94.1 | 95.8 | 11.0 | 10.5 | 1.7 | -0.9 |
| Avg. | 92.4 | 88.2 | 81.6 | 89.0 | 94.1 | 95.8 | 11.0 | 10.5 | 1.7 | -0.9 |
| Std Dv | - | - | - | - | - | - | - | - | - | - |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.1-2.2

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
9/11/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 2

CENTERLINE - 150 M. WEST

JUNE 22, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|--|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| 500 FT. FLYOVER @ 115 KTS INDICATED AIRSPEED | | | | | | | | | | |
| 27 | 93.9 | 90.0 | 81.5 | 91.6 | 94.1 | 95.3 | 13.5 | 14.0 | 1.2 | -0.8 |
| 30 | 93.3 | 89.6 | 82.1 | 91.5 | 95.3 | 96.7 | 13.0 | 11.5 | 1.4 | -0.6 |
| 33 | 95.2 | 91.5 | 84.3 | 93.2 | 97.3 | 98.5 | 11.5 | 11.0 | 1.2 | -0.9 |
| 36 | 92.9 | 89.1 | 82.2 | 91.6 | 94.4 | 95.2 | 11.0 | 12.0 | 0.8 | -0.7 |
| Avg. | 93.9 | 90.1 | 82.5 | 92.0 | 95.3 | 96.4 | 12.2 | 12.1 | 1.2 | -0.8 |
| Std Dv | 1.0 | 1.0 | 1.2 | 0.8 | 1.4 | 1.5 | 1.2 | 1.3 | 0.3 | 0.1 |

500 FT. FLYOVER @ 132 KTS INDICATED AIRSPEED

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|------|------|-----|------|
| 26 | 93.8 | 90.2 | 83.7 | 93.7 | 95.9 | 97.0 | 9.5 | 10.0 | 1.1 | -0.4 |
| 29 | 94.7 | 91.3 | 84.0 | 93.8 | 96.4 | 97.0 | 11.0 | 11.0 | 0.6 | -0.6 |
| 32 | 95.1 | 91.6 | 85.2 | 94.3 | 98.0 | 99.1 | 8.5 | 9.0 | 1.1 | -0.6 |
| 35 | 94.8 | 91.1 | 82.9 | 93.0 | 95.4 | 96.6 | 12.0 | 12.5 | 1.3 | -0.7 |
| Avg. | 94.6 | 91.1 | 83.9 | 93.7 | 96.4 | 97.4 | 10.2 | 10.6 | 1.0 | -0.5 |
| Std Dv | 0.6 | 0.6 | 1.0 | 0.5 | 1.1 | 1.1 | 1.6 | 1.5 | 0.3 | 0.1 |

500 FT. FLYOVER @ 152 KTS INDICATED AIRSPEED

| | | | | | | | | | | |
|--------|------|------|------|------|------|-------|------|------|-----|------|
| 25 | 96.2 | 92.8 | 85.1 | 96.9 | 97.2 | 98.5 | 11.0 | 12.5 | 1.2 | -0.7 |
| 28 | 95.3 | 92.0 | 85.6 | 96.8 | 98.1 | 99.2 | 9.0 | 10.0 | 1.1 | -0.5 |
| 31 | 97.9 | 94.7 | 87.4 | 97.6 | 99.4 | 101.0 | 10.5 | 10.5 | 1.6 | -0.7 |
| 34 | 96.6 | 93.0 | 84.6 | 96.7 | 97.1 | 98.3 | 13.0 | 13.5 | 1.3 | -0.6 |
| Avg. | 96.5 | 93.1 | 85.7 | 97.0 | 98.0 | 99.2 | 10.9 | 11.6 | 1.3 | -0.6 |
| Std Dv | 1.1 | 1.1 | 1.2 | 0.4 | 1.1 | 1.2 | 1.7 | 1.7 | 0.2 | 0.1 |

500 FT. FLYOVER @ 165 KTS INDICATED AIRSPEED

| | | | | | | | | | | |
|--------|------|------|------|------|-------|-------|------|------|-----|------|
| 49 | 97.4 | 93.4 | 86.9 | 98.5 | 99.4 | 100.9 | 9.5 | 10.5 | 1.6 | -0.8 |
| 50 | 97.4 | 93.8 | 88.9 | 98.5 | 101.2 | 102.1 | 8.0 | 8.5 | 0.9 | -0.4 |
| 51 | 96.5 | 92.4 | 85.7 | 97.0 | 98.2 | 99.7 | 10.5 | 11.0 | 1.7 | -0.8 |
| Avg. | 97.1 | 93.2 | 87.2 | 98.0 | 99.6 | 100.9 | 9.3 | 10.0 | 1.4 | -0.6 |
| Std Dv | 0.5 | 0.7 | 1.6 | 0.9 | 1.5 | 1.2 | 1.3 | 1.3 | 0.4 | 0.2 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.1-3.2

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
9/11/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 2

CENTERLINE - 150 M. WEST

JUNE 22, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|---|-------|------|--------|-------|--------|---------|--------|--------|-----|------|
| 300 FT. FLYOVER @ 150 KTS INDICATED AIRSPEED | | | | | | | | | | |
| 43 | 99.4 | 95.7 | 90.1 | 99.7 | 103.0 | 103.8 | 8.0 | 8.0 | 1.1 | -0.6 |
| 44 | 100.1 | 96.5 | 91.4 | 101.3 | 103.8 | 104.7 | 7.0 | 7.0 | 1.0 | -0.7 |
| Avg. | 99.7 | 96.1 | 90.7 | 100.5 | 103.4 | 104.3 | 7.5 | 7.5 | 1.1 | -0.7 |
| Std Dv | 0.5 | 0.5 | 0.9 | 1.1 | 0.5 | 0.7 | 0.7 | 0.7 | 0.1 | 0.1 |
| 700 FT. FLYOVER @ 150 KTS INDICATED AIRSPEED | | | | | | | | | | |
| 41 | 94.4 | 91.1 | 83.0 | 94.0 | 94.9 | 96.1 | 12.5 | 14.0 | 1.2 | -0.6 |
| 42 | 94.6 | 91.3 | 84.1 | 94.6 | 95.6 | 97.4 | 11.5 | 12.0 | 1.8 | -0.8 |
| Avg. | 94.5 | 91.2 | 83.5 | 94.3 | 95.3 | 96.8 | 12.0 | 13.0 | 1.5 | -0.7 |
| Std Dv | 0.1 | 0.1 | 0.8 | 0.5 | 0.5 | 1.0 | 0.7 | 1.4 | 0.4 | 0.1 |
| 1000 FT. FLYOVER @ 150 KTS INDICATED AIRSPEED | | | | | | | | | | |
| 1 | 92.7 | 89.9 | 81.7 | 92.9 | 93.6 | 94.5 | 14.5 | 14.5 | 0.9 | -0.6 |
| 2 | 92.7 | 89.4 | 79.4 | 92.4 | 91.4 | 93.0 | 19.0 | 18.0 | 1.6 | -0.7 |
| 3 | 92.4 | 89.3 | 79.6 | 92.4 | 91.4 | 92.6 | 19.0 | 21.0 | 1.4 | -0.7 |
| 4 | 93.6 | 90.7 | 82.2 | 92.3 | 93.3 | 94.7 | 19.0 | 19.5 | 1.4 | -0.9 |
| 5 | 92.7 | 90.1 | 81.3 | 92.5 | 92.6 | 93.7 | 17.0 | 19.5 | 1.1 | -0.6 |
| 6 | 93.5 | 90.7 | 80.8 | 92.6 | 92.2 | 93.6 | 18.5 | 18.5 | 1.4 | -0.8 |
| 39 | 92.0 | 89.3 | 78.9 | 90.5 | 90.3 | 91.7 | 20.0 | 20.0 | 1.7 | -0.7 |
| 40 | 92.4 | 89.5 | 80.4 | 90.5 | 91.7 | 93.2 | 16.5 | 17.5 | 1.9 | -0.7 |
| 47 | 91.7 | 88.6 | 78.4 | 90.3 | 90.1 | 91.5 | 20.0 | 20.0 | 2.0 | -0.9 |
| 48 | - | 88.2 | 79.4 | 91.1 | 91.1 | 92.4 | 13.0 | - | 1.5 | - |
| Avg. | 92.6 | 89.6 | 80.2 | 91.7 | 91.8 | 93.1 | 17.6 | 18.7 | 1.5 | -0.7 |
| Std Dv | 0.6 | 0.8 | 1.3 | 1.0 | 1.2 | 1.1 | 2.4 | 1.9 | 0.3 | 0.1 |
| 1500 FT. FLYOVER @ 150 KTS INDICATED AIRSPEED | | | | | | | | | | |
| 37 | 90.3 | 87.4 | 76.7 | 88.9 | 87.9 | 89.3 | 24.0 | 29.0 | 1.5 | -0.9 |
| 38 | - | 86.0 | 77.4 | 88.2 | 88.6 | 89.7 | 13.0 | - | 1.1 | - |
| 45 | - | 87.3 | 75.9 | 87.8 | 87.5 | 89.0 | 33.5 | - | 1.5 | - |
| 46 | 90.4 | 87.2 | 77.6 | 90.1 | 89.4 | 90.7 | 23.0 | 22.5 | 1.4 | -0.7 |
| Avg. | 90.3 | 87.0 | 76.9 | 88.7 | 88.4 | 89.7 | 23.4 | 25.8 | 1.4 | -0.8 |
| Std Dv | 0.1 | 0.7 | 0.8 | 1.0 | 0.8 | 0.8 | 8.4 | 4.6 | 0.2 | 0.1 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

TABLE NO. A.1-1.3

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
9/11/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 3

CENTERLINE - 150 M. EAST

JUNE 22, 1980

| EV | EPNL | NEL | DBA(M) | DASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|----------|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| APPROACH | | | | | | | | | | |
| 16 | 96.9 | 92.5 | 83.8 | 94.4 | 97.7 | 98.5 | 14.5 | 14.0 | 0.8 | -0.6 |
| 17 | 98.2 | 93.4 | 85.7 | 98.1 | 100.3 | 101.1 | 13.0 | 12.5 | 0.9 | -0.7 |
| 18 | 97.8 | 93.0 | 85.5 | 97.3 | 99.3 | 100.1 | 13.0 | 12.5 | 1.1 | -0.6 |
| 19 | 97.9 | 93.3 | 85.6 | 97.6 | 99.7 | 100.6 | 13.5 | 12.0 | 1.0 | -0.4 |
| 20 | 98.1 | 93.4 | 85.6 | 97.9 | 100.3 | 101.3 | 13.5 | 12.5 | 1.0 | -0.6 |
| 21 | 98.0 | 93.3 | 85.7 | 97.9 | 99.8 | 100.9 | 13.0 | 12.5 | 1.1 | -0.6 |
| 22 | 98.0 | 93.4 | 86.1 | 97.8 | 100.1 | 101.0 | 13.0 | 11.5 | 0.9 | -0.7 |
| 23 | 98.1 | 93.8 | 86.2 | 98.0 | 100.1 | 100.8 | 14.5 | 12.5 | 1.1 | -0.4 |
| 24 | 97.3 | 92.8 | 86.3 | 97.3 | 100.2 | 101.1 | 11.5 | 11.0 | 0.9 | -0.6 |
| Avg. | 97.8 | 93.2 | 85.6 | 97.4 | 99.7 | 100.6 | 13.3 | 12.3 | 1.0 | -0.6 |
| Std Dv | 0.4 | 0.4 | 0.7 | 1.2 | 0.8 | 0.9 | 0.9 | 0.8 | 0.1 | 0.1 |

TAKEOFF

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|------|------|-----|------|
| 8 | 92.2 | 87.4 | 80.8 | 89.4 | 93.8 | 95.2 | 9.0 | 10.0 | 1.4 | -0.6 |
| 9 | 91.7 | 87.1 | 79.2 | 86.4 | 91.7 | 93.0 | 17.5 | 17.5 | 1.5 | -0.6 |
| 10 | 90.9 | 86.3 | 78.4 | 87.2 | 91.0 | 92.4 | 18.0 | 18.0 | 1.3 | -0.7 |
| 11 | 90.6 | 86.1 | 76.6 | 86.5 | 89.8 | 91.7 | 21.0 | 20.0 | 1.9 | -0.7 |
| 12 | 91.1 | 86.5 | 78.4 | 87.1 | 91.4 | 92.9 | 17.5 | 17.5 | 1.4 | -0.7 |
| 13 | 91.8 | 86.9 | 78.9 | 88.4 | 91.9 | 93.4 | 14.5 | 15.0 | 1.6 | -0.8 |
| 14 | 91.3 | 86.7 | 77.6 | 86.8 | 90.7 | 92.6 | 18.5 | 16.5 | 1.9 | -0.8 |
| 15 | 91.2 | 86.6 | 77.9 | 87.5 | 91.5 | 92.7 | 17.0 | 16.5 | 1.8 | -0.7 |
| Avg. | 91.3 | 86.7 | 78.5 | 87.4 | 91.5 | 93.0 | 16.6 | 16.4 | 1.6 | -0.7 |
| Std Dv | 0.5 | 0.4 | 1.2 | 1.0 | 1.1 | 1.0 | 3.6 | 2.9 | 0.2 | 0.1 |

500 FT. FLYOVER @ 100 KTS INDICATED AIRSPEED

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|------|------|-----|------|
| 52 | 91.7 | 88.0 | 80.7 | 89.3 | 93.4 | 94.5 | 11.5 | 11.5 | 1.4 | -0.8 |
| Avg. | 91.7 | 88.0 | 80.7 | 89.3 | 93.4 | 94.5 | 11.5 | 11.5 | 1.4 | -0.8 |
| Std Dv | - | - | - | - | - | - | - | - | - | - |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - / \ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.1-2.3

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
9/11/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 3

CENTERLINE - 150 M. EAST

JUNE 22, 1980

| EV | EPNL | NEL | DBA(M) | DASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|--|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| 500 FT. FLYOVER @ 115 KTS INDICATED AIRSPEED | | | | | | | | | | |
| 27 | 91.7 | 88.0 | 80.6 | 90.4 | 92.9 | 93.6 | 14.5 | 15.0 | 0.8 | -0.7 |
| 30 | 91.8 | 88.1 | 80.7 | 90.2 | 93.2 | 94.6 | 12.5 | 12.5 | 1.4 | -0.6 |
| 33 | 92.9 | 89.1 | 81.5 | 91.1 | 94.2 | 94.8 | 13.0 | 15.0 | 0.6 | -0.7 |
| 36 | 91.7 | 88.0 | 80.6 | 91.0 | 92.7 | 93.7 | 12.0 | 12.5 | 1.5 | -0.7 |
| Avg. | 92.0 | 88.3 | 80.8 | 90.7 | 93.2 | 94.2 | 13.0 | 13.7 | 1.1 | -0.7 |
| Std Dv | 0.6 | 0.5 | 0.5 | 0.4 | 0.7 | 0.6 | 1.1 | 1.4 | 0.5 | 0.1 |

500 FT. FLYOVER @ 132 KTS INDICATED AIRSPEED

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|------|------|-----|------|
| 26 | 93.2 | 90.0 | 83.3 | 93.8 | 95.4 | 96.6 | 9.0 | 11.5 | 1.2 | -0.5 |
| 29 | 93.9 | 90.5 | 82.7 | 93.6 | 94.9 | 95.8 | 11.0 | 11.5 | 1.3 | -0.7 |
| 32 | 93.6 | 90.3 | 83.9 | 92.8 | 96.2 | 97.0 | 9.5 | 10.5 | 1.1 | -0.4 |
| 35 | 93.2 | 89.7 | 82.1 | 92.6 | 94.4 | 95.1 | 11.5 | 11.5 | 0.7 | -0.6 |
| Avg. | 93.5 | 90.1 | 83.0 | 93.2 | 95.2 | 96.1 | 10.2 | 11.2 | 1.1 | -0.6 |
| Std Dv | 0.3 | 0.4 | 0.8 | 0.6 | 0.8 | 0.8 | 1.2 | 0.5 | 0.2 | 0.1 |

500 FT. FLYOVER @ 152 KTS INDICATED AIRSPEED

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|------|------|-----|------|
| 25 | 94.7 | 91.2 | 83.1 | 95.6 | 95.1 | 96.1 | 13.5 | 14.0 | 1.0 | -0.6 |
| 28 | 94.9 | 91.2 | 83.8 | 96.8 | 96.1 | 97.2 | 11.5 | 11.5 | 1.1 | -0.5 |
| 31 | 96.0 | 92.9 | 85.3 | 96.3 | 97.0 | 98.3 | 11.0 | 11.5 | 1.2 | -0.6 |
| 34 | 96.3 | 93.0 | 86.1 | 97.4 | 97.8 | 98.8 | 10.0 | 11.0 | 1.0 | -0.6 |
| Avg. | 95.5 | 92.1 | 84.6 | 96.5 | 96.5 | 97.6 | 11.5 | 12.0 | 1.1 | -0.6 |
| Std Dv | 0.8 | 1.0 | 1.3 | 0.7 | 1.2 | 1.2 | 1.5 | 1.4 | 0.1 | 0.0 |

500 FT. FLYOVER @ 165 KTS INDICATED AIRSPEED

| | | | | | | | | | | |
|--------|------|------|------|-------|------|-------|------|------|-----|------|
| 49 | 97.3 | 93.2 | 85.4 | 99.2 | 97.8 | 98.9 | 13.0 | 13.0 | 1.2 | -0.6 |
| 50 | 97.6 | 93.7 | 87.7 | 100.6 | 99.9 | 100.6 | 9.5 | 10.0 | 0.9 | -0.4 |
| 51 | 96.0 | 91.7 | 84.1 | 98.1 | 96.4 | 97.6 | 12.5 | 15.0 | 1.3 | -0.6 |
| Avg. | 97.0 | 92.9 | 85.7 | 99.3 | 98.0 | 99.0 | 11.7 | 12.7 | 1.2 | -0.5 |
| Std Dv | 0.8 | 1.0 | 1.8 | 1.2 | 1.8 | 1.5 | 1.9 | 2.5 | 0.2 | 0.1 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - / \ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.1-3.3

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
9/11/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 3

CENTERLINE - 150 M. EAST

JUNE 22, 1980

| EV | EPNL | NEL | DBA(M) | DASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|---|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| 300 FT. FLYOVER @ 150 KTS INDICATED AIRSPEED | | | | | | | | | | |
| 43 | 98.7 | 95.0 | 89.2 | 101.1 | 101.6 | 102.6 | 7.5 | 9.0 | 1.0 | -0.6 |
| 44 | 99.3 | 95.6 | 90.1 | 102.1 | 102.6 | 103.5 | 6.5 | 8.0 | 0.8 | -0.5 |
| Avg. | 99.0 | 95.3 | 89.6 | 101.6 | 102.1 | 103.0 | 7.0 | 8.5 | 0.9 | -0.5 |
| Std Dv | 0.4 | 0.4 | 0.6 | 0.8 | 0.7 | 0.6 | 0.7 | 0.7 | 0.1 | 0.1 |
| 700 FT. FLYOVER @ 150 KTS INDICATED AIRSPEED | | | | | | | | | | |
| 41 | 93.5 | 90.3 | 82.5 | 94.5 | 94.4 | 95.2 | 15.5 | 16.5 | 0.9 | -0.6 |
| 42 | 94.2 | 90.7 | 82.1 | 95.3 | 94.4 | 95.4 | 13.5 | 18.5 | 1.0 | -0.6 |
| Avg. | 93.8 | 90.5 | 82.3 | 94.9 | 94.4 | 95.3 | 14.5 | 17.5 | 1.0 | -0.6 |
| Std Dv | 0.5 | 0.3 | 0.3 | 0.6 | 0.0 | 0.2 | 1.4 | 1.4 | 0.1 | 0.0 |
| 1000 FT. FLYOVER @ 150 KTS INDICATED AIRSPEED | | | | | | | | | | |
| 1 | 90.9 | 88.1 | 79.4 | 91.9 | 91.2 | 92.2 | 15.5 | 16.5 | 1.0 | -0.7 |
| 2 | 90.7 | 87.6 | 76.9 | 91.1 | 88.6 | 90.2 | 22.0 | 22.0 | 1.6 | -0.8 |
| 3 | 91.6 | 88.6 | 78.3 | 92.2 | 89.7 | 91.8 | 20.0 | 20.5 | 2.2 | -0.6 |
| 4 | 91.7 | 89.0 | 79.9 | 91.4 | 90.6 | 92.1 | 18.5 | 21.5 | 1.5 | -0.8 |
| 5 | 91.4 | 88.7 | 79.8 | 92.0 | 90.8 | 91.8 | 16.0 | 19.5 | 1.0 | -0.6 |
| 6 | 91.9 | 89.2 | 79.4 | 91.7 | 90.7 | 91.7 | 20.5 | 20.5 | 1.2 | -0.7 |
| 39 | 91.8 | 89.0 | 78.3 | 90.9 | 89.7 | 90.9 | 25.0 | 25.0 | 1.2 | -0.7 |
| 40 | 91.9 | 88.9 | 79.8 | 92.3 | 91.1 | 92.3 | 21.0 | 22.0 | 1.4 | -0.6 |
| 47 | 91.0 | 88.2 | 79.3 | 92.2 | 91.0 | 92.0 | 19.0 | 18.5 | 1.0 | -0.8 |
| 48 | 91.4 | 88.5 | 79.4 | 91.6 | 90.9 | 92.1 | 17.0 | 17.5 | 1.6 | -0.5 |
| Avg. | 91.5 | 88.6 | 79.1 | 91.7 | 90.4 | 91.7 | 19.4 | 20.3 | 1.4 | -0.7 |
| Std Dv | 0.4 | 0.5 | 1.0 | 0.5 | 0.8 | 0.7 | 2.9 | 2.5 | 0.4 | 0.1 |
| 1500 FT. FLYOVER @ 150 KTS INDICATED AIRSPEED | | | | | | | | | | |
| 37 | - | 85.7 | 75.2 | 88.8 | 86.1 | 87.2 | 25.0 | - | 1.1 | - |
| 38 | - | 85.6 | 74.7 | 89.1 | 86.5 | 87.3 | 22.5 | - | 1.2 | - |
| 45 | 88.4 | 85.6 | 75.8 | 88.2 | 86.6 | 87.8 | 30.5 | 30.5 | 1.2 | -0.7 |
| 46 | 89.2 | 86.2 | 77.2 | 90.8 | 88.5 | 89.7 | 18.5 | 19.5 | 1.2 | -0.5 |
| Avg. | 88.8 | 85.8 | 75.7 | 89.2 | 86.9 | 88.0 | 24.1 | 25.0 | 1.2 | -0.6 |
| Std Dv | 0.5 | 0.3 | 1.1 | 1.1 | 1.1 | 1.1 | 5.0 | 7.8 | 0.1 | 0.1 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

TABLE NO. A.1-1.4

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
9/11/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 4

SIDELINE - 164 M. NORTH

JUNE 22, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|----------|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| APPROACH | | | | | | | | | | |
| 17 | 98.7 | 95.0 | 87.2 | 95.9 | 99.7 | 101.0 | 12.0 | 12.0 | 1.4 | -1.0 |
| 18 | 99.1 | 95.0 | 87.0 | 96.3 | 99.9 | 101.1 | 13.5 | 13.5 | 1.2 | -1.0 |
| 19 | 99.6 | 95.6 | 86.8 | 96.1 | 99.8 | 101.1 | 14.0 | 13.5 | 1.2 | -1.0 |
| 20 | 99.3 | 95.6 | 87.4 | 96.0 | 99.9 | 100.9 | 13.0 | 13.5 | 1.0 | -0.9 |
| 21 | 98.9 | 95.0 | 87.1 | 96.1 | 99.8 | 101.0 | 12.5 | 13.0 | 1.3 | -1.1 |
| 22 | 99.1 | 95.4 | 87.4 | 96.3 | 99.9 | 100.9 | 12.5 | 13.0 | 1.0 | -1.0 |
| 23 | 97.9 | 94.2 | 87.1 | 94.5 | 98.8 | 99.8 | 12.0 | 12.5 | 1.2 | -1.1 |
| 24 | 97.3 | 93.9 | 84.7 | 94.3 | 97.3 | 98.6 | 18.0 | 16.5 | 1.5 | -0.9 |
| Avg. | 98.7 | 95.0 | 86.8 | 95.7 | 99.4 | 100.5 | 13.4 | 13.4 | 1.2 | -1.0 |
| Std Dv | 0.8 | 0.6 | 0.9 | 0.8 | 0.9 | 0.9 | 2.0 | 1.3 | 0.2 | 0.1 |
| TAKEOFF | | | | | | | | | | |
| 8 | - | 85.5 | 75.8 | 87.1 | 87.8 | 89.4 | 20.0 | - | 1.9 | - |
| 9 | 89.5 | 85.9 | 75.5 | 85.3 | 87.1 | 88.8 | 26.5 | 25.5 | 1.7 | -0.7 |
| 10 | 89.0 | 85.2 | 74.9 | 85.7 | 87.1 | 88.5 | 22.0 | 23.0 | 1.4 | -0.7 |
| 11 | 88.6 | 84.9 | 74.9 | 84.9 | 86.4 | 88.1 | 22.0 | 22.5 | 1.7 | -0.8 |
| 12 | 89.9 | 85.9 | 76.2 | 85.9 | 87.9 | 89.5 | 21.5 | 22.5 | 1.6 | -0.7 |
| 13 | 89.7 | 85.6 | 75.6 | 85.8 | 87.7 | 89.2 | 20.5 | 21.0 | 1.8 | -0.9 |
| 14 | 89.3 | 85.6 | 75.3 | 84.6 | 86.9 | 88.6 | 23.0 | 23.0 | 1.7 | -0.8 |
| 15 | 89.3 | 85.5 | 75.8 | 85.4 | 87.3 | 89.0 | 21.0 | 21.5 | 1.7 | -0.7 |
| Avg. | 89.3 | 85.5 | 75.5 | 85.6 | 87.3 | 88.9 | 22.1 | 22.7 | 1.7 | -0.8 |
| Std Dv | 0.4 | 0.3 | 0.4 | 0.7 | 0.5 | 0.5 | 2.0 | 1.4 | 0.1 | 0.1 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.1-2.4

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
9/11/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 4

SIDELINE - 164 M. NORTH

JUNE 22, 1980

| EV | EPNL | NEL | DBA(M) | DASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(F) | TC | /** |
|--|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| 500 FT. FLYBY @ 115 KTS INDICATED AIRSPEED | | | | | | | | | | |
| 27 | 92.9 | 90.1 | 82.2 | 89.9 | 93.3 | 94.8 | 18.0 | 18.0 | 1.6 | -0.9 |
| 30 | 92.5 | 89.7 | 81.9 | 89.5 | 92.9 | 94.1 | 13.0 | 13.0 | 1.2 | -0.7 |
| 33 | 93.3 | 90.5 | 82.6 | 91.2 | 93.6 | 95.4 | 14.5 | 15.5 | 1.8 | -1.0 |
| 36 | 93.4 | 90.6 | 82.7 | 89.3 | 93.7 | 94.9 | 16.0 | 16.5 | 1.2 | -0.8 |
| Avg. | 93.0 | 90.2 | 82.3 | 90.0 | 93.4 | 94.8 | 15.4 | 15.7 | 1.5 | -0.9 |
| Std Dv | 0.4 | 0.4 | 0.4 | 0.9 | 0.4 | 0.5 | 2.1 | 2.1 | 0.3 | 0.1 |
| 500 FT. FLYBY @ 132 KTS INDICATED AIRSPEED | | | | | | | | | | |
| 26 | 93.6 | 90.8 | 83.9 | 92.9 | 94.6 | 96.0 | 11.0 | 14.5 | 1.3 | -0.9 |
| 29 | 95.6 | 92.8 | 85.4 | 92.9 | 96.5 | 97.9 | 13.0 | 15.0 | 1.4 | -1.0 |
| 32 | 94.3 | 91.4 | 84.1 | 91.1 | 95.6 | 97.3 | 12.5 | 13.0 | 1.7 | -0.8 |
| 35 | 94.6 | 91.7 | 84.4 | 92.6 | 95.4 | 96.8 | 12.0 | 14.0 | 1.4 | -1.0 |
| Avg. | 94.5 | 91.7 | 84.5 | 92.4 | 95.5 | 97.0 | 12.1 | 14.1 | 1.5 | -0.9 |
| Std Dv | 0.8 | 0.8 | 0.7 | 0.9 | 0.8 | 0.8 | 0.9 | 0.9 | 0.2 | 0.1 |
| 500 FT. FLYBY @ 152 KTS INDICATED AIRSPEED | | | | | | | | | | |
| 25 | 97.2 | 93.8 | 85.7 | 97.2 | 97.1 | 98.3 | 14.5 | 16.0 | 1.5 | -0.7 |
| 28 | 97.3 | 93.6 | 85.9 | 98.3 | 97.2 | 98.5 | 16.5 | 16.5 | 1.3 | -0.5 |
| 31 | 96.9 | 93.6 | 85.4 | 94.8 | 96.7 | 98.2 | 16.0 | 17.5 | 2.1 | -1.0 |
| 34 | 96.7 | 93.3 | 86.1 | 97.4 | 97.3 | 98.5 | 12.5 | 16.5 | 1.2 | -0.6 |
| Avg. | 97.0 | 93.6 | 85.8 | 96.9 | 97.1 | 98.4 | 14.9 | 16.6 | 1.5 | -0.7 |
| Std Dv | 0.3 | 0.2 | 0.3 | 1.5 | 0.3 | 0.1 | 1.8 | 0.6 | 0.4 | 0.2 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.1-3.4

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
9/11/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 4

SIDELINE - 164 M. NORTH

JUNE 22, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|---|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| 300 FT. FLYBY @ 150 KTS INDICATED AIRSPEED | | | | | | | | | | |
| 43 | 97.4 | 93.7 | 86.9 | 97.4 | 98.2 | 99.5 | 12.0 | 12.0 | 1.6 | -0.9 |
| 44 | 98.9 | 95.2 | 89.8 | 99.3 | 100.9 | 102.4 | 8.0 | 10.5 | 1.7 | -0.8 |
| Avg. | 98.1 | 94.4 | 88.4 | 98.4 | 99.6 | 101.0 | 10.0 | 11.2 | 1.7 | -0.8 |
| Std Dv | 1.0 | 1.1 | 2.0 | 1.4 | 2.0 | 2.0 | 2.8 | 1.1 | 0.1 | 0.1 |
| 700 FT. FLYBY @ 150 KTS INDICATED AIRSPEED | | | | | | | | | | |
| 41 | 97.6 | 95.0 | 87.4 | 97.9 | 98.0 | 99.4 | 13.0 | 13.5 | 1.6 | -0.7 |
| 42 | 95.2 | 92.2 | 84.6 | 96.1 | 95.7 | 96.3 | 14.0 | 17.0 | 0.6 | -0.5 |
| Avg. | 96.4 | 93.6 | 86.0 | 97.0 | 96.8 | 97.8 | 13.5 | 15.2 | 1.1 | -0.6 |
| Std Dv | 1.7 | 2.0 | 2.0 | 1.2 | 1.6 | 2.2 | 0.7 | 2.5 | 0.7 | 0.2 |
| 1000 FT. FLYBY @ 150 KTS INDICATED AIRSPEED | | | | | | | | | | |
| 1 | 92.9 | 89.9 | 80.8 | 93.8 | 91.4 | 92.8 | 17.0 | 21.5 | 1.4 | -0.6 |
| 2 | 95.1 | 92.2 | 83.0 | 93.7 | 93.8 | 95.1 | 17.5 | 18.5 | 1.2 | -0.9 |
| 3 | 93.4 | 90.2 | 81.2 | 93.7 | 91.9 | 92.9 | 18.0 | 23.0 | 1.2 | -0.5 |
| 4 | 95.6 | 93.1 | 83.9 | 93.7 | 93.9 | 95.3 | 17.5 | 19.0 | 1.4 | -0.9 |
| 5 | 93.5 | 90.5 | 80.5 | 93.4 | 91.3 | 92.8 | 20.0 | 24.0 | 1.5 | -0.6 |
| 6 | 96.3 | 93.7 | 84.4 | 94.5 | 95.5 | 96.9 | 17.0 | 16.5 | 1.1 | -0.9 |
| 39 | 95.5 | 92.9 | 84.5 | 94.6 | 94.4 | 95.5 | 18.0 | 21.0 | 1.0 | -0.8 |
| 40 | 93.9 | 90.2 | 81.1 | 93.9 | 92.2 | 93.4 | 18.5 | 27.5 | 1.4 | -0.7 |
| Avg. | 94.5 | 91.6 | 82.4 | 93.9 | 93.1 | 94.3 | 17.9 | 21.4 | 1.3 | -0.7 |
| Std Dv | 1.3 | 1.5 | 1.7 | 0.4 | 1.6 | 1.6 | 1.0 | 3.5 | 0.2 | 0.1 |
| 1500 FT. FLYBY @ 150 KTS INDICATED AIRSPEED | | | | | | | | | | |
| 37 | - | 90.3 | 80.5 | 92.2 | 90.3 | 91.2 | 23.0 | - | 1.0 | - |
| 38 | 90.6 | 87.5 | 76.8 | 92.4 | 87.6 | 88.7 | 25.5 | 32.0 | 1.1 | -0.6 |
| 45 | 94.1 | 91.1 | 80.9 | 94.5 | 91.7 | 92.8 | 33.5 | 35.5 | 1.2 | -0.8 |
| 46 | 91.8 | 88.7 | 78.3 | 92.8 | 89.3 | 91.0 | 25.0 | 26.0 | 1.8 | -0.6 |
| Avg. | 92.2 | 89.4 | 79.1 | 93.0 | 89.7 | 90.9 | 26.7 | 31.2 | 1.3 | -0.6 |
| Std Dv | 1.8 | 1.6 | 1.9 | 1.1 | 1.7 | 1.7 | 4.6 | 4.8 | 0.3 | 0.1 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

TABLE NO. A.1-1.5

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
9/11/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 5

SIDELINE - 150 M. SOUTH

JUNE 22, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|--|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| APPROACH | | | | | | | | | | |
| 16 | 91.7 | 88.2 | 79.9 | 87.5 | 92.2 | 92.9 | 15.0 | 15.5 | 0.9 | -0.4 |
| 17 | 92.2 | 88.4 | 80.5 | 88.4 | 93.1 | 93.9 | 14.5 | 14.0 | 0.9 | -0.4 |
| 18 | 92.0 | 88.2 | 79.5 | 86.9 | 91.9 | 92.8 | 16.0 | 16.5 | 0.9 | -0.5 |
| 19 | 91.7 | 87.9 | 79.1 | 87.1 | 91.4 | 92.1 | 15.5 | 16.5 | 0.9 | -0.3 |
| 20 | 92.4 | 88.5 | 80.5 | 89.4 | 93.7 | 94.4 | 15.0 | 14.0 | 0.8 | -0.4 |
| 21 | 92.2 | 88.3 | 79.9 | 87.9 | 92.4 | 93.2 | 15.0 | 15.5 | 0.9 | -0.4 |
| 22 | 92.6 | 88.6 | 80.2 | 89.1 | 93.3 | 94.1 | 15.5 | 15.0 | 1.3 | -0.4 |
| 23 | 93.0 | 89.1 | 81.7 | 89.7 | 94.4 | 95.4 | 14.0 | 13.5 | 1.1 | -0.5 |
| 24 | 93.4 | 89.5 | 81.0 | 89.1 | 93.6 | 94.8 | 14.5 | 14.5 | 1.2 | -0.3 |
| Avg. | 92.4 | 88.5 | 80.3 | 88.3 | 92.9 | 93.7 | 15.0 | 15.0 | 1.0 | -0.4 |
| Std Dv | 0.6 | 0.5 | 0.8 | 1.0 | 1.0 | 1.1 | 0.6 | 1.1 | 0.2 | 0.1 |
| TAKEOFF | | | | | | | | | | |
| 8 | 89.6 | 85.0 | 75.5 | 86.7 | 88.7 | 90.9 | 16.5 | 15.5 | 2.1 | -1.0 |
| 9 | 88.4 | 84.7 | 74.0 | 82.8 | 86.0 | 88.3 | 28.5 | 22.0 | 2.4 | -0.7 |
| 10 | 88.0 | 84.2 | 73.6 | 83.2 | 86.0 | 87.6 | 23.5 | 20.0 | 2.4 | -0.7 |
| 11 | 87.6 | 83.9 | 72.5 | 81.6 | 84.9 | 86.8 | 36.0 | 33.0 | 2.4 | -0.7 |
| 12 | 88.1 | 84.1 | 73.8 | 83.0 | 85.7 | 87.9 | 23.0 | 22.0 | 2.4 | -0.9 |
| 13 | 89.2 | 84.8 | 74.5 | 84.4 | 86.7 | 89.2 | 20.0 | 19.0 | 2.6 | -1.1 |
| 14 | 88.4 | 84.2 | 73.3 | 82.4 | 85.4 | 87.6 | 23.0 | 22.5 | 2.6 | -0.9 |
| 15 | 88.5 | 84.3 | 73.9 | 83.6 | 86.1 | 88.4 | 23.0 | 22.5 | 2.5 | -0.9 |
| Avg. | 88.5 | 84.4 | 73.9 | 83.5 | 86.2 | 88.3 | 24.2 | 22.1 | 2.4 | -0.9 |
| Std Dv | 0.7 | 0.4 | 0.9 | 1.5 | 1.1 | 1.2 | 5.8 | 5.0 | 0.1 | 0.1 |
| 500 FT. FLYBY @ 100 KTS INDICATED AIRSPEED | | | | | | | | | | |
| 52 | 90.7 | 87.9 | 80.8 | 87.1 | 91.7 | 92.9 | 11.0 | 12.5 | 1.2 | -0.9 |
| Avg. | 90.7 | 87.9 | 80.8 | 87.1 | 91.7 | 92.9 | 11.0 | 12.5 | 1.2 | -0.9 |
| Std Dv | - | - | - | - | - | - | - | - | - | - |

* - INDEXES (A, D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.1-2.5

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC

9/11/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 5

SIDELINE - 150 M. SOUTH

JUNE 22, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|--|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| 500 FT. FLYBY @ 115 KTS INDICATED AIRSPEED | | | | | | | | | | |
| 27 | 93.1 | 90.5 | 81.4 | 88.3 | 92.6 | 93.2 | 17.0 | 20.0 | 0.6 | -0.6 |
| 30 | 93.0 | 90.7 | 83.8 | 89.9 | 94.6 | 95.7 | 12.0 | 12.0 | 1.1 | -0.8 |
| 33 | 93.6 | 90.9 | 82.0 | 88.6 | 93.2 | 94.0 | 16.5 | 18.0 | 0.9 | -0.8 |
| 36 | 91.7 | 89.5 | 81.6 | 88.5 | 92.4 | 93.4 | 17.0 | 17.0 | 1.1 | -0.9 |
| Avg. | 92.9 | 90.4 | 82.2 | 88.8 | 93.2 | 94.1 | 15.6 | 16.7 | 0.9 | -0.8 |
| Std Dv | 0.8 | 0.7 | 1.1 | 0.7 | 1.0 | 1.1 | 2.4 | 3.4 | 0.2 | 0.1 |
| 500 FT. FLYBY @ 132 KTS INDICATED AIRSPEED | | | | | | | | | | |
| 26 | 95.2 | 93.0 | 85.9 | 94.4 | 96.4 | 97.5 | 9.5 | 10.0 | 1.1 | -0.9 |
| 29 | 94.5 | 92.1 | 84.0 | 90.6 | 94.9 | 95.9 | 15.5 | 17.0 | 1.0 | -0.7 |
| 32 | 95.6 | 93.1 | 86.4 | 93.7 | 97.0 | 98.0 | 10.0 | 11.0 | 1.0 | -0.9 |
| 35 | 93.9 | 91.5 | 83.6 | 90.1 | 94.5 | 95.1 | 14.0 | 14.5 | 0.6 | -0.7 |
| Avg. | 94.8 | 92.4 | 85.0 | 92.2 | 95.7 | 96.6 | 12.2 | 13.1 | 0.9 | -0.8 |
| Std Dv | 0.8 | 0.8 | 1.4 | 2.1 | 1.2 | 1.4 | 3.0 | 3.2 | 0.2 | 0.1 |
| 500 FT. FLYBY @ 152 KTS INDICATED AIRSPEED | | | | | | | | | | |
| 25 | 96.2 | 93.4 | 85.2 | 95.2 | 96.0 | 97.0 | 18.0 | 19.0 | 1.1 | -0.6 |
| 28 | 97.2 | 94.2 | 87.0 | 97.0 | 98.1 | 99.5 | 11.0 | 11.5 | 1.4 | -0.9 |
| 31 | 96.1 | 93.5 | 86.3 | 94.8 | 97.4 | 98.4 | 10.0 | 13.5 | 1.0 | -0.6 |
| 34 | 96.9 | 94.2 | 85.9 | 95.3 | 97.1 | 98.8 | 13.5 | 13.5 | 1.9 | -0.9 |
| Avg. | 96.6 | 93.8 | 86.1 | 95.6 | 97.2 | 98.4 | 13.1 | 14.4 | 1.3 | -0.7 |
| Std Dv | 0.5 | 0.4 | 0.8 | 1.0 | 0.9 | 1.1 | 3.6 | 3.2 | 0.4 | 0.2 |
| 500 FT. FLYBY @ 165 KTS INDICATED AIRSPEED | | | | | | | | | | |
| 49 | 96.8 | 93.6 | 86.7 | 97.1 | 97.7 | 98.5 | 10.5 | 15.5 | 0.9 | -0.6 |
| 50 | 97.6 | 94.3 | 88.2 | 97.9 | 99.4 | 100.6 | 9.0 | 10.5 | 1.3 | -0.6 |
| 51 | 95.9 | 92.8 | 85.3 | 96.2 | 96.4 | 97.2 | 11.0 | 17.5 | 0.8 | -0.4 |
| Avg. | 96.8 | 93.6 | 86.7 | 97.1 | 97.8 | 98.7 | 10.2 | 14.5 | 1.0 | -0.6 |
| Std Dv | 0.8 | 0.8 | 1.4 | 0.8 | 1.5 | 1.7 | 1.0 | 3.6 | 0.2 | 0.1 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.1-3.5

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
9/11/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 5

SIDELINE - 150 M. SOUTH

JUNE 22, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|---|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| 300 FT. FLYBY @ 150 KTS INDICATED AIRSPEED | | | | | | | | | | |
| 43 | 97.9 | 94.9 | 89.2 | 96.0 | 100.6 | 102.5 | 7.5 | 9.0 | 1.9 | -0.9 |
| 44 | 96.9 | 93.4 | 86.9 | 95.3 | 98.2 | 100.1 | 9.5 | 9.5 | 1.9 | -0.9 |
| Avg. | 97.4 | 94.2 | 88.1 | 95.7 | 99.4 | 101.3 | 8.5 | 9.2 | 1.9 | -0.9 |
| Std Dv | 0.7 | 1.0 | 1.6 | 0.5 | 1.7 | 1.7 | 1.4 | 0.4 | 0.0 | 0.0 |
| 700 FT. FLYBY @ 150 KTS INDICATED AIRSPEED | | | | | | | | | | |
| 41 | 93.9 | 91.3 | 83.5 | 92.7 | 94.4 | 95.7 | 13.0 | 15.0 | 1.3 | -0.7 |
| 42 | 96.6 | 93.7 | 86.4 | 95.1 | 96.7 | 98.2 | 12.5 | 13.0 | 1.5 | -0.8 |
| Avg. | 95.2 | 92.5 | 84.9 | 93.9 | 95.6 | 97.0 | 12.7 | 14.0 | 1.4 | -0.7 |
| Std Dv | 2.0 | 1.7 | 2.0 | 1.7 | 1.6 | 1.8 | 0.4 | 1.4 | 0.2 | 0.1 |
| 1000 FT. FLYBY @ 150 KTS INDICATED AIRSPEED | | | | | | | | | | |
| 1 | 94.6 | 91.6 | 83.5 | 93.8 | 94.7 | 95.9 | 14.0 | 16.0 | 1.2 | -0.8 |
| 2 | 90.7 | 88.1 | 77.9 | 90.8 | 89.7 | 91.1 | 21.0 | 19.5 | 1.4 | -0.6 |
| 3 | 94.7 | 92.1 | 83.6 | 92.9 | 93.9 | 95.0 | 17.0 | 19.5 | 1.1 | -0.8 |
| 4 | 91.4 | 89.0 | 79.6 | 90.1 | 91.0 | 91.4 | 17.5 | 22.5 | 1.2 | -0.6 |
| 5 | 94.2 | 91.3 | 82.3 | 93.2 | 93.2 | 94.7 | 17.0 | 17.5 | 1.6 | -0.9 |
| 6 | 91.6 | 89.3 | 79.9 | 90.8 | 91.1 | 92.1 | 17.0 | 19.0 | 1.2 | -0.4 |
| 39 | 92.4 | 90.0 | 80.3 | 90.9 | 91.2 | 92.1 | 20.0 | 22.5 | 1.2 | -0.4 |
| 40 | 95.4 | 93.0 | 83.9 | 94.0 | 94.9 | 96.1 | 16.5 | 16.5 | 1.1 | -1.0 |
| 47 | 91.1 | 88.4 | 79.3 | 90.9 | 90.5 | 91.1 | 18.5 | 26.0 | 0.6 | -0.5 |
| 48 | 94.4 | 91.8 | 82.8 | 93.2 | 93.3 | 94.7 | 17.0 | 17.5 | 1.4 | -0.8 |
| Avg. | 93.1 | 90.5 | 81.3 | 92.1 | 92.4 | 93.4 | 17.5 | 19.6 | 1.2 | -0.7 |
| Std Dv | 1.8 | 1.7 | 2.1 | 1.5 | 1.9 | 2.0 | 1.9 | 3.2 | 0.2 | 0.2 |
| 1500 FT. FLYBY @ 150 KTS INDICATED AIRSPEED | | | | | | | | | | |
| 37 | - | 87.3 | 76.4 | 88.4 | 87.3 | 88.4 | 25.5 | - | 1.1 | - |
| 38 | 91.6 | 89.0 | 79.0 | 90.2 | 90.6 | 91.7 | 22.0 | 21.5 | 1.4 | -0.7 |
| 45 | 89.0 | 86.8 | 76.6 | 88.4 | 87.1 | 88.3 | 25.5 | 30.5 | 1.2 | -0.7 |
| 46 | 93.7 | 90.7 | 80.4 | 91.5 | 92.0 | 93.1 | 20.5 | 31.0 | 1.1 | -0.6 |
| Avg. | 91.4 | 88.5 | 78.1 | 89.6 | 89.2 | 90.4 | 23.4 | 27.7 | 1.2 | -0.7 |
| Std Dv | 2.3 | 1.7 | 1.9 | 1.5 | 2.5 | 2.4 | 2.5 | 5.3 | 0.1 | 0.0 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

TABLE NO. A.1-1.5G

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
9/11/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 5G

SIDELINE - 150 M. SOUTH (FLUSH)

JUNE 22, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|----------|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| APPROACH | | | | | | | | | | |
| 16 | 95.1 | 91.9 | 83.8 | 92.0 | 95.6 | 97.0 | 14.0 | 15.5 | 1.4 | 0.1 |
| 17 | 95.8 | 92.3 | 84.4 | 93.2 | 96.4 | 97.9 | 14.0 | 15.0 | 1.5 | -0.1 |
| 18 | 96.0 | 92.4 | 84.1 | 92.1 | 96.1 | 97.7 | 16.0 | 16.0 | 1.8 | -0.2 |
| 19 | 95.7 | 92.2 | 83.6 | 91.7 | 95.5 | 97.0 | 15.5 | 16.5 | 1.5 | 0.0 |
| 20 | 96.1 | 92.7 | 84.4 | 93.2 | 96.6 | 97.6 | 14.5 | 15.0 | 1.3 | 0.1 |
| 21 | 95.8 | 92.3 | 84.3 | 92.9 | 96.4 | 97.9 | 14.5 | 15.0 | 1.5 | 0.0 |
| 22 | 95.9 | 92.5 | 84.7 | 92.4 | 96.6 | 97.8 | 14.5 | 15.0 | 1.3 | 0.1 |
| 23 | 97.2 | 92.7 | 85.6 | 93.7 | 98.8 | 100.3 | 12.5 | 12.5 | 1.5 | -0.1 |
| 24 | 97.5 | 93.4 | 85.4 | 93.9 | 98.7 | 99.8 | 14.0 | 14.0 | 1.1 | 0.1 |
| Avg. | 96.1 | 92.5 | 84.5 | 92.8 | 96.7 | 98.1 | 14.4 | 14.9 | 1.4 | 0.1 |
| Std Dv | 0.7 | 0.4 | 0.7 | 0.8 | 1.2 | 1.2 | 1.0 | 1.2 | 0.2 | 0.2 |

TAKEOFF

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|------|------|-----|------|
| 8 | 96.0 | 91.8 | 82.5 | 91.8 | 94.9 | 97.4 | 15.5 | 14.5 | 2.5 | -0.9 |
| 9 | 91.8 | 87.7 | 77.9 | 88.2 | 90.6 | 93.2 | 18.0 | 16.0 | 2.6 | -0.7 |
| 10 | 91.7 | 87.5 | 77.4 | 87.9 | 89.9 | 92.5 | 18.0 | 17.5 | 2.5 | -0.7 |
| 11 | 90.9 | 87.0 | 76.4 | 86.7 | 88.9 | 91.4 | 20.0 | 18.5 | 2.5 | -0.7 |
| 12 | 91.8 | 87.6 | 77.4 | 88.3 | 90.7 | 93.2 | 19.5 | 17.0 | 2.5 | -0.7 |
| 13 | 92.5 | 88.1 | 78.1 | 88.9 | 91.0 | 93.7 | 18.5 | 16.0 | 2.6 | -0.9 |
| 14 | 91.4 | 87.6 | 77.4 | 87.0 | 89.4 | 91.9 | 21.0 | 19.0 | 2.5 | -0.7 |
| 15 | 91.7 | 87.6 | 77.8 | 88.1 | 90.4 | 93.0 | 19.0 | 18.0 | 2.6 | -0.8 |
| Avg. | 92.2 | 88.1 | 78.1 | 88.4 | 90.7 | 93.3 | 18.7 | 17.1 | 2.5 | -0.8 |
| Std Dv | 1.6 | 1.5 | 1.8 | 1.6 | 1.8 | 1.8 | 1.6 | 1.5 | 0.1 | 0.1 |

500 FT. FLYBY @ 100 KTS INDICATED AIRSPEED

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|------|------|-----|------|
| 52 | 95.4 | 92.6 | 85.3 | 90.8 | 96.5 | 97.9 | 11.0 | 11.5 | 1.5 | -0.6 |
| Avg. | 95.4 | 92.6 | 85.3 | 90.8 | 96.5 | 97.9 | 11.0 | 11.5 | 1.5 | -0.6 |
| Std Dv | - | - | - | - | - | - | - | - | - | - |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.1-2.5G

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC

9/11/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 5G

SIDELINE - 150 M. SOUTH (FLUSH)

JUNE 22, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(F) | TC | /** |
|--|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| 500 FT. FLYBY @ 115 KTS INDICATED AIRSPEED | | | | | | | | | | |
| 27 | 97.3 | 94.7 | 86.3 | 90.9 | 97.4 | 98.2 | 14.0 | 15.0 | 1.0 | -0.4 |
| 30 | 97.4 | 94.8 | 88.1 | 93.3 | 98.8 | 100.3 | 10.5 | 11.5 | 1.5 | -0.7 |
| 33 | 97.6 | 95.2 | 87.3 | 91.1 | 97.9 | 98.9 | 13.5 | 15.5 | 1.0 | -0.4 |
| 36 | 95.7 | 93.4 | 86.3 | 91.4 | 96.4 | 97.5 | 11.0 | 11.5 | 1.4 | -0.6 |
| Avg. | 97.0 | 94.5 | 87.0 | 91.7 | 97.6 | 98.7 | 12.2 | 13.4 | 1.2 | -0.6 |
| Std Dv | 0.9 | 0.8 | 0.9 | 1.1 | 1.0 | 1.2 | 1.8 | 2.2 | 0.3 | 0.2 |

500 FT. FLYBY @ 132 KTS INDICATED AIRSPEED

| | | | | | | | | | | |
|--------|------|------|------|------|-------|-------|------|------|-----|------|
| 26 | 99.0 | 96.5 | 89.7 | 96.0 | 100.5 | 101.8 | 10.0 | 9.5 | 1.5 | -0.8 |
| 29 | 98.7 | 96.5 | 88.9 | 92.6 | 99.6 | 100.3 | 12.5 | 14.0 | 0.9 | -0.3 |
| 32 | 99.2 | 96.7 | 90.5 | 95.9 | 101.2 | 102.7 | 10.0 | 9.5 | 1.4 | -0.7 |
| 35 | 98.4 | 96.1 | 88.6 | 92.2 | 99.7 | 100.3 | 12.5 | 13.5 | 0.6 | -0.3 |
| Avg. | 98.8 | 96.5 | 89.4 | 94.2 | 100.2 | 101.3 | 11.2 | 11.6 | 1.1 | -0.6 |
| Std Dv | 0.4 | 0.3 | 0.9 | 2.1 | 0.8 | 1.2 | 1.4 | 2.5 | 0.4 | 0.3 |

500 FT. FLYBY @ 152 KTS INDICATED AIRSPEED

| | | | | | | | | | | |
|--------|-------|------|------|------|-------|-------|------|------|-----|------|
| 25 | 99.5 | 97.1 | 89.9 | 96.0 | 100.9 | 101.7 | 11.0 | 13.0 | 1.0 | 0.0 |
| 28 | 100.9 | 98.0 | 91.5 | 99.8 | 102.3 | 103.5 | 10.5 | 11.0 | 1.3 | -0.6 |
| 31 | 100.4 | 98.1 | 91.3 | 96.6 | 102.5 | 103.1 | 9.0 | 12.0 | 0.6 | -0.2 |
| 34 | 100.2 | 97.4 | 89.9 | 98.2 | 101.4 | 103.0 | 11.5 | 11.0 | 1.6 | -0.6 |
| Avg. | 100.3 | 97.7 | 90.7 | 97.6 | 101.8 | 102.8 | 10.5 | 11.7 | 1.1 | -0.4 |
| Std Dv | 0.6 | 0.5 | 0.8 | 1.7 | 0.8 | 0.8 | 1.1 | 1.0 | 0.4 | 0.3 |

500 FT. FLYBY @ 165 KTS INDICATED AIRSPEED

| | | | | | | | | | | |
|--------|-------|------|------|-------|-------|-------|------|------|-----|------|
| 49 | 100.9 | 98.2 | 91.8 | 98.9 | 102.7 | 103.4 | 9.0 | 12.0 | 0.7 | -0.4 |
| 50 | 101.6 | 98.5 | 92.7 | 101.1 | 103.5 | 104.7 | 9.0 | 10.0 | 1.3 | -0.5 |
| 51 | 100.1 | 97.5 | 90.2 | 97.6 | 101.3 | 102.2 | 10.0 | 12.5 | 0.9 | -0.3 |
| Avg. | 100.9 | 98.1 | 91.6 | 99.2 | 102.5 | 103.4 | 9.3 | 11.5 | 1.0 | -0.4 |
| Std Dv | 0.7 | 0.5 | 1.2 | 1.8 | 1.2 | 1.3 | 0.6 | 1.3 | 0.3 | 0.1 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.1-3.5G

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
9/11/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 5G

SIDELINE - 150 M. SOUTH (FLUSH)

JUNE 22, 1980

| EV | EPNL | NEL | DBA(M) | DASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|---|-------|------|--------|-------|--------|---------|--------|--------|-----|------|
| 300 FT. FLYBY @ 150 KTS INDICATED AIRSPEED | | | | | | | | | | |
| 43 | 94.9 | 91.9 | 86.8 | 92.2 | 97.9 | 99.0 | 6.5 | 9.0 | 1.1 | -0.6 |
| 44 | 95.5 | 92.2 | 86.4 | 93.5 | 97.5 | 99.1 | 9.0 | 9.0 | 1.6 | -0.6 |
| Avg. | 95.2 | 92.1 | 86.6 | 92.8 | 97.7 | 99.1 | 7.7 | 9.0 | 1.4 | -0.6 |
| Std Dv | 0.4 | 0.2 | 0.2 | 0.9 | 0.3 | 0.0 | 1.8 | 0.0 | 0.3 | 0.0 |
| 700 FT. FLYBY @ 150 KTS INDICATED AIRSPEED | | | | | | | | | | |
| 41 | 98.2 | 96.1 | 88.6 | 94.5 | 99.5 | 100.0 | 12.0 | 13.5 | 0.7 | -0.1 |
| 42 | 100.2 | 97.7 | 91.1 | 97.9 | 101.2 | 102.5 | 12.5 | 13.0 | 1.3 | -0.5 |
| Avg. | 99.2 | 96.9 | 89.9 | 96.2 | 100.4 | 101.3 | 12.2 | 13.2 | 1.0 | -0.3 |
| Std Dv | 1.4 | 1.1 | 1.8 | 2.4 | 1.3 | 1.8 | 0.4 | 0.4 | 0.4 | 0.3 |
| 1000 FT. FLYBY @ 150 KTS INDICATED AIRSPEED | | | | | | | | | | |
| 1 | 97.0 | 94.5 | 87.1 | 95.7 | 97.1 | 98.4 | 13.0 | 15.5 | 1.3 | -0.3 |
| 2 | 93.9 | 91.7 | 82.3 | 92.6 | 93.2 | 94.3 | 17.5 | 19.5 | 1.1 | 0.1 |
| 3 | 97.5 | 95.4 | 87.5 | 95.7 | 97.2 | 98.7 | 15.5 | 17.0 | 1.5 | -0.4 |
| 4 | 97.6 | 96.3 | 86.6 | 92.9 | 96.7 | 97.6 | 16.5 | 18.5 | 1.3 | -0.4 |
| 5 | 99.0 | 96.8 | 89.4 | 96.1 | 99.1 | 100.7 | 14.0 | 15.5 | 1.6 | -0.6 |
| 6 | 98.0 | 96.6 | 87.5 | 93.6 | 97.2 | 98.3 | 14.0 | 18.0 | 1.2 | -0.2 |
| 39 | 96.6 | 94.6 | 85.3 | 93.0 | 96.1 | 97.2 | 17.5 | 19.5 | 1.1 | 0.1 |
| 40 | 98.9 | 96.6 | 87.6 | 96.6 | 97.8 | 98.9 | 16.5 | 18.0 | 1.4 | -0.6 |
| 47 | 95.0 | 93.0 | 83.7 | 92.7 | 94.7 | 95.3 | 17.5 | 19.0 | 0.6 | -0.1 |
| 48 | 97.8 | 95.3 | 87.8 | 96.0 | 97.7 | 99.0 | 14.5 | 16.5 | 1.4 | -0.5 |
| Avg. | 97.1 | 95.1 | 86.5 | 94.5 | 96.7 | 97.8 | 15.6 | 17.7 | 1.3 | -0.3 |
| Std Dv | 1.6 | 1.7 | 2.1 | 1.7 | 1.7 | 1.9 | 1.7 | 1.5 | 0.3 | 0.2 |
| 1500 FT. FLYBY @ 150 KTS INDICATED AIRSPEED | | | | | | | | | | |
| 37 | 93.4 | 91.8 | 81.2 | 90.3 | 92.0 | 92.7 | 24.5 | 25.5 | 0.6 | -0.1 |
| 38 | 95.2 | 92.8 | 82.8 | 92.7 | 93.7 | 94.4 | 21.5 | 23.0 | 0.7 | -0.7 |
| 45 | 93.4 | 91.3 | 81.7 | 91.0 | 92.6 | 93.2 | 17.5 | 30.0 | 0.6 | -0.1 |
| 46 | 98.9 | 97.2 | 88.6 | 94.7 | 98.1 | 99.6 | 18.5 | 19.5 | 1.5 | -0.6 |
| Avg. | 95.2 | 93.3 | 83.6 | 92.2 | 94.1 | 95.0 | 20.5 | 24.5 | 0.9 | -0.4 |
| Std Dv | 2.6 | 2.7 | 3.4 | 2.0 | 2.8 | 3.2 | 3.2 | 4.4 | 0.4 | 0.3 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

TABLE NO. A.1-1.6

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
9/11/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 6

SIDELINE - 284 M. NORTH

JUNE 22, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|--|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| APPROACH | | | | | | | | | | |
| 16 | 91.0 | 88.4 | 78.5 | 87.4 | 90.4 | 90.9 | 20.0 | 20.5 | 0.6 | -0.5 |
| 17 | 91.7 | 88.8 | 80.3 | 88.2 | 91.9 | 93.2 | 19.5 | 19.5 | 1.5 | -0.8 |
| 18 | 91.2 | 88.1 | 78.4 | 87.9 | 90.2 | 91.2 | 21.5 | 21.0 | 1.0 | -0.6 |
| 19 | 92.3 | 89.6 | 80.4 | 88.8 | 91.8 | 92.4 | 18.5 | 19.5 | 0.6 | -0.4 |
| 20 | 93.0 | 90.4 | 81.5 | 88.9 | 92.6 | 94.1 | 17.0 | 17.5 | 1.5 | -0.6 |
| 21 | 91.7 | 89.0 | 81.0 | 88.9 | 92.2 | 93.4 | 17.5 | 17.5 | 1.2 | -0.7 |
| 22 | 93.8 | 91.3 | 83.0 | 90.6 | 94.1 | 94.9 | 18.0 | 19.5 | 0.8 | -0.5 |
| 23 | 92.1 | 89.1 | 81.1 | 89.4 | 92.6 | 93.9 | 16.0 | 16.5 | 1.3 | -0.8 |
| 24 | 92.7 | 89.7 | 78.4 | 88.2 | 90.4 | 92.4 | 29.5 | 27.5 | 2.1 | -0.7 |
| Avg. | 92.2 | 89.4 | 80.3 | 88.7 | 91.8 | 93.0 | 19.7 | 19.9 | 1.2 | -0.6 |
| Std Dv | 0.9 | 1.0 | 1.6 | 0.9 | 1.3 | 1.3 | 4.0 | 3.2 | 0.5 | 0.1 |
| TAKEOFF | | | | | | | | | | |
| 8 | 86.3 | 83.1 | 72.4 | 85.2 | 83.6 | 85.2 | 23.0 | 24.0 | 1.8 | -0.9 |
| 9 | 86.5 | 83.7 | 72.2 | 83.5 | 83.4 | 85.0 | 31.5 | 31.0 | 1.9 | -0.7 |
| 10 | 86.0 | 82.9 | 71.7 | 83.8 | 83.1 | 84.6 | 25.5 | 26.0 | 1.9 | -0.8 |
| 11 | 85.9 | 83.1 | 72.4 | 82.3 | 83.3 | 85.1 | 25.0 | 26.0 | 1.8 | -0.8 |
| 12 | 87.2 | 84.0 | 73.3 | 83.8 | 85.0 | 86.1 | 24.0 | 25.0 | 1.8 | -0.6 |
| 13 | - | 82.0 | 70.9 | 82.4 | 82.9 | 84.0 | 23.0 | - | 1.1 | - |
| 14 | 84.7 | 81.8 | 70.4 | 81.4 | 81.6 | 83.6 | 25.5 | 26.0 | 2.0 | -0.8 |
| 15 | 84.9 | 81.8 | 71.1 | 82.4 | 81.9 | 83.4 | 24.5 | 26.0 | 1.6 | -0.8 |
| Avg. | 85.9 | 82.8 | 71.8 | 83.1 | 83.1 | 84.6 | 25.2 | 26.2 | 1.7 | -0.8 |
| Std Dv | 0.9 | 0.9 | 1.0 | 1.2 | 1.0 | 0.9 | 2.7 | 2.2 | 0.3 | 0.1 |
| 500 FT. FLYBY @ 100 KTS INDICATED AIRSPEED | | | | | | | | | | |
| 52 | 87.8 | 85.5 | 76.4 | 83.7 | 86.5 | 87.8 | 23.0 | 28.5 | 1.4 | -1.0 |
| Avg. | 87.8 | 85.5 | 76.4 | 83.7 | 86.5 | 87.8 | 23.0 | 28.5 | 1.4 | -1.0 |
| Std Dv | - | - | - | - | - | - | - | - | - | - |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.1-2.6

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC

9/11/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 6

SIDELINE - 284 M. NORTH

JUNE 22, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|--|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| 500 FT. FLYBY @ 115 KTS INDICATED AIRSPEED | | | | | | | | | | |
| 27 | 90.1 | 87.4 | 77.7 | 85.0 | 88.1 | 90.0 | 31.0 | 31.0 | 1.8 | -0.6 |
| 30 | 91.1 | 88.8 | 79.1 | 86.3 | 90.0 | 91.9 | 25.0 | 21.0 | 1.9 | -0.5 |
| 33 | 90.8 | 88.2 | 78.6 | 86.5 | 89.0 | 90.5 | 20.0 | 23.0 | 1.5 | -0.6 |
| 36 | 91.5 | 89.1 | 80.6 | 86.9 | 91.4 | 93.1 | 20.0 | 19.5 | 1.7 | -0.9 |
| Avg. | 90.9 | 88.4 | 79.0 | 86.2 | 89.6 | 91.4 | 24.0 | 23.6 | 1.7 | -0.7 |
| Std Dv | 0.6 | 0.7 | 1.2 | 0.8 | 1.4 | 1.4 | 5.2 | 5.1 | 0.2 | 0.1 |
| 500 FT. FLYBY @ 132 KTS INDICATED AIRSPEED | | | | | | | | | | |
| 26 | 92.8 | 90.2 | 81.8 | 88.7 | 92.2 | 93.6 | 14.0 | 21.5 | 1.5 | -0.8 |
| 29 | 93.4 | 90.4 | 80.1 | 90.0 | 91.5 | 93.2 | 20.5 | 24.5 | 1.8 | -0.8 |
| 32 | 92.3 | 89.4 | 80.8 | 88.7 | 91.5 | 93.2 | 20.0 | 29.5 | 1.8 | -0.8 |
| 35 | - | 89.6 | 79.8 | 89.0 | 90.5 | 92.2 | 20.0 | - | 1.8 | - |
| Avg. | 92.8 | 89.9 | 80.6 | 89.1 | 91.4 | 93.1 | 18.6 | 25.2 | 1.7 | -0.8 |
| Std Dv | 0.6 | 0.5 | 0.9 | 0.6 | 0.7 | 0.6 | 3.1 | 4.0 | 0.1 | 0.0 |
| 500 FT. FLYBY @ 152 KTS INDICATED AIRSPEED | | | | | | | | | | |
| 25 | 95.5 | 91.8 | 81.3 | 93.9 | 93.4 | 94.8 | 22.0 | 21.5 | 1.4 | -0.7 |
| 28 | 94.9 | 91.9 | 84.4 | 94.5 | 95.1 | 97.4 | 14.5 | 15.0 | 2.3 | -0.6 |
| 31 | 94.2 | 91.3 | 81.3 | 91.2 | 92.6 | 94.7 | 22.5 | 21.5 | 2.1 | -0.7 |
| 34 | 94.9 | 92.5 | 84.2 | 93.6 | 94.9 | 97.1 | 21.0 | 16.0 | 2.2 | -0.5 |
| Avg. | 94.9 | 91.9 | 82.8 | 93.3 | 94.0 | 96.0 | 20.0 | 18.5 | 2.0 | -0.6 |
| Std Dv | 0.5 | 0.5 | 1.8 | 1.5 | 1.2 | 1.4 | 3.7 | 3.5 | 0.4 | 0.1 |
| 500 FT. FLYBY @ 165 KTS INDICATED AIRSPEED | | | | | | | | | | |
| 49 | - | 90.7 | 82.3 | 94.5 | 93.1 | 95.0 | 18.0 | - | 1.9 | - |
| 50 | 94.6 | 91.6 | 84.3 | 93.7 | 94.5 | 95.9 | 12.5 | 15.5 | 1.4 | -0.5 |
| 51 | 94.2 | 90.0 | 81.1 | 94.1 | 93.1 | 94.8 | 22.0 | 21.5 | 1.7 | -0.6 |
| Avg. | 94.4 | 90.8 | 82.6 | 94.1 | 93.6 | 95.2 | 17.5 | 18.5 | 1.7 | -0.6 |
| Std Dv | 0.3 | 0.8 | 1.6 | 0.4 | 0.8 | 0.6 | 4.8 | 4.2 | 0.2 | 0.1 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.1-3.6

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
9/11/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 6

SIDELINE - 284 M. NORTH

JUNE 22, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|---|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| 300 FT. FLYBY @ 150 KTS INDICATED AIRSPEED | | | | | | | | | | |
| 43 | 94.3 | 90.4 | 82.8 | 93.7 | 93.8 | 94.8 | 16.5 | 17.0 | 1.0 | -0.4 |
| 44 | 95.0 | 92.5 | 84.6 | 92.8 | 95.6 | 97.4 | 15.0 | 14.0 | 1.8 | -0.4 |
| Avg. | 94.6 | 91.5 | 83.7 | 93.3 | 94.7 | 96.1 | 15.7 | 15.5 | 1.4 | -0.4 |
| Std Dv | 0.5 | 1.5 | 1.3 | 0.7 | 1.3 | 1.8 | 1.1 | 2.1 | 0.6 | 0.0 |
| 700 FT. FLYBY @ 150 KTS INDICATED AIRSPEED | | | | | | | | | | |
| 41 | 94.2 | 90.9 | 82.2 | 93.0 | 93.6 | 95.3 | 19.0 | 18.5 | 1.7 | -0.9 |
| 42 | 92.9 | 90.4 | 82.6 | 91.8 | 93.1 | 94.0 | 15.0 | 17.5 | 1.0 | -0.7 |
| Avg. | 93.6 | 90.6 | 82.4 | 92.4 | 93.3 | 94.7 | 17.0 | 18.0 | 1.4 | -0.8 |
| Std Dv | 0.9 | 0.3 | 0.3 | 0.8 | 0.4 | 0.9 | 2.8 | 0.7 | 0.5 | 0.1 |
| 1000 FT. FLYBY @ 150 KTS INDICATED AIRSPEED | | | | | | | | | | |
| 1 | 90.8 | 88.0 | 78.3 | 90.4 | 89.6 | 90.6 | 18.5 | 23.0 | 0.9 | -0.8 |
| 2 | 91.8 | 88.7 | 77.8 | 90.6 | 89.4 | 91.1 | 24.0 | 23.0 | 2.0 | -0.9 |
| 3 | 91.4 | 88.6 | 78.6 | 91.6 | 89.7 | 90.6 | 21.0 | 24.0 | 0.9 | -0.7 |
| 4 | 92.7 | 90.1 | 79.5 | 90.3 | 90.1 | 91.3 | 23.0 | 23.5 | 1.2 | -0.9 |
| 5 | 91.2 | 88.7 | 79.0 | 91.1 | 89.8 | 90.8 | 21.5 | 23.5 | 1.1 | -0.9 |
| 6 | 92.8 | 90.0 | 79.3 | 90.8 | 90.7 | 92.3 | 22.0 | 22.5 | 1.6 | -0.9 |
| 39 | 93.3 | 90.7 | 80.5 | 92.0 | 91.2 | 92.3 | 23.5 | 26.5 | 1.1 | -0.7 |
| 40 | 90.9 | 88.3 | 78.9 | 89.8 | 90.0 | 90.9 | 21.0 | 23.5 | 0.9 | -0.7 |
| 47 | 91.6 | 88.6 | 78.8 | 90.3 | 90.0 | 91.9 | 26.5 | 25.0 | 2.0 | -0.8 |
| 48 | 89.9 | 87.1 | 77.5 | 89.7 | 88.7 | 89.8 | 18.0 | 24.0 | 1.1 | -0.6 |
| Avg. | 91.7 | 88.9 | 78.8 | 90.7 | 89.9 | 91.2 | 21.9 | 23.8 | 1.3 | -0.8 |
| Std Dv | 1.1 | 1.1 | 0.9 | 0.7 | 0.7 | 0.8 | 2.5 | 1.2 | 0.4 | 0.1 |
| 1500 FT. FLYBY @ 150 KTS INDICATED AIRSPEED | | | | | | | | | | |
| 37 | 92.4 | 90.0 | 79.0 | 91.1 | 89.9 | 91.0 | 29.0 | 29.5 | 1.2 | -1.0 |
| 38 | - | 86.6 | 76.2 | 89.6 | 86.4 | 87.8 | 27.5 | - | 1.4 | - |
| 45 | 92.5 | 90.3 | 79.9 | 90.1 | 89.9 | 91.2 | 31.5 | 33.0 | 1.3 | -0.9 |
| 46 | - | 87.2 | 77.7 | 90.0 | 87.7 | 88.4 | 22.0 | - | 1.6 | - |
| Avg. | 92.5 | 88.5 | 78.2 | 90.2 | 88.5 | 89.6 | 27.5 | 31.3 | 1.4 | -1.0 |
| Std Dv | 0.1 | 1.9 | 1.6 | 0.6 | 1.7 | 1.7 | 4.0 | 2.5 | 0.2 | 0.1 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

TABLE I

Summary of the results

| Case | Year | Age | Sex | Occupation | Duration of illness | Site of lesion | Microscopic findings | Diagnosis |
|------|------|-----|-----|------------|---------------------|----------------|----------------------|-----------|
| 1 | 1952 | 45 | M | Farmer | 10 years | Brain | ... | ... |
| 2 | 1953 | 55 | F | Housewife | 5 years | Brain | ... | ... |
| 3 | 1954 | 60 | M | Teacher | 8 years | Brain | ... | ... |
| 4 | 1955 | 40 | F | Shopkeeper | 3 years | Brain | ... | ... |
| 5 | 1956 | 50 | M | Engineer | 7 years | Brain | ... | ... |
| 6 | 1957 | 65 | F | Retired | 12 years | Brain | ... | ... |
| 7 | 1958 | 35 | M | Student | 2 years | Brain | ... | ... |
| 8 | 1959 | 48 | F | Teacher | 6 years | Brain | ... | ... |
| 9 | 1960 | 52 | M | Farmer | 9 years | Brain | ... | ... |
| 10 | 1961 | 68 | F | Housewife | 15 years | Brain | ... | ... |
| 11 | 1962 | 38 | M | Engineer | 4 years | Brain | ... | ... |
| 12 | 1963 | 58 | F | Teacher | 11 years | Brain | ... | ... |
| 13 | 1964 | 42 | M | Shopkeeper | 5 years | Brain | ... | ... |
| 14 | 1965 | 62 | F | Retired | 13 years | Brain | ... | ... |
| 15 | 1966 | 32 | M | Student | 3 years | Brain | ... | ... |
| 16 | 1967 | 47 | F | Teacher | 7 years | Brain | ... | ... |
| 17 | 1968 | 53 | M | Farmer | 10 years | Brain | ... | ... |
| 18 | 1969 | 67 | F | Housewife | 14 years | Brain | ... | ... |
| 19 | 1970 | 37 | M | Engineer | 4 years | Brain | ... | ... |
| 20 | 1971 | 57 | F | Teacher | 11 years | Brain | ... | ... |
| 21 | 1972 | 41 | M | Shopkeeper | 5 years | Brain | ... | ... |
| 22 | 1973 | 61 | F | Retired | 13 years | Brain | ... | ... |
| 23 | 1974 | 31 | M | Student | 3 years | Brain | ... | ... |
| 24 | 1975 | 46 | F | Teacher | 7 years | Brain | ... | ... |
| 25 | 1976 | 54 | M | Farmer | 10 years | Brain | ... | ... |
| 26 | 1977 | 66 | F | Housewife | 14 years | Brain | ... | ... |
| 27 | 1978 | 36 | M | Engineer | 4 years | Brain | ... | ... |
| 28 | 1979 | 56 | F | Teacher | 11 years | Brain | ... | ... |
| 29 | 1980 | 43 | M | Shopkeeper | 5 years | Brain | ... | ... |
| 30 | 1981 | 63 | F | Retired | 13 years | Brain | ... | ... |

Continued on next page

| Case | Year | Age | Sex | Occupation | Duration of illness | Site of lesion | Microscopic findings | Diagnosis |
|------|------|-----|-----|------------|---------------------|----------------|----------------------|-----------|
| 31 | 1982 | 33 | M | Student | 3 years | Brain | ... | ... |
| 32 | 1983 | 44 | F | Teacher | 7 years | Brain | ... | ... |
| 33 | 1984 | 51 | M | Farmer | 9 years | Brain | ... | ... |
| 34 | 1985 | 64 | F | Housewife | 14 years | Brain | ... | ... |
| 35 | 1986 | 34 | M | Engineer | 4 years | Brain | ... | ... |
| 36 | 1987 | 54 | F | Teacher | 11 years | Brain | ... | ... |
| 37 | 1988 | 45 | M | Shopkeeper | 5 years | Brain | ... | ... |
| 38 | 1989 | 65 | F | Retired | 13 years | Brain | ... | ... |
| 39 | 1990 | 35 | M | Student | 3 years | Brain | ... | ... |
| 40 | 1991 | 49 | F | Teacher | 7 years | Brain | ... | ... |

TABLE NO. A.2-1.1

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
9/26/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 1

CENTERLINE - CENTER

JUNE 23, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|----------|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| APPROACH | | | | | | | | | | |
| 34 | 93.7 | 90.7 | 81.2 | 91.2 | 94.3 | 95.5 | 24.5 | 15.0 | 1.3 | -0.7 |
| 36 | 95.3 | 91.8 | 85.4 | 93.9 | 97.9 | 98.9 | 10.5 | 10.0 | 0.8 | -0.9 |
| 40 | 96.4 | 93.1 | 86.3 | 93.5 | 97.6 | 99.1 | 15.5 | 16.0 | 1.7 | -1.1 |
| 42 | 95.8 | 92.6 | 85.4 | 93.2 | 97.0 | 98.0 | 14.5 | 15.0 | 1.0 | -0.9 |
| 44 | 94.4 | 91.5 | 84.4 | 92.5 | 96.4 | 96.9 | 16.0 | 16.5 | 0.5 | -0.8 |
| 54 | 95.2 | 91.9 | 86.8 | 93.6 | 98.6 | 99.8 | 10.0 | 12.5 | 1.2 | -1.1 |
| 56 | 96.1 | 93.1 | 86.8 | 93.8 | 98.6 | 99.9 | 10.5 | 11.0 | 1.4 | -0.7 |
| Avg. | 95.3 | 92.1 | 85.2 | 93.1 | 97.2 | 98.3 | 14.5 | 13.7 | 1.1 | -0.9 |
| Std Dv | 0.9 | 0.9 | 2.0 | 0.9 | 1.5 | 1.6 | 5.1 | 2.5 | 0.4 | 0.2 |
| TAKEOFF | | | | | | | | | | |
| 33 | 88.1 | 84.6 | 75.3 | 79.6 | 86.7 | 88.6 | 18.0 | 17.5 | 2.0 | -1.6 |
| 35 | 87.9 | 84.7 | 76.6 | 80.1 | 87.8 | 89.6 | 13.5 | 13.5 | 2.2 | -1.4 |
| 37 | 87.9 | 84.6 | 76.0 | 80.5 | 87.5 | 89.7 | 14.5 | 13.5 | 2.2 | -1.4 |
| 39 | - | 85.0 | 76.9 | 80.2 | 88.2 | 89.9 | 13.0 | - | 1.7 | - |
| 41 | 88.0 | 85.0 | 76.9 | 80.8 | 88.3 | 90.2 | 14.0 | 13.5 | 1.9 | -1.4 |
| 43 | 88.0 | 84.8 | 76.5 | 80.4 | 88.0 | 89.9 | 13.5 | 12.5 | 2.3 | -1.4 |
| 53 | 86.7 | 83.8 | 75.3 | 78.0 | 86.3 | 88.1 | 15.0 | 14.5 | 2.3 | -1.4 |
| 55 | 85.6 | 82.7 | 73.9 | 77.3 | 84.7 | 86.3 | 16.5 | 16.5 | 1.6 | -1.3 |
| Avg. | 87.5 | 84.4 | 75.9 | 79.6 | 87.2 | 89.0 | 14.7 | 12.7 | 2.0 | -1.4 |
| Std Dv | 0.9 | 0.8 | 1.0 | 1.3 | 1.2 | 1.3 | 1.7 | 5.4 | 0.3 | 0.1 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.2-2.1

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
9/26/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 1

CENTERLINE - CENTER

JUNE 23, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|---|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| 500 FT. FLYOVER - TARGET AIRSPEED 93 KTS | | | | | | | | | | |
| 21 | 87.6 | 85.1 | 76.0 | 81.8 | 87.9 | 89.0 | 19.0 | 17.0 | 1.1 | -0.9 |
| 22 | 89.8 | 87.3 | 81.9 | 88.4 | 93.4 | 94.0 | 9.0 | 8.5 | 0.6 | -0.9 |
| 23 | 87.8 | 85.1 | 76.1 | 83.0 | 88.0 | 89.1 | 16.0 | 14.5 | 1.1 | -0.8 |
| 24 | 89.9 | 87.0 | 80.9 | 88.1 | 92.3 | 93.1 | 10.5 | 11.0 | 2.2 | -1.0 |
| Avg. | 88.8 | 86.1 | 78.7 | 85.3 | 90.4 | 91.3 | 13.6 | 12.7 | 1.3 | -0.9 |
| Std Dv | 1.2 | 1.2 | 3.1 | 3.5 | 2.9 | 2.6 | 4.7 | 3.8 | 0.7 | 0.1 |
| 500 FT. FLYOVER - TARGET AIRSPEED 109 KTS | | | | | | | | | | |
| 29 | 86.9 | 84.4 | 76.1 | 80.8 | 88.2 | 89.2 | 15.0 | 13.5 | 1.1 | -0.9 |
| 30 | 85.2 | 82.7 | 75.4 | 81.3 | 87.2 | 88.5 | 10.5 | 9.5 | 1.3 | -0.9 |
| 31 | 85.9 | 83.4 | 75.4 | 80.2 | 87.1 | 88.2 | 14.5 | 14.0 | 1.1 | -0.9 |
| 32 | 84.3 | 81.5 | 74.3 | 79.5 | 86.1 | 87.4 | 13.0 | 12.0 | 1.3 | -1.0 |
| Avg. | 85.6 | 83.0 | 75.3 | 80.5 | 87.2 | 88.4 | 13.2 | 12.2 | 1.2 | -0.9 |
| Std Dv | 1.1 | 1.2 | 0.8 | 0.8 | 0.8 | 0.8 | 2.0 | 2.0 | 0.1 | 0.1 |
| 500 FT. FLYOVER - TARGET AIRSPEED 124 KTS | | | | | | | | | | |
| 49 | 87.0 | 84.4 | 78.6 | 87.2 | 90.1 | 91.2 | 8.5 | 8.5 | 1.2 | -0.9 |
| 50 | 87.5 | 84.9 | 77.7 | 84.9 | 89.4 | 90.8 | 12.0 | 11.0 | 1.3 | -0.9 |
| 51 | 86.0 | 83.3 | 76.2 | 84.9 | 87.2 | 88.9 | 12.5 | 12.0 | 1.7 | -1.1 |
| 52 | 86.2 | 83.7 | 76.8 | 85.5 | 88.0 | 89.3 | 10.5 | 10.0 | 1.2 | -0.9 |
| Avg. | 86.7 | 84.1 | 77.3 | 85.6 | 88.7 | 90.0 | 10.9 | 10.4 | 1.4 | -0.9 |
| Std Dv | 0.7 | 0.7 | 1.0 | 1.1 | 1.3 | 1.1 | 1.8 | 1.5 | 0.2 | 0.1 |
| 500 FT. FLYOVER - TARGET AIRSPEED 140 KTS | | | | | | | | | | |
| 17 | 89.5 | 86.7 | 79.7 | 90.8 | 91.4 | 92.0 | 11.5 | 12.0 | 0.7 | -0.8 |
| 18 | 88.1 | 85.4 | 80.8 | 93.6 | 92.6 | 93.8 | 6.5 | 6.0 | 1.3 | -0.7 |
| 19 | 88.7 | 86.2 | 79.1 | 90.6 | 89.9 | 91.0 | 11.0 | 12.5 | 1.2 | -1.0 |
| 20 | 86.9 | 84.3 | 79.1 | 92.4 | 90.4 | 91.6 | 7.0 | 7.0 | 1.2 | -0.7 |
| Avg. | 88.3 | 85.7 | 79.7 | 91.9 | 91.0 | 92.1 | 9.0 | 9.4 | 1.1 | -0.8 |
| Std Dv | 1.1 | 1.0 | 0.8 | 1.4 | 1.2 | 1.2 | 2.6 | 3.4 | 0.3 | 0.1 |
| 500 FT. FLYOVER - TARGET AIRSPEED 155 KTS | | | | | | | | | | |
| 25 | 89.3 | 86.7 | 79.9 | 94.6 | 92.1 | 92.9 | 9.5 | 9.5 | 0.8 | -0.6 |
| 26 | 90.0 | 86.9 | 80.4 | 98.9 | 93.1 | 94.1 | 8.0 | 8.0 | 0.9 | -0.8 |
| 27 | 92.3 | 89.1 | 83.8 | 98.9 | 96.6 | 97.0 | 7.5 | 7.5 | 0.4 | -0.4 |
| 28 | 91.2 | 88.3 | 82.8 | 100.2 | 95.1 | 95.8 | 6.5 | 6.5 | 0.8 | -0.5 |
| Avg. | 90.7 | 87.8 | 81.7 | 98.2 | 94.2 | 94.9 | 7.9 | 7.9 | 0.7 | -0.6 |
| Std Dv | 1.3 | 1.1 | 1.9 | 2.5 | 2.0 | 1.8 | 1.2 | 1.2 | 0.2 | 0.2 |

TABLE NO. A.2-3.1

SIKORSKY S-76 SPIRIT HELICOPTER

DDT/TSE
9/29/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 1

CENTERLINE - CENTER

JUNE 23, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | △** |
|---|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| 300 FT. FLYOVER - TARGET AIRSPEED 140 KTS | | | | | | | | | | |
| 9 | 91.4 | 88.6 | 83.0 | 94.2 | 94.8 | 95.9 | 7.5 | 7.5 | 1.3 | -0.7 |
| 10 | 90.3 | 87.5 | 83.5 | 95.9 | 95.5 | 96.3 | 5.5 | 5.0 | 1.0 | -0.6 |
| 15 | 91.3 | 88.3 | 83.8 | 94.8 | 95.6 | 96.8 | 6.5 | 6.0 | 1.2 | -1.0 |
| 16 | 91.3 | 88.3 | 84.6 | 95.3 | 96.7 | 97.8 | 5.0 | 4.5 | 1.1 | -0.6 |
| Avg. | 91.1 | 88.2 | 83.7 | 95.0 | 95.6 | 96.7 | 6.1 | 5.7 | 1.1 | -0.7 |
| Std Dv | 0.5 | 0.5 | 0.7 | 0.7 | 0.8 | 0.8 | 1.1 | 1.3 | 0.1 | 0.2 |

700 FT. FLYOVER - TARGET AIRSPEED 140 KTS

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|------|------|-----|------|
| 7 | 86.3 | 84.1 | 75.0 | 87.9 | 85.6 | 86.8 | 20.0 | 20.5 | 1.1 | -0.9 |
| 8 | 86.9 | 85.1 | 77.9 | 90.3 | 88.7 | 90.2 | 10.0 | 9.5 | 1.6 | -0.9 |
| 13 | 86.3 | 84.3 | 76.4 | 87.9 | 86.8 | 88.1 | 14.0 | 14.5 | 1.2 | -0.8 |
| 14 | 86.9 | 84.8 | 78.7 | 90.6 | 89.4 | 90.8 | 9.0 | 9.0 | 1.4 | -0.7 |
| Avg. | 86.6 | 84.6 | 77.0 | 89.2 | 87.6 | 89.0 | 13.2 | 13.4 | 1.3 | -0.8 |
| Std Dv | 0.4 | 0.4 | 1.6 | 1.5 | 1.7 | 1.9 | 5.0 | 5.4 | 0.2 | 0.1 |

1000 FT. FLYOVER - TARGET AIRSPEED 140 KTS

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|------|------|-----|------|
| 45 | 82.8 | 81.1 | 72.8 | 88.4 | 83.3 | 84.6 | 13.5 | 14.0 | 1.3 | -0.8 |
| 46 | 83.2 | 81.3 | 72.5 | 87.5 | 82.9 | 84.2 | 19.0 | 22.0 | 1.3 | -0.9 |
| 47 | 83.1 | 81.4 | 73.5 | 88.2 | 83.5 | 84.8 | 13.5 | 14.0 | 1.0 | -0.7 |
| 48 | 84.3 | 82.5 | 74.1 | 87.6 | 84.4 | 85.5 | 16.0 | 18.5 | 1.1 | -0.8 |
| 1 | 85.4 | 83.5 | 74.2 | 86.9 | 85.0 | 86.0 | 20.5 | 21.0 | 1.0 | -0.8 |
| 2 | 84.2 | 82.3 | 74.0 | 90.4 | 85.1 | 86.5 | 13.5 | 13.0 | 1.4 | -0.6 |
| 3 | 85.0 | 83.0 | 74.0 | 86.6 | 84.4 | 85.6 | 23.0 | 23.5 | 1.5 | -0.7 |
| 4 | 83.9 | 82.0 | 74.3 | 88.9 | 84.6 | 85.8 | 14.0 | 14.5 | 1.2 | -0.7 |
| Avg. | 84.0 | 82.1 | 73.7 | 88.1 | 84.2 | 85.4 | 16.6 | 17.6 | 1.2 | -0.8 |
| Std Dv | 0.9 | 0.8 | 0.7 | 1.2 | 0.8 | 0.8 | 3.7 | 4.2 | 0.2 | 0.1 |

1500 FT. FLYOVER - TARGET AIRSPEED 140 KTS

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|------|------|-----|------|
| 5 | 81.5 | 80.2 | 69.0 | 85.3 | 79.2 | 80.3 | 33.5 | 33.0 | 1.2 | -0.6 |
| 6 | 80.8 | 79.6 | 71.8 | 85.7 | 81.4 | 82.9 | 17.0 | 17.0 | 1.5 | -0.7 |
| 11 | 81.2 | 79.6 | 69.8 | 84.7 | 80.4 | 81.1 | 22.5 | 27.5 | 0.7 | -0.9 |
| 12 | 80.6 | 79.0 | 68.9 | 85.6 | 79.5 | 80.9 | 19.5 | 18.0 | 1.4 | -0.8 |
| Avg. | 81.0 | 79.6 | 69.9 | 85.3 | 80.1 | 81.3 | 23.1 | 23.9 | 1.2 | -0.8 |
| Std Dv | 0.4 | 0.5 | 1.4 | 0.5 | 1.0 | 1.1 | 7.3 | 7.7 | 0.3 | 0.1 |

TABLE NO. A.2-4.1

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
9/26/80

SUMMARY NOISE LEVEL DATA - MAIN ROTOR RPM 107%

AS MEASURED *

SITE: 1

CENTERLINE - CENTER

JUNE 23, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|----------|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| APPROACH | | | | | | | | | | |
| 69 | 96.3 | 93.1 | 85.4 | 93.8 | 97.5 | 98.6 | 14.0 | 14.0 | 1.2 | -0.8 |
| 70 | 95.7 | 92.8 | 84.4 | 92.2 | 96.6 | 97.2 | 14.0 | 14.0 | 0.7 | -0.7 |
| Avg. | 96.0 | 93.0 | 84.9 | 93.0 | 97.0 | 97.9 | 14.0 | 14.0 | 0.9 | -0.7 |
| Std Dv | 0.4 | 0.2 | 0.7 | 1.1 | 0.6 | 1.0 | 0.0 | 0.0 | 0.4 | 0.1 |

500 FT. FLYOVER - TARGET AIRSPEED 93 KTS

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|------|------|-----|------|
| 61 | 88.0 | 85.4 | 78.0 | 84.0 | 89.9 | 91.4 | 15.0 | 12.0 | 1.6 | -0.8 |
| 62 | 90.0 | 87.1 | 79.4 | 84.4 | 91.2 | 92.5 | 12.5 | 12.0 | 1.3 | -0.9 |
| 63 | 88.4 | 85.4 | 77.6 | 83.8 | 89.7 | 91.3 | 12.0 | 11.5 | 1.6 | -0.9 |
| 64 | 89.4 | 86.9 | 78.8 | 86.0 | 90.6 | 91.9 | 21.0 | 14.5 | 1.3 | -0.7 |
| Avg. | 89.0 | 86.2 | 78.5 | 84.6 | 90.3 | 91.8 | 15.1 | 12.5 | 1.4 | -0.8 |
| Std Dv | 0.9 | 0.9 | 0.8 | 1.0 | 0.7 | 0.5 | 4.1 | 1.4 | 0.2 | 0.1 |

500 FT. FLYOVER - TARGET AIRSPEED 140 KTS

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|-----|-----|-----|------|
| 57 | 89.6 | 87.0 | 81.8 | 92.7 | 92.8 | 94.4 | 7.5 | 7.5 | 1.6 | -0.9 |
| 58 | 91.9 | 89.3 | 83.0 | 92.6 | 94.4 | 96.1 | 9.0 | 8.5 | 1.7 | -1.1 |
| 59 | 91.2 | 88.6 | 83.6 | 93.4 | 94.5 | 96.1 | 6.5 | 6.5 | 1.6 | -1.0 |
| 60 | 91.0 | 88.6 | 82.6 | 92.5 | 93.2 | 94.7 | 9.0 | 9.5 | 1.5 | -1.1 |
| Avg. | 90.9 | 88.4 | 82.8 | 92.8 | 93.7 | 95.3 | 8.0 | 8.0 | 1.6 | -1.0 |
| Std Dv | 1.0 | 1.0 | 0.7 | 0.4 | 0.9 | 0.9 | 1.2 | 1.3 | 0.1 | 0.1 |

500 FT. FLYOVER - TARGET AIRSPEED 155 KTS

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|-----|------|-----|------|
| 65 | - | 84.4 | 81.3 | 95.1 | 93.0 | 94.3 | 4.0 | - | 1.4 | - |
| 66 | 93.1 | 89.5 | 83.7 | 97.8 | 96.1 | 97.3 | 9.5 | 10.0 | 1.2 | -0.7 |
| 67 | 91.7 | 88.5 | 83.3 | 97.6 | 95.1 | 96.0 | 6.5 | 8.5 | 0.9 | -0.7 |
| 68 | 91.8 | 88.5 | 82.8 | 97.5 | 94.7 | 96.1 | 8.0 | 8.5 | 1.4 | -0.7 |
| Avg. | 92.2 | 87.7 | 82.8 | 97.0 | 94.7 | 95.9 | 7.0 | 6.7 | 1.2 | -0.7 |
| Std Dv | 0.8 | 2.3 | 1.1 | 1.3 | 1.3 | 1.2 | 2.3 | 4.6 | 0.2 | 0.0 |

* - INDEXES (A,D, ,ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

TABLE NO. A.2-1.1G

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
10/ 2/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 1G

CENTERLINE-CENTER (FLUSH)

JUNE 23, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|----------|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| APPROACH | | | | | | | | | | |
| 34 | 96.6 | 93.6 | 85.1 | 93.9 | 97.2 | 98.2 | 15.5 | 15.0 | 1.0 | -0.4 |
| 36 | 98.5 | 95.5 | 88.6 | 96.6 | 100.5 | 101.7 | 11.5 | 11.0 | 1.1 | -0.6 |
| 40 | 99.0 | 96.4 | 89.2 | 96.5 | 100.2 | 101.5 | 14.0 | 14.5 | 1.2 | -0.6 |
| 42 | 98.7 | 96.1 | 88.8 | 95.9 | 99.7 | 100.7 | 14.0 | 14.0 | 1.0 | -0.4 |
| 44 | 97.5 | 94.9 | 88.4 | 96.1 | 99.8 | 100.4 | 11.5 | 12.5 | 0.6 | -0.3 |
| 54 | 99.6 | 97.3 | 90.9 | 97.1 | 102.4 | 102.7 | 14.0 | 15.0 | 0.4 | -0.4 |
| 56 | 98.7 | 96.6 | 90.4 | 97.0 | 101.3 | 101.7 | 10.0 | 11.5 | 0.4 | -0.2 |
| Avg. | 98.4 | 95.8 | 88.8 | 96.1 | 100.2 | 101.0 | 12.9 | 13.4 | 0.8 | -0.4 |
| Std Dv | 1.0 | 1.2 | 1.9 | 1.1 | 1.6 | 1.4 | 1.9 | 1.7 | 0.4 | 0.2 |
| TAKEOFF | | | | | | | | | | |
| 33 | 91.3 | 88.2 | 78.5 | 84.3 | 89.7 | 91.7 | 17.5 | 18.0 | 2.0 | -1.3 |
| 35 | 91.1 | 88.4 | 80.2 | 85.0 | 91.0 | 92.3 | 14.0 | 15.0 | 1.3 | -1.0 |
| 37 | 91.1 | 88.2 | 79.5 | 84.9 | 90.4 | 92.3 | 14.0 | 14.5 | 1.9 | -1.2 |
| 39 | - | 88.8 | 80.4 | 84.6 | 91.2 | 93.1 | 13.5 | - | 1.9 | - |
| 41 | 91.2 | 88.6 | 80.6 | 84.9 | 91.3 | 93.4 | 14.0 | 14.5 | 2.1 | -1.2 |
| 43 | 91.2 | 88.5 | 80.5 | 84.7 | 91.0 | 92.9 | 13.5 | 15.0 | 1.9 | -1.1 |
| 53 | 90.0 | 87.5 | 79.0 | 82.7 | 89.4 | 91.1 | 14.5 | 15.5 | 1.7 | -0.9 |
| 55 | 89.2 | 86.7 | 77.8 | 82.0 | 88.0 | 89.9 | 16.5 | 17.0 | 1.9 | -1.0 |
| Avg. | 90.7 | 88.1 | 79.6 | 84.1 | 90.2 | 92.1 | 14.7 | 13.7 | 1.8 | -1.1 |
| Std Dv | 0.8 | 0.7 | 1.1 | 1.1 | 1.2 | 1.2 | 1.5 | 5.7 | 0.2 | 0.1 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.2-2.1G

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
10/ 2/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 1G

CENTERLINE-CENTER (FLUSH)

JUNE 23, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|---|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 93 KTS | | | | | | | | | | |
| 21 | 91.5 | 89.2 | 79.7 | 86.4 | 91.6 | 92.4 | 19.0 | 18.0 | 0.8 | -0.2 |
| 22 | 92.9 | 90.3 | 84.9 | 90.5 | 96.4 | 97.0 | 9.0 | 9.5 | 0.6 | -0.5 |
| 23 | 91.4 | 88.9 | 79.9 | 85.8 | 91.9 | 92.8 | 17.0 | 15.5 | 0.9 | -0.4 |
| 24 | 93.4 | 90.7 | 84.7 | 91.2 | 96.0 | 97.3 | 11.0 | 10.5 | 1.2 | -0.6 |
| Avs. | 92.3 | 89.8 | 82.3 | 88.4 | 94.0 | 94.9 | 14.0 | 13.4 | 0.9 | -0.4 |
| Std Dv | 1.0 | 0.9 | 2.9 | 2.8 | 2.6 | 2.6 | 4.8 | 4.0 | 0.3 | 0.2 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 109 KTS | | | | | | | | | | |
| 29 | 90.7 | 88.0 | 79.9 | 84.6 | 91.7 | 92.9 | 14.0 | 13.0 | 1.1 | -0.4 |
| 30 | 89.3 | 86.8 | 79.7 | 85.0 | 91.4 | 92.9 | 10.0 | 9.5 | 1.4 | -0.7 |
| 31 | 89.8 | 87.2 | 79.1 | 83.9 | 90.7 | 91.8 | 14.5 | 13.5 | 1.1 | -0.6 |
| 32 | 88.0 | 85.5 | 78.4 | 83.4 | 90.1 | 91.6 | 11.5 | 10.0 | 1.4 | -0.4 |
| Avs. | 89.4 | 86.9 | 79.3 | 84.2 | 91.0 | 92.3 | 12.5 | 11.5 | 1.3 | -0.5 |
| Std Dv | 1.1 | 1.1 | 0.7 | 0.7 | 0.7 | 0.7 | 2.1 | 2.0 | 0.2 | 0.1 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 124 KTS | | | | | | | | | | |
| 49 | 90.4 | 88.0 | 82.3 | 89.4 | 93.7 | 94.8 | 8.5 | 8.5 | 1.1 | -0.6 |
| 50 | 91.0 | 88.5 | 81.9 | 88.3 | 93.0 | 94.3 | 11.0 | 11.0 | 1.3 | -0.8 |
| 51 | 89.6 | 87.2 | 80.9 | 87.4 | 91.5 | 92.9 | 10.5 | 11.5 | 1.4 | -0.8 |
| 52 | 89.6 | 87.2 | 80.1 | 87.7 | 91.3 | 92.6 | 11.0 | 11.0 | 1.2 | -0.6 |
| Avs. | 90.1 | 87.7 | 81.3 | 88.2 | 92.4 | 93.6 | 10.2 | 10.5 | 1.3 | -0.7 |
| Std Dv | 0.7 | 0.7 | 1.0 | 0.9 | 1.1 | 1.1 | 1.2 | 1.4 | 0.1 | 0.1 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | |
| 17 | 93.5 | 90.8 | 83.4 | 92.6 | 95.0 | 95.8 | 11.0 | 12.0 | 1.3 | -0.4 |
| 18 | 92.6 | 89.8 | 84.8 | 96.1 | 96.7 | 97.9 | 6.5 | 6.5 | 1.2 | -0.5 |
| 19 | 92.8 | 90.4 | 83.7 | 92.3 | 94.5 | 95.8 | 10.5 | 11.0 | 1.4 | -0.5 |
| 20 | 91.2 | 88.9 | 83.9 | 94.4 | 95.2 | 96.6 | 7.0 | 6.5 | 1.4 | -0.5 |
| Avs. | 92.5 | 90.0 | 84.0 | 93.8 | 95.4 | 96.5 | 8.7 | 9.0 | 1.3 | -0.5 |
| Std Dv | 0.9 | 0.8 | 0.6 | 1.8 | 0.9 | 1.0 | 2.3 | 2.9 | 0.1 | 0.0 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 155 KTS | | | | | | | | | | |
| 25 | 93.5 | 90.7 | 84.1 | 96.2 | 95.8 | 96.7 | 9.0 | 9.5 | 1.0 | -0.3 |
| 26 | 94.4 | 91.5 | 85.1 | 100.6 | 97.4 | 98.5 | 7.5 | 8.0 | 1.0 | -0.3 |
| 27 | 96.3 | 93.1 | 87.3 | 101.0 | 99.9 | 100.5 | 8.5 | 8.5 | 0.6 | -0.2 |
| 28 | 95.6 | 92.7 | 87.1 | 101.9 | 99.5 | 100.2 | 6.5 | 7.0 | 0.9 | -0.3 |
| Avs. | 94.9 | 92.0 | 85.9 | 99.9 | 98.1 | 99.0 | 7.9 | 8.2 | 0.9 | -0.3 |
| Std Dv | 1.3 | 1.1 | 1.5 | 2.5 | 1.9 | 1.8 | 1.1 | 1.0 | 0.2 | 0.1 |

TABLE NO. A.2-3.1G

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
10/ 2/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 1G

CENTERLINE-CENTER (FLUSH)

JUNE 23, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|--|------|------|--------|---------|--------|---------|--------|--------|-----|------|
| 300 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | |
| 9 | 95.9 | 93.0 | 87.5 | 95.9 | 99.3 | 100.7 | 8.0 | 7.5 | 1.6 | -0.6 |
| 10 | 94.5 | 91.6 | 87.8 | 97.4 | 99.6 | 100.5 | 5.0 | 5.5 | 0.9 | -0.5 |
| 15 | 95.6 | 92.7 | 88.1 | 96.6 | 99.9 | 101.3 | 7.0 | 6.0 | 1.4 | -0.5 |
| 16 | | | | NO DATA | | | | | | |
| Avs. | 95.4 | 92.4 | 87.8 | 96.6 | 99.6 | 100.8 | 6.7 | 6.3 | 1.3 | -0.5 |
| Std Dv | 0.7 | 0.7 | 0.3 | 0.7 | 0.3 | 0.4 | 1.5 | 1.0 | 0.4 | 0.1 |
| 700 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | |
| 7 | 90.2 | 88.1 | 79.7 | 89.2 | 90.5 | 91.8 | 16.5 | 14.5 | 1.4 | -0.4 |
| 8 | 91.5 | 89.7 | 82.8 | 92.1 | 94.3 | 95.6 | 9.0 | 9.0 | 1.3 | -0.5 |
| 13 | 90.6 | 88.5 | 80.6 | 89.7 | 91.2 | 92.6 | 14.0 | 13.5 | 1.5 | -0.4 |
| 14 | 90.7 | 88.8 | 82.3 | 92.7 | 93.5 | 94.6 | 9.0 | 9.0 | 1.1 | -0.3 |
| Avs. | 90.8 | 88.8 | 81.4 | 90.9 | 92.4 | 93.7 | 12.1 | 11.5 | 1.3 | -0.4 |
| Std Dv | 0.6 | 0.7 | 1.4 | 1.7 | 1.8 | 1.7 | 3.7 | 2.9 | 0.1 | 0.1 |
| 1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | |
| 45 | 86.5 | 85.0 | 77.0 | 89.9 | 87.2 | 88.7 | 12.5 | 13.0 | 1.6 | -0.4 |
| 46 | 86.6 | 85.1 | 75.5 | 87.7 | 85.6 | 86.9 | 20.0 | 21.0 | 1.3 | -0.4 |
| 47 | 86.8 | 85.2 | 77.9 | 89.9 | 88.1 | 89.5 | 13.0 | 13.0 | 1.5 | -0.4 |
| 48 | 87.5 | 85.9 | 77.2 | 88.9 | 87.7 | 89.0 | 16.0 | 16.0 | 1.3 | -0.5 |
| 1 | 89.3 | 87.3 | 77.9 | 88.3 | 88.8 | 90.0 | 19.0 | 19.0 | 1.5 | -0.4 |
| 2 | 88.6 | 86.9 | 79.5 | 91.5 | 90.0 | 91.2 | 12.0 | 12.0 | 1.2 | -0.4 |
| 3 | 88.7 | 86.6 | 78.1 | 88.3 | 88.9 | 90.0 | 16.5 | 16.5 | 1.1 | -0.4 |
| 4 | 88.1 | 86.5 | 78.5 | 90.2 | 89.1 | 90.2 | 13.5 | 13.5 | 1.1 | -0.4 |
| Avs. | 87.8 | 86.0 | 77.7 | 89.3 | 88.2 | 89.4 | 15.3 | 15.5 | 1.3 | -0.4 |
| Std Dv | 1.0 | 0.9 | 1.2 | 1.3 | 1.4 | 1.3 | 3.0 | 3.2 | 0.2 | 0.0 |
| 1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | |
| 5 | 85.3 | 83.8 | 73.1 | 86.7 | 83.2 | 84.5 | 26.0 | 25.5 | 1.2 | -0.4 |
| 6 | 85.3 | 83.9 | 76.0 | 87.5 | 86.6 | 88.0 | 17.5 | 16.5 | 1.4 | -0.4 |
| 11 | 85.2 | 83.6 | 74.3 | 86.3 | 84.5 | 85.3 | 19.5 | 22.5 | 1.0 | -0.3 |
| 12 | 84.9 | 83.5 | 74.1 | 87.4 | 84.2 | 85.9 | 16.5 | 16.5 | 1.6 | -0.4 |
| Avs. | 85.2 | 83.7 | 74.4 | 87.0 | 84.6 | 85.9 | 19.9 | 20.2 | 1.3 | -0.4 |
| Std Dv | 0.2 | 0.2 | 1.2 | 0.6 | 1.4 | 1.5 | 4.3 | 4.5 | 0.3 | 0.0 |

TABLE NO. A,2-4.1G

SIKORSKY S-76 SPIRIT HELICOPTER
SUMMARY NOISE LEVEL DATA - MAIN ROTOR RPM 107%DOT/TSC
10/ 2/80

AS MEASURED *

SITE: 1G

CENTERLINE-CENTER (FLUSH)

JUNE 23,1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|----------|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| APPROACH | | | | | | | | | | |
| 69 | 99.2 | 96.5 | 89.1 | 96.8 | 101.0 | 101.9 | 13.0 | 12.5 | 0.9 | -0.3 |
| 70 | 99.1 | 96.5 | 88.7 | 95.8 | 100.4 | 101.3 | 13.5 | 13.5 | 0.9 | -0.5 |
| Avg. | 99.2 | 96.5 | 88.9 | 96.3 | 100.7 | 101.6 | 13.2 | 13.0 | 0.9 | -0.4 |
| Std Dv | 0.1 | 0.1 | 0.3 | 0.7 | 0.4 | 0.4 | 0.4 | 0.7 | 0.0 | 0.1 |

500 FT. FLYOVER - TARGET INDICATED AIRSPEED 93 KTS

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|------|------|-----|------|
| 61 | 90.9 | 88.7 | 81.3 | 87.3 | 92.7 | 94.1 | 14.5 | 12.5 | 1.4 | -0.4 |
| 62 | 92.7 | 90.1 | 82.0 | 87.7 | 93.1 | 94.1 | 14.0 | 14.0 | 1.1 | -0.4 |
| 63 | 90.9 | 88.8 | 81.0 | 87.1 | 92.0 | 93.6 | 12.5 | 12.0 | 1.5 | -0.5 |
| 64 | 92.3 | 89.8 | 82.1 | 88.6 | 93.2 | 94.3 | 15.5 | 15.0 | 1.1 | -0.4 |
| Avg. | 91.7 | 89.4 | 81.6 | 87.7 | 92.8 | 94.0 | 14.1 | 13.4 | 1.3 | -0.4 |
| Std Dv | 0.9 | 0.7 | 0.5 | 0.6 | 0.5 | 0.3 | 1.2 | 1.4 | 0.2 | 0.0 |

500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|------|------|-----|------|
| 57 | 92.5 | 90.4 | 85.2 | 94.9 | 96.1 | 97.4 | 7.5 | 8.0 | 1.3 | -0.6 |
| 58 | 95.0 | 92.5 | 86.6 | 94.9 | 97.9 | 98.8 | 8.5 | 9.0 | 1.0 | -0.7 |
| 59 | 94.2 | 92.1 | 87.0 | 95.7 | 97.6 | 98.6 | 6.5 | 7.5 | 1.1 | -0.5 |
| 60 | 93.1 | 91.1 | 84.9 | 94.4 | 95.4 | 96.5 | 10.0 | 10.5 | 1.1 | -0.6 |
| Avg. | 93.7 | 91.5 | 85.9 | 95.0 | 96.7 | 97.8 | 8.1 | 8.7 | 1.1 | -0.6 |
| Std Dv | 1.1 | 1.0 | 1.0 | 0.6 | 1.2 | 1.1 | 1.5 | 1.3 | 0.1 | 0.1 |

500 FT. FLYOVER - TARGET INDICATED AIRSPEED 155 KTS

| | | | | | | | | | | |
|--------|------|------|------|------|-------|-------|-----|-----|-----|------|
| 65 | 94.9 | 92.2 | 86.6 | 98.5 | 97.9 | 98.8 | 8.0 | 8.5 | 1.2 | -0.4 |
| 66 | 96.6 | 93.6 | 88.2 | 99.6 | 100.1 | 101.1 | 9.5 | 9.5 | 0.9 | -0.3 |
| 67 | 95.4 | 92.8 | 88.1 | 99.3 | 99.5 | 100.3 | 6.0 | 7.5 | 1.6 | -0.4 |
| 68 | 95.1 | 92.1 | 86.7 | 99.4 | 98.4 | 99.4 | 8.0 | 9.0 | 1.0 | -0.4 |
| Avg. | 95.5 | 92.7 | 87.4 | 99.2 | 99.0 | 99.9 | 7.9 | 8.6 | 1.2 | -0.4 |
| Std Dv | 0.8 | 0.7 | 0.8 | 0.5 | 1.0 | 1.0 | 1.4 | 0.9 | 0.3 | 0.1 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.2-1.1H

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
10/ 2/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 1H

CENTERLINE-CENTER (10-METER)

JUNE 23, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|----------|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| APPROACH | | | | | | | | | | |
| 34 | 93.8 | 90.5 | 81.1 | 91.4 | 94.5 | 95.5 | 21.0 | 14.5 | 1.0 | -0.4 |
| 36 | 95.8 | 92.0 | 85.7 | 94.2 | 98.2 | 99.5 | 10.0 | 9.5 | 1.3 | -0.9 |
| 40 | 90.1 | 87.4 | 80.3 | 84.5 | 91.2 | 92.9 | 14.0 | 13.5 | 1.8 | -1.2 |
| 42 | 96.2 | 92.9 | 85.8 | 93.7 | 97.7 | 98.9 | 14.5 | 13.5 | 1.2 | -0.6 |
| 44 | 94.8 | 91.7 | 85.0 | 92.6 | 97.0 | 97.3 | 13.5 | 14.0 | 0.3 | -0.6 |
| 54 | 94.2 | 91.7 | 86.1 | 93.6 | 97.6 | 98.3 | 12.5 | 12.5 | 1.0 | -0.7 |
| 56 | 95.9 | 93.4 | 87.3 | 94.3 | 98.9 | 99.3 | 10.0 | 11.5 | 0.4 | -0.4 |
| Avg. | 94.4 | 91.4 | 84.5 | 92.0 | 96.4 | 97.4 | 13.6 | 12.7 | 1.0 | -0.7 |
| Std Dv | 2.1 | 2.0 | 2.7 | 3.5 | 2.7 | 2.4 | 3.7 | 1.7 | 0.5 | 0.3 |
| TAKEOFF | | | | | | | | | | |
| 33 | 88.1 | 84.2 | 74.6 | 81.4 | 87.2 | 89.4 | 16.5 | 16.0 | 2.2 | -1.5 |
| 35 | 88.0 | 84.7 | 76.3 | 81.2 | 87.9 | 89.9 | 14.0 | 13.5 | 2.0 | -1.3 |
| 37 | 88.1 | 84.4 | 75.7 | 81.8 | 87.7 | 89.8 | 14.0 | 13.5 | 2.1 | -1.5 |
| 39 | - | 85.1 | 77.5 | 81.8 | 89.2 | 91.3 | 13.0 | - | 2.1 | - |
| 41 | 88.1 | 84.7 | 77.2 | 82.0 | 88.8 | 90.8 | 12.5 | 13.0 | 2.0 | -1.4 |
| 43 | 88.0 | 84.6 | 76.8 | 81.9 | 88.4 | 90.4 | 12.5 | 12.5 | 2.1 | -1.3 |
| 53 | 87.7 | 84.6 | 76.1 | 79.8 | 87.5 | 89.4 | 16.0 | 16.0 | 1.9 | -1.2 |
| 55 | 87.1 | 84.0 | 74.9 | 79.6 | 87.0 | 89.0 | 22.5 | 15.5 | 2.1 | -1.3 |
| Avg. | 87.9 | 84.5 | 76.1 | 81.2 | 88.0 | 90.0 | 15.1 | 12.5 | 2.1 | -1.4 |
| Std Dv | 0.4 | 0.3 | 1.0 | 0.9 | 0.8 | 0.8 | 3.3 | 5.2 | 0.1 | 0.1 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.2-2.1H

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
10/ 2/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

| SITE: 1H | | CENTERLINE-CENTER (10-METER) | | | | | | JUNE 23, 1980 | | |
|---|------|------------------------------|--------|-------|--------|---------|--------|---------------|-----|------|
| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 93 KTS | | | | | | | | | | |
| 21 | 88.1 | 85.6 | 76.2 | 84.1 | 88.7 | 89.4 | 19.5 | 17.5 | 0.7 | -0.6 |
| 22 | 90.1 | 87.6 | 82.2 | 88.4 | 93.8 | 94.2 | 9.0 | 9.0 | 0.9 | -0.5 |
| 23 | 88.1 | 85.2 | 76.5 | 83.5 | 89.3 | 90.5 | 16.0 | 13.5 | 1.2 | -0.6 |
| 24 | 89.9 | 87.2 | 81.2 | 88.7 | 93.0 | 93.4 | 10.5 | 11.0 | 0.4 | -0.7 |
| Avg. | 89.1 | 86.4 | 79.0 | 86.2 | 91.2 | 91.8 | 13.7 | 12.7 | 0.8 | -0.6 |
| Std Dv | 1.1 | 1.2 | 3.1 | 2.8 | 2.6 | 2.3 | 4.9 | 3.7 | 0.3 | 0.1 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 109 KTS | | | | | | | | | | |
| 29 | 87.1 | 84.2 | 75.8 | 81.2 | 88.5 | 89.6 | 14.0 | 12.0 | 1.1 | -0.7 |
| 30 | 86.1 | 83.0 | 76.0 | 83.2 | 88.3 | 89.8 | 10.5 | 9.0 | 1.5 | -1.1 |
| 31 | 86.8 | 84.0 | 75.8 | 82.3 | 88.1 | 89.2 | 14.5 | 13.0 | 1.1 | -0.8 |
| 32 | 84.7 | 81.4 | 74.6 | 85.2 | 87.2 | 88.4 | 12.0 | 10.0 | 1.2 | -0.7 |
| Avg. | 86.2 | 83.1 | 75.5 | 83.0 | 88.0 | 89.2 | 12.7 | 11.0 | 1.2 | -0.8 |
| Std Dv | 1.1 | 1.2 | 0.7 | 1.7 | 0.6 | 0.6 | 1.8 | 1.8 | 0.2 | 0.2 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 124 KTS | | | | | | | | | | |
| 49 | 88.0 | 85.0 | 79.6 | 87.6 | 91.9 | 93.1 | 7.5 | 6.5 | 1.2 | -0.8 |
| 50 | 88.2 | 85.2 | 77.9 | 86.0 | 90.5 | 92.0 | 11.0 | 9.5 | 1.5 | -0.8 |
| 51 | 86.6 | 83.8 | 76.9 | 85.3 | 88.7 | 90.4 | 12.0 | 10.5 | 1.7 | -1.0 |
| 52 | 87.0 | 84.0 | 76.7 | 86.0 | 88.8 | 90.1 | 10.0 | 10.0 | 1.3 | -0.9 |
| Avg. | 87.5 | 84.5 | 77.8 | 86.2 | 90.0 | 91.4 | 10.1 | 9.1 | 1.4 | -0.9 |
| Std Dv | 0.8 | 0.7 | 1.3 | 1.0 | 1.5 | 1.4 | 1.9 | 1.8 | 0.2 | 0.1 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | |
| 17 | 90.3 | 87.0 | 79.9 | 90.9 | 92.0 | 93.0 | 11.0 | 12.0 | 1.0 | -0.6 |
| 18 | 88.7 | 85.7 | 81.1 | 93.8 | 93.4 | 94.3 | 6.5 | 6.0 | 1.2 | -0.4 |
| 19 | 89.2 | 86.7 | 79.6 | 90.5 | 90.9 | 92.1 | 11.0 | 11.0 | 1.1 | -0.6 |
| 20 | 87.7 | 84.8 | 79.8 | 92.7 | 91.8 | 93.0 | 7.0 | 6.5 | 1.2 | -0.5 |
| Avg. | 89.0 | 86.1 | 80.1 | 92.0 | 92.0 | 93.1 | 8.9 | 8.9 | 1.1 | -0.5 |
| Std Dv | 1.1 | 1.0 | 0.7 | 1.5 | 1.0 | 0.9 | 2.5 | 3.1 | 0.1 | 0.1 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 155 KTS | | | | | | | | | | |
| 25 | 89.9 | 87.0 | 80.3 | 94.2 | 92.6 | 93.6 | 9.0 | 9.0 | 0.9 | -0.4 |
| 26 | 90.4 | 87.0 | 81.1 | 98.9 | 94.2 | 95.1 | 7.5 | 7.5 | 1.0 | -0.5 |
| 27 | 91.9 | 88.4 | 83.1 | 98.2 | 96.3 | 97.0 | 7.5 | 7.0 | 0.7 | -0.2 |
| 28 | 92.1 | 88.3 | 82.9 | 101.4 | 96.5 | 97.4 | 7.0 | 6.5 | 0.9 | -0.4 |
| Avg. | 91.1 | 87.6 | 81.8 | 98.2 | 94.9 | 95.8 | 7.7 | 7.5 | 0.9 | -0.4 |
| Std Dv | 1.1 | 0.8 | 1.3 | 3.0 | 1.8 | 1.8 | 0.9 | 1.1 | 0.1 | 0.1 |

TABLE NO. A.2-3.1H

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
10/ 2/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 1H

CENTERLINE-CENTER (10-METER)

JUNE 23, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|--|---------------------|------|--------|-------|--------|---------|--------|--------|-----|------|
| 300 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | |
| 9 | 91.6 | 88.4 | 83.1 | 92.7 | 95.4 | 96.5 | 7.0 | 7.0 | 1.1 | -0.6 |
| 10 | 91.7 | 88.1 | 84.3 | 96.1 | 97.0 | 97.9 | 5.0 | 5.0 | 1.0 | -0.6 |
| 15 | 92.3 | 88.8 | 84.0 | 95.4 | 96.6 | 98.0 | 6.5 | 5.5 | 1.4 | -0.7 |
| 16 | ----- NO DATA ----- | | | | | | | | | |
| Avg. | 91.9 | 88.4 | 83.8 | 94.7 | 96.3 | 97.5 | 6.2 | 5.8 | 1.1 | -0.6 |
| Std Dv | 0.3 | 0.3 | 0.6 | 1.8 | 0.8 | 0.9 | 1.0 | 1.0 | 0.2 | 0.0 |
| 700 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | |
| 7 | 85.8 | 83.3 | 74.0 | 86.2 | 85.1 | 86.3 | 16.0 | 16.5 | 1.3 | -0.6 |
| 8 | 86.2 | 83.8 | 77.2 | 89.4 | 88.1 | 88.9 | 10.5 | 11.0 | 0.9 | -0.7 |
| 13 | 87.2 | 84.9 | 76.1 | 89.7 | 87.5 | 88.5 | 15.5 | 17.0 | 1.0 | -0.5 |
| 14 | 87.6 | 85.1 | 79.2 | 92.0 | 90.7 | 91.6 | 8.5 | 9.0 | 1.1 | -0.5 |
| Avg. | 86.7 | 84.3 | 76.6 | 89.3 | 87.8 | 88.8 | 12.6 | 13.4 | 1.1 | -0.6 |
| Std Dv | 0.8 | 0.8 | 2.2 | 2.4 | 2.3 | 2.2 | 3.7 | 4.0 | 0.2 | 0.1 |
| 1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | |
| 45 | 82.7 | 80.9 | 72.8 | 88.3 | 83.7 | 84.8 | 13.5 | 13.5 | 1.4 | -0.5 |
| 46 | 83.4 | 81.6 | 72.1 | 87.5 | 83.2 | 84.7 | 19.0 | 16.5 | 1.5 | -0.7 |
| 47 | 84.1 | 82.1 | 74.6 | 88.8 | 85.3 | 86.8 | 13.5 | 13.0 | 1.5 | -0.6 |
| 48 | 84.6 | 82.9 | 74.2 | 88.0 | 85.1 | 86.3 | 15.5 | 15.0 | 1.3 | -0.6 |
| 1 | 83.4 | 81.1 | 71.6 | 84.2 | 83.2 | 84.4 | 19.0 | 19.0 | 1.2 | -0.7 |
| 2 | 82.6 | 80.3 | 72.6 | 87.8 | 83.8 | 85.4 | 12.0 | 11.5 | 1.6 | -0.4 |
| 3 | 83.1 | 80.6 | 71.7 | 84.2 | 83.7 | 84.9 | 16.5 | 19.0 | 1.2 | -0.4 |
| 4 | 82.6 | 80.3 | 72.0 | 86.5 | 82.9 | 84.2 | 14.0 | 14.5 | 1.3 | -0.5 |
| Avg. | 83.3 | 81.2 | 72.7 | 86.9 | 83.8 | 85.2 | 15.4 | 15.2 | 1.4 | -0.5 |
| Std Dv | 0.7 | 0.9 | 1.1 | 1.8 | 0.9 | 0.9 | 2.6 | 2.7 | 0.1 | 0.1 |
| 1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | |
| 5 | 80.5 | 78.9 | 67.8 | 83.7 | 78.1 | 79.3 | 29.5 | 31.5 | 1.3 | -0.6 |
| 6 | - | 78.1 | 69.9 | 84.2 | 80.0 | 81.5 | 17.5 | - | 1.5 | - |
| 11 | 81.7 | 79.8 | 69.8 | 85.4 | 80.4 | 81.2 | 23.5 | 32.0 | 1.5 | -0.9 |
| 12 | 81.2 | 79.6 | 69.6 | 87.1 | 80.1 | 81.8 | 18.0 | 17.5 | 1.7 | -0.6 |
| Avg. | 81.1 | 79.1 | 69.3 | 85.1 | 79.7 | 81.0 | 22.1 | 20.2 | 1.5 | -0.7 |
| Std Dv | 0.6 | 0.8 | 1.0 | 1.5 | 1.0 | 1.1 | 5.6 | 15.1 | 0.1 | 0.2 |

TABLE NO. A.2-4.1H

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
10/ 2/80

SUMMARY NOISE LEVEL DATA - MAIN ROTOR RPM 107%

AS MEASURED *

SITE: 1H

CENTERLINE-CENTER (10-METER)

JUNE 23, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|----------|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| APPROACH | | | | | | | | | | |
| 69 | 94.6 | 91.3 | 83.8 | 91.6 | 96.8 | 97.4 | 13.0 | 12.5 | 0.7 | -0.5 |
| 70 | 93.7 | 90.7 | 82.8 | 90.1 | 95.2 | 95.6 | 13.5 | 13.5 | 0.6 | -0.6 |
| Avg. | 94.2 | 91.0 | 83.3 | 90.9 | 96.0 | 96.5 | 13.2 | 13.0 | 0.6 | -0.5 |
| Std Dv | 0.6 | 0.4 | 0.7 | 1.0 | 1.1 | 1.3 | 0.4 | 0.7 | 0.0 | 0.1 |

500 FT. FLYOVER - TARGET INDICATED AIRSPEED 93 KTS

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|------|------|-----|------|
| 61 | 87.9 | 85.2 | 77.8 | 84.9 | 90.1 | 91.3 | 15.0 | 11.5 | 1.2 | -0.6 |
| 62 | 87.8 | 84.9 | 77.2 | 80.5 | 88.6 | 90.5 | 12.5 | 11.5 | 1.8 | -1.1 |
| 63 | 88.3 | 85.4 | 77.7 | 84.7 | 89.9 | 91.4 | 12.0 | 11.0 | 1.5 | -0.6 |
| 64 | 89.4 | 86.6 | 78.9 | 86.1 | 90.7 | 91.8 | 15.0 | 15.0 | 1.1 | -0.5 |
| Avg. | 88.3 | 85.6 | 77.9 | 84.1 | 89.8 | 91.2 | 13.6 | 12.2 | 1.4 | -0.7 |
| Std Dv | 0.7 | 0.7 | 0.7 | 2.4 | 0.9 | 0.6 | 1.6 | 1.8 | 0.3 | 0.3 |

500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|-----|-----|-----|------|
| 57 | 89.7 | 87.1 | 82.0 | 93.0 | 93.2 | 94.5 | 7.5 | 7.5 | 1.2 | -0.7 |
| 58 | 91.7 | 89.0 | 82.9 | 92.6 | 94.7 | 95.9 | 8.5 | 8.0 | 1.3 | -0.7 |
| 59 | 91.1 | 88.5 | 83.7 | 93.7 | 95.4 | 96.6 | 6.5 | 6.5 | 1.2 | -0.6 |
| 60 | 91.2 | 88.4 | 82.1 | 94.2 | 93.7 | 95.1 | 9.5 | 9.5 | 1.4 | -0.7 |
| Avg. | 90.9 | 88.2 | 82.7 | 93.4 | 94.3 | 95.5 | 8.0 | 7.9 | 1.3 | -0.7 |
| Std Dv | 0.9 | 0.8 | 0.8 | 0.7 | 1.0 | 0.9 | 1.3 | 1.2 | 0.1 | 0.0 |

500 FT. FLYOVER - TARGET INDICATED AIRSPEED 155 KTS

| | | | | | | | | | | |
|--------|---------------------|------|------|-------|------|------|------|------|-----|------|
| 65 | ----- NO DATA ----- | | | | | | | | | |
| 66 | 94.3 | 90.3 | 84.3 | 100.8 | 96.9 | 97.9 | 10.0 | 10.5 | 1.0 | -0.6 |
| 67 | 92.1 | 88.8 | 83.4 | 99.0 | 95.7 | 96.8 | 7.0 | 7.5 | 1.1 | -0.5 |
| 68 | 91.2 | 87.8 | 82.2 | 96.4 | 94.8 | 96.0 | 8.0 | 8.0 | 1.2 | -0.5 |
| Avg. | 92.6 | 89.0 | 83.3 | 98.7 | 95.8 | 96.9 | 8.3 | 8.7 | 1.1 | -0.5 |
| Std Dv | 1.6 | 1.3 | 1.1 | 2.2 | 1.0 | 0.9 | 1.5 | 1.6 | 0.1 | 0.0 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.2-1.2

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
11/28/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 2

CENTERLINE - 150 M. WEST

JUNE 23, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|----------|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| APPROACH | | | | | | | | | | |
| 34 | 96.5 | 93.2 | 86.4 | 94.6 | 98.4 | 99.2 | 11.5 | 11.5 | 0.7 | -0.6 |
| 36 | 98.8 | 95.4 | 90.0 | 96.7 | 101.6 | 103.6 | 9.0 | 9.0 | 1.9 | -1.3 |
| 40 | 97.7 | 94.4 | 88.9 | 96.3 | 100.3 | 101.3 | 10.5 | 11.0 | 1.0 | -0.9 |
| 42 | 97.4 | 94.1 | 88.8 | 96.1 | 100.3 | 101.7 | 9.0 | 9.0 | 1.4 | -0.9 |
| 44 | 97.4 | 93.9 | 87.2 | 95.2 | 99.4 | 100.5 | 9.5 | 9.5 | 1.4 | -1.0 |
| 54 | 97.7 | 94.8 | 88.6 | 96.0 | 100.1 | 101.5 | 11.5 | 11.5 | 1.4 | -0.8 |
| 56 | 96.9 | 94.0 | 88.9 | 96.3 | 100.8 | 102.1 | 8.5 | 8.0 | 1.3 | -0.8 |
| Avg. | 97.5 | 94.3 | 88.4 | 95.9 | 100.1 | 101.4 | 9.9 | 9.9 | 1.3 | -0.9 |
| Std Dv | 0.7 | 0.7 | 1.2 | 0.7 | 1.0 | 1.4 | 1.2 | 1.4 | 0.4 | 0.2 |
| TAKEDOFF | | | | | | | | | | |
| 33 | - | 87.0 | 79.2 | 82.9 | 90.9 | 92.4 | 10.0 | - | 1.6 | - |
| 35 | 89.7 | 86.6 | 80.0 | 82.4 | 91.3 | 92.8 | 11.0 | 11.0 | 1.5 | -1.3 |
| 37 | 90.0 | 86.5 | 79.1 | 82.7 | 90.8 | 92.6 | 11.5 | 11.0 | 1.8 | -1.4 |
| 39 | 89.9 | 86.7 | 79.6 | 81.9 | 90.8 | 92.6 | 12.0 | 11.5 | 1.8 | -1.3 |
| 41 | 89.7 | 86.6 | 79.9 | 82.5 | 90.7 | 92.4 | 11.5 | 11.0 | 1.7 | -1.3 |
| 43 | 89.5 | 86.4 | 79.2 | 82.4 | 90.0 | 91.7 | 12.0 | 12.0 | 1.8 | -1.4 |
| 53 | 89.4 | 86.5 | 79.8 | 81.7 | 91.2 | 92.4 | 11.0 | 11.5 | 1.2 | -1.2 |
| 55 | 88.9 | 85.8 | 77.3 | 81.4 | 88.7 | 90.4 | 14.0 | 14.0 | 1.6 | -1.2 |
| Avg. | 89.6 | 86.5 | 79.3 | 82.2 | 90.6 | 92.2 | 11.6 | 10.2 | 1.6 | -1.3 |
| Std Dv | 0.4 | 0.3 | 0.9 | 0.5 | 0.8 | 0.8 | 1.2 | 4.3 | 0.2 | 0.1 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.2-2.2

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
11/28/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 2

CENTERLINE - 150 M. WEST

JUNE 23, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|---|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 93 KTS | | | | | | | | | | |
| 21 | 88.8 | 86.1 | 77.1 | 82.4 | 89.2 | 90.6 | 19.5 | 17.0 | 1.4 | -0.9 |
| 22 | 91.4 | 88.8 | 84.2 | 91.4 | 95.8 | 96.4 | 7.5 | 8.0 | 0.6 | -0.9 |
| 23 | 89.2 | 86.3 | 76.9 | 83.0 | 89.4 | 90.2 | 18.0 | 17.0 | 1.1 | -0.9 |
| 24 | 91.5 | 88.7 | 83.3 | 90.7 | 95.1 | 95.8 | 10.0 | 10.5 | 0.6 | -0.6 |
| Avg. | 90.2 | 87.5 | 80.4 | 86.9 | 92.4 | 93.2 | 13.7 | 13.1 | 0.9 | -0.9 |
| Std Dv | 1.4 | 1.5 | 3.9 | 4.8 | 3.6 | 3.3 | 5.9 | 4.6 | 0.4 | 0.2 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 109 KTS | | | | | | | | | | |
| 29 | 87.5 | 84.9 | 77.2 | 81.7 | 89.4 | 90.5 | 13.5 | 12.0 | 1.1 | -0.8 |
| 30 | 86.0 | 83.3 | 76.9 | 82.1 | 88.6 | 89.9 | 9.5 | 9.0 | 1.2 | -1.1 |
| 31 | 87.1 | 84.6 | 77.3 | 81.7 | 89.1 | 90.3 | 12.5 | 11.5 | 1.1 | -0.8 |
| 32 | 85.1 | 82.4 | 74.6 | 79.8 | 86.6 | 87.6 | 12.0 | 12.0 | 1.0 | -0.9 |
| Avg. | 86.5 | 83.8 | 76.5 | 81.3 | 88.4 | 89.6 | 11.9 | 11.1 | 1.1 | -0.9 |
| Std Dv | 1.1 | 1.2 | 1.3 | 1.0 | 1.3 | 1.4 | 1.7 | 1.4 | 0.1 | 0.1 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 124 KTS | | | | | | | | | | |
| 49 | - | 84.9 | 78.9 | 87.7 | 90.7 | 91.9 | 8.5 | - | 1.2 | - |
| 50 | 89.6 | 86.6 | 80.3 | 86.7 | 92.2 | 93.6 | 9.5 | 8.5 | 1.4 | -1.0 |
| 51 | 87.3 | 84.5 | 77.5 | 85.7 | 89.1 | 90.6 | 11.5 | 10.5 | 1.5 | -1.1 |
| 52 | 87.3 | 84.6 | 77.5 | 85.9 | 89.2 | 90.4 | 11.0 | 10.5 | 1.3 | -0.9 |
| Avg. | 88.1 | 85.2 | 78.6 | 86.5 | 90.3 | 91.7 | 10.1 | 7.4 | 1.4 | -1.0 |
| Std Dv | 1.3 | 1.0 | 1.3 | 0.9 | 1.5 | 1.5 | 1.4 | 5.0 | 0.1 | 0.1 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | |
| 17 | 90.6 | 87.8 | 81.4 | 91.9 | 93.4 | 94.3 | 10.0 | 10.0 | 0.9 | -0.7 |
| 18 | 89.7 | 86.9 | 82.1 | 94.9 | 93.8 | 95.3 | 6.5 | 6.5 | 1.5 | -0.7 |
| 19 | - | 87.0 | 80.6 | 92.1 | 91.9 | 93.1 | 10.0 | - | 1.2 | - |
| 20 | - | 85.8 | 80.6 | 94.3 | 91.9 | 93.5 | 6.5 | - | 1.6 | - |
| Avg. | 90.2 | 86.9 | 81.2 | 93.3 | 92.7 | 94.0 | 8.2 | 4.1 | 1.3 | -0.7 |
| Std Dv | 0.7 | 0.8 | 0.8 | 1.5 | 1.0 | 1.0 | 2.0 | 5.0 | 0.3 | 0.0 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 155 KTS | | | | | | | | | | |
| 25 | 90.7 | 87.7 | 81.5 | 96.5 | 93.6 | 94.5 | 9.0 | 9.5 | 0.9 | -0.7 |
| 26 | 91.4 | 88.4 | 82.2 | 100.2 | 94.7 | 95.6 | 7.5 | 7.5 | 0.9 | -0.6 |
| 27 | 93.3 | 90.0 | 84.4 | 100.5 | 97.3 | 97.7 | 8.0 | 8.5 | 0.5 | -0.4 |
| 28 | 92.1 | 88.8 | 83.0 | 101.0 | 95.9 | 97.0 | 7.0 | 6.5 | 1.1 | -0.6 |
| Avg. | 91.9 | 88.7 | 82.8 | 99.6 | 95.4 | 96.2 | 7.9 | 8.0 | 0.8 | -0.6 |
| Std Dv | 1.1 | 1.0 | 1.3 | 2.1 | 1.6 | 1.4 | 0.9 | 1.3 | 0.3 | 0.1 |

TABLE NO. A.2-3.2
 SIKORSKY S-76 SPIRIT HELICOPTER
 SUMMARY NOISE LEVEL DATA

DOT/TSC
 1/12/81

AS MEASURED *

SITE: 2

CENTERLINE - 150 M. WEST

JUNE 23, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | \/** |
|--|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| 300 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | |
| 9 | 92.8 | 89.6 | 84.7 | 95.2 | 96.9 | 98.1 | 6.0 | 5.5 | 1.2 | -0.9 |
| 10 | 91.3 | 87.9 | 83.9 | 95.2 | 96.7 | 97.3 | 5.5 | 5.0 | 0.6 | -0.7 |
| 15 | 92.6 | 89.5 | 85.1 | 95.1 | 97.3 | 98.3 | 6.5 | 6.0 | 1.0 | -0.8 |
| 16 | 92.9 | 89.6 | 85.9 | 96.1 | 98.5 | 99.6 | 5.0 | 4.5 | 1.1 | -0.6 |
| Avg. | 92.4 | 89.2 | 84.9 | 95.4 | 97.3 | 98.3 | 5.7 | 5.2 | 1.0 | -0.8 |
| Std Dv | 0.7 | 0.8 | 0.8 | 0.5 | 0.8 | 0.9 | 0.6 | 0.6 | 0.3 | 0.1 |
| 700 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | |
| 7 | 86.4 | 84.3 | 75.1 | 87.6 | 86.2 | 87.2 | 18.0 | 18.5 | 1.1 | -0.8 |
| 8 | 86.5 | 84.4 | 76.9 | 90.2 | 88.2 | 89.4 | 10.5 | 10.0 | 1.4 | -1.0 |
| 13 | 87.5 | 85.4 | 77.7 | 88.6 | 88.7 | 89.7 | 14.0 | 14.5 | 1.1 | -0.7 |
| 14 | 87.6 | 85.2 | 78.8 | 91.3 | 89.8 | 91.3 | 9.0 | 9.0 | 1.5 | -0.7 |
| Avg. | 87.0 | 84.8 | 77.1 | 89.4 | 88.2 | 89.4 | 12.9 | 13.0 | 1.3 | -0.8 |
| Std Dv | 0.6 | 0.6 | 1.5 | 1.6 | 1.5 | 1.7 | 4.0 | 4.4 | 0.2 | 0.1 |
| 1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | |
| 45 | 83.6 | 81.7 | 72.9 | 88.8 | 83.3 | 84.7 | 14.5 | 15.0 | 1.8 | -0.9 |
| 46 | 83.4 | 81.6 | 72.8 | 88.0 | 83.4 | 84.7 | 17.5 | 17.5 | 1.3 | -0.7 |
| 47 | 83.9 | 82.2 | 73.6 | 88.8 | 84.3 | 85.2 | 14.5 | 15.0 | 1.0 | -0.6 |
| 48 | 84.2 | 82.8 | 75.0 | 87.8 | 84.9 | 86.1 | 15.5 | 16.0 | 1.2 | -0.5 |
| 1 | 85.8 | 83.8 | 74.4 | 87.3 | 85.9 | 86.8 | 17.5 | 21.0 | 0.9 | -0.7 |
| 2 | 85.1 | 83.1 | 75.4 | 90.9 | 86.3 | 87.3 | 13.0 | 13.0 | 1.2 | -0.6 |
| 3 | 85.4 | 83.5 | 74.7 | 87.1 | 85.8 | 87.1 | 24.0 | 23.0 | 1.3 | -0.4 |
| 4 | 84.7 | 83.0 | 74.9 | 89.9 | 85.6 | 87.0 | 13.0 | 12.0 | 1.4 | -0.8 |
| Avg. | 84.5 | 82.7 | 74.2 | 88.6 | 84.9 | 86.1 | 16.2 | 16.6 | 1.3 | -0.6 |
| Std Dv | 0.9 | 0.8 | 1.0 | 1.3 | 1.1 | 1.1 | 3.6 | 3.8 | 0.3 | 0.1 |
| 1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | |
| 5 | 82.0 | 80.4 | 70.1 | 85.4 | 80.1 | 81.3 | 24.0 | 27.0 | 1.3 | -0.6 |
| 6 | 81.0 | 79.5 | 69.7 | 85.7 | 79.5 | 80.6 | 23.5 | 24.0 | 1.2 | -0.7 |
| 11 | 81.7 | 80.6 | 70.9 | 85.1 | 81.2 | 82.1 | 33.0 | 21.0 | 1.2 | -0.7 |
| 12 | 81.1 | 79.6 | 70.4 | 85.7 | 80.2 | 81.6 | 17.0 | 18.0 | 1.4 | -0.8 |
| Avg. | 81.4 | 80.0 | 70.2 | 85.5 | 80.2 | 81.4 | 24.4 | 22.5 | 1.3 | -0.7 |
| Std Dv | 0.5 | 0.5 | 0.5 | 0.3 | 0.7 | 0.6 | 6.6 | 3.9 | 0.1 | 0.1 |

TABLE NO. A.2-4.2

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
11/28/80

SUMMARY NOISE LEVEL DATA - MAIN ROTOR RPM 107%

AS MEASURED *

SITE: 2

CENTERLINE - 150 M. WEST

JUNE 23, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|---|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| APPROACH | | | | | | | | | | |
| 69 | 96.2 | 93.3 | 87.8 | 95.3 | 99.6 | 100.4 | 9.5 | 10.0 | 0.8 | -0.6 |
| 70 | 95.3 | 92.4 | 84.8 | 93.4 | 97.0 | 97.7 | 14.0 | 13.5 | 0.6 | -0.6 |
| Avg. | 95.8 | 92.8 | 86.3 | 94.3 | 98.3 | 99.0 | 11.7 | 11.7 | 0.7 | -0.6 |
| Std Dv | 0.7 | 0.6 | 2.2 | 1.4 | 1.8 | 2.0 | 3.2 | 2.5 | 0.1 | 0.0 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 93 KTS | | | | | | | | | | |
| 61 | 88.1 | 85.3 | 75.9 | 83.1 | 87.7 | 89.2 | 17.0 | 16.5 | 1.5 | -1.1 |
| 62 | 89.8 | 87.0 | 79.6 | 84.9 | 91.1 | 92.3 | 14.0 | 13.0 | 1.4 | -0.9 |
| 63 | 87.1 | 84.7 | 76.4 | 83.3 | 87.8 | 88.9 | 32.5 | 13.5 | 1.3 | -0.8 |
| 64 | 89.7 | 86.6 | 79.7 | 86.7 | 91.6 | 92.5 | 12.0 | 11.5 | 0.8 | -1.0 |
| Avg. | 88.7 | 85.9 | 77.9 | 84.5 | 89.5 | 90.7 | 18.9 | 13.6 | 1.3 | -0.9 |
| Std Dv | 1.3 | 1.1 | 2.0 | 1.7 | 2.1 | 1.9 | 9.3 | 2.1 | 0.3 | 0.1 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | |
| 57 | 89.9 | 87.1 | 82.0 | 94.1 | 92.9 | 94.5 | 7.5 | 9.5 | 1.6 | -1.0 |
| 58 | 92.1 | 89.3 | 82.8 | 93.2 | 94.3 | 95.8 | 10.0 | 9.5 | 1.4 | -1.0 |
| 59 | 90.9 | 88.1 | 83.1 | 93.3 | 94.6 | 96.2 | 7.0 | 7.0 | 1.6 | -1.0 |
| 60 | 90.4 | 87.9 | 81.5 | 92.7 | 92.5 | 94.2 | 10.0 | 10.0 | 1.6 | -1.0 |
| Avg. | 90.8 | 88.1 | 82.4 | 93.3 | 93.6 | 95.2 | 8.6 | 9.0 | 1.6 | -1.0 |
| Std Dv | 0.9 | 0.9 | 0.7 | 0.6 | 1.0 | 1.0 | 1.6 | 1.4 | 0.1 | 0.0 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 155 KTS | | | | | | | | | | |
| 65 | 92.7 | 89.7 | 85.3 | 97.9 | 97.3 | 98.0 | 7.0 | 7.5 | 0.6 | -0.7 |
| 66 | 93.0 | 89.3 | 84.1 | 98.5 | 96.2 | 97.3 | 8.0 | 9.5 | 1.1 | -0.5 |
| 67 | 93.0 | 89.4 | 85.0 | 98.2 | 97.0 | 98.2 | 7.0 | 9.0 | 1.2 | -0.7 |
| 68 | - | 88.3 | 82.6 | 97.8 | 94.4 | 95.7 | 8.5 | - | 1.3 | - |
| Avg. | 92.9 | 89.2 | 84.3 | 98.1 | 96.2 | 97.3 | 7.6 | 6.5 | 1.1 | -0.6 |
| Std Dv | 0.2 | 0.6 | 1.2 | 0.3 | 1.3 | 1.1 | 0.7 | 4.4 | 0.3 | 0.1 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.2-1.3

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
1/12/81

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 3

CENTERLINE - 150 M. EAST

JUNE 23, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|----------|---------|------|--------|-------|--------|---------|--------|--------|-----|------|
| APPROACH | | | | | | | | | | |
| 34 | 93.9 | 90.6 | 81.2 | 91.4 | 94.2 | 95.6 | 25.0 | 21.0 | 1.4 | -0.8 |
| 36 | 94.9 | 91.4 | 83.6 | 92.8 | 95.9 | 96.9 | 14.0 | 14.5 | 1.1 | -0.8 |
| 40 | 95.7 | 92.4 | 85.9 | 93.2 | 97.3 | 98.2 | 14.5 | 16.5 | 1.0 | -0.9 |
| 42 | 95.1 | 91.9 | 85.0 | 92.1 | 96.1 | 97.2 | 14.0 | 14.0 | 1.2 | -0.7 |
| 44 | NO DATA | | | | | | | | | |
| 54 | 94.9 | 91.8 | 84.9 | 91.0 | 96.0 | 97.7 | 13.0 | 14.0 | 1.8 | -1.0 |
| 56 | 94.6 | 91.4 | 84.4 | 91.9 | 95.7 | 96.7 | 13.0 | 14.0 | 1.6 | -1.0 |
| Avg. | 94.9 | 91.6 | 84.2 | 92.1 | 95.9 | 97.1 | 15.6 | 15.7 | 1.3 | -0.9 |
| Std Dev | 0.6 | 0.6 | 1.6 | 0.8 | 1.0 | 0.9 | 4.7 | 2.8 | 0.3 | 0.1 |
| TAKEDOFF | | | | | | | | | | |
| 33 | 87.3 | 83.8 | 74.6 | 80.7 | 85.9 | 88.3 | 17.0 | 16.0 | 2.5 | -1.6 |
| 35 | 86.4 | 83.4 | 74.5 | 78.8 | 85.3 | 87.1 | 16.5 | 16.0 | 1.9 | -1.5 |
| 37 | 86.3 | 83.3 | 73.9 | 79.6 | 85.1 | 87.1 | 17.0 | 16.5 | 2.0 | -1.4 |
| 39 | 87.1 | 84.4 | 75.9 | 79.6 | 87.2 | 89.4 | 15.0 | 14.0 | 2.2 | -1.3 |
| 41 | 87.1 | 84.5 | 76.3 | 79.9 | 87.2 | 89.5 | 14.0 | 13.5 | 2.3 | -1.4 |
| 43 | 86.7 | 83.9 | 75.4 | 79.4 | 86.5 | 88.9 | 14.5 | 13.5 | 2.4 | -1.4 |
| 53 | 85.9 | 83.3 | 74.4 | 78.4 | 85.4 | 87.4 | 17.5 | 16.5 | 2.2 | -1.4 |
| 55 | 85.1 | 82.4 | 73.8 | 77.6 | 84.2 | 86.1 | 16.0 | 15.5 | 1.9 | -1.3 |
| Avg. | 86.5 | 83.6 | 74.9 | 79.2 | 85.9 | 88.0 | 15.9 | 15.2 | 2.2 | -1.4 |
| Std Dev | 0.7 | 0.7 | 0.9 | 1.0 | 1.0 | 1.2 | 1.3 | 1.3 | 0.2 | 0.1 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.3-1,6

AUGUSTA A-109 HELICOPTER (ITALIAN)

DOT/TSC
12/30/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 6

SIDELINE-284M. NORTH

JUNE 24, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|----------|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| APPROACH | | | | | | | | | | |
| 24 | 91.3 | 89.0 | 78.7 | 88.7 | 90.3 | 92.3 | 28.5 | 25.0 | 2.0 | -0.6 |
| 26 | 91.6 | 88.6 | 78.8 | 88.6 | 90.6 | 92.6 | 27.0 | 26.0 | 2.2 | -1.2 |
| 28 | 89.4 | 87.1 | 75.2 | 86.5 | 86.9 | 87.7 | 40.5 | 40.5 | 0.8 | -0.5 |
| 32 | 88.5 | 86.1 | 73.4 | 86.3 | 84.8 | 86.1 | 41.0 | 41.0 | 1.8 | -0.5 |
| 34 | 88.6 | 86.3 | 74.8 | 86.1 | 86.8 | 87.4 | 43.0 | 38.5 | 0.7 | -0.5 |
| 36 | 90.1 | 87.9 | 76.8 | 86.2 | 88.6 | 89.4 | 33.0 | 32.0 | 0.9 | -0.5 |
| 38 | 89.0 | 86.3 | 75.0 | 85.2 | 85.0 | 87.3 | 36.0 | 36.0 | 2.4 | -0.8 |
| 40 | 90.1 | 88.1 | 77.9 | 86.4 | 88.4 | 89.0 | 25.0 | 28.0 | 0.6 | -0.4 |
| 64 | 87.8 | 86.1 | 77.9 | 86.8 | 89.3 | 90.2 | 23.0 | 15.0 | 0.9 | -0.4 |
| Avg. | 89.6 | 87.3 | 76.5 | 86.8 | 87.9 | 89.1 | 33.0 | 31.3 | 1.4 | -0.6 |
| Std Dv | 1.3 | 1.2 | 2.0 | 1.2 | 2.1 | 2.3 | 7.5 | 8.6 | 0.7 | 0.3 |
| TAKEOFF | | | | | | | | | | |
| 23 | 88.6 | 86.0 | 76.8 | 84.7 | 87.6 | 89.1 | 21.5 | 21.5 | 1.6 | -1.0 |
| 25 | 89.1 | 86.3 | 77.9 | 84.8 | 88.2 | 90.4 | 18.5 | 18.5 | 2.2 | -0.8 |
| 27 | 88.5 | 85.9 | 76.5 | 84.4 | 87.2 | 89.3 | 25.0 | 20.5 | 2.1 | -0.7 |
| 29 | - | 85.1 | 76.2 | 84.6 | 87.5 | 89.2 | 18.5 | - | 1.7 | - |
| 31 | 88.9 | 86.3 | 76.7 | 84.5 | 87.9 | 89.6 | 20.5 | 17.5 | 1.8 | -1.1 |
| 33 | 88.8 | 86.2 | 75.5 | 83.8 | 86.4 | 88.3 | 23.5 | 23.5 | 2.0 | -1.1 |
| 35 | 88.4 | 85.9 | 75.9 | 84.1 | 87.1 | 89.0 | 22.0 | 18.5 | 1.9 | -0.8 |
| 37 | 89.5 | 87.2 | 77.4 | 84.8 | 88.1 | 90.1 | 22.5 | 19.5 | 2.0 | -0.9 |
| 39 | 89.1 | 86.7 | 76.3 | 84.9 | 87.7 | 89.4 | 24.0 | 21.0 | 1.7 | -0.8 |
| 41 | 88.6 | 86.0 | 76.4 | 85.1 | 87.6 | 89.3 | 18.5 | 18.0 | 1.7 | -1.0 |
| Avg. | 88.8 | 86.1 | 76.6 | 84.6 | 87.5 | 89.4 | 21.4 | 17.8 | 1.9 | -0.9 |
| Std Dv | 0.3 | 0.5 | 0.7 | 0.4 | 0.5 | 0.6 | 2.4 | 6.5 | 0.2 | 0.1 |

* - INDEXES (A,D, ,ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.2-3.3

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/ 3/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 3

CENTERLINE - 150 M. EAST

JUNE 23, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|--|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| 300 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | |
| 9 | 93.5 | 90.5 | 85.2 | 94.7 | 97.4 | 98.3 | 7.5 | 7.5 | 0.9 | -0.7 |
| 10 | 91.9 | 89.0 | 85.0 | 96.1 | 97.1 | 98.1 | 5.5 | 5.5 | 1.0 | -0.7 |
| 15 | 90.8 | 88.1 | 83.1 | 94.5 | 94.7 | 95.5 | 7.5 | 7.5 | 0.8 | -0.7 |
| 16 | 91.0 | 87.7 | 83.4 | 96.9 | 95.6 | 96.8 | 5.5 | 5.5 | 1.2 | -0.7 |
| Avg. | 91.8 | 88.8 | 84.2 | 95.6 | 96.2 | 97.2 | 6.5 | 6.5 | 1.0 | -0.7 |
| Std Dv | 1.2 | 1.2 | 1.1 | 1.2 | 1.3 | 1.3 | 1.2 | 1.2 | 0.2 | 0.0 |
| 700 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | |
| 7 | 88.9 | 86.7 | 79.5 | 89.5 | 90.0 | 91.1 | 14.0 | 15.0 | 1.1 | -0.7 |
| 8 | 87.0 | 85.3 | 77.7 | 91.3 | 89.0 | 90.1 | 10.5 | 9.5 | 1.1 | -0.7 |
| 13 | 86.4 | 84.4 | 77.0 | 88.8 | 87.1 | 88.4 | 14.0 | 15.0 | 1.3 | -0.7 |
| 14 | 87.3 | 85.0 | 78.1 | 92.4 | 89.9 | 90.7 | 9.5 | 9.0 | 0.8 | -0.5 |
| Avg. | 87.4 | 85.3 | 78.1 | 90.5 | 89.0 | 90.1 | 12.0 | 12.1 | 1.1 | -0.7 |
| Std Dv | 1.1 | 1.0 | 1.1 | 1.7 | 1.4 | 1.2 | 2.3 | 3.3 | 0.2 | 0.1 |
| 1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | |
| 45 | 83.3 | 81.7 | 73.7 | 89.4 | 84.3 | 85.3 | 13.0 | 13.5 | 1.0 | -0.6 |
| 46 | 84.1 | 82.1 | 72.3 | 87.7 | 82.6 | 84.4 | 23.0 | 23.5 | 1.8 | -0.7 |
| 47 | 83.3 | 81.7 | 73.8 | 89.5 | 83.6 | 84.6 | 15.0 | 15.5 | 1.4 | -0.6 |
| 48 | 84.2 | 82.3 | 75.1 | 88.6 | 84.6 | 85.9 | 13.5 | 17.5 | 1.3 | -0.9 |
| 1 | 87.3 | 85.4 | 77.2 | 88.4 | 86.8 | 87.9 | 16.0 | 19.5 | 1.2 | -0.8 |
| 2 | 86.2 | 84.5 | 76.0 | 91.0 | 86.7 | 88.1 | 13.0 | 12.5 | 1.4 | -0.7 |
| 3 | 86.3 | 84.5 | 76.9 | 87.2 | 87.0 | 88.1 | 13.5 | 17.0 | 1.0 | -0.6 |
| 4 | 85.2 | 83.5 | 75.0 | 89.3 | 85.2 | 86.4 | 15.5 | 16.0 | 1.2 | -0.6 |
| Avg. | 85.0 | 83.2 | 75.0 | 88.9 | 85.1 | 86.3 | 15.3 | 16.9 | 1.3 | -0.7 |
| Std Dv | 1.5 | 1.5 | 1.7 | 1.2 | 1.6 | 1.5 | 3.3 | 3.5 | 0.3 | 0.1 |
| 1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | |
| 5 | 83.1 | 81.9 | 72.6 | 86.6 | 81.5 | 82.7 | 22.5 | 27.0 | 1.2 | -0.7 |
| 6 | 82.3 | 81.2 | 71.3 | 85.8 | 81.5 | 82.6 | 19.0 | 19.0 | 1.1 | -0.6 |
| 11 | 82.9 | 81.4 | 72.9 | 85.4 | 81.5 | 82.8 | 18.5 | 28.0 | 1.3 | -0.5 |
| 12 | 81.8 | 80.7 | 70.0 | 85.8 | 80.4 | 81.6 | 21.0 | 20.5 | 1.3 | -0.7 |
| Avg. | 82.5 | 81.3 | 71.7 | 85.9 | 81.2 | 82.5 | 20.2 | 23.6 | 1.2 | -0.6 |
| Std Dv | 0.6 | 0.5 | 1.3 | 0.5 | 0.6 | 0.6 | 1.8 | 4.5 | 0.1 | 0.1 |

TABLE NO. A.3-2.5G

AUGUSTA A-109 HELICOPTER (ITALIAN)

DOT/TSC
1/12/81

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 5G

SIDELINE - 150 M. SOUTH (FLUSH)

JUNE 24, 1980

| EV | EPNL | NEL | DBA(M) | DASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(F) | TC | /** |
|---|---------|------|--------|-------|--------|---------|--------|--------|-----|------|
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 87 KTS | | | | | | | | | | |
| 21 | 90.4 | 87.3 | 78.6 | 88.8 | 89.9 | 90.5 | 19.5 | 23.0 | 0.5 | -0.8 |
| 22 | 91.5 | 88.7 | 77.9 | 85.1 | 89.5 | 90.8 | 27.5 | 27.0 | 1.3 | -0.7 |
| 46 | 92.2 | 89.2 | 80.8 | 86.9 | 92.6 | 94.0 | 20.0 | 17.0 | 1.4 | -0.7 |
| 47 | 90.4 | 87.6 | 78.6 | 88.7 | 90.1 | 91.0 | 19.0 | 19.0 | 0.9 | -0.7 |
| Avg. | 91.1 | 88.2 | 79.0 | 87.4 | 90.5 | 91.6 | 21.5 | 21.5 | 1.0 | -0.7 |
| Std Dv | 0.9 | 0.9 | 1.2 | 1.7 | 1.4 | 1.6 | 4.0 | 4.4 | 0.4 | 0.0 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 102 KTS | | | | | | | | | | |
| 51 | 90.5 | 87.8 | 78.8 | 87.6 | 90.0 | 91.2 | 19.0 | 19.5 | 1.2 | -0.8 |
| 52 | 91.9 | 89.1 | 79.9 | 87.5 | 92.2 | 93.5 | 19.0 | 17.0 | 1.2 | -0.8 |
| 53 | NO DATA | | | | | | | | | |
| 56 | 91.3 | 88.4 | 79.1 | 86.7 | 90.7 | 92.1 | 18.0 | 17.5 | 1.4 | -0.8 |
| Avg. | 91.2 | 88.4 | 79.3 | 87.3 | 91.0 | 92.3 | 18.7 | 18.0 | 1.2 | -0.8 |
| Std Dv | 0.7 | 0.7 | 0.6 | 0.5 | 1.1 | 1.2 | 0.6 | 1.3 | 0.1 | 0.0 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 116 KTS | | | | | | | | | | |
| 54 | NO DATA | | | | | | | | | |
| 55 | 90.7 | 87.7 | 79.0 | 87.7 | 89.9 | 90.7 | 16.5 | 21.5 | 0.9 | -1.0 |
| 57 | 90.2 | 87.4 | 78.8 | 87.6 | 89.7 | 90.7 | 19.5 | 20.0 | 0.9 | -0.9 |
| 58 | 91.7 | 89.1 | 80.3 | 87.9 | 91.7 | 93.0 | 19.0 | 18.0 | 1.3 | -0.8 |
| Avg. | 90.9 | 88.1 | 79.4 | 87.8 | 90.5 | 91.5 | 18.3 | 19.8 | 1.1 | -0.9 |
| Std Dv | 0.8 | 0.9 | 0.8 | 0.2 | 1.1 | 1.3 | 1.6 | 1.8 | 0.2 | 0.1 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS | | | | | | | | | | |
| 17 | 94.1 | 90.9 | 82.9 | 92.1 | 94.5 | 96.0 | 15.0 | 15.0 | 1.4 | -1.4 |
| 18 | 93.7 | 91.0 | 82.2 | 91.0 | 93.2 | 94.2 | 16.5 | 16.0 | 1.0 | -0.7 |
| 19 | 94.4 | 91.4 | 83.5 | 92.2 | 94.9 | 97.2 | 13.0 | 13.0 | 2.3 | -1.4 |
| 20 | 94.1 | 91.3 | 83.2 | 92.0 | 94.5 | 95.6 | 15.5 | 14.0 | 1.1 | -0.7 |
| 62 | 93.3 | 90.5 | 81.7 | 91.8 | 93.4 | 94.2 | 15.5 | 16.0 | 0.8 | -0.9 |
| 63 | 93.4 | 90.4 | 81.6 | 91.4 | 92.8 | 94.9 | 14.5 | 14.0 | 2.2 | -1.1 |
| Avg. | 93.8 | 90.9 | 82.5 | 91.8 | 93.9 | 95.3 | 15.0 | 14.7 | 1.5 | -1.0 |
| Std Dv | 0.4 | 0.4 | 0.8 | 0.5 | 0.9 | 1.2 | 1.2 | 1.2 | 0.7 | 0.3 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 145 KTS | | | | | | | | | | |
| 48 | 96.1 | 93.1 | 84.9 | 95.3 | 96.8 | 97.7 | 13.5 | 12.5 | 1.1 | -1.0 |
| 49 | 95.7 | 92.5 | 83.6 | 94.8 | 95.5 | 98.1 | 17.0 | 13.5 | 2.5 | -1.4 |
| 50 | 95.7 | 92.7 | 85.0 | 95.7 | 96.5 | 97.1 | 13.5 | 13.5 | 0.9 | -0.9 |
| 59 | 94.6 | 91.3 | 83.3 | 94.5 | 95.1 | 97.3 | 13.5 | 12.5 | 2.2 | -1.5 |
| 60 | 95.4 | 92.3 | 83.8 | 94.3 | 96.4 | 97.8 | 13.5 | 12.5 | 1.3 | -1.0 |
| 61 | 95.2 | 91.8 | 83.8 | 94.8 | 95.3 | 98.0 | 11.0 | 10.5 | 2.7 | -1.5 |
| Avg. | 95.5 | 92.3 | 84.1 | 94.9 | 96.0 | 97.7 | 13.7 | 12.5 | 1.8 | -1.2 |
| Std Dv | 0.5 | 0.7 | 0.7 | 0.5 | 0.7 | 0.4 | 1.9 | 1.1 | 0.8 | 0.3 |

TABLE NO. A.2-1.4

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
10/14/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 4

SIDELINE -164M. NORTH

JUNE 23, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|----------|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| APPROACH | | | | | | | | | | |
| 34 | 93.7 | 90.7 | 81.4 | 88.6 | 93.4 | 95.3 | 23.0 | 19.5 | 2.0 | -1.1 |
| 36 | 93.3 | 90.7 | 82.5 | 89.2 | 94.0 | 95.1 | 17.0 | 16.5 | 1.3 | -0.7 |
| 40 | 93.9 | 91.1 | 82.4 | 88.0 | 93.3 | 95.0 | 17.5 | 17.0 | 1.6 | -1.0 |
| 42 | 93.9 | 91.2 | 81.4 | 87.8 | 92.6 | 94.0 | 19.0 | 19.0 | 1.8 | -0.9 |
| 44 | 94.2 | 91.2 | 82.8 | 89.3 | 93.9 | 95.8 | 17.0 | 16.5 | 1.9 | -1.0 |
| 54 | 92.4 | 90.1 | 80.4 | 86.2 | 91.3 | 92.5 | 21.5 | 21.5 | 1.3 | -0.8 |
| 56 | 91.8 | 89.1 | 79.6 | 85.2 | 90.3 | 91.6 | 22.0 | 22.0 | 1.4 | -0.8 |
| Avg. | 93.3 | 90.6 | 81.5 | 87.8 | 92.7 | 94.2 | 19.6 | 18.9 | 1.6 | -0.9 |
| Std Dv | 0.9 | 0.7 | 1.2 | 1.6 | 1.4 | 1.6 | 2.6 | 2.3 | 0.3 | 0.2 |
| TAKEOFF | | | | | | | | | | |
| 33 | 92.0 | 88.5 | 79.1 | 83.6 | 90.9 | 92.9 | 16.5 | 16.5 | 1.9 | -1.7 |
| 35 | 91.5 | 88.5 | 79.8 | 84.4 | 90.4 | 92.1 | 16.5 | 17.5 | 1.7 | -1.6 |
| 37 | 91.6 | 88.6 | 80.1 | 84.4 | 90.7 | 92.5 | 16.5 | 17.5 | 1.8 | -1.6 |
| 39 | 91.7 | 88.6 | 79.6 | 84.4 | 90.5 | 92.0 | 17.5 | 18.0 | 1.9 | -1.5 |
| 41 | 91.4 | 88.6 | 79.9 | 84.5 | 90.7 | 92.6 | 15.5 | 16.0 | 1.8 | -1.6 |
| 43 | 91.1 | 88.1 | 79.4 | 84.3 | 90.0 | 91.9 | 18.0 | 18.5 | 1.8 | -1.6 |
| 53 | 90.5 | 87.2 | 78.3 | 83.0 | 89.5 | 91.2 | 15.5 | 16.0 | 1.7 | -1.4 |
| 55 | 90.3 | 87.0 | 77.6 | 82.9 | 89.1 | 91.0 | 18.0 | 18.0 | 1.9 | -1.6 |
| Avg. | 91.2 | 88.1 | 79.2 | 83.9 | 90.2 | 92.0 | 16.7 | 17.2 | 1.8 | -1.6 |
| Std Dv | 0.6 | 0.7 | 0.9 | 0.7 | 0.6 | 0.7 | 1.0 | 1.0 | 0.1 | 0.1 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.3-3.5

AUGUSTA A-109 HELICOPTER (ITALIAN)

DOT/TSC
11/18/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 5

SIDELINE - 150 M. SOUTH

JUNE 24, 1980

| EV | EPNL | NEL | DBA(M) | DASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|--|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| 300 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS | | | | | | | | | | |
| 9 | 90.6 | 87.2 | 78.3 | 92.5 | 89.9 | 91.9 | 14.0 | 13.5 | 2.5 | -1.4 |
| 10 | 92.6 | 90.2 | 80.2 | 92.6 | 91.1 | 92.5 | 17.5 | 17.5 | 1.3 | -1.1 |
| 15 | 90.6 | 87.2 | 79.1 | 91.9 | 91.1 | 93.6 | 16.5 | 14.0 | 2.5 | -1.6 |
| 16 | 91.6 | 89.1 | 79.8 | 91.9 | 90.8 | 91.8 | 16.5 | 16.5 | 1.0 | -1.0 |
| Avg. | 91.3 | 88.4 | 79.3 | 92.2 | 90.7 | 92.4 | 16.1 | 15.4 | 1.8 | -1.3 |
| Std Dv | 0.9 | 1.5 | 0.8 | 0.4 | 0.6 | 0.8 | 1.5 | 1.9 | 0.8 | 0.3 |
| 700 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS | | | | | | | | | | |
| 7 | 89.9 | 86.4 | 76.7 | 88.7 | 89.0 | 91.4 | 19.0 | 17.0 | 2.5 | -1.8 |
| 8 | 90.1 | 87.8 | 77.9 | 90.1 | 88.6 | 90.3 | 24.5 | 24.0 | 1.7 | -1.1 |
| 13 | 90.1 | 86.6 | 79.0 | 89.8 | 88.9 | 91.7 | 15.0 | 17.0 | 2.8 | -1.7 |
| 14 | 89.6 | 87.2 | 76.9 | 89.5 | 87.6 | 89.2 | 26.0 | 25.5 | 1.6 | -1.1 |
| Avg. | 89.9 | 87.0 | 77.6 | 89.5 | 88.5 | 90.7 | 21.1 | 20.9 | 2.1 | -1.4 |
| Std Dv | 0.3 | 0.6 | 1.0 | 0.6 | 0.6 | 1.1 | 5.1 | 4.5 | 0.6 | 0.4 |
| 1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS | | | | | | | | | | |
| 2 | 89.4 | 86.7 | 74.5 | 88.3 | 86.5 | 88.5 | 34.0 | 31.5 | 2.0 | -1.4 |
| 3 | 88.5 | 85.1 | 75.5 | 86.3 | 87.1 | 89.6 | 20.5 | 19.0 | 2.5 | -1.9 |
| 4 | 88.7 | 86.0 | 74.3 | 88.2 | 86.2 | 88.1 | 32.5 | 29.5 | 1.9 | -1.3 |
| 42 | 89.6 | 86.7 | 76.2 | 87.9 | 87.3 | 89.3 | 34.0 | 33.5 | 2.0 | -1.6 |
| 43 | 89.6 | 86.2 | 76.6 | 86.6 | 86.9 | 89.6 | 20.5 | 20.5 | 2.8 | -1.8 |
| 44 | 88.3 | 85.3 | 75.2 | 86.8 | 87.1 | 88.9 | 25.0 | 23.0 | 1.8 | -1.3 |
| 45 | 88.7 | 85.4 | 75.6 | 85.9 | 86.0 | 88.7 | 25.5 | 25.0 | 2.7 | -1.6 |
| Avg. | 89.0 | 85.9 | 75.4 | 87.1 | 86.7 | 89.0 | 27.4 | 26.0 | 2.2 | -1.5 |
| Std Dv | 0.5 | 0.7 | 0.8 | 1.0 | 0.5 | 0.6 | 6.0 | 5.6 | 0.4 | 0.2 |
| 1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS | | | | | | | | | | |
| 5 | 85.7 | 82.6 | 71.4 | 82.2 | 82.5 | 84.6 | 29.5 | 27.5 | 2.6 | -1.6 |
| 6 | 87.1 | 84.3 | 71.7 | 85.5 | 83.5 | 85.5 | 37.0 | 28.0 | 2.1 | -1.4 |
| 11 | 85.0 | 81.9 | 70.3 | 81.3 | 81.8 | 83.9 | 29.0 | 27.5 | 2.2 | -1.6 |
| 12 | 87.1 | 84.2 | 72.1 | 85.4 | 82.5 | 84.7 | 34.5 | 33.5 | 2.2 | -1.5 |
| Avg. | 86.2 | 83.3 | 71.4 | 83.6 | 82.6 | 84.7 | 32.5 | 29.1 | 2.2 | -1.6 |
| Std Dv | 1.0 | 1.2 | 0.8 | 2.2 | 0.7 | 0.6 | 3.9 | 2.9 | 0.2 | 0.1 |

TABLE NO. A.2-3.4

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
10/14/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 4

SIDELINE -164M. NORTH

JUNE 23, 1980

| EV | EPNL | NEL | DBA(M) | DASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|--|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| 300 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | |
| 9 | 92.0 | 89.1 | 82.7 | 95.3 | 94.4 | 95.6 | 8.0 | 8.5 | 1.1 | -1.0 |
| 10 | 91.8 | 89.5 | 83.6 | 91.4 | 94.5 | 96.0 | 8.0 | 8.0 | 1.5 | -1.1 |
| 15 | 91.4 | 88.5 | 82.7 | 94.9 | 94.1 | 95.5 | 8.0 | 9.0 | 1.4 | -1.0 |
| 16 | 92.8 | 90.7 | 83.9 | 93.1 | 94.8 | 96.1 | 8.0 | 8.5 | 1.3 | -0.9 |
| Avg. | 92.0 | 89.4 | 83.2 | 93.7 | 94.4 | 95.8 | 8.0 | 8.5 | 1.4 | -1.0 |
| Std Dv | 0.6 | 0.9 | 0.6 | 1.8 | 0.3 | 0.3 | 0.0 | 0.4 | 0.2 | 0.1 |
| 700 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | |
| 7 | 88.4 | 85.9 | 77.0 | 92.6 | 87.8 | 89.2 | 15.5 | 16.0 | 1.7 | -0.8 |
| 8 | 87.9 | 86.1 | 78.2 | 90.5 | 88.9 | 90.6 | 12.0 | 11.5 | 1.7 | -0.9 |
| 13 | 89.0 | 86.6 | 77.9 | 92.4 | 88.9 | 90.5 | 14.5 | 14.5 | 1.6 | -1.0 |
| 14 | 88.7 | 86.9 | 78.8 | 91.9 | 89.7 | 90.4 | 12.0 | 12.5 | 0.7 | -0.9 |
| Avg. | 88.5 | 86.4 | 78.0 | 91.9 | 88.9 | 90.2 | 13.5 | 13.6 | 1.4 | -0.9 |
| Std Dv | 0.5 | 0.5 | 0.8 | 0.9 | 0.8 | 0.7 | 1.8 | 2.0 | 0.5 | 0.1 |
| 1000 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | |
| 45 | 86.3 | 84.3 | 75.9 | 90.1 | 86.6 | 88.2 | 14.5 | 13.5 | 1.6 | -1.1 |
| 46 | 85.6 | 83.6 | 74.0 | 92.4 | 84.5 | 85.8 | 19.5 | 21.0 | 1.5 | -0.7 |
| 47 | 86.6 | 84.3 | 75.1 | 90.4 | 87.0 | 88.6 | 16.0 | 15.0 | 1.6 | -1.1 |
| 48 | 86.4 | 84.0 | 74.9 | 92.7 | 85.6 | 87.2 | 16.5 | 17.0 | 1.7 | -0.8 |
| 1 | 86.9 | 84.5 | 74.6 | 91.4 | 85.3 | 86.9 | 18.5 | 22.0 | 1.6 | -0.7 |
| 2 | 87.0 | 84.9 | 76.4 | 92.2 | 87.1 | 88.3 | 14.0 | 14.0 | 1.3 | -1.0 |
| 3 | 86.6 | 84.4 | 75.1 | 91.0 | 86.2 | 87.6 | 17.0 | 16.0 | 1.5 | -0.5 |
| 4 | 86.7 | 84.4 | 74.9 | 90.5 | 86.3 | 87.7 | 15.0 | 14.5 | 1.3 | -1.1 |
| Avg. | 86.5 | 84.3 | 75.1 | 91.3 | 86.1 | 87.5 | 16.4 | 16.6 | 1.5 | -0.9 |
| Std Dv | 0.4 | 0.4 | 0.7 | 1.0 | 0.9 | 0.9 | 1.9 | 3.2 | 0.1 | 0.2 |
| 1500 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | |
| 5 | 83.3 | 81.4 | 70.8 | 89.4 | 81.4 | 82.2 | 24.5 | 25.5 | 0.8 | -0.6 |
| 6 | 83.3 | 81.5 | 70.9 | 87.3 | 81.6 | 82.8 | 23.0 | 22.5 | 1.2 | -0.9 |
| 11 | 83.7 | 81.6 | 71.4 | 89.2 | 82.6 | 83.3 | 21.5 | 27.0 | 0.8 | -0.8 |
| 12 | 83.2 | 81.6 | 71.8 | 87.1 | 82.2 | 83.7 | 18.0 | 17.5 | 1.4 | -1.0 |
| Avg. | 83.4 | 81.5 | 71.2 | 88.3 | 81.9 | 83.0 | 21.7 | 23.1 | 1.0 | -0.8 |
| Std Dv | 0.2 | 0.1 | 0.5 | 1.2 | 0.6 | 0.7 | 2.8 | 4.2 | 0.3 | 0.2 |

TABLE NO. A.3-1.5

AUGUSTA A-109 HELICOPTER (ITALIAN)

DOT/TSC
11/18/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 5

SIDELINE - 150 M. SOUTH

JUNE 24, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|----------|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| APPROACH | | | | | | | | | | |
| 24 | 93.6 | 90.7 | 79.2 | 87.6 | 91.8 | 92.9 | 34.0 | 33.5 | 1.1 | -1.1 |
| 26 | 94.9 | 92.5 | 84.3 | 87.8 | 93.9 | 95.7 | 23.0 | 24.0 | 1.7 | -1.1 |
| 28 | 95.2 | 92.9 | 82.2 | 88.8 | 93.3 | 94.5 | 28.5 | 21.5 | 1.3 | -1.1 |
| 32 | 95.4 | 92.9 | 82.6 | 87.9 | 93.1 | 95.1 | 26.5 | 26.5 | 2.0 | -1.3 |
| 34 | 94.7 | 92.3 | 82.5 | 87.7 | 93.1 | 94.6 | 21.0 | 22.0 | 1.5 | -1.0 |
| 36 | 93.1 | 90.5 | 79.3 | 85.9 | 90.9 | 91.9 | 32.5 | 29.0 | 1.0 | -0.9 |
| 38 | 93.6 | 91.0 | 82.1 | 87.9 | 93.3 | 95.0 | 25.5 | 22.5 | 1.6 | -1.1 |
| 40 | 92.8 | 90.0 | 78.8 | 87.1 | 90.5 | 91.7 | 42.0 | 39.0 | 1.2 | -1.1 |
| 64 | 90.2 | 86.9 | 77.9 | 86.5 | 89.9 | 91.2 | 21.5 | 20.0 | 1.3 | -0.9 |
| Avg. | 93.7 | 91.1 | 81.0 | 87.5 | 92.2 | 93.6 | 28.3 | 26.4 | 1.4 | -1.1 |
| Std Dv | 1.6 | 1.9 | 2.2 | 0.9 | 1.5 | 1.7 | 6.9 | 6.3 | 0.3 | 0.1 |
| TAKEOFF | | | | | | | | | | |
| 23 | 92.8 | 89.4 | 80.9 | 92.6 | 93.9 | 95.4 | 15.0 | 13.5 | 1.6 | -1.1 |
| 25 | 92.9 | 89.6 | 80.0 | 92.6 | 92.0 | 93.5 | 16.0 | 14.5 | 1.6 | -1.0 |
| 27 | 92.3 | 89.1 | 80.3 | 92.6 | 92.4 | 94.0 | 15.0 | 13.5 | 1.6 | -1.0 |
| 29 | 91.9 | 88.5 | 79.6 | 92.1 | 91.7 | 93.0 | 14.5 | 14.0 | 1.3 | -1.1 |
| 31 | 92.7 | 89.4 | 80.0 | 92.5 | 92.3 | 94.0 | 16.0 | 14.5 | 1.8 | -1.2 |
| 33 | 92.3 | 89.1 | 79.7 | 92.3 | 92.4 | 93.9 | 16.5 | 15.0 | 1.4 | -1.1 |
| 35 | 92.9 | 89.6 | 81.0 | 92.6 | 93.4 | 95.0 | 15.0 | 14.0 | 1.6 | -1.1 |
| 37 | 92.4 | 89.1 | 79.7 | 91.8 | 91.8 | 93.3 | 16.5 | 15.5 | 1.5 | -1.2 |
| 39 | 92.5 | 89.4 | 79.9 | 92.0 | 91.8 | 93.2 | 17.0 | 14.5 | 1.5 | -1.1 |
| 41 | 91.7 | 88.4 | 79.2 | 91.8 | 91.4 | 92.8 | 15.0 | 14.5 | 1.4 | -1.1 |
| Avg. | 92.5 | 89.2 | 80.0 | 92.3 | 92.3 | 93.8 | 15.6 | 14.3 | 1.5 | -1.1 |
| Std Dv | 0.4 | 0.4 | 0.6 | 0.4 | 0.8 | 0.8 | 0.9 | 0.6 | 0.1 | 0.1 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.2-1.5

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
10/17/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 5

SIDELINE - 150 M. SOUTH

JUNE 23, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|----------|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| APPROACH | | | | | | | | | | |
| 34 | 90.6 | 87.5 | 78.1 | 85.9 | 90.7 | 91.7 | 27.5 | 22.0 | 1.0 | -0.7 |
| 36 | 91.3 | 87.6 | 78.4 | 86.1 | 90.6 | 92.2 | 20.0 | 19.5 | 1.6 | -0.9 |
| 40 | 90.7 | 87.2 | 76.6 | 84.8 | 89.6 | 90.6 | 24.0 | 20.0 | 1.4 | -0.9 |
| 42 | 90.8 | 87.6 | 77.3 | 85.3 | 89.9 | 91.1 | 30.5 | 19.0 | 1.3 | -0.9 |
| 44 | 90.9 | 87.4 | 77.6 | 85.4 | 90.3 | 91.4 | 22.0 | 20.0 | 1.2 | -0.9 |
| 54 | 89.6 | 86.4 | 76.1 | 83.3 | 88.4 | 89.6 | 23.5 | 22.5 | 1.4 | -0.9 |
| 56 | 89.4 | 86.2 | 75.6 | 83.1 | 88.1 | 89.0 | 23.0 | 22.0 | 1.0 | -0.8 |
| Avg. | 90.5 | 87.2 | 77.1 | 84.8 | 89.7 | 90.8 | 24.4 | 20.7 | 1.3 | -0.9 |
| Std Dv | 0.7 | 0.6 | 1.0 | 1.2 | 1.1 | 1.1 | 3.5 | 1.4 | 0.2 | 0.1 |
| TAKEDOFF | | | | | | | | | | |
| 33 | 88.4 | 85.9 | 76.3 | 80.9 | 87.4 | 89.6 | 16.5 | 16.0 | 2.2 | -1.3 |
| 35 | 88.5 | 86.2 | 77.7 | 82.0 | 88.9 | 90.6 | 13.5 | 13.5 | 1.8 | -1.0 |
| 37 | 88.6 | 86.3 | 78.0 | 82.4 | 89.1 | 90.8 | 12.5 | 13.0 | 1.7 | -1.1 |
| 39 | 88.6 | 86.3 | 78.3 | 82.5 | 88.9 | 90.2 | 12.0 | 13.0 | 1.4 | -1.1 |
| 41 | 88.6 | 86.4 | 78.9 | 83.3 | 89.4 | 90.7 | 12.0 | 13.0 | 1.3 | -1.1 |
| 43 | 88.1 | 85.9 | 78.1 | 82.6 | 88.9 | 90.0 | 12.0 | 12.5 | 1.1 | -1.1 |
| 53 | 88.3 | 85.9 | 77.0 | 82.2 | 88.4 | 89.7 | 14.5 | 14.5 | 1.3 | -1.1 |
| 55 | 87.3 | 84.9 | 76.0 | 80.7 | 86.9 | 88.3 | 16.5 | 16.0 | 1.4 | -1.2 |
| Avg. | 88.3 | 86.0 | 77.5 | 82.1 | 88.5 | 90.0 | 13.7 | 13.9 | 1.5 | -1.1 |
| Std Dv | 0.4 | 0.5 | 1.0 | 0.9 | 0.9 | 0.8 | 1.9 | 1.4 | 0.4 | 0.1 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.3-2.4

AUGUSTA A-109 HELICOPTER (ITALIAN)

DOT/TSC
10/16/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 4

SIDELINE -164M, NORTH

JUNE 24, 1980

| EV | EPNL | NEL | DBA(M) | DASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|---|---------------------|------|--------|-------|--------|---------|--------|--------|-----|------|
| 500 FT. FLYBY - TARGET INDICATED AIRSPEED 87 KTS | | | | | | | | | | |
| 21 | 87.7 | 84.8 | 74.3 | 83.9 | 86.2 | 87.2 | 26.5 | 27.0 | 1.0 | -1.0 |
| 22 | 87.3 | 84.2 | 73.8 | 89.0 | 85.6 | 86.9 | 26.5 | 30.0 | 1.2 | -0.9 |
| 46 | 86.4 | 83.7 | 75.1 | 88.3 | 86.4 | 87.1 | 23.0 | 23.5 | 0.7 | -0.8 |
| 47 | 87.6 | 85.1 | 75.2 | 82.8 | 85.9 | 87.2 | 34.0 | 26.5 | 1.6 | -0.9 |
| Avg. | 87.2 | 84.5 | 74.6 | 86.0 | 86.1 | 87.1 | 27.5 | 26.7 | 1.1 | -0.9 |
| Std Dv | 0.6 | 0.6 | 0.7 | 3.1 | 0.3 | 0.2 | 4.6 | 2.7 | 0.4 | 0.1 |
| 500 FT. FLYBY - TARGET INDICATED AIRSPEED 102 KTS | | | | | | | | | | |
| 51 | 88.7 | 85.5 | 75.3 | 86.6 | 87.4 | 88.8 | 23.0 | 21.5 | 1.9 | -1.2 |
| 52 | ----- NO DATA ----- | | | | | | | | | |
| 53 | 88.1 | 85.0 | 74.8 | 86.6 | 87.1 | 88.3 | 24.5 | 24.0 | 1.2 | -1.2 |
| 56 | 87.2 | 84.0 | 75.2 | 88.9 | 87.2 | 88.3 | 23.5 | 22.5 | 1.1 | -1.1 |
| Avg. | 88.0 | 84.8 | 75.1 | 87.4 | 87.2 | 88.5 | 23.7 | 22.7 | 1.4 | -1.1 |
| Std Dv | 0.8 | 0.8 | 0.2 | 1.3 | 0.2 | 0.3 | 0.8 | 1.3 | 0.4 | 0.1 |
| 500 FT. FLYBY - TARGET INDICATED AIRSPEED 116 KTS | | | | | | | | | | |
| 54 | 89.4 | 86.1 | 75.6 | 89.5 | 87.6 | 88.9 | 24.0 | 24.0 | 2.2 | -1.3 |
| 55 | 89.3 | 86.2 | 76.6 | 88.7 | 88.4 | 89.7 | 26.5 | 26.0 | 1.3 | -1.1 |
| 57 | 89.7 | 86.7 | 76.0 | 88.4 | 87.9 | 89.2 | 23.0 | 21.5 | 1.2 | -1.1 |
| 58 | 88.0 | 84.7 | 75.3 | 89.2 | 87.3 | 88.7 | 19.5 | 20.0 | 1.6 | -1.1 |
| Avg. | 89.1 | 85.9 | 75.9 | 88.9 | 87.8 | 89.1 | 23.2 | 22.9 | 1.6 | -1.2 |
| Std Dv | 0.8 | 0.8 | 0.6 | 0.5 | 0.5 | 0.4 | 2.9 | 2.7 | 0.4 | 0.1 |
| 500 FT. FLYBY - TARGET INDICATED AIRSPEED 130 KTS | | | | | | | | | | |
| 17 | 90.4 | 87.7 | 79.3 | 91.6 | 90.3 | 92.5 | 17.5 | 17.5 | 2.2 | -1.3 |
| 18 | 91.0 | 88.0 | 77.6 | 91.2 | 89.1 | 91.3 | 23.5 | 21.0 | 2.2 | -1.3 |
| 19 | 90.4 | 87.7 | 78.3 | 91.2 | 89.2 | 90.2 | 20.5 | 20.0 | 1.1 | -1.3 |
| 20 | 91.9 | 88.7 | 79.8 | 92.2 | 90.3 | 92.6 | 25.5 | 25.5 | 2.3 | -1.5 |
| 62 | 90.4 | 87.1 | 76.8 | 91.9 | 88.2 | 90.1 | 18.5 | 18.5 | 2.3 | -1.5 |
| 63 | 90.1 | 87.3 | 78.0 | 92.6 | 89.6 | 90.5 | 19.0 | 19.0 | 0.9 | -1.1 |
| Avg. | 90.7 | 87.7 | 78.3 | 91.8 | 89.4 | 91.2 | 20.7 | 20.2 | 1.8 | -1.3 |
| Std Dv | 0.7 | 0.6 | 1.1 | 0.6 | 0.8 | 1.1 | 3.1 | 2.8 | 0.6 | 0.2 |
| 500 FT. FLYBY - TARGET INDICATED AIRSPEED 145 KTS | | | | | | | | | | |
| 48 | 93.9 | 89.9 | 81.1 | 96.9 | 92.9 | 95.7 | 14.5 | 13.5 | 2.8 | -1.8 |
| 49 | 92.9 | 89.7 | 80.2 | 94.3 | 91.8 | 93.3 | 18.0 | 17.5 | 2.6 | -1.4 |
| 50 | 94.3 | 90.3 | 81.2 | 97.7 | 93.5 | 96.2 | 19.0 | 17.5 | 2.7 | -1.8 |
| 59 | 92.8 | 89.6 | 80.0 | 96.2 | 92.1 | 93.0 | 18.0 | 18.0 | 1.3 | -1.2 |
| 60 | 93.5 | 89.5 | 81.9 | 97.0 | 92.6 | 95.5 | 14.5 | 14.0 | 2.9 | -1.8 |
| 61 | 92.7 | 89.7 | 79.9 | 95.1 | 91.5 | 93.1 | 19.5 | 18.5 | 1.6 | -1.3 |
| Avg. | 93.3 | 89.8 | 80.7 | 96.2 | 92.4 | 94.5 | 17.2 | 16.5 | 2.3 | -1.5 |
| Std Dv | 0.6 | 0.3 | 0.8 | 1.3 | 0.7 | 1.5 | 2.2 | 2.2 | 0.7 | 0.3 |

TABLE NO. A.2-3.5

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
10/17/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 5

SIDELINE - 150 M. SOUTH

JUNE 23, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|---|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| 300 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | |
| 9 | 91.7 | 89.5 | 82.6 | 91.0 | 93.4 | 94.5 | 11.0 | 10.5 | 1.6 | -1.3 |
| 10 | 88.7 | 86.0 | 80.2 | 93.2 | 91.9 | 93.1 | 8.0 | 7.5 | 1.5 | -0.9 |
| 15 | 91.6 | 89.7 | 82.9 | 91.1 | 93.3 | 94.7 | 11.0 | 10.0 | 1.4 | -1.0 |
| 16 | 90.0 | 86.9 | 81.6 | 96.2 | 93.5 | 95.0 | 7.0 | 6.5 | 1.6 | -1.0 |
| Avg. | 90.5 | 88.0 | 81.8 | 92.7 | 93.0 | 94.3 | 9.2 | 8.6 | 1.5 | -1.0 |
| Std Dv | 1.4 | 1.9 | 1.2 | 2.4 | 0.8 | 0.9 | 2.1 | 1.9 | 0.1 | 0.2 |

700 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|------|------|-----|------|
| 7 | 88.2 | 86.0 | 76.1 | 88.0 | 87.0 | 88.8 | 18.5 | 17.5 | 2.0 | -1.1 |
| 8 | 86.1 | 83.5 | 77.0 | 93.1 | 89.2 | 90.1 | 9.5 | 9.0 | 0.9 | -0.5 |
| 13 | 88.1 | 85.9 | 76.6 | 87.5 | 87.3 | 89.2 | 17.0 | 16.0 | 2.1 | -1.1 |
| 14 | 87.4 | 84.8 | 78.0 | 93.8 | 90.2 | 90.9 | 10.0 | 9.5 | 0.7 | -0.4 |
| Avg. | 87.4 | 85.1 | 76.9 | 90.6 | 88.4 | 89.7 | 13.7 | 13.0 | 1.4 | -0.8 |
| Std Dv | 1.0 | 1.2 | 0.8 | 3.3 | 1.5 | 0.9 | 4.7 | 4.4 | 0.7 | 0.4 |

1000 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|------|------|-----|------|
| 45 | 83.4 | 81.3 | 72.4 | 90.6 | 83.2 | 84.2 | 15.5 | 15.0 | 0.9 | -0.7 |
| 46 | 85.0 | 83.1 | 73.9 | 87.3 | 84.1 | 85.9 | 19.5 | 18.0 | 1.8 | -1.1 |
| 47 | 83.9 | 81.4 | 72.2 | 90.9 | 82.9 | 84.1 | 17.5 | 25.0 | 1.3 | -0.7 |
| 48 | 85.5 | 83.3 | 74.2 | 88.0 | 85.1 | 86.8 | 18.5 | 17.5 | 1.7 | -0.9 |
| 1 | 86.8 | 84.6 | 74.3 | 86.7 | 85.0 | 86.7 | 21.5 | 20.5 | 1.7 | -1.1 |
| 2 | 84.4 | 82.1 | 73.4 | 92.1 | 85.1 | 85.7 | 15.0 | 14.5 | 0.9 | -0.7 |
| 3 | 85.8 | 83.8 | 73.7 | 86.9 | 84.9 | 86.6 | 24.0 | 19.0 | 1.8 | -0.8 |
| 4 | - | 81.6 | 72.6 | 90.9 | 84.0 | 85.1 | 15.0 | - | 1.1 | - |
| Avg. | 85.0 | 82.7 | 73.3 | 89.2 | 84.3 | 85.6 | 18.3 | 16.2 | 1.4 | -0.9 |
| Std Dv | 1.2 | 1.2 | 0.8 | 2.2 | 0.9 | 1.1 | 3.3 | 7.3 | 0.4 | 0.2 |

1500 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|------|------|-----|------|
| 5 | 82.7 | 81.0 | 69.6 | 85.4 | 79.7 | 81.3 | 31.5 | 32.5 | 1.6 | -0.8 |
| 6 | 81.0 | 79.2 | 69.3 | 87.6 | 80.1 | 81.0 | 21.0 | 22.5 | 0.9 | -0.5 |
| 11 | 82.8 | 80.5 | 70.0 | 84.9 | 80.4 | 81.4 | 30.0 | 45.5 | 1.1 | -0.5 |
| 12 | 81.6 | 79.6 | 69.5 | 87.7 | 80.8 | 81.8 | 19.5 | 23.5 | 1.0 | -0.4 |
| Avg. | 82.0 | 80.1 | 69.6 | 86.4 | 80.3 | 81.4 | 25.5 | 31.0 | 1.1 | -0.5 |
| Std Dv | 0.9 | 0.8 | 0.3 | 1.5 | 0.4 | 0.3 | 6.1 | 10.7 | 0.3 | 0.2 |

TABLE NO. A.3-3.3

AUGUSTA A-109 HELICOPTER (ITALIAN)

DOT/TSC
1/12/81

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 3

CENTERLINE - 150 M. EAST

JUNE 24, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|--|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| 300 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS | | | | | | | | | | |
| 9 | 94.1 | 90.9 | 84.6 | 91.7 | 95.6 | 97.6 | 9.5 | 9.5 | 2.0 | -1.7 |
| 10 | 95.0 | 92.1 | 84.1 | 92.9 | 95.5 | 97.4 | 13.5 | 10.5 | 2.1 | -1.5 |
| 15 | 95.4 | 92.4 | 85.2 | 92.3 | 96.0 | 98.0 | 12.0 | 11.5 | 2.1 | -1.6 |
| 16 | 95.7 | 92.7 | 85.1 | 92.9 | 96.5 | 98.3 | 12.0 | 12.0 | 1.9 | -1.4 |
| Avg. | 95.1 | 92.0 | 84.8 | 92.5 | 95.9 | 97.8 | 11.7 | 10.9 | 2.0 | -1.5 |
| Std Dv | 0.7 | 0.8 | 0.5 | 0.6 | 0.4 | 0.4 | 1.7 | 1.1 | 0.1 | 0.1 |
| 700 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS | | | | | | | | | | |
| 7 | 89.9 | 87.1 | 78.1 | 86.6 | 88.5 | 90.5 | 15.5 | 16.0 | 2.0 | -1.8 |
| 8 | 90.2 | 87.5 | 77.3 | 86.2 | 88.1 | 89.9 | 23.5 | 23.5 | 2.0 | -1.3 |
| 13 | 90.9 | 88.0 | 79.3 | 88.3 | 89.9 | 92.1 | 13.5 | 13.0 | 2.2 | -1.8 |
| 14 | 90.0 | 87.4 | 77.0 | 86.2 | 87.8 | 89.6 | 23.0 | 22.5 | 1.8 | -1.4 |
| Avg. | 90.3 | 87.5 | 77.9 | 86.8 | 88.6 | 90.5 | 18.9 | 18.7 | 2.0 | -1.6 |
| Std Dv | 0.5 | 0.4 | 1.0 | 1.0 | 0.9 | 1.1 | 5.1 | 5.1 | 0.2 | 0.3 |
| 1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS | | | | | | | | | | |
| 1 | - | 91.4 | 83.9 | 95.5 | 93.9 | 96.9 | 10.5 | - | 3.4 | - |
| 2 | 88.9 | 86.1 | 74.8 | 84.8 | 85.6 | 87.6 | 29.0 | 28.5 | 2.0 | -1.4 |
| 3 | 87.7 | 84.8 | 76.0 | 85.5 | 85.9 | 88.6 | 19.0 | 18.5 | 2.8 | -1.9 |
| 4 | 88.5 | 85.8 | 75.0 | 84.6 | 85.9 | 88.0 | 27.0 | 26.0 | 2.1 | -1.4 |
| 42 | 88.8 | 86.0 | 75.8 | 84.5 | 86.1 | 88.2 | 22.0 | 22.0 | 2.2 | -1.6 |
| 43 | 88.6 | 85.9 | 77.1 | 84.7 | 86.6 | 89.2 | 18.5 | 18.0 | 2.6 | -1.8 |
| 44 | 87.8 | 85.0 | 76.1 | 83.5 | 86.7 | 89.0 | 19.5 | 19.0 | 2.3 | -1.4 |
| 45 | 87.5 | 84.4 | 74.5 | 84.1 | 85.2 | 87.6 | 26.5 | 25.5 | 2.3 | -1.8 |
| Avg. | 88.3 | 86.2 | 76.6 | 85.9 | 87.0 | 89.4 | 21.5 | 19.7 | 2.4 | -1.6 |
| Std Dv | 0.6 | 2.2 | 3.1 | 3.9 | 2.8 | 3.1 | 6.0 | 8.9 | 0.5 | 0.2 |
| 1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS | | | | | | | | | | |
| 5 | 81.0 | 79.0 | 69.1 | 78.7 | 78.7 | 81.1 | 28.5 | 28.0 | 2.4 | -1.6 |
| 6 | 85.3 | 82.8 | 71.0 | 81.5 | 81.5 | 83.1 | 35.0 | 34.0 | 1.7 | -1.4 |
| 11 | 84.7 | 82.0 | 70.1 | 82.9 | 80.6 | 82.4 | 34.0 | 33.5 | 2.2 | -1.6 |
| 12 | 86.5 | 83.7 | 71.4 | 82.3 | 82.3 | 84.5 | 32.5 | 31.5 | 2.2 | -1.6 |
| Avg. | 84.4 | 81.9 | 70.4 | 81.3 | 80.7 | 82.8 | 32.5 | 31.7 | 2.1 | -1.6 |
| Std Dv | 2.4 | 2.1 | 1.0 | 1.9 | 1.6 | 1.4 | 2.9 | 2.7 | 0.3 | 0.1 |

TABLE NO. A.2-1.5G

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
1/12/81

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 5G SIDELINE - 150 M. SOUTH (FLUSH) JUNE 23, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|----------|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| APPROACH | | | | | | | | | | |
| 34 | 94.2 | 91.4 | 83.1 | 89.9 | 95.1 | 95.9 | 16.0 | 16.5 | 0.9 | -0.3 |
| 36 | 93.0 | 89.7 | 80.9 | 86.4 | 92.5 | 94.1 | 16.5 | 16.5 | 1.6 | -0.8 |
| 40 | 95.1 | 91.7 | 81.9 | 90.2 | 94.2 | 95.4 | 19.5 | 19.5 | 1.2 | -0.5 |
| 42 | 95.0 | 91.9 | 82.4 | 90.4 | 94.6 | 96.1 | 19.0 | 18.5 | 1.4 | -0.5 |
| 44 | 94.7 | 91.8 | 82.8 | 89.9 | 94.8 | 95.5 | 18.5 | 18.0 | 0.7 | -0.2 |
| 54 | 94.1 | 91.2 | 81.0 | 88.8 | 93.1 | 93.9 | 23.0 | 23.0 | 1.0 | -0.3 |
| 56 | 94.0 | 90.7 | 80.8 | 88.4 | 93.4 | 94.2 | 22.0 | 21.5 | 0.8 | -0.3 |
| Avg. | 94.3 | 91.2 | 81.8 | 89.1 | 94.0 | 95.0 | 19.2 | 19.1 | 1.1 | -0.4 |
| Std Dv | 0.7 | 0.8 | 1.0 | 1.4 | 1.0 | 0.9 | 2.6 | 2.5 | 0.3 | 0.2 |
| TAKEOFF | | | | | | | | | | |
| 33 | 93.7 | 91.1 | 81.6 | 85.5 | 92.7 | 94.8 | 15.5 | 15.5 | 2.2 | -1.3 |
| 35 | 94.4 | 91.7 | 83.9 | 86.8 | 93.9 | 96.1 | 11.5 | 13.5 | 2.4 | -1.4 |
| 37 | 94.4 | 91.8 | 83.8 | 86.7 | 94.1 | 96.1 | 12.5 | 13.0 | 2.1 | -1.3 |
| 39 | 94.5 | 92.1 | 84.9 | 87.7 | 95.0 | 96.0 | 11.5 | 13.0 | 2.1 | -1.2 |
| 41 | 94.4 | 92.1 | 85.2 | 87.9 | 95.2 | 96.6 | 10.0 | 11.5 | 2.2 | -1.2 |
| 43 | 94.1 | 91.6 | 84.4 | 87.2 | 94.5 | 95.9 | 10.5 | 12.0 | 2.2 | -1.3 |
| 53 | 94.2 | 91.4 | 82.5 | 85.8 | 94.0 | 95.9 | 13.0 | 13.5 | 1.9 | -1.4 |
| 55 | 92.8 | 90.3 | 81.9 | 85.3 | 92.6 | 94.8 | 13.5 | 14.0 | 2.1 | -1.3 |
| Avg. | 94.1 | 91.5 | 83.5 | 86.6 | 94.0 | 95.8 | 12.2 | 13.2 | 2.2 | -1.3 |
| Std Dv | 0.6 | 0.6 | 1.3 | 1.0 | 0.9 | 0.6 | 1.8 | 1.2 | 0.2 | 0.1 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.3-1.3

AUGUSTA A-109 HELICOPTER (ITALIAN)

DOT/TSC
12/ 8/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 3

CENTERLINE - 150 M. EAST

JUNE 24, 1980

| EV | EPNL | NEL | DBA(M) | DASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|----------|-------|------|--------|-------|--------|---------|--------|--------|-----|------|
| APPROACH | | | | | | | | | | |
| 24 | 98.4 | 96.3 | 85.9 | 93.0 | 97.0 | 98.3 | 21.5 | 20.5 | 1.4 | -0.9 |
| 26 | 102.0 | 99.5 | 88.3 | 96.8 | 99.9 | 101.2 | 29.5 | 28.5 | 1.2 | -0.8 |
| 28 | 97.7 | 95.3 | 86.1 | 94.2 | 97.5 | 98.5 | 24.5 | 21.5 | 1.1 | -0.9 |
| 32 | 98.0 | 95.5 | 85.4 | 94.2 | 97.6 | 99.2 | 22.0 | 19.5 | 1.6 | -0.9 |
| 34 | 99.0 | 96.4 | 86.9 | 94.1 | 97.9 | 99.1 | 19.5 | 20.0 | 1.2 | -1.1 |
| 36 | 98.6 | 96.2 | 87.0 | 95.2 | 99.3 | 100.4 | 18.5 | 17.0 | 1.1 | -0.8 |
| 38 | 97.8 | 95.5 | 87.4 | 94.6 | 98.3 | 99.4 | 17.0 | 19.5 | 1.1 | -0.9 |
| 40 | 97.5 | 95.3 | 85.8 | 93.5 | 97.2 | 98.2 | 23.0 | 23.0 | 1.0 | -0.9 |
| 64 | 95.1 | 92.9 | 84.6 | 93.9 | 96.5 | 97.8 | 17.5 | 13.5 | 1.3 | -0.7 |
| Avg. | 98.2 | 95.9 | 86.4 | 94.4 | 97.9 | 99.1 | 21.4 | 20.3 | 1.2 | -0.9 |
| Std Dv | 1.8 | 1.7 | 1.1 | 1.1 | 1.1 | 1.1 | 3.9 | 4.1 | 0.2 | 0.1 |
| TAKEOFF | | | | | | | | | | |
| 23 | 93.4 | 90.1 | 83.0 | 89.7 | 95.1 | 96.8 | 11.5 | 9.5 | 1.7 | -1.7 |
| 25 | 94.9 | 91.5 | 85.3 | 89.9 | 97.1 | 99.0 | 9.0 | 8.5 | 1.8 | -1.5 |
| 27 | 95.0 | 91.6 | 84.8 | 89.2 | 96.7 | 98.9 | 9.5 | 8.0 | 2.3 | -1.5 |
| 29 | 93.9 | 90.5 | 84.0 | 88.4 | 96.2 | 97.9 | 9.5 | 8.5 | 2.1 | -1.4 |
| 31 | 93.4 | 90.0 | 83.4 | 87.9 | 95.6 | 97.1 | 10.0 | 8.5 | 1.6 | -1.5 |
| 33 | 93.5 | 90.0 | 83.4 | 88.3 | 95.4 | 97.2 | 10.0 | 8.5 | 1.8 | -1.6 |
| 35 | 94.2 | 90.9 | 84.4 | 88.8 | 96.4 | 98.2 | 10.0 | 8.0 | 2.1 | -1.6 |
| 37 | 93.5 | 89.8 | 82.8 | 88.0 | 95.1 | 96.9 | 11.0 | 9.5 | 1.8 | -1.5 |
| 39 | 93.4 | 89.9 | 83.6 | 88.4 | 95.6 | 97.1 | 9.5 | 8.5 | 1.5 | -1.4 |
| 41 | 93.3 | 89.8 | 82.9 | 88.1 | 94.9 | 96.9 | 10.5 | 9.0 | 2.3 | -1.5 |
| Avg. | 93.8 | 90.4 | 83.8 | 88.7 | 95.8 | 97.6 | 10.0 | 8.6 | 1.9 | -1.5 |
| Std Dv | 0.7 | 0.7 | 0.9 | 0.7 | 0.8 | 0.9 | 0.8 | 0.5 | 0.3 | 0.1 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO.A.2-3.5G

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC

1/12/81

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 5G

SIDELINE - 150 M. SOUTH (FLUSH)

JUNE 23, 1980

EV EPNL NEL DBA(M) OASPL PNL(M) PNLT(M) DUR(A) DUR(P) TC / **

300 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS

| 9 | ----- | | | NO DATA | | ----- | | | | |
|--------|-------|------|------|---------|------|-------|-----|-----|-----|------|
| 10 | ----- | | | NO DATA | | ----- | | | | |
| 15 | 96.4 | 93.6 | 87.4 | 92.4 | 98.6 | 100.0 | 8.5 | 8.5 | 1.7 | -1.1 |
| 16 | 94.9 | 92.0 | 87.0 | 96.5 | 98.5 | 99.5 | 6.0 | 6.5 | 1.1 | -0.6 |
| Avg. | 95.6 | 92.8 | 87.2 | 94.4 | 98.5 | 99.7 | 7.2 | 7.5 | 1.4 | -0.9 |
| Std Dv | 1.0 | 1.2 | 0.2 | 2.9 | 0.1 | 0.3 | 1.8 | 1.4 | 0.4 | 0.3 |

700 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|------|------|-----|------|
| 7 | 92.1 | 89.8 | 80.7 | 89.2 | 91.6 | 93.1 | 16.0 | 15.0 | 1.6 | -0.7 |
| 8 | 90.4 | 88.1 | 81.4 | 94.0 | 92.9 | 93.6 | 9.5 | 9.5 | 0.7 | -0.3 |
| 13 | 92.4 | 90.1 | 81.5 | 89.0 | 92.6 | 93.9 | 15.0 | 14.5 | 1.1 | -0.7 |
| 14 | 92.2 | 89.8 | 83.3 | 95.4 | 95.0 | 95.7 | 9.0 | 9.0 | 0.9 | -0.3 |
| Avg. | 91.8 | 89.4 | 81.7 | 91.9 | 93.0 | 94.1 | 12.4 | 12.0 | 1.1 | -0.5 |
| Std Dv | 0.9 | 0.9 | 1.1 | 3.3 | 1.4 | 1.1 | 3.6 | 3.2 | 0.4 | 0.3 |

1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|------|------|-----|------|
| 45 | 88.5 | 86.6 | 78.4 | 91.9 | 89.4 | 89.9 | 13.0 | 14.0 | 0.6 | -0.4 |
| 46 | 89.9 | 88.0 | 79.1 | 89.5 | 89.6 | 91.2 | 17.5 | 16.0 | 1.6 | -0.7 |
| 47 | 88.4 | 86.7 | 77.7 | 92.3 | 88.4 | 89.3 | 16.0 | 17.5 | 0.8 | -0.4 |
| 48 | 90.2 | 88.1 | 79.6 | 89.9 | 90.7 | 92.0 | 16.5 | 15.5 | 1.3 | -0.6 |
| 1 | 90.6 | 88.5 | 78.9 | 88.1 | 89.7 | 91.0 | 19.0 | 18.0 | 1.3 | -0.6 |
| 2 | 89.1 | 86.9 | 78.6 | 93.2 | 89.8 | 90.8 | 13.0 | 13.0 | 1.0 | -0.3 |
| 3 | 90.0 | 87.9 | 78.7 | 88.7 | 89.9 | 91.1 | 18.0 | 16.5 | 1.1 | -0.7 |
| 4 | 88.1 | 86.2 | 77.8 | 91.9 | 88.6 | 89.5 | 14.5 | 14.5 | 1.1 | -0.4 |
| Avg. | 89.4 | 87.4 | 78.6 | 90.7 | 89.5 | 90.6 | 15.9 | 15.6 | 1.1 | -0.5 |
| Std Dv | 0.9 | 0.9 | 0.6 | 1.9 | 0.7 | 0.9 | 2.3 | 1.7 | 0.3 | 0.1 |

1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|------|------|-----|------|
| 5 | 86.4 | 84.8 | 74.1 | 86.7 | 84.3 | 85.5 | 24.5 | 26.0 | 1.2 | -0.5 |
| 6 | 85.2 | 83.9 | 74.5 | 88.3 | 85.0 | 85.6 | 19.0 | 19.0 | 0.6 | -0.2 |
| 11 | 86.1 | 84.4 | 74.5 | 86.1 | 85.3 | 86.4 | 21.5 | 25.0 | 1.1 | -0.4 |
| 12 | 85.5 | 83.9 | 74.3 | 88.3 | 84.9 | 85.7 | 18.0 | 18.5 | 1.3 | -0.2 |
| Avg. | 85.8 | 84.2 | 74.3 | 87.4 | 84.9 | 85.8 | 20.7 | 22.1 | 1.0 | -0.3 |
| Std Dv | 0.5 | 0.4 | 0.2 | 1.1 | 0.4 | 0.4 | 2.9 | 3.9 | 0.3 | 0.1 |

TABLE NO. A.3-2.2

AUGUSTA A-109 HELICOPTER (ITALIAN)

DOT/TSC
12/ 8/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

| SITE: 2 | | CENTERLINE - 150 M. WEST | | | | | | | JUNE 24, 1980 | |
|---|------|--------------------------|--------|-------|--------|---------|--------|--------|---------------|------|
| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 87 KTS | | | | | | | | | | |
| 21 | 90.3 | 87.1 | 78.8 | 87.0 | 91.5 | 93.4 | 20.5 | 14.5 | 2.0 | -1.1 |
| 22 | 90.5 | 87.6 | 78.4 | 88.1 | 91.5 | 93.4 | 25.0 | 14.5 | 1.9 | -1.1 |
| 46 | 90.8 | 87.6 | 78.7 | 88.0 | 91.5 | 93.4 | 20.0 | 15.0 | 2.2 | -1.2 |
| 47 | 90.1 | 87.5 | 78.8 | 86.7 | 90.7 | 92.0 | 21.0 | 14.5 | 1.3 | -1.1 |
| Avg. | 90.4 | 87.5 | 78.7 | 87.5 | 91.3 | 93.1 | 21.6 | 14.6 | 1.8 | -1.1 |
| Std Dv | 0.3 | 0.2 | 0.2 | 0.7 | 0.4 | 0.7 | 2.3 | 0.2 | 0.4 | 0.0 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 102 KTS | | | | | | | | | | |
| 51 | 90.2 | 87.3 | 77.9 | 87.4 | 90.0 | 91.8 | 21.0 | 15.5 | 1.8 | -0.9 |
| 52 | 90.5 | 87.2 | 80.9 | 88.3 | 93.1 | 94.7 | 10.5 | 9.5 | 1.6 | -1.2 |
| 53 | 89.8 | 86.7 | 77.6 | 86.3 | 89.6 | 91.4 | 19.0 | 15.5 | 1.9 | -1.4 |
| 56 | 90.6 | 87.5 | 79.2 | 88.4 | 92.0 | 94.2 | 18.0 | 12.0 | 2.2 | -1.4 |
| Avg. | 90.3 | 87.2 | 78.9 | 87.6 | 91.2 | 93.0 | 17.1 | 13.1 | 1.9 | -1.2 |
| Std Dv | 0.4 | 0.3 | 1.5 | 1.0 | 1.7 | 1.7 | 4.6 | 2.9 | 0.2 | 0.3 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 116 KTS | | | | | | | | | | |
| 54 | 92.4 | 89.1 | 79.8 | 88.8 | 92.5 | 94.7 | 18.0 | 17.0 | 2.3 | -1.7 |
| 55 | 91.3 | 88.1 | 78.7 | 87.0 | 90.9 | 92.7 | 14.5 | 13.5 | 1.9 | -1.5 |
| 57 | 90.6 | 87.3 | 78.7 | 86.4 | 90.2 | 92.2 | 16.0 | 15.0 | 2.3 | -1.5 |
| 58 | 91.2 | 87.8 | 79.5 | 88.4 | 92.1 | 94.2 | 16.5 | 15.0 | 2.2 | -1.5 |
| Avg. | 91.4 | 88.1 | 79.2 | 87.7 | 91.4 | 93.5 | 16.2 | 15.1 | 2.2 | -1.5 |
| Std Dv | 0.7 | 0.7 | 0.6 | 1.1 | 1.0 | 1.2 | 1.4 | 1.4 | 0.2 | 0.1 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS | | | | | | | | | | |
| 17 | 94.1 | 90.9 | 81.8 | 89.5 | 93.2 | 95.2 | 12.5 | 12.0 | 2.0 | -1.6 |
| 18 | 92.9 | 89.6 | 80.3 | 89.3 | 92.7 | 94.6 | 19.5 | 17.0 | 2.2 | -1.6 |
| 19 | 93.4 | 89.9 | 82.0 | 89.3 | 92.6 | 95.2 | 12.0 | 12.0 | 2.6 | -1.8 |
| 20 | 94.5 | 91.3 | 82.5 | 89.7 | 93.7 | 95.9 | 16.0 | 15.5 | 2.3 | -1.7 |
| 62 | 93.5 | 90.4 | 82.1 | 89.7 | 93.4 | 95.6 | 15.0 | 13.0 | 2.2 | -1.7 |
| 63 | 92.5 | 89.4 | 80.6 | 89.2 | 91.8 | 93.8 | 14.0 | 13.5 | 2.0 | -1.5 |
| Avg. | 93.5 | 90.2 | 81.5 | 89.5 | 92.9 | 95.1 | 14.8 | 13.8 | 2.2 | -1.7 |
| Std Dv | 0.7 | 0.8 | 0.9 | 0.2 | 0.7 | 0.7 | 2.7 | 2.0 | 0.2 | 0.1 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 145 KTS | | | | | | | | | | |
| 48 | 95.6 | 92.0 | 84.2 | 94.6 | 95.4 | 97.9 | 11.0 | 10.5 | 2.7 | -2.0 |
| 49 | 95.4 | 92.0 | 83.2 | 93.1 | 93.9 | 96.7 | 15.5 | 15.0 | 2.8 | -1.9 |
| 50 | 95.9 | 92.2 | 84.1 | 94.5 | 94.9 | 97.7 | 12.5 | 11.5 | 2.8 | -2.0 |
| 59 | 94.8 | 91.2 | 84.5 | 93.9 | 95.7 | 98.4 | 9.0 | 8.5 | 2.6 | -1.8 |
| 60 | 95.2 | 91.5 | 83.6 | 94.1 | 94.8 | 97.3 | 13.0 | 12.5 | 2.6 | -2.0 |
| 61 | 94.9 | 91.6 | 83.5 | 93.6 | 94.6 | 97.1 | 12.0 | 11.0 | 2.5 | -1.9 |
| Avg. | 95.3 | 91.8 | 83.9 | 94.0 | 94.9 | 97.5 | 12.2 | 11.5 | 2.7 | -1.9 |
| Std Dv | 0.4 | 0.4 | 0.5 | 0.6 | 0.6 | 0.6 | 2.2 | 2.2 | 0.1 | 0.1 |

TABLE NO. A.2-1.6

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/ 3/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 6

SIDELINE - 284 M. NORTH

JUNE 23, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|----------|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| APPROACH | | | | | | | | | | |
| 34 | 87.3 | 85.3 | 74.5 | 80.5 | 85.5 | 86.8 | 28.0 | 27.0 | 1.3 | -0.5 |
| 36 | 87.9 | 85.6 | 76.5 | 81.9 | 87.6 | 89.4 | 29.5 | 25.5 | 1.9 | -0.6 |
| 40 | 87.5 | 85.2 | 76.6 | 80.9 | 86.6 | 88.3 | 26.0 | 26.0 | 1.7 | -0.5 |
| 42 | 83.2 | 81.2 | 72.3 | 76.4 | 82.3 | 83.7 | 22.5 | 23.5 | 1.7 | -0.5 |
| 44 | 88.9 | 86.7 | 77.2 | 82.0 | 87.2 | 88.7 | 21.0 | 22.5 | 1.5 | -0.7 |
| 54 | 86.6 | 84.5 | 75.3 | 80.6 | 86.2 | 87.2 | 24.0 | 24.0 | 1.0 | -0.5 |
| 56 | 86.9 | 84.9 | 74.8 | 79.3 | 84.7 | 86.4 | 30.0 | 30.0 | 2.5 | -0.5 |
| Avg. | 86.9 | 84.8 | 75.3 | 80.2 | 85.7 | 87.2 | 25.9 | 25.5 | 1.6 | -0.5 |
| Std Dev | 1.8 | 1.7 | 1.7 | 1.9 | 1.8 | 1.9 | 3.5 | 2.5 | 0.5 | 0.1 |
| TAKEOFF | | | | | | | | | | |
| 33 | - | 84.3 | 74.1 | 79.8 | 85.0 | 87.1 | 20.0 | - | 2.0 | - |
| 35 | 88.1 | 85.6 | 75.6 | 80.6 | 85.7 | 87.5 | 23.0 | 23.0 | 1.7 | -1.5 |
| 37 | - | 85.0 | 75.3 | 80.7 | 85.9 | 87.5 | 22.0 | - | 1.7 | - |
| 39 | 87.9 | 85.2 | 74.5 | 81.0 | 85.0 | 86.7 | 24.5 | 24.0 | 1.9 | -1.4 |
| 41 | 87.9 | 85.1 | 74.1 | 80.9 | 85.3 | 87.7 | 22.0 | 21.5 | 2.5 | -1.5 |
| 43 | 87.5 | 84.8 | 74.2 | 81.2 | 84.8 | 87.3 | 24.5 | 22.0 | 2.6 | -1.4 |
| 53 | 87.7 | 85.0 | 73.6 | 80.2 | 85.6 | 87.9 | 30.0 | 22.0 | 2.2 | -1.5 |
| 55 | 87.1 | 84.2 | 72.7 | 79.5 | 84.5 | 86.9 | 25.5 | 23.5 | 2.7 | -1.6 |
| Avg. | 87.7 | 84.9 | 74.3 | 80.5 | 85.2 | 87.3 | 23.9 | 17.0 | 2.2 | -1.5 |
| Std Dev | 0.4 | 0.5 | 0.9 | 0.6 | 0.5 | 0.4 | 3.0 | 10.5 | 0.4 | 0.1 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.3-3.1H

AUGUSTA A-109 HELICOPTER (ITALIAN)

DOT/TSC
1/12/81

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 1H

CENTERLINE - CENTER (10 METER)

JUNE 24, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|---|------|------|--------|---------|--------|---------|--------|--------|-----|------|
| 300 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS | | | | | | | | | | |
| 9 | 91.8 | 88.5 | 82.4 | 89.1 | 94.1 | 95.6 | 9.0 | 9.0 | 1.5 | -1.6 |
| 10 | | | | NO DATA | | | | | | |
| 15 | 91.9 | 88.7 | 82.4 | 89.1 | 94.5 | 95.9 | 9.5 | 8.0 | 1.5 | -1.6 |
| 16 | 93.2 | 90.0 | 82.7 | 89.7 | 94.7 | 96.2 | 9.5 | 9.0 | 2.7 | -1.5 |
| Avg. | 92.3 | 89.1 | 82.5 | 89.3 | 94.4 | 95.9 | 9.3 | 8.7 | 1.9 | -1.6 |
| Std Dv | 0.8 | 0.8 | 0.2 | 0.3 | 0.3 | 0.3 | 0.3 | 0.6 | 0.7 | 0.1 |

700 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|------|------|-----|------|
| 7 | 87.1 | 84.2 | 75.6 | 83.0 | 86.6 | 88.8 | 16.0 | 15.5 | 2.3 | -1.5 |
| 8 | 87.4 | 85.0 | 74.6 | 82.4 | 86.7 | 88.0 | 24.0 | 19.5 | 1.3 | -1.3 |
| 13 | 87.4 | 84.5 | 75.5 | 83.1 | 87.4 | 89.0 | 15.5 | 14.5 | 1.6 | -1.5 |
| 14 | 87.5 | 84.8 | 74.7 | 82.6 | 86.4 | 88.2 | 20.5 | 18.0 | 1.8 | -1.3 |
| Avg. | 87.4 | 84.6 | 75.1 | 82.8 | 86.8 | 88.5 | 19.0 | 16.9 | 1.7 | -1.4 |
| Std Dv | 0.2 | 0.3 | 0.5 | 0.3 | 0.4 | 0.5 | 4.0 | 2.3 | 0.4 | 0.2 |

1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|------|------|-----|------|
| 1 | - | 79.4 | 71.4 | 80.1 | 83.0 | 84.4 | 10.0 | - | 1.5 | - |
| 2 | 85.9 | 83.4 | 72.5 | 81.1 | 83.7 | 85.5 | 29.0 | 26.5 | 1.8 | -1.3 |
| 3 | 84.6 | 81.9 | 71.6 | 80.6 | 83.5 | 85.0 | 20.0 | 19.0 | 1.5 | -1.6 |
| 4 | 85.6 | 83.1 | 72.3 | 80.8 | 83.6 | 85.1 | 28.0 | 24.0 | 1.7 | -1.2 |
| 42 | 85.4 | 82.6 | 73.3 | 81.4 | 84.4 | 85.8 | 22.5 | 22.5 | 1.4 | -1.2 |
| 43 | 85.4 | 82.5 | 73.0 | 80.2 | 84.4 | 86.1 | 23.5 | 22.5 | 1.7 | -1.4 |
| 44 | 85.2 | 82.4 | 72.1 | 80.7 | 83.6 | 85.4 | 24.0 | 23.0 | 1.8 | -1.2 |
| 45 | 85.3 | 82.5 | 72.8 | 80.4 | 83.9 | 85.5 | 23.5 | 23.0 | 1.5 | -1.5 |
| Avg. | 85.3 | 82.2 | 72.4 | 80.7 | 83.8 | 85.4 | 22.6 | 20.1 | 1.6 | -1.3 |
| Std Dv | 0.4 | 1.2 | 0.7 | 0.4 | 0.5 | 0.5 | 5.8 | 8.4 | 0.2 | 0.1 |

1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|------|------|-----|------|
| 5 | 81.6 | 78.9 | 67.1 | 76.3 | 78.6 | 80.3 | 31.0 | 28.0 | 2.5 | -0.8 |
| 6 | 83.6 | 80.7 | 69.1 | 78.3 | 79.9 | 81.8 | 29.0 | 36.0 | 2.5 | -1.1 |
| 11 | 81.3 | 78.6 | 67.7 | 76.7 | 78.6 | 80.9 | 34.0 | 30.5 | 2.3 | -1.2 |
| 12 | 83.5 | 80.6 | 68.4 | 77.6 | 79.5 | 81.2 | 39.0 | 43.5 | 1.6 | -1.4 |
| Avg. | 82.5 | 79.7 | 68.1 | 77.2 | 79.1 | 81.1 | 33.2 | 34.5 | 2.2 | -1.1 |
| Std Dv | 1.2 | 1.1 | 0.8 | 0.9 | 0.7 | 0.7 | 4.3 | 6.9 | 0.4 | 0.2 |

TABLE NO. A.2-3.6

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/ 3/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 6

SIDELINE - 284 M. NORTH

JUNE 23, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|--|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| 300 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | |
| 9 | 87.2 | 85.3 | 76.8 | 87.1 | 87.2 | 88.7 | 14.5 | 13.5 | 1.4 | -0.7 |
| 10 | 88.1 | 86.4 | 80.0 | 86.2 | 89.4 | 90.6 | 10.5 | 12.0 | 1.0 | -0.9 |
| 15 | 86.6 | 84.4 | 76.5 | 87.3 | 87.0 | 88.1 | 14.0 | 15.5 | 1.2 | -0.6 |
| 16 | 87.7 | 86.0 | 79.3 | 86.6 | 89.4 | 91.1 | 11.5 | 11.0 | 1.7 | -1.0 |
| Avg. | 87.4 | 85.5 | 78.1 | 86.8 | 88.3 | 89.6 | 12.6 | 13.0 | 1.3 | -0.8 |
| Std Dv | 0.7 | 0.9 | 1.7 | 0.5 | 1.3 | 1.4 | 1.9 | 2.0 | 0.3 | 0.2 |
| 700 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | |
| 7 | 86.1 | 83.9 | 74.0 | 89.1 | 84.9 | 86.5 | 19.0 | 18.5 | 1.6 | -0.8 |
| 8 | 85.4 | 83.9 | 75.1 | 86.0 | 85.1 | 86.8 | 16.0 | 15.0 | 1.9 | -1.2 |
| 13 | 86.5 | 84.3 | 75.0 | 88.3 | 85.8 | 87.1 | 17.0 | 17.0 | 1.4 | -1.0 |
| 14 | - | 84.6 | 76.2 | 87.4 | 86.2 | 86.9 | 12.5 | - | 0.9 | - |
| Avg. | 86.0 | 84.2 | 75.1 | 87.7 | 85.5 | 86.8 | 16.1 | 12.6 | 1.4 | -1.0 |
| Std Dv | 0.5 | 0.3 | 0.9 | 1.3 | 0.6 | 0.3 | 2.7 | 8.5 | 0.4 | 0.2 |
| 1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | |
| 45 | 84.5 | 82.8 | 73.9 | 87.5 | 84.1 | 85.1 | 17.0 | 18.0 | 1.6 | -0.9 |
| 46 | 84.7 | 82.5 | 72.7 | 89.9 | 84.3 | 85.8 | 21.0 | 18.5 | 1.6 | -0.8 |
| 47 | 85.5 | 83.9 | 74.3 | 87.9 | 84.4 | 86.0 | 18.5 | 18.5 | 2.0 | -0.8 |
| 48 | 85.0 | 82.5 | 72.7 | 90.0 | 84.9 | 86.6 | 19.5 | 16.5 | 1.8 | -1.0 |
| 1 | 85.5 | 83.3 | 73.4 | 88.5 | 84.2 | 85.3 | 22.0 | 21.0 | 1.1 | -0.8 |
| 2 | 85.4 | 83.9 | 75.3 | 90.1 | 86.3 | 87.8 | 17.0 | 14.0 | 1.6 | -0.8 |
| 3 | 85.1 | 82.8 | 72.7 | 87.6 | 84.0 | 85.4 | 23.0 | 22.0 | 1.7 | -0.9 |
| 4 | 85.5 | 83.9 | 75.3 | 88.6 | 84.8 | 85.7 | 16.5 | 18.0 | 0.9 | -1.0 |
| Avg. | 85.1 | 83.2 | 73.8 | 88.8 | 84.6 | 86.0 | 19.3 | 18.3 | 1.5 | -0.9 |
| Std Dv | 0.4 | 0.6 | 1.1 | 1.1 | 0.8 | 0.9 | 2.5 | 2.5 | 0.4 | 0.1 |
| 1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | |
| 5 | 82.2 | 80.4 | 69.4 | 87.2 | 79.6 | 81.1 | 29.0 | 26.0 | 1.9 | -0.7 |
| 6 | 82.7 | 81.0 | 71.7 | 85.9 | 82.0 | 83.2 | 20.5 | 20.0 | 1.1 | -0.9 |
| 11 | 82.8 | 80.6 | 70.5 | 86.6 | 81.5 | 82.7 | 21.0 | 25.5 | 1.2 | -0.8 |
| 12 | 82.5 | 80.9 | 70.2 | 85.8 | 81.1 | 82.8 | 19.5 | 18.5 | 1.8 | -0.9 |
| Avg. | 82.5 | 80.7 | 70.5 | 86.3 | 81.0 | 82.5 | 22.5 | 22.5 | 1.5 | -0.8 |
| Std Dv | 0.3 | 0.3 | 1.0 | 0.6 | 1.1 | 0.9 | 4.4 | 3.8 | 0.4 | 0.1 |

TABLE NO. A.3-1.1H

AUGUSTA A-109 HELICOPTER (ITALIAN)

DOT/TSC
12/ 9/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 1H

CENTERLINE - CENTER (10 METER)

JUNE 24, 1980

| EV | EPNL | NEL | DBA(M) | DASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|----------|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| APPROACH | | | | | | | | | | |
| 24 | 97.3 | 95.5 | 88.0 | 92.3 | 99.3 | 100.1 | 16.0 | 12.5 | 0.7 | -0.7 |
| 26 | 96.3 | 94.5 | 85.1 | 89.4 | 95.9 | 96.8 | 22.0 | 22.0 | 0.8 | -0.7 |
| 28 | 96.1 | 94.2 | 86.3 | 91.8 | 97.6 | 98.4 | 13.0 | 12.5 | 0.7 | -0.6 |
| 32 | 96.7 | 94.7 | 85.2 | 90.9 | 96.6 | 97.5 | 20.0 | 19.5 | 0.9 | -0.7 |
| 34 | 96.5 | 94.7 | 85.4 | 91.5 | 97.3 | 97.9 | 19.0 | 15.5 | 0.6 | -0.6 |
| 36 | 95.8 | 93.6 | 84.6 | 89.0 | 95.8 | 97.2 | 17.5 | 16.5 | 1.1 | -0.8 |
| 38 | 96.3 | 94.0 | 86.3 | 90.3 | 97.2 | 98.2 | 14.5 | 14.5 | 1.1 | -0.6 |
| 40 | 96.7 | 94.4 | 86.8 | 91.6 | 98.1 | 99.4 | 11.0 | 11.0 | 1.5 | -0.8 |
| 64 | 94.0 | 91.5 | 84.8 | 89.8 | 96.3 | 97.4 | 10.0 | 10.5 | 1.0 | -0.7 |
| Avg. | 96.2 | 94.1 | 85.8 | 90.7 | 97.1 | 98.1 | 15.9 | 14.9 | 0.9 | -0.7 |
| Std Dv | 0.9 | 1.1 | 1.1 | 1.2 | 1.1 | 1.1 | 4.1 | 3.9 | 0.3 | 0.1 |
| TAKEOFF | | | | | | | | | | |
| 23 | 92.0 | 88.3 | 81.9 | 88.0 | 94.3 | 95.9 | 11.0 | 8.5 | 1.6 | -1.6 |
| 25 | 94.2 | 89.6 | 84.7 | 89.6 | 97.6 | 99.6 | 6.5 | 6.0 | 1.9 | -1.6 |
| 27 | 95.9 | 91.6 | 87.0 | 90.5 | 99.4 | 101.3 | 6.5 | 6.0 | 1.9 | -1.6 |
| 29 | 94.5 | 90.0 | 84.8 | 88.4 | 97.7 | 99.6 | 7.5 | 7.0 | 1.9 | -1.6 |
| 31 | 93.9 | 89.4 | 84.2 | 87.9 | 97.2 | 99.0 | 8.0 | 6.5 | 2.1 | -1.6 |
| 33 | 94.1 | 89.7 | 84.5 | 88.3 | 97.3 | 98.8 | 7.0 | 6.5 | 1.5 | -1.6 |
| 35 | 94.4 | 90.0 | 85.0 | 89.8 | 97.5 | 99.4 | 6.5 | 6.0 | 2.0 | -1.7 |
| 37 | 94.0 | 89.5 | 83.8 | 87.8 | 96.6 | 98.5 | 8.0 | 6.5 | 1.9 | -1.5 |
| 39 | 94.2 | 89.4 | 84.3 | 88.1 | 97.7 | 99.4 | 7.5 | 6.5 | 1.7 | -1.7 |
| 41 | 93.6 | 89.1 | 84.0 | 87.3 | 96.8 | 99.0 | 7.0 | 6.0 | 2.2 | -1.6 |
| Avg. | 94.1 | 89.6 | 84.4 | 88.6 | 97.2 | 99.1 | 7.5 | 6.5 | 1.9 | -1.6 |
| Std Dv | 1.0 | 0.8 | 1.3 | 1.0 | 1.3 | 1.3 | 1.3 | 0.8 | 0.2 | 0.1 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.3-1.1
 AUGUSTA A-109 HELICOPTER (ITALIAN)

DOT/TSC
 10/15/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 1

CENTERLINE - CENTER

JUNE 24, 1980

| EV | EPNL | NEL | DBA(M) | DASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|----------|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| APPROACH | | | | | | | | | | |
| 24 | 99.1 | 97.2 | 89.3 | 94.9 | 100.8 | 101.6 | 17.0 | 17.5 | 0.8 | -0.7 |
| 26 | 98.8 | 96.7 | 86.8 | 92.9 | 98.1 | 99.3 | 26.0 | 21.5 | 1.3 | -0.8 |
| 28 | 99.1 | 97.0 | 88.7 | 95.4 | 100.4 | 101.1 | 14.5 | 14.0 | 0.7 | -0.5 |
| 32 | 98.9 | 96.4 | 87.1 | 94.5 | 98.2 | 99.3 | 21.0 | 17.0 | 1.1 | -1.1 |
| 34 | 99.2 | 96.8 | 87.6 | 95.7 | 99.5 | 100.8 | 19.0 | 18.0 | 1.3 | -1.0 |
| 36 | 97.9 | 95.7 | 86.8 | 93.9 | 97.9 | 98.6 | 17.5 | 17.5 | 0.9 | -0.9 |
| 38 | 98.5 | 95.9 | 88.3 | 93.9 | 99.0 | 100.8 | 15.0 | 15.0 | 1.9 | -1.1 |
| 40 | 98.5 | 96.2 | 88.5 | 94.7 | 99.8 | 101.2 | 12.0 | 11.5 | 1.4 | -0.9 |
| 64 | 96.9 | 94.2 | 87.5 | 95.0 | 99.3 | 100.4 | 11.0 | 11.0 | 1.1 | -0.9 |
| Avg. | 98.6 | 96.2 | 87.9 | 94.5 | 99.2 | 100.3 | 17.0 | 15.9 | 1.2 | -0.9 |
| Std Dev | 0.7 | 0.9 | 0.9 | 0.9 | 1.0 | 1.0 | 4.6 | 3.4 | 0.3 | 0.2 |
| TAKEOFF | | | | | | | | | | |
| 23 | 93.7 | 90.6 | 83.8 | 89.1 | 96.1 | 97.4 | 11.5 | 10.0 | 1.3 | -1.1 |
| 25 | 96.0 | 92.2 | 87.0 | 90.7 | 99.5 | 101.0 | 7.5 | 7.0 | 1.3 | -1.3 |
| 27 | 96.2 | 92.8 | 88.1 | 91.3 | 100.0 | 101.5 | 7.0 | 6.5 | 1.3 | -1.3 |
| 29 | 94.8 | 91.3 | 85.3 | 89.3 | 97.8 | 99.2 | 8.5 | 7.5 | 1.2 | -1.2 |
| 31 | 93.2 | 90.0 | 84.4 | 89.4 | 96.1 | 97.7 | 8.0 | 7.5 | 1.6 | -1.4 |
| 33 | 94.5 | 90.9 | 85.4 | 90.0 | 97.8 | 99.5 | 8.0 | 7.0 | 1.7 | -1.6 |
| 35 | 94.5 | 91.1 | 86.0 | 91.1 | 97.7 | 99.7 | 7.0 | 6.0 | 2.0 | -1.5 |
| 37 | 94.0 | 90.4 | 84.5 | 89.2 | 96.5 | 98.1 | 8.5 | 8.0 | 1.6 | -1.6 |
| 39 | 94.1 | 90.4 | 84.5 | 89.5 | 97.1 | 98.8 | 9.0 | 7.0 | 1.7 | -1.5 |
| 41 | 93.7 | 90.1 | 84.6 | 88.6 | 97.0 | 98.4 | 8.0 | 7.0 | 1.9 | -1.5 |
| Avg. | 94.5 | 91.0 | 85.4 | 89.8 | 97.6 | 99.1 | 8.3 | 7.3 | 1.6 | -1.4 |
| Std Dev | 1.0 | 0.9 | 1.3 | 0.9 | 1.3 | 1.4 | 1.3 | 1.1 | 0.3 | 0.2 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.3-2.1G

AUGUSTA A-109 HELICOPTER (ITALIAN)

DOT/TSC
1/12/81

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 1G

CENTERLINE - CENTER (FLUSH)

JUNE 24, 1980

| EV | EPNL | NEL | DBA(M) | DASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|---|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 87 KTS | | | | | | | | | | |
| 21 | 92.8 | 89.4 | 81.5 | 89.1 | 93.5 | 95.0 | 15.5 | 15.5 | 1.6 | -0.9 |
| 22 | 92.6 | 89.3 | 80.5 | 89.7 | 93.1 | 94.6 | 21.5 | 18.0 | 1.5 | -0.9 |
| 46 | 92.5 | 89.4 | 81.4 | 89.6 | 93.4 | 94.7 | 15.0 | 14.5 | 1.3 | -0.8 |
| 47 | 92.0 | 89.2 | 79.7 | 88.5 | 91.8 | 93.5 | 19.5 | 17.5 | 1.7 | -0.8 |
| Avg. | 92.5 | 89.3 | 80.8 | 89.2 | 92.9 | 94.5 | 17.9 | 16.4 | 1.5 | -0.9 |
| Std Dv | 0.4 | 0.1 | 0.9 | 0.6 | 0.8 | 0.6 | 3.1 | 1.7 | 0.2 | 0.1 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 102 KTS | | | | | | | | | | |
| 51 | 92.9 | 89.9 | 82.1 | 89.7 | 93.8 | 95.2 | 13.5 | 13.5 | 1.7 | -1.0 |
| 52 | 93.3 | 90.2 | 82.0 | 90.0 | 94.2 | 95.6 | 17.0 | 13.0 | 1.5 | -1.0 |
| 53 | 92.2 | 89.1 | 81.4 | 88.7 | 93.1 | 94.7 | 14.5 | 14.0 | 1.7 | -1.0 |
| 56 | 93.4 | 90.2 | 82.4 | 89.6 | 94.6 | 95.8 | 17.0 | 16.5 | 1.3 | -1.1 |
| Avg. | 93.0 | 89.8 | 82.0 | 89.5 | 93.9 | 95.3 | 15.5 | 14.2 | 1.5 | -1.0 |
| Std Dv | 0.5 | 0.5 | 0.4 | 0.6 | 0.6 | 0.5 | 1.8 | 1.6 | 0.2 | 0.0 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 116 KTS | | | | | | | | | | |
| 54 | 93.8 | 90.8 | 82.5 | 89.7 | 94.3 | 95.8 | 14.0 | 13.5 | 1.5 | -1.1 |
| 55 | 93.6 | 90.6 | 82.2 | 89.7 | 94.0 | 95.6 | 14.0 | 13.0 | 1.5 | -1.1 |
| 57 | 93.0 | 89.8 | 81.7 | 88.7 | 93.3 | 95.1 | 15.0 | 14.5 | 1.9 | -1.2 |
| 58 | 93.4 | 90.3 | 81.1 | 89.9 | 93.5 | 95.4 | 17.5 | 14.5 | 1.9 | -1.2 |
| Avg. | 93.5 | 90.4 | 81.9 | 89.5 | 93.8 | 95.5 | 15.1 | 13.9 | 1.7 | -1.1 |
| Std Dv | 0.3 | 0.4 | 0.6 | 0.6 | 0.4 | 0.3 | 1.7 | 0.7 | 0.2 | 0.1 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS | | | | | | | | | | |
| 17 | 95.7 | 92.3 | 84.8 | 92.2 | 96.2 | 97.8 | 13.5 | 13.5 | 1.6 | -1.3 |
| 18 | 95.6 | 92.4 | 83.5 | 91.5 | 95.9 | 97.7 | 18.0 | 15.5 | 1.9 | -1.2 |
| 19 | 96.2 | 93.0 | 86.1 | 92.6 | 97.5 | 99.0 | 10.5 | 10.0 | 1.5 | -1.4 |
| 20 | 96.0 | 92.8 | 84.3 | 91.8 | 96.4 | 98.1 | 15.0 | 14.5 | 1.7 | -1.3 |
| 62 | 95.3 | 92.0 | 84.2 | 91.7 | 96.5 | 98.2 | 12.5 | 11.5 | 1.8 | -1.3 |
| 63 | 94.8 | 91.8 | 84.4 | 91.9 | 95.4 | 97.0 | 11.5 | 11.5 | 1.6 | -1.2 |
| Avg. | 95.6 | 92.4 | 84.6 | 91.9 | 96.3 | 98.0 | 13.5 | 12.7 | 1.6 | -1.3 |
| Std Dv | 0.5 | 0.4 | 0.8 | 0.4 | 0.7 | 0.6 | 2.7 | 2.1 | 0.1 | 0.1 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 145 KTS | | | | | | | | | | |
| 48 | 99.2 | 95.7 | 88.1 | 97.0 | 99.9 | 102.2 | 10.5 | 9.5 | 2.4 | -1.8 |
| 49 | 97.9 | 94.5 | 86.6 | 96.1 | 97.9 | 100.1 | 12.0 | 11.5 | 2.5 | -1.6 |
| 50 | 99.2 | 95.5 | 89.0 | 97.1 | 100.4 | 102.8 | 9.0 | 9.0 | 2.4 | -1.8 |
| 59 | 98.3 | 94.9 | 87.8 | 96.4 | 99.5 | 101.7 | 9.5 | 9.0 | 2.2 | -1.6 |
| 60 | 97.4 | 93.7 | 86.2 | 96.4 | 98.0 | 100.0 | 11.0 | 10.0 | 2.1 | -1.6 |
| 61 | 97.6 | 94.2 | 87.0 | 95.9 | 98.1 | 99.8 | 11.5 | 11.5 | 2.3 | -1.5 |
| Avg. | 98.3 | 94.8 | 87.4 | 96.5 | 99.0 | 101.1 | 10.6 | 10.1 | 2.3 | -1.6 |
| Std Dv | 0.8 | 0.8 | 1.0 | 0.5 | 1.1 | 1.3 | 1.2 | 1.2 | 0.2 | 0.1 |

TABLE NO. A.3-3.1

AUGUSTA A-109 HELICOPTER (ITALIAN)

DOT/TSC
10/16/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 1

CENTERLINE - CENTER

JUNE 24, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|--|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| 300 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS | | | | | | | | | | |
| 9 | 94.2 | 90.9 | 84.5 | 91.0 | 95.5 | 97.6 | 9.5 | 9.5 | 2.1 | -1.8 |
| 10 | 94.9 | 91.4 | 83.8 | 92.2 | 95.4 | 97.2 | 10.5 | 10.0 | 1.9 | -1.7 |
| 15 | 96.3 | 93.1 | 85.8 | 92.4 | 97.0 | 99.1 | 13.0 | 12.5 | 2.5 | -1.7 |
| 16 | 96.8 | 93.8 | 86.1 | 93.1 | 97.8 | 99.5 | 12.5 | 9.5 | 1.8 | -1.6 |
| Avg. | 95.6 | 92.3 | 85.1 | 92.2 | 96.4 | 98.3 | 11.4 | 10.4 | 2.1 | -1.7 |
| Std Dv | 1.2 | 1.4 | 1.1 | 0.9 | 1.1 | 1.1 | 1.7 | 1.4 | 0.3 | 0.1 |
| 700 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS | | | | | | | | | | |
| 7 | 89.2 | 86.0 | 76.7 | 85.0 | 87.5 | 89.8 | 17.0 | 16.0 | 2.3 | -1.8 |
| 8 | 89.8 | 87.0 | 76.6 | 85.4 | 88.1 | 90.1 | 22.5 | 22.0 | 2.0 | -1.5 |
| 13 | 91.6 | 88.8 | 80.4 | 87.0 | 90.5 | 92.8 | 15.0 | 14.5 | 2.6 | -1.8 |
| 14 | 91.5 | 88.6 | 79.0 | 86.4 | 89.7 | 91.9 | 21.0 | 19.0 | 2.2 | -1.5 |
| Avg. | 90.5 | 87.6 | 78.2 | 85.9 | 88.9 | 91.1 | 18.9 | 17.9 | 2.3 | -1.7 |
| Std Dv | 1.2 | 1.3 | 1.8 | 0.9 | 1.4 | 1.4 | 3.5 | 3.3 | 0.2 | 0.2 |
| 1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS | | | | | | | | | | |
| 2 | 88.2 | 85.3 | 75.0 | 83.4 | 86.0 | 88.1 | 27.5 | 24.0 | 2.2 | -1.5 |
| 3 | 87.9 | 84.6 | 74.5 | 83.7 | 85.8 | 87.9 | 19.5 | 18.5 | 2.2 | -2.0 |
| 4 | 88.1 | 85.3 | 74.4 | 83.5 | 86.0 | 88.3 | 27.0 | 25.0 | 2.2 | -1.5 |
| 42 | 88.0 | 85.0 | 76.0 | 84.1 | 86.8 | 88.6 | 23.0 | 23.0 | 2.2 | -1.7 |
| 43 | 88.1 | 85.1 | 75.8 | 83.8 | 86.0 | 88.5 | 23.0 | 22.5 | 2.5 | -1.7 |
| 44 | 87.0 | 84.1 | 73.5 | 82.2 | 84.4 | 86.7 | 25.0 | 23.5 | 2.3 | -1.6 |
| 45 | 88.0 | 84.9 | 75.5 | 82.9 | 86.2 | 88.7 | 22.5 | 22.5 | 2.4 | -1.8 |
| Avg. | 87.9 | 84.9 | 75.0 | 83.4 | 85.9 | 88.1 | 23.9 | 22.7 | 2.3 | -1.7 |
| Std Dv | 0.4 | 0.4 | 0.9 | 0.7 | 0.8 | 0.7 | 2.8 | 2.1 | 0.1 | 0.2 |
| 1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS | | | | | | | | | | |
| 5 | 83.8 | 81.0 | 69.5 | 81.1 | 81.5 | 83.6 | 32.5 | 27.0 | 2.1 | -1.5 |
| 6 | 85.6 | 82.8 | 71.3 | 81.2 | 82.0 | 84.2 | 31.0 | 27.5 | 2.2 | -1.5 |
| 11 | 85.1 | 82.5 | 71.3 | 81.0 | 81.9 | 84.0 | 32.5 | 30.5 | 2.1 | -1.6 |
| 12 | 86.8 | 84.2 | 72.7 | 81.0 | 82.9 | 85.3 | 37.0 | 36.0 | 2.4 | -1.6 |
| Avg. | 85.3 | 82.6 | 71.2 | 81.1 | 82.0 | 84.3 | 33.2 | 30.2 | 2.2 | -1.5 |
| Std Dv | 1.2 | 1.3 | 1.3 | 0.1 | 0.6 | 0.7 | 2.6 | 4.1 | 0.1 | 0.1 |

TABLE NO. A.3-3.1

AUGUSTA A-109 HELICOPTER (ITALIAN)

DOT/TSC
10/16/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 1

CENTERLINE - CENTER

JUNE 24, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|--|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| 300 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS | | | | | | | | | | |
| 9 | 94.2 | 90.9 | 84.5 | 91.0 | 95.5 | 97.6 | 9.5 | 9.5 | 2.1 | -1.8 |
| 10 | 94.9 | 91.4 | 83.8 | 92.2 | 95.4 | 97.2 | 10.5 | 10.0 | 1.9 | -1.7 |
| 15 | 96.3 | 93.1 | 85.8 | 92.4 | 97.0 | 99.1 | 13.0 | 12.5 | 2.5 | -1.7 |
| 16 | 96.8 | 93.8 | 86.1 | 93.1 | 97.8 | 99.5 | 12.5 | 9.5 | 1.8 | -1.6 |
| Avg. | 95.6 | 92.3 | 85.1 | 92.2 | 96.4 | 98.3 | 11.4 | 10.4 | 2.1 | -1.7 |
| Std Dv | 1.2 | 1.4 | 1.1 | 0.9 | 1.1 | 1.1 | 1.7 | 1.4 | 0.3 | 0.1 |
| 700 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS | | | | | | | | | | |
| 7 | 89.2 | 86.0 | 76.7 | 85.0 | 87.5 | 89.8 | 17.0 | 16.0 | 2.3 | -1.8 |
| 8 | 89.8 | 87.0 | 76.6 | 85.4 | 88.1 | 90.1 | 22.5 | 22.0 | 2.0 | -1.5 |
| 13 | 91.6 | 88.8 | 80.4 | 87.0 | 90.5 | 92.8 | 15.0 | 14.5 | 2.6 | -1.8 |
| 14 | 91.5 | 88.6 | 79.0 | 86.4 | 89.7 | 91.9 | 21.0 | 19.0 | 2.2 | -1.5 |
| Avg. | 90.5 | 87.6 | 78.2 | 85.9 | 88.9 | 91.1 | 18.9 | 17.9 | 2.3 | -1.7 |
| Std Dv | 1.2 | 1.3 | 1.8 | 0.9 | 1.4 | 1.4 | 3.5 | 3.3 | 0.2 | 0.2 |
| 1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS | | | | | | | | | | |
| 2 | 88.2 | 85.3 | 75.0 | 83.4 | 86.0 | 88.1 | 27.5 | 24.0 | 2.2 | -1.5 |
| 3 | 87.9 | 84.6 | 74.5 | 83.7 | 85.8 | 87.9 | 19.5 | 18.5 | 2.2 | -2.0 |
| 4 | 88.1 | 85.3 | 74.4 | 83.5 | 86.0 | 88.3 | 27.0 | 25.0 | 2.2 | -1.5 |
| 42 | 88.0 | 85.0 | 76.0 | 84.1 | 86.8 | 88.6 | 23.0 | 23.0 | 2.2 | -1.7 |
| 43 | 88.1 | 85.1 | 75.8 | 83.8 | 86.0 | 88.5 | 23.0 | 22.5 | 2.5 | -1.7 |
| 44 | 87.0 | 84.1 | 73.5 | 82.2 | 84.4 | 86.7 | 25.0 | 23.5 | 2.3 | -1.6 |
| 45 | 88.0 | 84.9 | 75.5 | 82.9 | 86.2 | 88.7 | 22.5 | 22.5 | 2.4 | -1.8 |
| Avg. | 87.9 | 84.9 | 75.0 | 83.4 | 85.9 | 88.1 | 23.9 | 22.7 | 2.3 | -1.7 |
| Std Dv | 0.4 | 0.4 | 0.9 | 0.7 | 0.8 | 0.7 | 2.8 | 2.1 | 0.1 | 0.2 |
| 1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS | | | | | | | | | | |
| 5 | 83.8 | 81.0 | 69.5 | 81.1 | 81.5 | 83.6 | 32.5 | 27.0 | 2.1 | -1.5 |
| 6 | 85.6 | 82.8 | 71.3 | 81.2 | 82.0 | 84.2 | 31.0 | 27.5 | 2.2 | -1.5 |
| 11 | 85.1 | 82.5 | 71.3 | 81.0 | 81.9 | 84.0 | 32.5 | 30.5 | 2.1 | -1.6 |
| 12 | 86.8 | 84.2 | 72.7 | 81.0 | 82.9 | 85.3 | 37.0 | 36.0 | 2.4 | -1.6 |
| Avg. | 85.3 | 82.6 | 71.2 | 81.1 | 82.0 | 84.3 | 33.2 | 30.2 | 2.2 | -1.5 |
| Std Dv | 1.2 | 1.3 | 1.3 | 0.1 | 0.6 | 0.7 | 2.6 | 4.1 | 0.1 | 0.1 |

TABLE NO. A.3-2.1G

AUGUSTA A-109 HELICOPTER (ITALIAN)

DOT/TSC

1/12/81

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 1G

CENTERLINE - CENTER (FLUSH)

JUNE 24, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|---|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 87 KTS | | | | | | | | | | |
| 21 | 92.8 | 89.4 | 81.5 | 89.1 | 93.5 | 95.0 | 15.5 | 15.5 | 1.6 | -0.9 |
| 22 | 92.6 | 89.3 | 80.5 | 89.7 | 93.1 | 94.6 | 21.5 | 18.0 | 1.5 | -0.9 |
| 46 | 92.5 | 89.4 | 81.4 | 89.6 | 93.4 | 94.7 | 15.0 | 14.5 | 1.3 | -0.8 |
| 47 | 92.0 | 89.2 | 79.7 | 88.5 | 91.8 | 93.5 | 19.5 | 17.5 | 1.7 | -0.8 |
| Avg. | 92.5 | 89.3 | 80.8 | 89.2 | 92.9 | 94.5 | 17.9 | 16.4 | 1.5 | -0.9 |
| Std Dv | 0.4 | 0.1 | 0.9 | 0.6 | 0.8 | 0.6 | 3.1 | 1.7 | 0.2 | 0.1 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 102 KTS | | | | | | | | | | |
| 51 | 92.9 | 89.9 | 82.1 | 89.7 | 93.8 | 95.2 | 13.5 | 13.5 | 1.7 | -1.0 |
| 52 | 93.3 | 90.2 | 82.0 | 90.0 | 94.2 | 95.6 | 17.0 | 13.0 | 1.5 | -1.0 |
| 53 | 92.2 | 89.1 | 81.4 | 88.7 | 93.1 | 94.7 | 14.5 | 14.0 | 1.7 | -1.0 |
| 56 | 93.4 | 90.2 | 82.4 | 89.6 | 94.6 | 95.8 | 17.0 | 16.5 | 1.3 | -1.1 |
| Avg. | 93.0 | 89.8 | 82.0 | 89.5 | 93.9 | 95.3 | 15.5 | 14.2 | 1.5 | -1.0 |
| Std Dv | 0.5 | 0.5 | 0.4 | 0.6 | 0.6 | 0.5 | 1.8 | 1.6 | 0.2 | 0.0 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 116 KTS | | | | | | | | | | |
| 54 | 93.8 | 90.8 | 82.5 | 89.7 | 94.3 | 95.8 | 14.0 | 13.5 | 1.5 | -1.1 |
| 55 | 93.6 | 90.6 | 82.2 | 89.7 | 94.0 | 95.6 | 14.0 | 13.0 | 1.5 | -1.1 |
| 57 | 93.0 | 89.8 | 81.7 | 88.7 | 93.3 | 95.1 | 15.0 | 14.5 | 1.9 | -1.2 |
| 58 | 93.4 | 90.3 | 81.1 | 89.9 | 93.5 | 95.4 | 17.5 | 14.5 | 1.9 | -1.2 |
| Avg. | 93.5 | 90.4 | 81.9 | 89.5 | 93.8 | 95.5 | 15.1 | 13.9 | 1.7 | -1.1 |
| Std Dv | 0.3 | 0.4 | 0.6 | 0.6 | 0.4 | 0.3 | 1.7 | 0.7 | 0.2 | 0.1 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS | | | | | | | | | | |
| 17 | 95.7 | 92.3 | 84.8 | 92.2 | 96.2 | 97.8 | 13.5 | 13.5 | 1.6 | -1.3 |
| 18 | 95.6 | 92.4 | 83.5 | 91.5 | 95.9 | 97.7 | 18.0 | 15.5 | 1.9 | -1.2 |
| 19 | 96.2 | 93.0 | 86.1 | 92.6 | 97.5 | 99.0 | 10.5 | 10.0 | 1.5 | -1.4 |
| 20 | 96.0 | 92.8 | 84.3 | 91.8 | 96.4 | 98.1 | 15.0 | 14.5 | 1.7 | -1.3 |
| 62 | 95.3 | 92.0 | 84.2 | 91.7 | 96.5 | 98.2 | 12.5 | 11.5 | 1.8 | -1.3 |
| 63 | 94.8 | 91.8 | 84.4 | 91.9 | 95.4 | 97.0 | 11.5 | 11.5 | 1.6 | -1.2 |
| Avg. | 95.6 | 92.4 | 84.6 | 91.9 | 96.3 | 98.0 | 13.5 | 12.7 | 1.6 | -1.3 |
| Std Dv | 0.5 | 0.4 | 0.8 | 0.4 | 0.7 | 0.6 | 2.7 | 2.1 | 0.1 | 0.1 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 145 KTS | | | | | | | | | | |
| 48 | 99.2 | 95.7 | 88.1 | 97.0 | 99.9 | 102.2 | 10.5 | 9.5 | 2.4 | -1.8 |
| 49 | 97.9 | 94.5 | 86.6 | 96.1 | 97.9 | 100.1 | 12.0 | 11.5 | 2.5 | -1.6 |
| 50 | 99.2 | 95.5 | 89.0 | 97.1 | 100.4 | 102.8 | 9.0 | 9.0 | 2.4 | -1.8 |
| 59 | 98.3 | 94.9 | 87.8 | 96.4 | 99.5 | 101.7 | 9.5 | 9.0 | 2.2 | -1.6 |
| 60 | 97.4 | 93.7 | 86.2 | 96.4 | 98.0 | 100.0 | 11.0 | 10.0 | 2.1 | -1.6 |
| 61 | 97.6 | 94.2 | 87.0 | 95.9 | 98.1 | 99.8 | 11.5 | 11.5 | 2.3 | -1.5 |
| Avg. | 98.3 | 94.8 | 87.4 | 96.5 | 99.0 | 101.1 | 10.6 | 10.1 | 2.3 | -1.6 |
| Std Dv | 0.8 | 0.8 | 1.0 | 0.5 | 1.1 | 1.3 | 1.2 | 1.2 | 0.2 | 0.1 |

TABLE NO. A.3-1.1
 AUGUSTA A-109 HELICOPTER (ITALIAN)
 SUMMARY NOISE LEVEL DATA

DOT/TSC
 10/15/80

AS MEASURED *

SITE: 1

CENTERLINE - CENTER

JUNE 24, 1980

| EV | EPNL | NEL | DBA(M) | DASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|----------|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| APPROACH | | | | | | | | | | |
| 24 | 99.1 | 97.2 | 89.3 | 94.9 | 100.8 | 101.6 | 17.0 | 17.5 | 0.8 | -0.7 |
| 26 | 98.8 | 96.7 | 86.8 | 92.9 | 98.1 | 99.3 | 26.0 | 21.5 | 1.3 | -0.8 |
| 28 | 99.1 | 97.0 | 88.7 | 95.4 | 100.4 | 101.1 | 14.5 | 14.0 | 0.7 | -0.5 |
| 32 | 98.9 | 96.4 | 87.1 | 94.5 | 98.2 | 99.3 | 21.0 | 17.0 | 1.1 | -1.1 |
| 34 | 99.2 | 96.8 | 87.6 | 95.7 | 99.5 | 100.8 | 19.0 | 18.0 | 1.3 | -1.0 |
| 36 | 97.9 | 95.7 | 86.8 | 93.9 | 97.9 | 98.6 | 17.5 | 17.5 | 0.9 | -0.9 |
| 38 | 98.5 | 95.9 | 88.3 | 93.9 | 99.0 | 100.8 | 15.0 | 15.0 | 1.9 | -1.1 |
| 40 | 98.5 | 96.2 | 88.5 | 94.7 | 99.8 | 101.2 | 12.0 | 11.5 | 1.4 | -0.9 |
| 64 | 96.9 | 94.2 | 87.5 | 95.0 | 99.3 | 100.4 | 11.0 | 11.0 | 1.1 | -0.9 |
| Avg. | 98.6 | 96.2 | 87.9 | 94.5 | 99.2 | 100.3 | 17.0 | 15.9 | 1.2 | -0.9 |
| Std Dv | 0.7 | 0.9 | 0.9 | 0.9 | 1.0 | 1.0 | 4.6 | 3.4 | 0.3 | 0.2 |
| TAKEOFF | | | | | | | | | | |
| 23 | 93.7 | 90.6 | 83.8 | 89.1 | 96.1 | 97.4 | 11.5 | 10.0 | 1.3 | -1.1 |
| 25 | 96.0 | 92.2 | 87.0 | 90.7 | 99.5 | 101.0 | 7.5 | 7.0 | 1.3 | -1.3 |
| 27 | 96.2 | 92.8 | 88.1 | 91.3 | 100.0 | 101.5 | 7.0 | 6.5 | 1.3 | -1.3 |
| 29 | 94.8 | 91.3 | 85.3 | 89.3 | 97.8 | 99.2 | 8.5 | 7.5 | 1.2 | -1.2 |
| 31 | 93.2 | 90.0 | 84.4 | 89.4 | 96.1 | 97.7 | 8.0 | 7.5 | 1.6 | -1.4 |
| 33 | 94.5 | 90.9 | 85.4 | 90.0 | 97.8 | 99.5 | 8.0 | 7.0 | 1.7 | -1.6 |
| 35 | 94.5 | 91.1 | 86.0 | 91.1 | 97.7 | 99.7 | 7.0 | 6.0 | 2.0 | -1.5 |
| 37 | 94.0 | 90.4 | 84.5 | 89.2 | 96.5 | 98.1 | 8.5 | 8.0 | 1.6 | -1.6 |
| 39 | 94.1 | 90.4 | 84.5 | 89.5 | 97.1 | 98.8 | 9.0 | 7.0 | 1.7 | -1.5 |
| 41 | 93.7 | 90.1 | 84.6 | 88.6 | 97.0 | 98.4 | 8.0 | 7.0 | 1.9 | -1.5 |
| Avg. | 94.5 | 91.0 | 85.4 | 89.8 | 97.6 | 99.1 | 8.3 | 7.3 | 1.6 | -1.4 |
| Std Dv | 1.0 | 0.9 | 1.3 | 0.9 | 1.3 | 1.4 | 1.3 | 1.1 | 0.3 | 0.2 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.3-1.1H

AUGUSTA A-109 HELICOPTER (ITALIAN)

DOT/TSC
12/ 9/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 1H

CENTERLINE - CENTER (10 METER)

JUNE 24, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|----------|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| APPROACH | | | | | | | | | | |
| 24 | 97.3 | 95.5 | 88.0 | 92.3 | 99.3 | 100.1 | 16.0 | 12.5 | 0.7 | -0.7 |
| 26 | 96.3 | 94.5 | 85.1 | 89.4 | 95.9 | 96.8 | 22.0 | 22.0 | 0.8 | -0.7 |
| 28 | 96.1 | 94.2 | 86.3 | 91.8 | 97.6 | 98.4 | 13.0 | 12.5 | 0.7 | -0.6 |
| 32 | 96.7 | 94.7 | 85.2 | 90.9 | 96.6 | 97.5 | 20.0 | 19.5 | 0.9 | -0.7 |
| 34 | 96.5 | 94.7 | 85.4 | 91.5 | 97.3 | 97.9 | 19.0 | 15.5 | 0.6 | -0.6 |
| 36 | 95.8 | 93.6 | 84.6 | 89.0 | 95.8 | 97.2 | 17.5 | 16.5 | 1.1 | -0.8 |
| 38 | 96.3 | 94.0 | 86.3 | 90.3 | 97.2 | 98.2 | 14.5 | 14.5 | 1.1 | -0.6 |
| 40 | 96.7 | 94.4 | 86.8 | 91.6 | 98.1 | 99.4 | 11.0 | 11.0 | 1.5 | -0.8 |
| 64 | 94.0 | 91.5 | 84.8 | 89.8 | 96.3 | 97.4 | 10.0 | 10.5 | 1.0 | -0.7 |
| Avg. | 96.2 | 94.1 | 85.8 | 90.7 | 97.1 | 98.1 | 15.9 | 14.9 | 0.9 | -0.7 |
| Std Dv | 0.9 | 1.1 | 1.1 | 1.2 | 1.1 | 1.1 | 4.1 | 3.9 | 0.3 | 0.1 |
| TAKEOFF | | | | | | | | | | |
| 23 | 92.0 | 88.3 | 81.9 | 88.0 | 94.3 | 95.9 | 11.0 | 8.5 | 1.6 | -1.6 |
| 25 | 94.2 | 89.6 | 84.7 | 89.6 | 97.6 | 99.6 | 6.5 | 6.0 | 1.9 | -1.6 |
| 27 | 95.9 | 91.6 | 87.0 | 90.5 | 99.4 | 101.3 | 6.5 | 6.0 | 1.9 | -1.6 |
| 29 | 94.5 | 90.0 | 84.8 | 88.4 | 97.7 | 99.6 | 7.5 | 7.0 | 1.9 | -1.6 |
| 31 | 93.9 | 89.4 | 84.2 | 87.9 | 97.2 | 99.0 | 8.0 | 6.5 | 2.1 | -1.6 |
| 33 | 94.1 | 89.7 | 84.5 | 88.3 | 97.3 | 98.8 | 7.0 | 6.5 | 1.5 | -1.6 |
| 35 | 94.4 | 90.0 | 85.0 | 89.8 | 97.5 | 99.4 | 6.5 | 6.0 | 2.0 | -1.7 |
| 37 | 94.0 | 89.5 | 83.8 | 87.8 | 96.6 | 98.5 | 8.0 | 6.5 | 1.9 | -1.5 |
| 39 | 94.2 | 89.4 | 84.3 | 88.1 | 97.7 | 99.4 | 7.5 | 6.5 | 1.7 | -1.7 |
| 41 | 93.6 | 89.1 | 84.0 | 87.3 | 96.8 | 99.0 | 7.0 | 6.0 | 2.2 | -1.6 |
| Avg. | 94.1 | 89.6 | 84.4 | 88.6 | 97.2 | 99.1 | 7.5 | 6.5 | 1.9 | -1.6 |
| Std Dv | 1.0 | 0.8 | 1.3 | 1.0 | 1.3 | 1.3 | 1.3 | 0.8 | 0.2 | 0.1 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.2-3.6

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/ 3/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 6

SIDELINE - 284 M. NORTH

JUNE 23, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|--|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| 300 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | |
| 9 | 87.2 | 85.3 | 76.8 | 87.1 | 87.2 | 88.7 | 14.5 | 13.5 | 1.4 | -0.7 |
| 10 | 88.1 | 86.4 | 80.0 | 86.2 | 89.4 | 90.6 | 10.5 | 12.0 | 1.0 | -0.9 |
| 15 | 86.6 | 84.4 | 76.5 | 87.3 | 87.0 | 88.1 | 14.0 | 15.5 | 1.2 | -0.6 |
| 16 | 87.7 | 86.0 | 79.3 | 86.6 | 89.4 | 91.1 | 11.5 | 11.0 | 1.7 | -1.0 |
| Avg. | 87.4 | 85.5 | 78.1 | 86.8 | 88.3 | 89.6 | 12.6 | 13.0 | 1.3 | -0.8 |
| Std Dv | 0.7 | 0.9 | 1.7 | 0.5 | 1.3 | 1.4 | 1.9 | 2.0 | 0.3 | 0.2 |
| 700 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | |
| 7 | 86.1 | 83.9 | 74.0 | 89.1 | 84.9 | 86.5 | 19.0 | 18.5 | 1.6 | -0.8 |
| 8 | 85.4 | 83.9 | 75.1 | 86.0 | 85.1 | 86.8 | 16.0 | 15.0 | 1.9 | -1.2 |
| 13 | 86.5 | 84.3 | 75.0 | 88.3 | 85.8 | 87.1 | 17.0 | 17.0 | 1.4 | -1.0 |
| 14 | - | 84.6 | 76.2 | 87.4 | 86.2 | 86.9 | 12.5 | - | 0.9 | - |
| Avg. | 86.0 | 84.2 | 75.1 | 87.7 | 85.5 | 86.8 | 16.1 | 12.6 | 1.4 | -1.0 |
| Std Dv | 0.5 | 0.3 | 0.9 | 1.3 | 0.6 | 0.3 | 2.7 | 8.5 | 0.4 | 0.2 |
| 1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | |
| 45 | 84.5 | 82.8 | 73.9 | 87.5 | 84.1 | 85.1 | 17.0 | 18.0 | 1.6 | -0.9 |
| 46 | 84.7 | 82.5 | 72.7 | 89.9 | 84.3 | 85.8 | 21.0 | 18.5 | 1.6 | -0.8 |
| 47 | 85.5 | 83.9 | 74.3 | 87.9 | 84.4 | 86.0 | 18.5 | 18.5 | 2.0 | -0.8 |
| 48 | 85.0 | 82.5 | 72.7 | 90.0 | 84.9 | 86.6 | 19.5 | 16.5 | 1.8 | -1.0 |
| 1 | 85.5 | 83.3 | 73.4 | 88.5 | 84.2 | 85.3 | 22.0 | 21.0 | 1.1 | -0.8 |
| 2 | 85.4 | 83.9 | 75.3 | 90.1 | 86.3 | 87.8 | 17.0 | 14.0 | 1.6 | -0.8 |
| 3 | 85.1 | 82.8 | 72.7 | 87.6 | 84.0 | 85.4 | 23.0 | 22.0 | 1.7 | -0.9 |
| 4 | 85.5 | 83.9 | 75.3 | 88.6 | 84.8 | 85.7 | 16.5 | 18.0 | 0.9 | -1.0 |
| Avg. | 85.1 | 83.2 | 73.8 | 88.8 | 84.6 | 86.0 | 19.3 | 18.3 | 1.5 | -0.9 |
| Std Dv | 0.4 | 0.6 | 1.1 | 1.1 | 0.8 | 0.9 | 2.5 | 2.5 | 0.4 | 0.1 |
| 1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | |
| 5 | 82.2 | 80.4 | 69.4 | 87.2 | 79.6 | 81.1 | 29.0 | 26.0 | 1.9 | -0.7 |
| 6 | 82.7 | 81.0 | 71.7 | 85.9 | 82.0 | 83.2 | 20.5 | 20.0 | 1.1 | -0.9 |
| 11 | 82.8 | 80.6 | 70.5 | 86.6 | 81.5 | 82.7 | 21.0 | 25.5 | 1.2 | -0.8 |
| 12 | 82.5 | 80.9 | 70.2 | 85.8 | 81.1 | 82.8 | 19.5 | 18.5 | 1.8 | -0.9 |
| Avg. | 82.5 | 80.7 | 70.5 | 86.3 | 81.0 | 82.5 | 22.5 | 22.5 | 1.5 | -0.8 |
| Std Dv | 0.3 | 0.3 | 1.0 | 0.6 | 1.1 | 0.9 | 4.4 | 3.8 | 0.4 | 0.1 |

TABLE NO. A.3-3.1H

AUGUSTA A-109 HELICOPTER (ITALIAN)

DOT/TSC
1/12/81

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 1H

CENTERLINE - CENTER (10 METER)

JUNE 24, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|--|------|------|--------|---------|--------|---------|--------|--------|-----|------|
| 300 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS | | | | | | | | | | |
| 9 | 91.8 | 88.5 | 82.4 | 89.1 | 94.1 | 95.6 | 9.0 | 9.0 | 1.5 | -1.6 |
| 10 | | | | NO DATA | | | | | | |
| 15 | 91.9 | 88.7 | 82.4 | 89.1 | 94.5 | 95.9 | 9.5 | 8.0 | 1.5 | -1.6 |
| 16 | 93.2 | 90.0 | 82.7 | 89.7 | 94.7 | 96.2 | 9.5 | 9.0 | 2.7 | -1.5 |
| Avg. | 92.3 | 89.1 | 82.5 | 89.3 | 94.4 | 95.9 | 9.3 | 8.7 | 1.9 | -1.6 |
| Std Dv | 0.8 | 0.8 | 0.2 | 0.3 | 0.3 | 0.3 | 0.3 | 0.6 | 0.7 | 0.1 |
| 700 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS | | | | | | | | | | |
| 7 | 87.1 | 84.2 | 75.6 | 83.0 | 86.6 | 88.8 | 16.0 | 15.5 | 2.3 | -1.5 |
| 8 | 87.4 | 85.0 | 74.6 | 82.4 | 86.7 | 88.0 | 24.0 | 19.5 | 1.3 | -1.3 |
| 13 | 87.4 | 84.5 | 75.5 | 83.1 | 87.4 | 89.0 | 15.5 | 14.5 | 1.6 | -1.5 |
| 14 | 87.5 | 84.8 | 74.7 | 82.6 | 86.4 | 88.2 | 20.5 | 18.0 | 1.8 | -1.3 |
| Avg. | 87.4 | 84.6 | 75.1 | 82.8 | 86.8 | 88.5 | 19.0 | 16.9 | 1.7 | -1.4 |
| Std Dv | 0.2 | 0.3 | 0.5 | 0.3 | 0.4 | 0.5 | 4.0 | 2.3 | 0.4 | 0.2 |
| 1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS | | | | | | | | | | |
| 1 | - | 79.4 | 71.4 | 80.1 | 83.0 | 84.4 | 10.0 | - | 1.5 | - |
| 2 | 85.9 | 83.4 | 72.5 | 81.1 | 83.7 | 85.5 | 29.0 | 26.5 | 1.8 | -1.3 |
| 3 | 84.6 | 81.9 | 71.6 | 80.6 | 83.5 | 85.0 | 20.0 | 19.0 | 1.5 | -1.6 |
| 4 | 85.6 | 83.1 | 72.3 | 80.8 | 83.6 | 85.1 | 28.0 | 24.0 | 1.7 | -1.2 |
| 42 | 85.4 | 82.6 | 73.3 | 81.4 | 84.4 | 85.8 | 22.5 | 22.5 | 1.4 | -1.2 |
| 43 | 85.4 | 82.5 | 73.0 | 80.2 | 84.4 | 86.1 | 23.5 | 22.5 | 1.7 | -1.4 |
| 44 | 85.2 | 82.4 | 72.1 | 80.7 | 83.6 | 85.4 | 24.0 | 23.0 | 1.8 | -1.2 |
| 45 | 85.3 | 82.5 | 72.8 | 80.4 | 83.9 | 85.5 | 23.5 | 23.0 | 1.5 | -1.5 |
| Avg. | 85.3 | 82.2 | 72.4 | 80.7 | 83.8 | 85.4 | 22.6 | 20.1 | 1.6 | -1.3 |
| Std Dv | 0.4 | 1.2 | 0.7 | 0.4 | 0.5 | 0.5 | 5.8 | 8.4 | 0.2 | 0.1 |
| 1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS | | | | | | | | | | |
| 5 | 81.6 | 78.9 | 67.1 | 76.3 | 78.6 | 80.3 | 31.0 | 28.0 | 2.5 | -0.8 |
| 6 | 83.6 | 80.7 | 69.1 | 78.3 | 79.9 | 81.8 | 29.0 | 36.0 | 2.5 | -1.1 |
| 11 | 81.3 | 78.6 | 67.7 | 76.7 | 78.6 | 80.9 | 34.0 | 30.5 | 2.3 | -1.2 |
| 12 | 83.5 | 80.6 | 68.4 | 77.6 | 79.5 | 81.2 | 39.0 | 43.5 | 1.6 | -1.4 |
| Avg. | 82.5 | 79.7 | 68.1 | 77.2 | 79.1 | 81.1 | 33.2 | 34.5 | 2.2 | -1.1 |
| Std Dv | 1.2 | 1.1 | 0.8 | 0.9 | 0.7 | 0.7 | 4.3 | 6.9 | 0.4 | 0.2 |

TABLE NO. A.2-1.6

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/ 3/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 6

SIDELINE - 284 M. NORTH

JUNE 23,1980

| EV | EPNL | NEL | DBA(M) | DASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|----------|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| APPROACH | | | | | | | | | | |
| 34 | 87.3 | 85.3 | 74.5 | 80.5 | 85.5 | 86.8 | 28.0 | 27.0 | 1.3 | -0.5 |
| 36 | 87.9 | 85.6 | 76.5 | 81.9 | 87.6 | 89.4 | 29.5 | 25.5 | 1.9 | -0.6 |
| 40 | 87.5 | 85.2 | 76.6 | 80.9 | 86.6 | 88.3 | 26.0 | 26.0 | 1.7 | -0.5 |
| 42 | 83.2 | 81.2 | 72.3 | 76.4 | 82.3 | 83.7 | 22.5 | 23.5 | 1.7 | -0.5 |
| 44 | 88.9 | 86.7 | 77.2 | 82.0 | 87.2 | 88.7 | 21.0 | 22.5 | 1.5 | -0.7 |
| 54 | 86.6 | 84.5 | 75.3 | 80.6 | 86.2 | 87.2 | 24.0 | 24.0 | 1.0 | -0.5 |
| 56 | 86.9 | 84.9 | 74.8 | 79.3 | 84.7 | 86.4 | 30.0 | 30.0 | 2.5 | -0.5 |
| Avg. | 86.9 | 84.8 | 75.3 | 80.2 | 85.7 | 87.2 | 25.9 | 25.5 | 1.6 | -0.5 |
| Std Dev | 1.8 | 1.7 | 1.7 | 1.9 | 1.8 | 1.9 | 3.5 | 2.5 | 0.5 | 0.1 |
| TAKEOFF | | | | | | | | | | |
| 33 | - | 84.3 | 74.1 | 79.8 | 85.0 | 87.1 | 20.0 | - | 2.0 | - |
| 35 | 88.1 | 85.6 | 75.6 | 80.6 | 85.7 | 87.5 | 23.0 | 23.0 | 1.7 | -1.5 |
| 37 | - | 85.0 | 75.3 | 80.7 | 85.9 | 87.5 | 22.0 | - | 1.7 | - |
| 39 | 87.9 | 85.2 | 74.5 | 81.0 | 85.0 | 86.7 | 24.5 | 24.0 | 1.9 | -1.4 |
| 41 | 87.9 | 85.1 | 74.1 | 80.9 | 85.3 | 87.7 | 22.0 | 21.5 | 2.5 | -1.5 |
| 43 | 87.5 | 84.8 | 74.2 | 81.2 | 84.8 | 87.3 | 24.5 | 22.0 | 2.6 | -1.4 |
| 53 | 87.7 | 85.0 | 73.6 | 80.2 | 85.6 | 87.9 | 30.0 | 22.0 | 2.2 | -1.5 |
| 55 | 87.1 | 84.2 | 72.7 | 79.5 | 84.5 | 86.9 | 25.5 | 23.5 | 2.7 | -1.6 |
| Avg. | 87.7 | 84.9 | 74.3 | 80.5 | 85.2 | 87.3 | 23.9 | 17.0 | 2.2 | -1.5 |
| Std Dev | 0.4 | 0.5 | 0.9 | 0.6 | 0.5 | 0.4 | 3.0 | 10.5 | 0.4 | 0.1 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE,HUMIDITY,AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ ,THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.3-2.2

AUGUSTA A-109 HELICOPTER (ITALIAN)

DOT/TSC
12/ 8/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 2

CENTERLINE - 150 M. WEST

JUNE 24, 1980

| EV | EPNL | NEL | DBA(M) | DASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | ^/** |
|---|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 87 KTS | | | | | | | | | | |
| 21 | 90.3 | 87.1 | 78.8 | 87.0 | 91.5 | 93.4 | 20.5 | 14.5 | 2.0 | -1.1 |
| 22 | 90.5 | 87.6 | 78.4 | 88.1 | 91.5 | 93.4 | 25.0 | 14.5 | 1.9 | -1.1 |
| 46 | 90.8 | 87.6 | 78.7 | 88.0 | 91.5 | 93.4 | 20.0 | 15.0 | 2.2 | -1.2 |
| 47 | 90.1 | 87.5 | 78.8 | 86.7 | 90.7 | 92.0 | 21.0 | 14.5 | 1.3 | -1.1 |
| Avg. | 90.4 | 87.5 | 78.7 | 87.5 | 91.3 | 93.1 | 21.6 | 14.6 | 1.8 | -1.1 |
| Std Dv | 0.3 | 0.2 | 0.2 | 0.7 | 0.4 | 0.7 | 2.3 | 0.2 | 0.4 | 0.0 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 102 KTS | | | | | | | | | | |
| 51 | 90.2 | 87.3 | 77.9 | 87.4 | 90.0 | 91.8 | 21.0 | 15.5 | 1.8 | -0.9 |
| 52 | 90.5 | 87.2 | 80.9 | 88.3 | 93.1 | 94.7 | 10.5 | 9.5 | 1.6 | -1.2 |
| 53 | 89.8 | 86.7 | 77.6 | 86.3 | 89.6 | 91.4 | 19.0 | 15.5 | 1.9 | -1.4 |
| 56 | 90.6 | 87.5 | 79.2 | 88.4 | 92.0 | 94.2 | 18.0 | 12.0 | 2.2 | -1.4 |
| Avg. | 90.3 | 87.2 | 78.9 | 87.6 | 91.2 | 93.0 | 17.1 | 13.1 | 1.9 | -1.2 |
| Std Dv | 0.4 | 0.3 | 1.5 | 1.0 | 1.7 | 1.7 | 4.6 | 2.9 | 0.2 | 0.3 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 116 KTS | | | | | | | | | | |
| 54 | 92.4 | 89.1 | 79.8 | 88.8 | 92.5 | 94.7 | 18.0 | 17.0 | 2.3 | -1.7 |
| 55 | 91.3 | 88.1 | 78.7 | 87.0 | 90.9 | 92.7 | 14.5 | 13.5 | 1.9 | -1.5 |
| 57 | 90.6 | 87.3 | 78.7 | 86.4 | 90.2 | 92.2 | 16.0 | 15.0 | 2.3 | -1.5 |
| 58 | 91.2 | 87.8 | 79.5 | 88.4 | 92.1 | 94.2 | 16.5 | 15.0 | 2.2 | -1.5 |
| Avg. | 91.4 | 88.1 | 79.2 | 87.7 | 91.4 | 93.5 | 16.2 | 15.1 | 2.2 | -1.5 |
| Std Dv | 0.7 | 0.7 | 0.6 | 1.1 | 1.0 | 1.2 | 1.4 | 1.4 | 0.2 | 0.1 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS | | | | | | | | | | |
| 17 | 94.1 | 90.9 | 81.8 | 89.5 | 93.2 | 95.2 | 12.5 | 12.0 | 2.0 | -1.6 |
| 18 | 92.9 | 89.6 | 80.3 | 89.3 | 92.7 | 94.6 | 19.5 | 17.0 | 2.2 | -1.6 |
| 19 | 93.4 | 89.9 | 82.0 | 89.3 | 92.6 | 95.2 | 12.0 | 12.0 | 2.6 | -1.8 |
| 20 | 94.5 | 91.3 | 82.5 | 89.7 | 93.7 | 95.9 | 16.0 | 15.5 | 2.3 | -1.7 |
| 62 | 93.5 | 90.4 | 82.1 | 89.7 | 93.4 | 95.6 | 15.0 | 13.0 | 2.2 | -1.7 |
| 63 | 92.5 | 89.4 | 80.6 | 89.2 | 91.8 | 93.8 | 14.0 | 13.5 | 2.0 | -1.5 |
| Avg. | 93.5 | 90.2 | 81.5 | 89.5 | 92.9 | 95.1 | 14.8 | 13.8 | 2.2 | -1.7 |
| Std Dv | 0.7 | 0.8 | 0.9 | 0.2 | 0.7 | 0.7 | 2.7 | 2.0 | 0.2 | 0.1 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 145 KTS | | | | | | | | | | |
| 48 | 95.6 | 92.0 | 84.2 | 94.6 | 95.4 | 97.9 | 11.0 | 10.5 | 2.7 | -2.0 |
| 49 | 95.4 | 92.0 | 83.2 | 93.1 | 93.9 | 96.7 | 15.5 | 15.0 | 2.8 | -1.9 |
| 50 | 95.9 | 92.2 | 84.1 | 94.5 | 94.9 | 97.7 | 12.5 | 11.5 | 2.8 | -2.0 |
| 59 | 94.8 | 91.2 | 84.5 | 93.9 | 95.7 | 98.4 | 9.0 | 8.5 | 2.6 | -1.8 |
| 60 | 95.2 | 91.5 | 83.6 | 94.1 | 94.8 | 97.3 | 13.0 | 12.5 | 2.6 | -2.0 |
| 61 | 94.9 | 91.6 | 83.5 | 93.6 | 94.6 | 97.1 | 12.0 | 11.0 | 2.5 | -1.9 |
| Avg. | 95.3 | 91.8 | 83.9 | 94.0 | 94.9 | 97.5 | 12.2 | 11.5 | 2.7 | -1.9 |
| Std Dv | 0.4 | 0.4 | 0.5 | 0.6 | 0.6 | 0.6 | 2.2 | 2.2 | 0.1 | 0.1 |

TABLE NO.A.2-3.5G

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
1/12/81

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 5G

SIDELINE - 150 M. SOUTH (FLUSH)

JUNE 23,1980

EV EPNL NEL DBA(M) OASPL PNL(M) PNLT(M) DUR(A) DUR(P) TC / **

300 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS

| 9 | ----- | | | NO DATA | | ----- | | | | |
|--------|-------|------|------|---------|------|-------|-----|-----|-----|------|
| 10 | ----- | | | NO DATA | | ----- | | | | |
| 15 | 96.4 | 93.6 | 87.4 | 92.4 | 98.6 | 100.0 | 8.5 | 8.5 | 1.7 | -1.1 |
| 16 | 94.9 | 92.0 | 87.0 | 96.5 | 98.5 | 99.5 | 6.0 | 6.5 | 1.1 | -0.6 |
| Avg. | 95.6 | 92.8 | 87.2 | 94.4 | 98.5 | 99.7 | 7.2 | 7.5 | 1.4 | -0.9 |
| Std Dv | 1.0 | 1.2 | 0.2 | 2.9 | 0.1 | 0.3 | 1.8 | 1.4 | 0.4 | 0.3 |

700 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|------|------|-----|------|
| 7 | 92.1 | 89.8 | 80.7 | 89.2 | 91.6 | 93.1 | 16.0 | 15.0 | 1.6 | -0.7 |
| 8 | 90.4 | 88.1 | 81.4 | 94.0 | 92.9 | 93.6 | 9.5 | 9.5 | 0.7 | -0.3 |
| 13 | 92.4 | 90.1 | 81.5 | 89.0 | 92.6 | 93.9 | 15.0 | 14.5 | 1.1 | -0.7 |
| 14 | 92.2 | 89.8 | 83.3 | 95.4 | 95.0 | 95.7 | 9.0 | 9.0 | 0.9 | -0.3 |
| Avg. | 91.8 | 89.4 | 81.7 | 91.9 | 93.0 | 94.1 | 12.4 | 12.0 | 1.1 | -0.5 |
| Std Dv | 0.9 | 0.9 | 1.1 | 3.3 | 1.4 | 1.1 | 3.6 | 3.2 | 0.4 | 0.3 |

1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|------|------|-----|------|
| 45 | 88.5 | 86.6 | 78.4 | 91.9 | 89.4 | 89.9 | 13.0 | 14.0 | 0.6 | -0.4 |
| 46 | 89.9 | 88.0 | 79.1 | 89.5 | 89.6 | 91.2 | 17.5 | 16.0 | 1.6 | -0.7 |
| 47 | 88.4 | 86.7 | 77.7 | 92.3 | 88.4 | 89.3 | 16.0 | 17.5 | 0.8 | -0.4 |
| 48 | 90.2 | 88.1 | 79.6 | 89.9 | 90.7 | 92.0 | 16.5 | 15.5 | 1.3 | -0.6 |
| 1 | 90.6 | 88.5 | 78.9 | 88.1 | 89.7 | 91.0 | 19.0 | 18.0 | 1.3 | -0.6 |
| 2 | 89.1 | 86.9 | 78.6 | 93.2 | 89.8 | 90.8 | 13.0 | 13.0 | 1.0 | -0.3 |
| 3 | 90.0 | 87.9 | 78.7 | 88.7 | 89.9 | 91.1 | 18.0 | 16.5 | 1.1 | -0.7 |
| 4 | 88.1 | 86.2 | 77.8 | 91.9 | 88.6 | 89.5 | 14.5 | 14.5 | 1.1 | -0.4 |
| Avg. | 89.4 | 87.4 | 78.6 | 90.7 | 89.5 | 90.6 | 15.9 | 15.6 | 1.1 | -0.5 |
| Std Dv | 0.9 | 0.9 | 0.6 | 1.9 | 0.7 | 0.9 | 2.3 | 1.7 | 0.3 | 0.1 |

1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|------|------|-----|------|
| 5 | 86.4 | 84.8 | 74.1 | 86.7 | 84.3 | 85.5 | 24.5 | 26.0 | 1.2 | -0.5 |
| 6 | 85.2 | 83.9 | 74.5 | 88.3 | 85.0 | 85.6 | 19.0 | 19.0 | 0.6 | -0.2 |
| 11 | 86.1 | 84.4 | 74.5 | 86.1 | 85.3 | 86.4 | 21.5 | 25.0 | 1.1 | -0.4 |
| 12 | 85.5 | 83.9 | 74.3 | 88.3 | 84.9 | 85.7 | 18.0 | 18.5 | 1.3 | -0.2 |
| Avg. | 85.8 | 84.2 | 74.3 | 87.4 | 84.9 | 85.8 | 20.7 | 22.1 | 1.0 | -0.3 |
| Std Dv | 0.5 | 0.4 | 0.2 | 1.1 | 0.4 | 0.4 | 2.9 | 3.9 | 0.3 | 0.1 |

TABLE NO. A.3-1.3

AUGUSTA A-109 HELICOPTER (ITALIAN)

DOT/TSC
12/ 8/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 3

CENTERLINE - 150 M. EAST

JUNE 24, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|----------|-------|------|--------|-------|--------|---------|--------|--------|-----|------|
| APPROACH | | | | | | | | | | |
| 24 | 98.4 | 96.3 | 85.9 | 93.0 | 97.0 | 98.3 | 21.5 | 20.5 | 1.4 | -0.9 |
| 26 | 102.0 | 99.5 | 88.3 | 96.8 | 99.9 | 101.2 | 29.5 | 28.5 | 1.2 | -0.8 |
| 28 | 97.7 | 95.3 | 86.1 | 94.2 | 97.5 | 98.5 | 24.5 | 21.5 | 1.1 | -0.9 |
| 32 | 98.0 | 95.5 | 85.4 | 94.2 | 97.6 | 99.2 | 22.0 | 19.5 | 1.6 | -0.9 |
| 34 | 99.0 | 96.4 | 86.9 | 94.1 | 97.9 | 99.1 | 19.5 | 20.0 | 1.2 | -1.1 |
| 36 | 98.6 | 96.2 | 87.0 | 95.2 | 99.3 | 100.4 | 18.5 | 17.0 | 1.1 | -0.8 |
| 38 | 97.8 | 95.5 | 87.4 | 94.6 | 98.3 | 99.4 | 17.0 | 19.5 | 1.1 | -0.9 |
| 40 | 97.5 | 95.3 | 85.8 | 93.5 | 97.2 | 98.2 | 23.0 | 23.0 | 1.0 | -0.9 |
| 64 | 95.1 | 92.9 | 84.6 | 93.9 | 96.5 | 97.8 | 17.5 | 13.5 | 1.3 | -0.7 |
| Avg. | 98.2 | 95.9 | 86.4 | 94.4 | 97.9 | 99.1 | 21.4 | 20.3 | 1.2 | -0.9 |
| Std Dv | 1.8 | 1.7 | 1.1 | 1.1 | 1.1 | 1.1 | 3.9 | 4.1 | 0.2 | 0.1 |
| TAKEOFF | | | | | | | | | | |
| 23 | 93.4 | 90.1 | 83.0 | 89.7 | 95.1 | 96.8 | 11.5 | 9.5 | 1.7 | -1.7 |
| 25 | 94.9 | 91.5 | 85.3 | 89.9 | 97.1 | 99.0 | 9.0 | 8.5 | 1.8 | -1.5 |
| 27 | 95.0 | 91.6 | 84.8 | 89.2 | 96.7 | 98.9 | 9.5 | 8.0 | 2.3 | -1.5 |
| 29 | 93.9 | 90.5 | 84.0 | 88.4 | 96.2 | 97.9 | 9.5 | 8.5 | 2.1 | -1.4 |
| 31 | 93.4 | 90.0 | 83.4 | 87.9 | 95.6 | 97.1 | 10.0 | 8.5 | 1.6 | -1.5 |
| 33 | 93.5 | 90.0 | 83.4 | 88.3 | 95.4 | 97.2 | 10.0 | 8.5 | 1.8 | -1.6 |
| 35 | 94.2 | 90.9 | 84.4 | 88.8 | 96.4 | 98.2 | 10.0 | 8.0 | 2.1 | -1.6 |
| 37 | 93.5 | 89.8 | 82.8 | 88.0 | 95.1 | 96.9 | 11.0 | 9.5 | 1.8 | -1.5 |
| 39 | 93.4 | 89.9 | 83.6 | 88.4 | 95.6 | 97.1 | 9.5 | 8.5 | 1.5 | -1.4 |
| 41 | 93.3 | 89.8 | 82.9 | 88.1 | 94.9 | 96.9 | 10.5 | 9.0 | 2.3 | -1.5 |
| Avg. | 93.8 | 90.4 | 83.8 | 88.7 | 95.8 | 97.6 | 10.0 | 8.6 | 1.9 | -1.5 |
| Std Dv | 0.7 | 0.7 | 0.9 | 0.7 | 0.8 | 0.9 | 0.8 | 0.5 | 0.3 | 0.1 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.2-1.5G

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
1/12/81

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 5G SIDELINE - 150 M. SOUTH (FLUSH) JUNE 23, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|----------|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| APPROACH | | | | | | | | | | |
| 34 | 94.2 | 91.4 | 83.1 | 89.9 | 95.1 | 95.9 | 16.0 | 16.5 | 0.9 | -0.3 |
| 36 | 93.0 | 89.7 | 80.9 | 86.4 | 92.5 | 94.1 | 16.5 | 16.5 | 1.6 | -0.8 |
| 40 | 95.1 | 91.7 | 81.9 | 90.2 | 94.2 | 95.4 | 19.5 | 19.5 | 1.2 | -0.5 |
| 42 | 95.0 | 91.9 | 82.4 | 90.4 | 94.6 | 96.1 | 19.0 | 18.5 | 1.4 | -0.5 |
| 44 | 94.7 | 91.8 | 82.8 | 89.9 | 94.8 | 95.5 | 18.5 | 18.0 | 0.7 | -0.2 |
| 54 | 94.1 | 91.2 | 81.0 | 88.8 | 93.1 | 93.9 | 23.0 | 23.0 | 1.0 | -0.3 |
| 56 | 94.0 | 90.7 | 80.8 | 88.4 | 93.4 | 94.2 | 22.0 | 21.5 | 0.8 | -0.3 |
| Avg. | 94.3 | 91.2 | 81.8 | 89.1 | 94.0 | 95.0 | 19.2 | 19.1 | 1.1 | -0.4 |
| Std Dv | 0.7 | 0.8 | 1.0 | 1.4 | 1.0 | 0.9 | 2.6 | 2.5 | 0.3 | 0.2 |
| TAKEOFF | | | | | | | | | | |
| 33 | 93.7 | 91.1 | 81.6 | 85.5 | 92.7 | 94.8 | 15.5 | 15.5 | 2.2 | -1.3 |
| 35 | 94.4 | 91.7 | 83.9 | 86.8 | 93.9 | 96.1 | 11.5 | 13.5 | 2.4 | -1.4 |
| 37 | 94.4 | 91.8 | 83.8 | 86.7 | 94.1 | 96.1 | 12.5 | 13.0 | 2.1 | -1.3 |
| 39 | 94.5 | 92.1 | 84.9 | 87.7 | 95.0 | 96.0 | 11.5 | 13.0 | 2.1 | -1.2 |
| 41 | 94.4 | 92.1 | 85.2 | 87.9 | 95.2 | 96.6 | 10.0 | 11.5 | 2.2 | -1.2 |
| 43 | 94.1 | 91.6 | 84.4 | 87.2 | 94.5 | 95.9 | 10.5 | 12.0 | 2.2 | -1.3 |
| 53 | 94.2 | 91.4 | 82.5 | 85.8 | 94.0 | 95.9 | 13.0 | 13.5 | 1.9 | -1.4 |
| 55 | 92.8 | 90.3 | 81.9 | 85.3 | 92.6 | 94.8 | 13.5 | 14.0 | 2.1 | -1.3 |
| Avg. | 94.1 | 91.5 | 83.5 | 86.6 | 94.0 | 95.8 | 12.2 | 13.2 | 2.2 | -1.3 |
| Std Dv | 0.6 | 0.6 | 1.3 | 1.0 | 0.9 | 0.6 | 1.8 | 1.2 | 0.2 | 0.1 |

* - INDEXES (A,D, ,ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.3-3.3

AUGUSTA A-109 HELICOPTER (ITALIAN)

DOT/TSC
1/12/81

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 3

CENTERLINE - 150 M. EAST

JUNE 24, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|--|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| 300 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS | | | | | | | | | | |
| 9 | 94.1 | 90.9 | 84.6 | 91.7 | 95.6 | 97.6 | 9.5 | 9.5 | 2.0 | -1.7 |
| 10 | 95.0 | 92.1 | 84.1 | 92.9 | 95.5 | 97.4 | 13.5 | 10.5 | 2.1 | -1.5 |
| 15 | 95.4 | 92.4 | 85.2 | 92.3 | 96.0 | 98.0 | 12.0 | 11.5 | 2.1 | -1.6 |
| 16 | 95.7 | 92.7 | 85.1 | 92.9 | 96.5 | 98.3 | 12.0 | 12.0 | 1.9 | -1.4 |
| Avg. | 95.1 | 92.0 | 84.8 | 92.5 | 95.9 | 97.8 | 11.7 | 10.9 | 2.0 | -1.5 |
| Std Dv | 0.7 | 0.8 | 0.5 | 0.6 | 0.4 | 0.4 | 1.7 | 1.1 | 0.1 | 0.1 |
| 700 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS | | | | | | | | | | |
| 7 | 89.9 | 87.1 | 78.1 | 86.6 | 88.5 | 90.5 | 15.5 | 16.0 | 2.0 | -1.8 |
| 8 | 90.2 | 87.5 | 77.3 | 86.2 | 88.1 | 89.9 | 23.5 | 23.5 | 2.0 | -1.3 |
| 13 | 90.9 | 88.0 | 79.3 | 88.3 | 89.9 | 92.1 | 13.5 | 13.0 | 2.2 | -1.8 |
| 14 | 90.0 | 87.4 | 77.0 | 86.2 | 87.8 | 89.6 | 23.0 | 22.5 | 1.8 | -1.4 |
| Avg. | 90.3 | 87.5 | 77.9 | 86.8 | 88.6 | 90.5 | 18.9 | 18.7 | 2.0 | -1.6 |
| Std Dv | 0.5 | 0.4 | 1.0 | 1.0 | 0.9 | 1.1 | 5.1 | 5.1 | 0.2 | 0.3 |
| 1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS | | | | | | | | | | |
| 1 | - | 91.4 | 83.9 | 95.5 | 93.9 | 96.9 | 10.5 | - | 3.4 | - |
| 2 | 88.9 | 86.1 | 74.8 | 84.8 | 85.6 | 87.6 | 29.0 | 28.5 | 2.0 | -1.4 |
| 3 | 87.7 | 84.8 | 76.0 | 85.5 | 85.9 | 88.6 | 19.0 | 18.5 | 2.8 | -1.9 |
| 4 | 88.5 | 85.8 | 75.0 | 84.6 | 85.9 | 88.0 | 27.0 | 26.0 | 2.1 | -1.4 |
| 42 | 88.8 | 86.0 | 75.8 | 84.5 | 86.1 | 88.2 | 22.0 | 22.0 | 2.2 | -1.6 |
| 43 | 88.6 | 85.9 | 77.1 | 84.7 | 86.6 | 89.2 | 18.5 | 18.0 | 2.6 | -1.8 |
| 44 | 87.8 | 85.0 | 76.1 | 83.5 | 86.7 | 89.0 | 19.5 | 19.0 | 2.3 | -1.4 |
| 45 | 87.5 | 84.4 | 74.5 | 84.1 | 85.2 | 87.6 | 26.5 | 25.5 | 2.3 | -1.8 |
| Avg. | 88.3 | 86.2 | 76.6 | 85.9 | 87.0 | 89.4 | 21.5 | 19.7 | 2.4 | -1.6 |
| Std Dv | 0.6 | 2.2 | 3.1 | 3.9 | 2.8 | 3.1 | 6.0 | 8.9 | 0.5 | 0.2 |
| 1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS | | | | | | | | | | |
| 5 | 81.0 | 79.0 | 69.1 | 78.7 | 78.7 | 81.1 | 28.5 | 28.0 | 2.4 | -1.6 |
| 6 | 85.3 | 82.8 | 71.0 | 81.5 | 81.5 | 83.1 | 35.0 | 34.0 | 1.7 | -1.4 |
| 11 | 84.7 | 82.0 | 70.1 | 82.9 | 80.6 | 82.4 | 34.0 | 33.5 | 2.2 | -1.6 |
| 12 | 86.5 | 83.7 | 71.4 | 82.3 | 82.3 | 84.5 | 32.5 | 31.5 | 2.2 | -1.6 |
| Avg. | 84.4 | 81.9 | 70.4 | 81.3 | 80.7 | 82.8 | 32.5 | 31.7 | 2.1 | -1.6 |
| Std Dv | 2.4 | 2.1 | 1.0 | 1.9 | 1.6 | 1.4 | 2.9 | 2.7 | 0.3 | 0.1 |

TABLE NO. A.2-3.5

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
10/17/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 5

SIDELINE - 150 M. SOUTH

JUNE 23, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|---|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| 300 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | |
| 9 | 91.7 | 89.5 | 82.6 | 91.0 | 93.4 | 94.5 | 11.0 | 10.5 | 1.6 | -1.3 |
| 10 | 88.7 | 86.0 | 80.2 | 93.2 | 91.9 | 93.1 | 8.0 | 7.5 | 1.5 | -0.9 |
| 15 | 91.6 | 89.7 | 82.9 | 91.1 | 93.3 | 94.7 | 11.0 | 10.0 | 1.4 | -1.0 |
| 16 | 90.0 | 86.9 | 81.6 | 96.2 | 93.5 | 95.0 | 7.0 | 6.5 | 1.6 | -1.0 |
| Avg. | 90.5 | 88.0 | 81.8 | 92.7 | 93.0 | 94.3 | 9.2 | 8.6 | 1.5 | -1.0 |
| Std Dv | 1.4 | 1.9 | 1.2 | 2.4 | 0.8 | 0.9 | 2.1 | 1.9 | 0.1 | 0.2 |

700 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|------|------|-----|------|
| 7 | 88.2 | 86.0 | 76.1 | 88.0 | 87.0 | 88.8 | 18.5 | 17.5 | 2.0 | -1.1 |
| 8 | 86.1 | 83.5 | 77.0 | 93.1 | 89.2 | 90.1 | 9.5 | 9.0 | 0.9 | -0.5 |
| 13 | 88.1 | 85.9 | 76.6 | 87.5 | 87.3 | 89.2 | 17.0 | 16.0 | 2.1 | -1.1 |
| 14 | 87.4 | 84.8 | 78.0 | 93.8 | 90.2 | 90.9 | 10.0 | 9.5 | 0.7 | -0.4 |
| Avg. | 87.4 | 85.1 | 76.9 | 90.6 | 88.4 | 89.7 | 13.7 | 13.0 | 1.4 | -0.8 |
| Std Dv | 1.0 | 1.2 | 0.8 | 3.3 | 1.5 | 0.9 | 4.7 | 4.4 | 0.7 | 0.4 |

1000 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|------|------|-----|------|
| 45 | 83.4 | 81.3 | 72.4 | 90.6 | 83.2 | 84.2 | 15.5 | 15.0 | 0.9 | -0.7 |
| 46 | 85.0 | 83.1 | 73.9 | 87.3 | 84.1 | 85.9 | 19.5 | 18.0 | 1.8 | -1.1 |
| 47 | 83.9 | 81.4 | 72.2 | 90.9 | 82.9 | 84.1 | 17.5 | 25.0 | 1.3 | -0.7 |
| 48 | 85.5 | 83.3 | 74.2 | 88.0 | 85.1 | 86.8 | 18.5 | 17.5 | 1.7 | -0.9 |
| 1 | 86.8 | 84.6 | 74.3 | 86.7 | 85.0 | 86.7 | 21.5 | 20.5 | 1.7 | -1.1 |
| 2 | 84.4 | 82.1 | 73.4 | 92.1 | 85.1 | 85.7 | 15.0 | 14.5 | 0.9 | -0.7 |
| 3 | 85.8 | 83.8 | 73.7 | 86.9 | 84.9 | 86.6 | 24.0 | 19.0 | 1.8 | -0.8 |
| 4 | - | 81.6 | 72.6 | 90.9 | 84.0 | 85.1 | 15.0 | - | 1.1 | - |
| Avg. | 85.0 | 82.7 | 73.3 | 89.2 | 84.3 | 85.6 | 18.3 | 16.2 | 1.4 | -0.9 |
| Std Dv | 1.2 | 1.2 | 0.8 | 2.2 | 0.9 | 1.1 | 3.3 | 7.3 | 0.4 | 0.2 |

1500 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|------|------|-----|------|
| 5 | 82.7 | 81.0 | 69.6 | 85.4 | 79.7 | 81.3 | 31.5 | 32.5 | 1.6 | -0.8 |
| 6 | 81.0 | 79.2 | 69.3 | 87.6 | 80.1 | 81.0 | 21.0 | 22.5 | 0.9 | -0.5 |
| 11 | 82.8 | 80.5 | 70.0 | 84.9 | 80.4 | 81.4 | 30.0 | 45.5 | 1.1 | -0.5 |
| 12 | 81.6 | 79.6 | 69.5 | 87.7 | 80.8 | 81.8 | 19.5 | 23.5 | 1.0 | -0.4 |
| Avg. | 82.0 | 80.1 | 69.6 | 86.4 | 80.3 | 81.4 | 25.5 | 31.0 | 1.1 | -0.5 |
| Std Dv | 0.9 | 0.8 | 0.3 | 1.5 | 0.4 | 0.3 | 6.1 | 10.7 | 0.3 | 0.2 |

TABLE NO. A.3-2.4

AUGUSTA A-109 HELICOPTER (ITALIAN)

DOT/TSC
10/16/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 4

SIDELINE -164M. NORTH

JUNE 24, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|---|---------------------|------|--------|-------|--------|---------|--------|--------|-----|------|
| 500 FT. FLYBY - TARGET INDICATED AIRSPEED 87 KTS | | | | | | | | | | |
| 21 | 87.7 | 84.8 | 74.3 | 83.9 | 86.2 | 87.2 | 26.5 | 27.0 | 1.0 | -1.0 |
| 22 | 87.3 | 84.2 | 73.8 | 89.0 | 85.6 | 86.9 | 26.5 | 30.0 | 1.2 | -0.9 |
| 46 | 86.4 | 83.7 | 75.1 | 88.3 | 86.4 | 87.1 | 23.0 | 23.5 | 0.7 | -0.8 |
| 47 | 87.6 | 85.1 | 75.2 | 82.8 | 85.9 | 87.2 | 34.0 | 26.5 | 1.6 | -0.9 |
| Avg. | 87.2 | 84.5 | 74.6 | 86.0 | 86.1 | 87.1 | 27.5 | 26.7 | 1.1 | -0.9 |
| Std Dv | 0.6 | 0.6 | 0.7 | 3.1 | 0.3 | 0.2 | 4.6 | 2.7 | 0.4 | 0.1 |
| 500 FT. FLYBY - TARGET INDICATED AIRSPEED 102 KTS | | | | | | | | | | |
| 51 | 88.7 | 85.5 | 75.3 | 86.6 | 87.4 | 88.8 | 23.0 | 21.5 | 1.9 | -1.2 |
| 52 | ----- NO DATA ----- | | | | | | | | | |
| 53 | 88.1 | 85.0 | 74.8 | 86.6 | 87.1 | 88.3 | 24.5 | 24.0 | 1.2 | -1.2 |
| 56 | 87.2 | 84.0 | 75.2 | 88.9 | 87.2 | 88.3 | 23.5 | 22.5 | 1.1 | -1.1 |
| Avg. | 88.0 | 84.8 | 75.1 | 87.4 | 87.2 | 88.5 | 23.7 | 22.7 | 1.4 | -1.1 |
| Std Dv | 0.8 | 0.8 | 0.2 | 1.3 | 0.2 | 0.3 | 0.8 | 1.3 | 0.4 | 0.1 |
| 500 FT. FLYBY - TARGET INDICATED AIRSPEED 116 KTS | | | | | | | | | | |
| 54 | 89.4 | 86.1 | 75.6 | 89.5 | 87.6 | 88.9 | 24.0 | 24.0 | 2.2 | -1.3 |
| 55 | 89.3 | 86.2 | 76.6 | 88.7 | 88.4 | 89.7 | 26.5 | 26.0 | 1.3 | -1.1 |
| 57 | 89.7 | 86.7 | 76.0 | 88.4 | 87.9 | 89.2 | 23.0 | 21.5 | 1.2 | -1.1 |
| 58 | 88.0 | 84.7 | 75.3 | 89.2 | 87.3 | 88.7 | 19.5 | 20.0 | 1.6 | -1.1 |
| Avg. | 89.1 | 85.9 | 75.9 | 88.9 | 87.8 | 89.1 | 23.2 | 22.9 | 1.6 | -1.2 |
| Std Dv | 0.8 | 0.8 | 0.6 | 0.5 | 0.5 | 0.4 | 2.9 | 2.7 | 0.4 | 0.1 |
| 500 FT. FLYBY - TARGET INDICATED AIRSPEED 130 KTS | | | | | | | | | | |
| 17 | 90.4 | 87.7 | 79.3 | 91.6 | 90.3 | 92.5 | 17.5 | 17.5 | 2.2 | -1.3 |
| 18 | 91.0 | 88.0 | 77.6 | 91.2 | 89.1 | 91.3 | 23.5 | 21.0 | 2.2 | -1.3 |
| 19 | 90.4 | 87.7 | 78.3 | 91.2 | 89.2 | 90.2 | 20.5 | 20.0 | 1.1 | -1.3 |
| 20 | 91.9 | 88.7 | 79.8 | 92.2 | 90.3 | 92.6 | 25.5 | 25.5 | 2.3 | -1.5 |
| 62 | 90.4 | 87.1 | 76.8 | 91.9 | 88.2 | 90.1 | 18.5 | 18.5 | 2.3 | -1.5 |
| 63 | 90.1 | 87.3 | 78.0 | 92.6 | 89.6 | 90.5 | 19.0 | 19.0 | 0.9 | -1.1 |
| Avg. | 90.7 | 87.7 | 78.3 | 91.8 | 89.4 | 91.2 | 20.7 | 20.2 | 1.8 | -1.3 |
| Std Dv | 0.7 | 0.6 | 1.1 | 0.6 | 0.8 | 1.1 | 3.1 | 2.8 | 0.6 | 0.2 |
| 500 FT. FLYBY - TARGET INDICATED AIRSPEED 145 KTS | | | | | | | | | | |
| 48 | 93.9 | 89.9 | 81.1 | 96.9 | 92.9 | 95.7 | 14.5 | 13.5 | 2.8 | -1.8 |
| 49 | 92.9 | 89.7 | 80.2 | 94.3 | 91.8 | 93.3 | 18.0 | 17.5 | 2.6 | -1.4 |
| 50 | 94.3 | 90.3 | 81.2 | 97.7 | 93.5 | 96.2 | 19.0 | 17.5 | 2.7 | -1.8 |
| 59 | 92.8 | 89.6 | 80.0 | 96.2 | 92.1 | 93.0 | 18.0 | 18.0 | 1.3 | -1.2 |
| 60 | 93.5 | 89.5 | 81.9 | 97.0 | 92.6 | 95.5 | 14.5 | 14.0 | 2.9 | -1.8 |
| 61 | 92.7 | 89.7 | 79.9 | 95.1 | 91.5 | 93.1 | 19.5 | 18.5 | 1.6 | -1.3 |
| Avg. | 93.3 | 89.8 | 80.7 | 96.2 | 92.4 | 94.5 | 17.2 | 16.5 | 2.3 | -1.5 |
| Std Dv | 0.6 | 0.3 | 0.8 | 1.3 | 0.7 | 1.5 | 2.2 | 2.2 | 0.7 | 0.3 |

TABLE NO. A.2-1.5

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
10/17/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 5

SIDELINE - 150 M. SOUTH

JUNE 23, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|----------|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| APPROACH | | | | | | | | | | |
| 34 | 90.6 | 87.5 | 78.1 | 85.9 | 90.7 | 91.7 | 27.5 | 22.0 | 1.0 | -0.7 |
| 36 | 91.3 | 87.6 | 78.4 | 86.1 | 90.6 | 92.2 | 20.0 | 19.5 | 1.6 | -0.9 |
| 40 | 90.7 | 87.2 | 76.6 | 84.8 | 89.6 | 90.6 | 24.0 | 20.0 | 1.4 | -0.9 |
| 42 | 90.8 | 87.6 | 77.3 | 85.3 | 89.9 | 91.1 | 30.5 | 19.0 | 1.3 | -0.9 |
| 44 | 90.9 | 87.4 | 77.6 | 85.4 | 90.3 | 91.4 | 22.0 | 20.0 | 1.2 | -0.9 |
| 54 | 89.6 | 86.4 | 76.1 | 83.3 | 88.4 | 89.6 | 23.5 | 22.5 | 1.4 | -0.9 |
| 56 | 89.4 | 86.2 | 75.6 | 83.1 | 88.1 | 89.0 | 23.0 | 22.0 | 1.0 | -0.8 |
| Avg. | 90.5 | 87.2 | 77.1 | 84.8 | 89.7 | 90.8 | 24.4 | 20.7 | 1.3 | -0.9 |
| Std Dv | 0.7 | 0.6 | 1.0 | 1.2 | 1.1 | 1.1 | 3.5 | 1.4 | 0.2 | 0.1 |
| TAKEOFF | | | | | | | | | | |
| 33 | 88.4 | 85.9 | 76.3 | 80.9 | 87.4 | 89.6 | 16.5 | 16.0 | 2.2 | -1.3 |
| 35 | 88.5 | 86.2 | 77.7 | 82.0 | 88.9 | 90.6 | 13.5 | 13.5 | 1.8 | -1.0 |
| 37 | 88.6 | 86.3 | 78.0 | 82.4 | 89.1 | 90.8 | 12.5 | 13.0 | 1.7 | -1.1 |
| 39 | 88.6 | 86.3 | 78.3 | 82.5 | 88.9 | 90.2 | 12.0 | 13.0 | 1.4 | -1.1 |
| 41 | 88.6 | 86.4 | 78.9 | 83.3 | 89.4 | 90.7 | 12.0 | 13.0 | 1.3 | -1.1 |
| 43 | 88.1 | 85.9 | 78.1 | 82.6 | 88.9 | 90.0 | 12.0 | 12.5 | 1.1 | -1.1 |
| 53 | 88.3 | 85.9 | 77.0 | 82.2 | 88.4 | 89.7 | 14.5 | 14.5 | 1.3 | -1.1 |
| 55 | 87.3 | 84.9 | 76.0 | 80.7 | 86.9 | 88.3 | 16.5 | 16.0 | 1.4 | -1.2 |
| Avg. | 88.3 | 86.0 | 77.5 | 82.1 | 88.5 | 90.0 | 13.7 | 13.9 | 1.5 | -1.1 |
| Std Dv | 0.4 | 0.5 | 1.0 | 0.9 | 0.9 | 0.8 | 1.9 | 1.4 | 0.4 | 0.1 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.3-1.5

AUGUSTA A-109 HELICOPTER (ITALIAN)

DOT/TSC
11/18/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 5

SIDELINE - 150 M. SOUTH

JUNE 24, 1980

| EV | EPNL | NEL | DBA(M) | DASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|----------|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| APPROACH | | | | | | | | | | |
| 24 | 93.6 | 90.7 | 79.2 | 87.6 | 91.8 | 92.9 | 34.0 | 33.5 | 1.1 | -1.1 |
| 26 | 94.9 | 92.5 | 84.3 | 87.8 | 93.9 | 95.7 | 23.0 | 24.0 | 1.7 | -1.1 |
| 28 | 95.2 | 92.9 | 82.2 | 88.8 | 93.3 | 94.5 | 28.5 | 21.5 | 1.3 | -1.1 |
| 32 | 95.4 | 92.9 | 82.6 | 87.9 | 93.1 | 95.1 | 26.5 | 26.5 | 2.0 | -1.3 |
| 34 | 94.7 | 92.3 | 82.5 | 87.7 | 93.1 | 94.6 | 21.0 | 22.0 | 1.5 | -1.0 |
| 36 | 93.1 | 90.5 | 79.3 | 85.9 | 90.9 | 91.9 | 32.5 | 29.0 | 1.0 | -0.9 |
| 38 | 93.6 | 91.0 | 82.1 | 87.9 | 93.3 | 95.0 | 25.5 | 22.5 | 1.6 | -1.1 |
| 40 | 92.8 | 90.0 | 78.8 | 87.1 | 90.5 | 91.7 | 42.0 | 39.0 | 1.2 | -1.1 |
| 64 | 90.2 | 86.9 | 77.9 | 86.5 | 89.9 | 91.2 | 21.5 | 20.0 | 1.3 | -0.9 |
| Avg. | 93.7 | 91.1 | 81.0 | 87.5 | 92.2 | 93.6 | 28.3 | 26.4 | 1.4 | -1.1 |
| Std Dv | 1.6 | 1.9 | 2.2 | 0.9 | 1.5 | 1.7 | 6.9 | 6.3 | 0.3 | 0.1 |

TAKEOFF

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|------|------|-----|------|
| 23 | 92.8 | 89.4 | 80.9 | 92.6 | 93.9 | 95.4 | 15.0 | 13.5 | 1.6 | -1.1 |
| 25 | 92.9 | 89.6 | 80.0 | 92.6 | 92.0 | 93.5 | 16.0 | 14.5 | 1.6 | -1.0 |
| 27 | 92.3 | 89.1 | 80.3 | 92.6 | 92.4 | 94.0 | 15.0 | 13.5 | 1.6 | -1.0 |
| 29 | 91.9 | 88.5 | 79.6 | 92.1 | 91.7 | 93.0 | 14.5 | 14.0 | 1.3 | -1.1 |
| 31 | 92.7 | 89.4 | 80.0 | 92.5 | 92.3 | 94.0 | 16.0 | 14.5 | 1.8 | -1.2 |
| 33 | 92.3 | 89.1 | 79.7 | 92.3 | 92.4 | 93.9 | 16.5 | 15.0 | 1.4 | -1.1 |
| 35 | 92.9 | 89.6 | 81.0 | 92.6 | 93.4 | 95.0 | 15.0 | 14.0 | 1.6 | -1.1 |
| 37 | 92.4 | 89.1 | 79.7 | 91.8 | 91.8 | 93.3 | 16.5 | 15.5 | 1.5 | -1.2 |
| 39 | 92.5 | 89.4 | 79.9 | 92.0 | 91.8 | 93.2 | 17.0 | 14.5 | 1.5 | -1.1 |
| 41 | 91.7 | 88.4 | 79.2 | 91.8 | 91.4 | 92.8 | 15.0 | 14.5 | 1.4 | -1.1 |
| Avg. | 92.5 | 89.2 | 80.0 | 92.3 | 92.3 | 93.8 | 15.6 | 14.3 | 1.5 | -1.1 |
| Std Dv | 0.4 | 0.4 | 0.6 | 0.4 | 0.8 | 0.8 | 0.9 | 0.6 | 0.1 | 0.1 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.2-3.4

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
10/14/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 4

SIDELINE -164M. NORTH

JUNE 23, 1980

| EV | EPNL | NEL | DBA(M) | DASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|--|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| 300 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | |
| 9 | 92.0 | 89.1 | 82.7 | 95.3 | 94.4 | 95.6 | 8.0 | 8.5 | 1.1 | -1.0 |
| 10 | 91.8 | 89.5 | 83.6 | 91.4 | 94.5 | 96.0 | 8.0 | 8.0 | 1.5 | -1.1 |
| 15 | 91.4 | 88.5 | 82.7 | 94.9 | 94.1 | 95.5 | 8.0 | 9.0 | 1.4 | -1.0 |
| 16 | 92.8 | 90.7 | 83.9 | 93.1 | 94.8 | 96.1 | 8.0 | 8.5 | 1.3 | -0.9 |
| Avg. | 92.0 | 89.4 | 83.2 | 93.7 | 94.4 | 95.8 | 8.0 | 8.5 | 1.4 | -1.0 |
| Std Dv | 0.6 | 0.9 | 0.6 | 1.8 | 0.3 | 0.3 | 0.0 | 0.4 | 0.2 | 0.1 |
| 700 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | |
| 7 | 88.4 | 85.9 | 77.0 | 92.6 | 87.8 | 89.2 | 15.5 | 16.0 | 1.7 | -0.8 |
| 8 | 87.9 | 86.1 | 78.2 | 90.5 | 88.9 | 90.6 | 12.0 | 11.5 | 1.7 | -0.9 |
| 13 | 89.0 | 86.6 | 77.9 | 92.4 | 88.9 | 90.5 | 14.5 | 14.5 | 1.6 | -1.0 |
| 14 | 88.7 | 86.9 | 78.8 | 91.9 | 89.7 | 90.4 | 12.0 | 12.5 | 0.7 | -0.9 |
| Avg. | 88.5 | 86.4 | 78.0 | 91.9 | 88.9 | 90.2 | 13.5 | 13.6 | 1.4 | -0.9 |
| Std Dv | 0.5 | 0.5 | 0.8 | 0.9 | 0.8 | 0.7 | 1.8 | 2.0 | 0.5 | 0.1 |
| 1000 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | |
| 45 | 86.3 | 84.3 | 75.9 | 90.1 | 86.6 | 88.2 | 14.5 | 13.5 | 1.6 | -1.1 |
| 46 | 85.6 | 83.6 | 74.0 | 92.4 | 84.5 | 85.8 | 19.5 | 21.0 | 1.5 | -0.7 |
| 47 | 86.6 | 84.3 | 75.1 | 90.4 | 87.0 | 88.6 | 16.0 | 15.0 | 1.6 | -1.1 |
| 48 | 86.4 | 84.0 | 74.9 | 92.7 | 85.6 | 87.2 | 16.5 | 17.0 | 1.7 | -0.8 |
| 1 | 86.9 | 84.5 | 74.6 | 91.4 | 85.3 | 86.9 | 18.5 | 22.0 | 1.6 | -0.7 |
| 2 | 87.0 | 84.9 | 76.4 | 92.2 | 87.1 | 88.3 | 14.0 | 14.0 | 1.3 | -1.0 |
| 3 | 86.6 | 84.4 | 75.1 | 91.0 | 86.2 | 87.6 | 17.0 | 16.0 | 1.5 | -0.5 |
| 4 | 86.7 | 84.4 | 74.9 | 90.5 | 86.3 | 87.7 | 15.0 | 14.5 | 1.3 | -1.1 |
| Avg. | 86.5 | 84.3 | 75.1 | 91.3 | 86.1 | 87.5 | 16.4 | 16.6 | 1.5 | -0.9 |
| Std Dv | 0.4 | 0.4 | 0.7 | 1.0 | 0.9 | 0.9 | 1.9 | 3.2 | 0.1 | 0.2 |
| 1500 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | |
| 5 | 83.3 | 81.4 | 70.8 | 89.4 | 81.4 | 82.2 | 24.5 | 25.5 | 0.8 | -0.6 |
| 6 | 83.3 | 81.5 | 70.9 | 87.3 | 81.6 | 82.8 | 23.0 | 22.5 | 1.2 | -0.9 |
| 11 | 83.7 | 81.6 | 71.4 | 89.2 | 82.6 | 83.3 | 21.5 | 27.0 | 0.8 | -0.8 |
| 12 | 83.2 | 81.6 | 71.8 | 87.1 | 82.2 | 83.7 | 18.0 | 17.5 | 1.4 | -1.0 |
| Avg. | 83.4 | 81.5 | 71.2 | 88.3 | 81.9 | 83.0 | 21.7 | 23.1 | 1.0 | -0.8 |
| Std Dv | 0.2 | 0.1 | 0.5 | 1.2 | 0.6 | 0.7 | 2.8 | 4.2 | 0.3 | 0.2 |

TABLE NO. A.3-3.5

AUGUSTA A-109 HELICOPTER (ITALIAN)

DOT/TSC
11/18/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 5

SIDELINE - 150 M. SOUTH

JUNE 24, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|---|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| 300 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS | | | | | | | | | | |
| 9 | 90.6 | 87.2 | 78.3 | 92.5 | 89.9 | 91.9 | 14.0 | 13.5 | 2.5 | -1.4 |
| 10 | 92.6 | 90.2 | 80.2 | 92.6 | 91.1 | 92.5 | 17.5 | 17.5 | 1.3 | -1.1 |
| 15 | 90.6 | 87.2 | 79.1 | 91.9 | 91.1 | 93.6 | 16.5 | 14.0 | 2.5 | -1.6 |
| 16 | 91.6 | 89.1 | 79.8 | 91.9 | 90.8 | 91.8 | 16.5 | 16.5 | 1.0 | -1.0 |
| Avg. | 91.3 | 88.4 | 79.3 | 92.2 | 90.7 | 92.4 | 16.1 | 15.4 | 1.8 | -1.3 |
| Std Dv | 0.9 | 1.5 | 0.8 | 0.4 | 0.6 | 0.8 | 1.5 | 1.9 | 0.8 | 0.3 |

700 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|------|------|-----|------|
| 7 | 89.9 | 86.4 | 76.7 | 88.7 | 89.0 | 91.4 | 19.0 | 17.0 | 2.5 | -1.8 |
| 8 | 90.1 | 87.8 | 77.9 | 90.1 | 88.6 | 90.3 | 24.5 | 24.0 | 1.7 | -1.1 |
| 13 | 90.1 | 86.6 | 79.0 | 89.8 | 88.9 | 91.7 | 15.0 | 17.0 | 2.8 | -1.7 |
| 14 | 89.6 | 87.2 | 76.9 | 89.5 | 87.6 | 89.2 | 26.0 | 25.5 | 1.6 | -1.1 |
| Avg. | 89.9 | 87.0 | 77.6 | 89.5 | 88.5 | 90.7 | 21.1 | 20.9 | 2.1 | -1.4 |
| Std Dv | 0.3 | 0.6 | 1.0 | 0.6 | 0.6 | 1.1 | 5.1 | 4.5 | 0.6 | 0.4 |

1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|------|------|-----|------|
| 2 | 89.4 | 86.7 | 74.5 | 88.3 | 86.5 | 88.5 | 34.0 | 31.5 | 2.0 | -1.4 |
| 3 | 88.5 | 85.1 | 75.5 | 86.3 | 87.1 | 89.6 | 20.5 | 19.0 | 2.5 | -1.9 |
| 4 | 88.7 | 86.0 | 74.3 | 88.2 | 86.2 | 88.1 | 32.5 | 29.5 | 1.9 | -1.3 |
| 42 | 89.6 | 86.7 | 76.2 | 87.9 | 87.3 | 89.3 | 34.0 | 33.5 | 2.0 | -1.6 |
| 43 | 89.6 | 86.2 | 76.6 | 86.6 | 86.9 | 89.6 | 20.5 | 20.5 | 2.8 | -1.8 |
| 44 | 88.3 | 85.3 | 75.2 | 86.8 | 87.1 | 88.9 | 25.0 | 23.0 | 1.8 | -1.3 |
| 45 | 88.7 | 85.4 | 75.6 | 85.9 | 86.0 | 88.7 | 25.5 | 25.0 | 2.7 | -1.6 |
| Avg. | 89.0 | 85.9 | 75.4 | 87.1 | 86.7 | 89.0 | 27.4 | 26.0 | 2.2 | -1.5 |
| Std Dv | 0.5 | 0.7 | 0.8 | 1.0 | 0.5 | 0.6 | 6.0 | 5.6 | 0.4 | 0.2 |

1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|------|------|-----|------|
| 5 | 85.7 | 82.6 | 71.4 | 82.2 | 82.5 | 84.6 | 29.5 | 27.5 | 2.6 | -1.6 |
| 6 | 87.1 | 84.3 | 71.7 | 85.5 | 83.5 | 85.5 | 37.0 | 28.0 | 2.1 | -1.4 |
| 11 | 85.0 | 81.9 | 70.3 | 81.3 | 81.8 | 83.9 | 29.0 | 27.5 | 2.2 | -1.6 |
| 12 | 87.1 | 84.2 | 72.1 | 85.4 | 82.5 | 84.7 | 34.5 | 33.5 | 2.2 | -1.5 |
| Avg. | 86.2 | 83.3 | 71.4 | 83.6 | 82.6 | 84.7 | 32.5 | 29.1 | 2.2 | -1.6 |
| Std Dv | 1.0 | 1.2 | 0.8 | 2.2 | 0.7 | 0.6 | 3.9 | 2.9 | 0.2 | 0.1 |

TABLE NO. A.2-1.4

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
10/14/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 4

SIDELINE -164M. NORTH

JUNE 23, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|----------|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| APPROACH | | | | | | | | | | |
| 34 | 93.7 | 90.7 | 81.4 | 88.6 | 93.4 | 95.3 | 23.0 | 19.5 | 2.0 | -1.1 |
| 36 | 93.3 | 90.7 | 82.5 | 89.2 | 94.0 | 95.1 | 17.0 | 16.5 | 1.3 | -0.7 |
| 40 | 93.9 | 91.1 | 82.4 | 88.0 | 93.3 | 95.0 | 17.5 | 17.0 | 1.6 | -1.0 |
| 42 | 93.9 | 91.2 | 81.4 | 87.8 | 92.6 | 94.0 | 19.0 | 19.0 | 1.8 | -0.9 |
| 44 | 94.2 | 91.2 | 82.8 | 89.3 | 93.9 | 95.8 | 17.0 | 16.5 | 1.9 | -1.0 |
| 54 | 92.4 | 90.1 | 80.4 | 86.2 | 91.3 | 92.5 | 21.5 | 21.5 | 1.3 | -0.8 |
| 56 | 91.8 | 89.1 | 79.6 | 85.2 | 90.3 | 91.6 | 22.0 | 22.0 | 1.4 | -0.8 |
| Avg. | 93.3 | 90.6 | 81.5 | 87.8 | 92.7 | 94.2 | 19.6 | 18.9 | 1.6 | -0.9 |
| Std Dev | 0.9 | 0.7 | 1.2 | 1.6 | 1.4 | 1.6 | 2.6 | 2.3 | 0.3 | 0.2 |
| TAKEOFF | | | | | | | | | | |
| 33 | 92.0 | 88.5 | 79.1 | 83.6 | 90.9 | 92.9 | 16.5 | 16.5 | 1.9 | -1.7 |
| 35 | 91.5 | 88.5 | 79.8 | 84.4 | 90.4 | 92.1 | 16.5 | 17.5 | 1.7 | -1.6 |
| 37 | 91.6 | 88.6 | 80.1 | 84.4 | 90.7 | 92.5 | 16.5 | 17.5 | 1.8 | -1.6 |
| 39 | 91.7 | 88.6 | 79.6 | 84.4 | 90.5 | 92.0 | 17.5 | 18.0 | 1.9 | -1.5 |
| 41 | 91.4 | 88.6 | 79.9 | 84.5 | 90.7 | 92.6 | 15.5 | 16.0 | 1.8 | -1.6 |
| 43 | 91.1 | 88.1 | 79.4 | 84.3 | 90.0 | 91.9 | 18.0 | 18.5 | 1.8 | -1.6 |
| 53 | 90.5 | 87.2 | 78.3 | 83.0 | 89.5 | 91.2 | 15.5 | 16.0 | 1.7 | -1.4 |
| 55 | 90.3 | 87.0 | 77.6 | 82.9 | 89.1 | 91.0 | 18.0 | 18.0 | 1.9 | -1.6 |
| Avg. | 91.2 | 88.1 | 79.2 | 83.9 | 90.2 | 92.0 | 16.7 | 17.2 | 1.8 | -1.6 |
| Std Dev | 0.6 | 0.7 | 0.9 | 0.7 | 0.6 | 0.7 | 1.0 | 1.0 | 0.1 | 0.1 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.3-2.5G

AUGUSTA A-109 HELICOPTER (ITALIAN)

DDT/TSC
1/12/81

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 5G

SIDELINE - 150 M. SOUTH (FLUSH)

JUNE 24, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(F) | TC | /** |
|---|---------|------|--------|-------|--------|---------|--------|--------|-----|------|
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 87 KTS | | | | | | | | | | |
| 21 | 90.4 | 87.3 | 78.6 | 88.8 | 89.9 | 90.5 | 19.5 | 23.0 | 0.5 | -0.8 |
| 22 | 91.5 | 88.7 | 77.9 | 85.1 | 89.5 | 90.8 | 27.5 | 27.0 | 1.3 | -0.7 |
| 46 | 92.2 | 89.2 | 80.8 | 86.9 | 92.6 | 94.0 | 20.0 | 17.0 | 1.4 | -0.7 |
| 47 | 90.4 | 87.6 | 78.6 | 88.7 | 90.1 | 91.0 | 19.0 | 19.0 | 0.9 | -0.7 |
| Avg. | 91.1 | 88.2 | 79.0 | 87.4 | 90.5 | 91.6 | 21.5 | 21.5 | 1.0 | -0.7 |
| Std Dv | 0.9 | 0.9 | 1.2 | 1.7 | 1.4 | 1.6 | 4.0 | 4.4 | 0.4 | 0.0 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 102 KTS | | | | | | | | | | |
| 51 | 90.5 | 87.8 | 78.8 | 87.6 | 90.0 | 91.2 | 19.0 | 19.5 | 1.2 | -0.8 |
| 52 | 91.9 | 89.1 | 79.9 | 87.5 | 92.2 | 93.5 | 19.0 | 17.0 | 1.2 | -0.8 |
| 53 | NO DATA | | | | | | | | | |
| 56 | 91.3 | 88.4 | 79.1 | 86.7 | 90.7 | 92.1 | 18.0 | 17.5 | 1.4 | -0.8 |
| Avg. | 91.2 | 88.4 | 79.3 | 87.3 | 91.0 | 92.3 | 18.7 | 18.0 | 1.2 | -0.8 |
| Std Dv | 0.7 | 0.7 | 0.6 | 0.5 | 1.1 | 1.2 | 0.6 | 1.3 | 0.1 | 0.0 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 116 KTS | | | | | | | | | | |
| 54 | NO DATA | | | | | | | | | |
| 55 | 90.7 | 87.7 | 79.0 | 87.7 | 89.9 | 90.7 | 16.5 | 21.5 | 0.9 | -1.0 |
| 57 | 90.2 | 87.4 | 78.8 | 87.6 | 89.7 | 90.7 | 19.5 | 20.0 | 0.9 | -0.9 |
| 58 | 91.7 | 89.1 | 80.3 | 87.9 | 91.7 | 93.0 | 19.0 | 18.0 | 1.3 | -0.8 |
| Avg. | 90.9 | 88.1 | 79.4 | 87.8 | 90.5 | 91.5 | 18.3 | 19.8 | 1.1 | -0.9 |
| Std Dv | 0.8 | 0.9 | 0.8 | 0.2 | 1.1 | 1.3 | 1.6 | 1.8 | 0.2 | 0.1 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS | | | | | | | | | | |
| 17 | 94.1 | 90.9 | 82.9 | 92.1 | 94.5 | 96.0 | 15.0 | 15.0 | 1.4 | -1.4 |
| 18 | 93.7 | 91.0 | 82.2 | 91.0 | 93.2 | 94.2 | 16.5 | 16.0 | 1.0 | -0.7 |
| 19 | 94.4 | 91.4 | 83.5 | 92.2 | 94.9 | 97.2 | 13.0 | 13.0 | 2.3 | -1.4 |
| 20 | 94.1 | 91.3 | 83.2 | 92.0 | 94.5 | 95.6 | 15.5 | 14.0 | 1.1 | -0.7 |
| 62 | 93.3 | 90.5 | 81.7 | 91.8 | 93.4 | 94.2 | 15.5 | 16.0 | 0.8 | -0.9 |
| 63 | 93.4 | 90.4 | 81.6 | 91.4 | 92.8 | 94.9 | 14.5 | 14.0 | 2.2 | -1.1 |
| Avg. | 93.8 | 90.9 | 82.5 | 91.8 | 93.9 | 95.3 | 15.0 | 14.7 | 1.5 | -1.0 |
| Std Dv | 0.4 | 0.4 | 0.8 | 0.5 | 0.9 | 1.2 | 1.2 | 1.2 | 0.7 | 0.3 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 145 KTS | | | | | | | | | | |
| 48 | 96.1 | 93.1 | 84.9 | 95.3 | 96.8 | 97.7 | 13.5 | 12.5 | 1.1 | -1.0 |
| 49 | 95.7 | 92.5 | 83.6 | 94.8 | 95.5 | 98.1 | 17.0 | 13.5 | 2.5 | -1.4 |
| 50 | 95.7 | 92.7 | 85.0 | 95.7 | 96.5 | 97.1 | 13.5 | 13.5 | 0.9 | -0.9 |
| 59 | 94.6 | 91.3 | 83.3 | 94.5 | 95.1 | 97.3 | 13.5 | 12.5 | 2.2 | -1.5 |
| 60 | 95.4 | 92.3 | 83.8 | 94.3 | 96.4 | 97.8 | 13.5 | 12.5 | 1.3 | -1.0 |
| 61 | 95.2 | 91.8 | 83.8 | 94.8 | 95.3 | 98.0 | 11.0 | 10.5 | 2.7 | -1.5 |
| Avg. | 95.5 | 92.3 | 84.1 | 94.9 | 96.0 | 97.7 | 13.7 | 12.5 | 1.8 | -1.2 |
| Std Dv | 0.5 | 0.7 | 0.7 | 0.5 | 0.7 | 0.4 | 1.9 | 1.1 | 0.8 | 0.3 |

TABLE NO. A.2-3.3

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/ 3/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 3

CENTERLINE - 150 M. EAST

JUNE 23, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|--|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| 300 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | |
| 9 | 93.5 | 90.5 | 85.2 | 94.7 | 97.4 | 98.3 | 7.5 | 7.5 | 0.9 | -0.7 |
| 10 | 91.9 | 89.0 | 85.0 | 96.1 | 97.1 | 98.1 | 5.5 | 5.5 | 1.0 | -0.7 |
| 15 | 90.8 | 88.1 | 83.1 | 94.5 | 94.7 | 95.5 | 7.5 | 7.5 | 0.8 | -0.7 |
| 16 | 91.0 | 87.7 | 83.4 | 96.9 | 95.6 | 96.8 | 5.5 | 5.5 | 1.2 | -0.7 |
| Avg. | 91.8 | 88.8 | 84.2 | 95.6 | 96.2 | 97.2 | 6.5 | 6.5 | 1.0 | -0.7 |
| Std Dv | 1.2 | 1.2 | 1.1 | 1.2 | 1.3 | 1.3 | 1.2 | 1.2 | 0.2 | 0.0 |
| 700 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | |
| 7 | 88.9 | 86.7 | 79.5 | 89.5 | 90.0 | 91.1 | 14.0 | 15.0 | 1.1 | -0.7 |
| 8 | 87.0 | 85.3 | 77.7 | 91.3 | 89.0 | 90.1 | 10.5 | 9.5 | 1.1 | -0.7 |
| 13 | 86.4 | 84.4 | 77.0 | 88.8 | 87.1 | 88.4 | 14.0 | 15.0 | 1.3 | -0.7 |
| 14 | 87.3 | 85.0 | 78.1 | 92.4 | 89.9 | 90.7 | 9.5 | 9.0 | 0.8 | -0.5 |
| Avg. | 87.4 | 85.3 | 78.1 | 90.5 | 89.0 | 90.1 | 12.0 | 12.1 | 1.1 | -0.7 |
| Std Dv | 1.1 | 1.0 | 1.1 | 1.7 | 1.4 | 1.2 | 2.3 | 3.3 | 0.2 | 0.1 |
| 1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | |
| 45 | 83.3 | 81.7 | 73.7 | 89.4 | 84.3 | 85.3 | 13.0 | 13.5 | 1.0 | -0.6 |
| 46 | 84.1 | 82.1 | 72.3 | 87.7 | 82.6 | 84.4 | 23.0 | 23.5 | 1.8 | -0.7 |
| 47 | 83.3 | 81.7 | 73.8 | 89.5 | 83.6 | 84.6 | 15.0 | 15.5 | 1.4 | -0.6 |
| 48 | 84.2 | 82.3 | 75.1 | 88.6 | 84.6 | 85.9 | 13.5 | 17.5 | 1.3 | -0.9 |
| 1 | 87.3 | 85.4 | 77.2 | 88.4 | 86.8 | 87.9 | 16.0 | 19.5 | 1.2 | -0.8 |
| 2 | 86.2 | 84.5 | 76.0 | 91.0 | 86.7 | 88.1 | 13.0 | 12.5 | 1.4 | -0.7 |
| 3 | 86.3 | 84.5 | 76.9 | 87.2 | 87.0 | 88.1 | 13.5 | 17.0 | 1.0 | -0.6 |
| 4 | 85.2 | 83.5 | 75.0 | 89.3 | 85.2 | 86.4 | 15.5 | 16.0 | 1.2 | -0.6 |
| Avg. | 85.0 | 83.2 | 75.0 | 88.9 | 85.1 | 86.3 | 15.3 | 16.9 | 1.3 | -0.7 |
| Std Dv | 1.5 | 1.5 | 1.7 | 1.2 | 1.6 | 1.5 | 3.3 | 3.5 | 0.3 | 0.1 |
| 1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | |
| 5 | 83.1 | 81.9 | 72.6 | 86.6 | 81.5 | 82.7 | 22.5 | 27.0 | 1.2 | -0.7 |
| 6 | 82.3 | 81.2 | 71.3 | 85.8 | 81.5 | 82.6 | 19.0 | 19.0 | 1.1 | -0.6 |
| 11 | 82.9 | 81.4 | 72.9 | 85.4 | 81.5 | 82.8 | 18.5 | 28.0 | 1.3 | -0.5 |
| 12 | 81.8 | 80.7 | 70.0 | 85.8 | 80.4 | 81.6 | 21.0 | 20.5 | 1.3 | -0.7 |
| Avg. | 82.5 | 81.3 | 71.7 | 85.9 | 81.2 | 82.5 | 20.2 | 23.6 | 1.2 | -0.6 |
| Std Dv | 0.6 | 0.5 | 1.3 | 0.5 | 0.6 | 0.6 | 1.8 | 4.5 | 0.1 | 0.1 |

TABLE NO. A.3-1.6

AUGUSTA A-109 HELICOPTER (ITALIAN)

DOT/TSC
12/30/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 6

SIDELINE-284M, NORTH

JUNE 24, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|----------|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| APPROACH | | | | | | | | | | |
| 24 | 91.3 | 89.0 | 78.7 | 88.7 | 90.3 | 92.3 | 28.5 | 25.0 | 2.0 | -0.6 |
| 26 | 91.6 | 88.6 | 78.8 | 88.6 | 90.6 | 92.6 | 27.0 | 26.0 | 2.2 | -1.2 |
| 28 | 89.4 | 87.1 | 75.2 | 86.5 | 86.9 | 87.7 | 40.5 | 40.5 | 0.8 | -0.5 |
| 32 | 88.5 | 86.1 | 73.4 | 86.3 | 84.8 | 86.1 | 41.0 | 41.0 | 1.8 | -0.5 |
| 34 | 88.6 | 86.3 | 74.8 | 86.1 | 86.8 | 87.4 | 43.0 | 38.5 | 0.7 | -0.5 |
| 36 | 90.1 | 87.9 | 76.8 | 86.2 | 88.6 | 89.4 | 33.0 | 32.0 | 0.9 | -0.5 |
| 38 | 89.0 | 86.3 | 75.0 | 85.2 | 85.0 | 87.3 | 36.0 | 36.0 | 2.4 | -0.8 |
| 40 | 90.1 | 88.1 | 77.9 | 86.4 | 88.4 | 89.0 | 25.0 | 28.0 | 0.6 | -0.4 |
| 64 | 87.8 | 86.1 | 77.9 | 86.8 | 89.3 | 90.2 | 23.0 | 15.0 | 0.9 | -0.4 |
| Avg. | 89.6 | 87.3 | 76.5 | 86.8 | 87.9 | 89.1 | 33.0 | 31.3 | 1.4 | -0.6 |
| Std Dev | 1.3 | 1.2 | 2.0 | 1.2 | 2.1 | 2.3 | 7.5 | 8.6 | 0.7 | 0.3 |
| TAKEDOFF | | | | | | | | | | |
| 23 | 88.6 | 86.0 | 76.8 | 84.7 | 87.6 | 89.1 | 21.5 | 21.5 | 1.6 | -1.0 |
| 25 | 89.1 | 86.3 | 77.9 | 84.8 | 88.2 | 90.4 | 18.5 | 18.5 | 2.2 | -0.8 |
| 27 | 88.5 | 85.9 | 76.5 | 84.4 | 87.2 | 89.3 | 25.0 | 20.5 | 2.1 | -0.7 |
| 29 | - | 85.1 | 76.2 | 84.6 | 87.5 | 89.2 | 18.5 | - | 1.7 | - |
| 31 | 88.9 | 86.3 | 76.7 | 84.5 | 87.9 | 89.6 | 20.5 | 17.5 | 1.8 | -1.1 |
| 33 | 88.8 | 86.2 | 75.5 | 83.8 | 86.4 | 88.3 | 23.5 | 23.5 | 2.0 | -1.1 |
| 35 | 88.4 | 85.9 | 75.9 | 84.1 | 87.1 | 89.0 | 22.0 | 18.5 | 1.9 | -0.8 |
| 37 | 89.5 | 87.2 | 77.4 | 84.8 | 88.1 | 90.1 | 22.5 | 19.5 | 2.0 | -0.9 |
| 39 | 89.1 | 86.7 | 76.3 | 84.9 | 87.7 | 89.4 | 24.0 | 21.0 | 1.7 | -0.8 |
| 41 | 88.6 | 86.0 | 76.4 | 85.1 | 87.6 | 89.3 | 18.5 | 18.0 | 1.7 | -1.0 |
| Avg. | 88.8 | 86.1 | 76.6 | 84.6 | 87.5 | 89.4 | 21.4 | 17.8 | 1.9 | -0.9 |
| Std Dev | 0.3 | 0.5 | 0.7 | 0.4 | 0.5 | 0.6 | 2.4 | 6.5 | 0.2 | 0.1 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - / \ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.2-1.3

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
1/12/81

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 3

CENTERLINE - 150 M. EAST

JUNE 23, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|------------|---------|------|--------|-------|--------|---------|--------|--------|-----|------|
| APPROACH | | | | | | | | | | |
| 34 | 93.9 | 90.6 | 81.2 | 91.4 | 94.2 | 95.6 | 25.0 | 21.0 | 1.4 | -0.8 |
| 36 | 94.9 | 91.4 | 83.6 | 92.8 | 95.9 | 96.9 | 14.0 | 14.5 | 1.1 | -0.8 |
| 40 | 95.7 | 92.4 | 85.9 | 93.2 | 97.3 | 98.2 | 14.5 | 16.5 | 1.0 | -0.9 |
| 42 | 95.1 | 91.9 | 85.0 | 92.1 | 96.1 | 97.2 | 14.0 | 14.0 | 1.2 | -0.7 |
| 44 | NO DATA | | | | | | | | | |
| 54 | 94.9 | 91.8 | 84.9 | 91.0 | 96.0 | 97.7 | 13.0 | 14.0 | 1.8 | -1.0 |
| 56 | 94.6 | 91.4 | 84.4 | 91.9 | 95.7 | 96.7 | 13.0 | 14.0 | 1.6 | -1.0 |
| Avg. | 94.9 | 91.6 | 84.2 | 92.1 | 95.9 | 97.1 | 15.6 | 15.7 | 1.3 | -0.9 |
| Std Dev | 0.6 | 0.6 | 1.6 | 0.8 | 1.0 | 0.9 | 4.7 | 2.8 | 0.3 | 0.1 |
| * TAKEDOFF | | | | | | | | | | |
| 33 | 87.3 | 83.8 | 74.6 | 80.7 | 85.9 | 88.3 | 17.0 | 16.0 | 2.5 | -1.6 |
| 35 | 86.4 | 83.4 | 74.5 | 78.8 | 85.3 | 87.1 | 16.5 | 16.0 | 1.9 | -1.5 |
| 37 | 86.3 | 83.3 | 73.9 | 79.6 | 85.1 | 87.1 | 17.0 | 16.5 | 2.0 | -1.4 |
| 39 | 87.1 | 84.4 | 75.9 | 79.6 | 87.2 | 89.4 | 15.0 | 14.0 | 2.2 | -1.3 |
| 41 | 87.1 | 84.5 | 76.3 | 79.9 | 87.2 | 89.5 | 14.0 | 13.5 | 2.3 | -1.4 |
| 43 | 86.7 | 83.9 | 75.4 | 79.4 | 86.5 | 88.9 | 14.5 | 13.5 | 2.4 | -1.4 |
| 53 | 85.9 | 83.3 | 74.4 | 78.4 | 85.4 | 87.4 | 17.5 | 16.5 | 2.2 | -1.4 |
| 55 | 85.1 | 82.4 | 73.8 | 77.6 | 84.2 | 86.1 | 16.0 | 15.5 | 1.9 | -1.3 |
| Avg. | 86.5 | 83.6 | 74.9 | 79.2 | 85.9 | 88.0 | 15.9 | 15.2 | 2.2 | -1.4 |
| Std Dev | 0.7 | 0.7 | 0.9 | 1.0 | 1.0 | 1.2 | 1.3 | 1.3 | 0.2 | 0.1 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.3-3.6

AUGUSTA A-109 HELICOPTER (ITALIAN)

DOT/TSC
12/30/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 6

SIDELINE-284M. NORTH

JUNE 24, 1980

| EV | EPNL | NEL | DBA(M) | DASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|---|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| 300 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS | | | | | | | | | | |
| 9 | 88.1 | 85.6 | 75.3 | 85.3 | 86.5 | 88.3 | 22.5 | 21.5 | 1.7 | -1.1 |
| 10 | 87.0 | 83.8 | 73.7 | 87.6 | 85.4 | 86.6 | 22.5 | 22.5 | 1.3 | -1.2 |
| 15 | 88.3 | 85.7 | 75.4 | 85.9 | 86.9 | 88.6 | 25.0 | 20.5 | 1.7 | -0.9 |
| 16 | 87.3 | 84.2 | 74.4 | 87.6 | 85.8 | 88.3 | 22.5 | 19.0 | 2.5 | -1.1 |
| Avg. | 87.7 | 84.8 | 74.7 | 86.6 | 86.1 | 87.9 | 23.1 | 20.9 | 1.8 | -1.0 |
| Std Dv | 0.6 | 1.0 | 0.8 | 1.2 | 0.7 | 0.9 | 1.2 | 1.5 | 0.5 | 0.1 |

700 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|------|------|-----|------|
| 7 | 86.9 | 84.1 | 72.8 | 86.0 | 84.1 | 85.9 | 27.5 | 25.0 | 1.8 | -1.2 |
| 8 | 86.5 | 83.6 | 72.7 | 86.9 | 83.6 | 85.4 | 32.5 | 32.5 | 1.8 | -1.0 |
| 13 | 87.0 | 84.2 | 74.6 | 87.2 | 85.7 | 87.6 | 23.5 | 23.0 | 1.9 | -1.3 |
| 14 | 86.8 | 83.9 | 72.4 | 87.1 | 83.7 | 85.9 | 35.5 | 35.0 | 2.1 | -1.4 |
| Avg. | 86.8 | 84.0 | 73.1 | 86.8 | 84.3 | 86.2 | 29.7 | 28.9 | 1.9 | -1.2 |
| Std Dv | 0.2 | 0.3 | 1.0 | 0.5 | 1.0 | 0.9 | 5.3 | 5.8 | 0.2 | 0.1 |

1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|------|------|-----|------|
| 1 | - | 80.2 | 70.7 | 86.8 | 81.6 | 83.1 | 16.0 | - | 2.2 | - |
| 2 | 86.0 | 83.2 | 70.1 | 86.0 | 81.5 | 83.3 | 42.0 | 40.0 | 2.2 | -1.4 |
| 3 | 85.6 | 82.9 | 71.3 | 85.3 | 81.9 | 84.4 | 31.0 | 30.0 | 2.5 | -1.4 |
| 4 | 85.7 | 82.9 | 70.6 | 85.3 | 82.1 | 83.2 | 35.5 | 35.0 | 0.9 | -1.1 |
| 42 | 86.4 | 83.4 | 71.7 | 87.3 | 83.1 | 85.6 | 38.5 | 27.5 | 2.5 | -1.4 |
| 43 | 86.6 | 84.3 | 73.4 | 86.5 | 84.3 | 86.7 | 34.0 | 26.0 | 2.4 | -1.3 |
| 44 | 86.7 | 84.0 | 74.8 | 86.5 | 85.9 | 88.2 | 31.5 | 29.0 | 2.3 | -1.2 |
| 45 | 87.1 | 84.3 | 76.8 | 86.5 | 87.2 | 89.7 | 23.0 | 22.0 | 2.5 | -1.4 |
| Avg. | 86.3 | 83.2 | 72.4 | 86.3 | 83.4 | 85.5 | 31.4 | 26.2 | 2.2 | -1.3 |
| Std Dv | 0.6 | 1.3 | 2.4 | 0.7 | 2.2 | 2.5 | 8.4 | 11.9 | 0.5 | 0.1 |

1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|------|------|-----|------|
| 5 | - | 80.4 | 67.6 | 84.2 | 78.9 | 80.4 | 36.5 | - | 1.5 | - |
| 6 | 85.4 | 82.5 | 71.8 | 84.7 | 83.0 | 85.5 | 32.5 | 28.0 | 2.5 | -1.3 |
| 11 | 83.6 | 80.8 | 68.8 | 83.5 | 79.9 | 82.1 | 42.5 | 40.0 | 2.6 | -1.1 |
| 12 | 85.6 | 82.5 | 69.9 | 84.8 | 81.1 | 83.7 | 44.5 | 42.5 | 2.6 | -1.5 |
| Avg. | 84.9 | 81.6 | 69.5 | 84.3 | 80.7 | 82.9 | 39.0 | 27.6 | 2.3 | -1.3 |
| Std Dv | 1.1 | 1.1 | 1.8 | 0.6 | 1.7 | 2.2 | 5.5 | 19.5 | 0.5 | 0.2 |

TABLE NO. A.4-1.1

SIKORSKY S-76 SPIRIT HELICOPTER
SUMMARY NOISE LEVEL DATA - MAIN ROTOR RPM 107%

DOT/TSC
9/16/80

AS MEASURED *

SITE: 1

CENTERLINE - CENTER

JUNE 25, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|---|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| APPROACH | | | | | | | | | | |
| 40 | 95.9 | 93.0 | 84.3 | 93.1 | 96.4 | 97.2 | 14.5 | 14.0 | 0.9 | -0.7 |
| 42 | 97.7 | 94.9 | 88.6 | 94.6 | 99.5 | 100.7 | 10.0 | 11.5 | 1.6 | -0.7 |
| 44 | 97.1 | 94.3 | 86.0 | 93.4 | 97.7 | 98.2 | 16.5 | 17.0 | 0.5 | -0.6 |
| 46 | 97.5 | 94.6 | 85.7 | 94.2 | 97.9 | 98.6 | 21.5 | 21.5 | 0.8 | -0.7 |
| 48 | 96.4 | 94.0 | 85.7 | 93.6 | 97.4 | 98.0 | 21.5 | 19.0 | 0.6 | -0.6 |
| 50 | 97.9 | 95.1 | 88.0 | 94.4 | 99.4 | 100.3 | 12.5 | 14.0 | 0.9 | -0.7 |
| Avg. | 97.1 | 94.3 | 86.4 | 93.9 | 98.0 | 98.8 | 16.1 | 16.2 | 0.9 | -0.7 |
| Std Dv | 0.8 | 0.8 | 1.6 | 0.6 | 1.2 | 1.4 | 4.7 | 3.7 | 0.4 | 0.1 |
| TAKEOFF | | | | | | | | | | |
| 41 | 90.0 | 86.5 | 79.0 | 85.0 | 90.9 | 93.0 | 11.0 | 10.5 | 1.9 | -1.6 |
| 43 | 89.1 | 85.5 | 77.5 | 81.8 | 89.1 | 90.8 | 12.5 | 12.5 | 2.0 | -1.6 |
| 45 | 89.2 | 86.0 | 77.9 | 83.6 | 89.7 | 91.6 | 11.5 | 11.0 | 2.3 | -1.6 |
| 47 | 88.9 | 85.6 | 77.7 | 83.3 | 89.8 | 91.7 | 13.0 | 12.5 | 2.2 | -1.5 |
| 49 | 89.2 | 85.9 | 78.3 | 83.3 | 89.9 | 91.8 | 11.5 | 11.5 | 2.1 | -1.5 |
| 51 | 89.3 | 86.3 | 78.5 | 83.3 | 90.1 | 92.2 | 12.5 | 10.5 | 1.9 | -1.5 |
| Avg. | 89.3 | 86.0 | 78.2 | 83.4 | 89.9 | 91.9 | 12.0 | 11.4 | 2.1 | -1.6 |
| Std Dv | 0.4 | 0.4 | 0.6 | 1.0 | 0.6 | 0.7 | 0.8 | 0.9 | 0.2 | 0.1 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 109 KTS | | | | | | | | | | |
| 18 | 89.1 | 86.3 | 78.6 | 84.1 | 90.4 | 91.6 | 13.0 | 12.5 | 1.2 | -1.0 |
| 19 | 88.0 | 85.2 | 78.5 | 83.9 | 90.5 | 91.9 | 10.5 | 10.0 | 1.5 | -1.0 |
| 20 | 89.5 | 86.5 | 78.8 | 84.6 | 90.5 | 91.9 | 14.0 | 13.0 | 1.4 | -1.1 |
| 21 | 88.5 | 85.6 | 79.2 | 84.8 | 91.0 | 92.3 | 9.0 | 8.5 | 1.3 | -0.8 |
| 22 | 89.8 | 87.0 | 80.2 | 84.8 | 91.9 | 93.1 | 13.5 | 12.0 | 1.2 | -1.0 |
| 23 | 87.5 | 84.7 | 77.3 | 83.6 | 88.9 | 90.3 | 11.5 | 10.0 | 1.4 | -1.0 |
| Avg. | 88.7 | 85.9 | 78.8 | 84.3 | 90.5 | 91.8 | 11.9 | 11.0 | 1.3 | -1.0 |
| Std Dv | 0.9 | 0.9 | 1.0 | 0.5 | 1.0 | 0.9 | 1.9 | 1.8 | 0.1 | 0.1 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 124 KTS | | | | | | | | | | |
| 24 | 88.9 | 85.9 | 79.5 | 85.7 | 90.9 | 92.3 | 10.5 | 11.0 | 1.4 | -1.2 |
| 25 | 88.1 | 85.2 | 79.8 | 87.6 | 91.3 | 93.1 | 7.5 | 7.0 | 1.8 | -1.2 |
| 26 | 89.7 | 86.8 | 80.5 | 86.2 | 91.7 | 93.2 | 10.5 | 10.5 | 1.5 | -1.1 |
| 27 | 88.6 | 85.9 | 80.2 | 87.0 | 91.8 | 93.4 | 9.0 | 8.0 | 1.6 | -1.2 |
| 28 | 90.0 | 86.9 | 80.1 | 86.2 | 91.6 | 93.2 | 11.5 | 11.0 | 1.7 | -1.2 |
| 29 | 88.6 | 85.7 | 79.0 | 86.2 | 91.1 | 92.1 | 10.5 | 10.0 | 1.0 | -1.0 |
| Avg. | 89.0 | 86.1 | 79.9 | 86.5 | 91.4 | 92.9 | 9.9 | 9.6 | 1.5 | -1.1 |
| Std Dv | 0.7 | 0.6 | 0.5 | 0.7 | 0.4 | 0.5 | 1.4 | 1.7 | 0.3 | 0.1 |

TABLE NO. A.4-2.1

SIKORSKY S-76 SPIRIT HELICOPTER
SUMMARY NOISE LEVEL DATA - MAIN ROTOR RPM 107%

DOT/TSC
9/16/80

AS MEASURED *

SITE: 1

CENTERLINE - CENTER

JUNE 25, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|--|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| 300 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | |
| 10 | 92.5 | 89.6 | 84.8 | 96.7 | 96.2 | 97.8 | 7.0 | 6.5 | 1.5 | -0.9 |
| 11 | 92.1 | 89.2 | 85.2 | 95.8 | 96.9 | 98.4 | 5.0 | 5.0 | 1.5 | -1.0 |
| 16 | 94.4 | 91.1 | 86.1 | 96.4 | 98.0 | 99.8 | 6.5 | 6.5 | 1.8 | -1.1 |
| 17 | 91.4 | 88.4 | 84.3 | 95.3 | 95.6 | 97.4 | 5.5 | 6.0 | 1.7 | -1.1 |
| Avg. | 92.6 | 89.6 | 85.1 | 96.1 | 96.7 | 98.3 | 6.0 | 6.0 | 1.6 | -1.0 |
| Std Dv | 1.3 | 1.1 | 0.8 | 0.6 | 1.0 | 1.0 | 0.9 | 0.7 | 0.1 | 0.1 |
| 700 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | |
| 8 | 89.7 | 87.3 | 80.2 | 91.9 | 90.7 | 92.2 | 12.0 | 12.5 | 1.6 | -1.0 |
| 9 | 87.4 | 85.0 | 78.2 | 91.6 | 89.0 | 90.1 | 10.0 | 11.5 | 1.2 | -0.9 |
| 14 | 88.2 | 85.6 | 77.9 | 90.5 | 88.9 | 90.2 | 13.0 | 14.0 | 1.4 | -1.0 |
| 15 | 86.5 | 83.9 | 77.1 | 91.0 | 88.2 | 89.5 | 10.0 | 12.0 | 1.3 | -1.1 |
| Avg. | 87.9 | 85.5 | 78.4 | 91.3 | 89.2 | 90.5 | 11.2 | 12.5 | 1.4 | -1.0 |
| Std Dv | 1.3 | 1.4 | 1.3 | 0.6 | 1.1 | 1.2 | 1.5 | 1.1 | 0.2 | 0.1 |
| 1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | |
| 1 | 85.3 | 82.9 | 74.7 | 88.7 | 85.1 | 86.6 | 13.5 | 16.0 | 1.6 | -1.0 |
| 2 | 86.7 | 84.4 | 75.1 | 88.6 | 85.4 | 86.6 | 22.5 | 24.0 | 1.2 | -0.9 |
| 3 | 85.6 | 83.6 | 76.2 | 89.5 | 85.8 | 87.2 | 14.0 | 14.5 | 1.4 | -1.1 |
| 4 | 86.6 | 84.5 | 75.9 | 88.9 | 85.9 | 87.4 | 17.0 | 17.5 | 1.5 | -1.0 |
| 52 | 86.1 | 84.0 | 74.9 | 88.6 | 85.1 | 86.6 | 20.0 | 20.0 | 1.5 | -0.9 |
| 53 | 83.6 | 81.8 | 73.5 | 88.3 | 84.2 | 85.4 | 15.5 | 15.5 | 1.2 | -0.7 |
| 54 | 86.4 | 84.4 | 76.3 | 88.1 | 86.6 | 87.9 | 19.5 | 20.0 | 1.3 | -1.0 |
| 55 | 85.2 | 83.3 | 75.8 | 88.4 | 86.2 | 87.3 | 12.0 | 12.5 | 1.1 | -0.9 |
| Avg. | 85.7 | 83.6 | 75.3 | 88.6 | 85.5 | 86.9 | 16.7 | 17.5 | 1.4 | -0.9 |
| Std Dv | 1.0 | 0.9 | 0.9 | 0.4 | 0.7 | 0.7 | 3.7 | 3.7 | 0.2 | 0.1 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.4-3.1

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
9/17/80

SUMMARY NOISE LEVEL DATA - MAIN ROTOR RPM 107%

AS MEASURED *

SITE: 1

CENTERLINE - CENTER

JUNE 25, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|--|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| 1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | |
| 5 | 81.5 | 79.6 | 69.9 | 85.6 | 80.4 | 81.6 | 20.5 | 22.5 | 1.4 | -0.9 |
| 6 | 83.5 | 81.7 | 71.3 | 84.6 | 81.4 | 83.0 | 29.0 | 28.5 | 1.5 | -0.9 |
| 7 | 81.4 | 79.8 | 70.3 | 85.4 | 80.4 | 81.8 | 19.5 | 20.5 | 1.3 | -1.0 |
| 12 | 84.1 | 82.0 | 72.2 | 86.8 | 81.6 | 83.3 | 21.5 | 26.5 | 1.7 | -1.0 |
| 13 | 81.1 | 79.4 | 70.5 | 86.6 | 80.2 | 81.8 | 17.0 | 19.0 | 1.7 | -1.1 |
| 38 | 82.9 | 81.2 | 71.4 | 83.9 | 81.0 | 82.4 | 23.0 | 26.5 | 1.4 | -1.0 |
| 39 | 81.5 | 79.9 | 70.0 | 82.8 | 80.2 | 81.6 | 20.5 | 19.5 | 1.4 | -1.0 |
| Avg. | 82.3 | 80.5 | 70.8 | 85.1 | 80.7 | 82.2 | 21.6 | 23.3 | 1.5 | -1.0 |
| Std Dv | 1.2 | 1.1 | 0.9 | 1.4 | 0.6 | 0.7 | 3.8 | 3.8 | 0.2 | 0.1 |

2000 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|------|------|-----|------|
| 34 | 81.3 | 79.5 | 69.5 | 84.2 | 79.4 | 80.6 | 23.0 | 28.0 | 1.5 | -1.0 |
| 35 | 80.2 | 78.6 | 69.1 | 83.0 | 78.5 | 80.0 | 23.0 | 26.0 | 1.5 | -1.0 |
| 36 | - | 78.5 | 67.9 | 82.4 | 77.5 | 79.2 | 29.0 | - | 1.6 | - |
| 37 | 79.4 | 77.7 | 67.7 | 82.1 | 76.9 | 78.2 | 22.5 | 29.5 | 1.4 | -0.9 |
| Avg. | 80.3 | 78.6 | 68.6 | 83.0 | 78.1 | 79.5 | 24.4 | 20.9 | 1.5 | -1.0 |
| Std Dv | 1.0 | 0.8 | 0.9 | 0.9 | 1.1 | 1.0 | 3.1 | 14.0 | 0.1 | 0.0 |

2500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|------|------|-----|------|
| 30 | - | 76.8 | 64.8 | 81.6 | 74.6 | 75.9 | 37.0 | - | 1.3 | - |
| 31 | - | 75.5 | 64.0 | 82.0 | 73.8 | 74.9 | 31.5 | - | 1.4 | - |
| 32 | 79.4 | 77.9 | 66.7 | 81.6 | 75.8 | 77.2 | 33.5 | 36.5 | 1.6 | -1.0 |
| 33 | - | 75.5 | 65.3 | 80.8 | 74.6 | 75.9 | 29.0 | - | 1.4 | - |
| Avg. | 79.4 | 76.4 | 65.2 | 81.5 | 74.7 | 76.0 | 32.7 | 9.1 | 1.4 | -1.0 |
| Std Dv | - | 1.1 | 1.1 | 0.5 | 0.8 | 0.9 | 3.4 | 18.2 | 0.1 | - |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.4-1.1G

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
10/ 2/80

SUMMARY NOISE LEVEL DATA - MAIN ROTOR RPM 107%

AS MEASURED *

| SITE: 1G | | CENTERLINE-CENTER (FLUSH) | | | | | | JUNE 25, 1980 | | |
|---|-------|---------------------------|--------|-------|--------|---------|--------|---------------|-----|------|
| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
| APPROACH | | | | | | | | | | |
| 40 | 100.3 | 97.3 | 88.4 | 95.9 | 100.1 | 101.0 | 15.5 | 15.5 | 0.9 | -0.3 |
| 42 | 102.2 | 99.3 | 92.6 | 98.1 | 104.0 | 104.5 | 11.5 | 12.0 | 0.5 | -0.6 |
| 44 | 101.4 | 98.4 | 90.7 | 97.5 | 102.4 | 102.8 | 13.5 | 16.5 | 0.5 | -0.3 |
| 46 | 101.2 | 98.4 | 89.4 | 97.1 | 101.4 | 102.4 | 19.5 | 16.5 | 1.0 | -0.2 |
| 48 | 100.6 | 97.9 | 89.6 | 97.0 | 101.6 | 102.2 | 18.0 | 16.5 | 0.9 | -0.3 |
| 50 | 101.7 | 99.1 | 91.5 | 97.8 | 102.9 | 103.6 | 13.0 | 14.0 | 0.7 | -0.4 |
| Avg. | 101.2 | 98.4 | 90.3 | 97.2 | 102.1 | 102.7 | 15.2 | 15.2 | 0.7 | -0.3 |
| Std Dv | 0.7 | 0.8 | 1.5 | 0.8 | 1.3 | 1.2 | 3.1 | 1.8 | 0.2 | 0.1 |
| TAKEOFF | | | | | | | | | | |
| 41 | 94.5 | 90.8 | 82.7 | 88.8 | 94.2 | 96.6 | 11.5 | 11.5 | 2.5 | -1.3 |
| 43 | 94.0 | 90.3 | 82.8 | 86.6 | 94.3 | 96.1 | 11.5 | 12.5 | 1.8 | -1.3 |
| 45 | 93.9 | 90.5 | 83.3 | 88.2 | 94.5 | 96.2 | 10.5 | 11.5 | 2.4 | -1.3 |
| 47 | 93.6 | 90.1 | 82.5 | 87.9 | 94.0 | 96.0 | 12.5 | 13.0 | 2.3 | -1.3 |
| 49 | 94.0 | 90.5 | 82.7 | 88.1 | 94.0 | 96.2 | 11.5 | 12.0 | 2.2 | -1.2 |
| 51 | 94.1 | 90.8 | 83.0 | 87.8 | 94.1 | 96.5 | 12.5 | 12.5 | 2.4 | -1.2 |
| Avg. | 94.0 | 90.5 | 82.8 | 87.9 | 94.2 | 96.2 | 11.7 | 12.2 | 2.3 | -1.3 |
| Std Dv | 0.3 | 0.3 | 0.3 | 0.7 | 0.2 | 0.3 | 0.8 | 0.6 | 0.3 | 0.0 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 109 KTS | | | | | | | | | | |
| 18 | 93.8 | 90.9 | 83.1 | 88.3 | 94.6 | 95.8 | 13.0 | 13.0 | 1.3 | -0.7 |
| 19 | 91.7 | 89.0 | 82.6 | 87.8 | 94.6 | 95.7 | 10.0 | 10.0 | 1.2 | -0.4 |
| 20 | 93.8 | 90.5 | 83.2 | 88.3 | 94.9 | 96.2 | 12.5 | 13.0 | 1.3 | -0.8 |
| 21 | 92.4 | 89.7 | 83.3 | 88.4 | 94.8 | 95.8 | 8.5 | 9.5 | 0.8 | -0.4 |
| 22 | 94.1 | 91.0 | 84.8 | 88.7 | 96.1 | 97.4 | 10.5 | 12.0 | 1.3 | -0.6 |
| 23 | 91.5 | 88.9 | 81.9 | 87.4 | 93.4 | 94.4 | 10.0 | 10.0 | 0.9 | -0.4 |
| Avg. | 92.9 | 90.0 | 83.2 | 88.2 | 94.7 | 95.9 | 10.7 | 11.2 | 1.1 | -0.5 |
| Std Dv | 1.2 | 0.9 | 1.0 | 0.5 | 0.9 | 1.0 | 1.7 | 1.6 | 0.2 | 0.2 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 124 KTS | | | | | | | | | | |
| 24 | 93.4 | 90.3 | 83.9 | 88.9 | 95.4 | 97.0 | 10.5 | 10.0 | 1.6 | -0.9 |
| 25 | 92.5 | 89.9 | 84.8 | 90.3 | 96.2 | 97.7 | 7.0 | 7.0 | 1.5 | -0.7 |
| 26 | 94.1 | 91.1 | 84.6 | 89.4 | 96.0 | 97.7 | 10.5 | 10.0 | 1.7 | -0.8 |
| 27 | 93.0 | 90.3 | 84.9 | 90.0 | 96.1 | 97.5 | 8.5 | 9.0 | 1.4 | -0.7 |
| 28 | 94.3 | 91.2 | 84.4 | 89.2 | 96.2 | 97.7 | 11.5 | 11.0 | 1.5 | -1.0 |
| 29 | 92.6 | 89.9 | 84.1 | 89.2 | 95.9 | 97.2 | 8.0 | 8.0 | 1.3 | -0.6 |
| Avg. | 93.3 | 90.4 | 84.5 | 89.5 | 95.9 | 97.5 | 9.3 | 9.2 | 1.5 | -0.8 |
| Std Dv | 0.8 | 0.6 | 0.4 | 0.5 | 0.3 | 0.3 | 1.8 | 1.5 | 0.1 | 0.1 |

TABLE NO. A.4-2.1G

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
10/ 2/80

SUMMARY NOISE LEVEL DATA - MAIN ROTOR RPM 107 %

AS MEASURED *

SITE: 1G

CENTERLINE-CENTER (FLUSH)

JUNE 25, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|--|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| 300 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | |
| 10 | 96.4 | 93.2 | 88.6 | 97.6 | 100.1 | 101.5 | 6.5 | 7.0 | 1.4 | -0.7 |
| 11 | 95.9 | 93.1 | 89.3 | 97.6 | 100.7 | 101.8 | 5.0 | 6.0 | 1.1 | -0.5 |
| 16 | 98.8 | 95.4 | 90.8 | 98.6 | 102.9 | 104.3 | 6.0 | 6.0 | 1.5 | -0.9 |
| 17 | 95.7 | 92.8 | 88.8 | 97.2 | 100.3 | 101.6 | 5.5 | 6.0 | 1.4 | -0.7 |
| Avg. | 96.7 | 93.6 | 89.4 | 97.7 | 101.0 | 102.3 | 5.7 | 6.2 | 1.3 | -0.7 |
| Std Dv | 1.4 | 1.2 | 1.0 | 0.6 | 1.3 | 1.3 | 0.6 | 0.5 | 0.2 | 0.2 |
| 700 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | |
| 8 | 93.6 | 91.1 | 84.5 | 92.8 | 94.9 | 96.2 | 11.0 | 12.5 | 1.3 | -0.7 |
| 9 | 91.2 | 89.0 | 82.7 | 92.8 | 93.9 | 95.0 | 9.5 | 10.0 | 1.2 | -0.4 |
| 14 | 92.4 | 89.9 | 82.6 | 92.1 | 93.9 | 94.9 | 13.0 | 13.0 | 1.2 | -0.6 |
| 15 | 90.9 | 88.5 | 82.4 | 92.6 | 93.8 | 95.0 | 9.0 | 10.0 | 1.1 | -0.4 |
| Avg. | 92.0 | 89.6 | 83.1 | 92.6 | 94.1 | 95.3 | 10.6 | 11.4 | 1.2 | -0.5 |
| Std Dv | 1.2 | 1.2 | 1.0 | 0.4 | 0.5 | 0.6 | 1.8 | 1.6 | 0.1 | 0.2 |
| 1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | |
| 1 | 88.6 | 86.6 | 79.0 | 89.7 | 89.8 | 90.9 | 13.0 | 14.5 | 1.3 | -0.5 |
| 2 | 90.1 | 87.8 | 79.4 | 89.6 | 90.3 | 91.3 | 17.0 | 20.5 | 1.0 | -0.7 |
| 3 | 89.0 | 87.1 | 79.9 | 90.6 | 90.2 | 91.5 | 14.0 | 14.0 | 1.4 | -0.5 |
| 4 | 90.5 | 88.4 | 80.1 | 90.2 | 90.5 | 91.8 | 16.5 | 17.5 | 1.5 | -0.6 |
| 52 | 90.5 | 88.4 | 79.9 | 90.0 | 91.0 | 92.2 | 17.0 | 15.5 | 1.2 | -0.6 |
| 53 | 88.3 | 86.5 | 78.4 | 89.6 | 89.2 | 90.2 | 15.5 | 15.5 | 1.0 | -0.2 |
| 54 | 91.1 | 88.8 | 81.2 | 89.7 | 91.8 | 93.2 | 16.5 | 16.5 | 1.4 | -0.6 |
| 55 | 89.8 | 88.0 | 81.3 | 90.1 | 92.2 | 93.2 | 11.0 | 11.0 | 1.0 | -0.2 |
| Avg. | 89.7 | 87.7 | 79.9 | 89.9 | 90.6 | 91.8 | 15.1 | 15.6 | 1.2 | -0.5 |
| Std Dv | 1.0 | 0.9 | 1.0 | 0.3 | 1.0 | 1.1 | 2.2 | 2.8 | 0.2 | 0.2 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.4-3.1G

SIKORSKY S-76 SPIRIT HELICOPTER
SUMMARY NOISE LEVEL DATA - MAIN ROTOR RPM 107%

DOT/TSC
10/ 2/80

AS MEASURED *

SITE: 1G

CENTERLINE-CENTER (FLUSH)

JUNE 25,1980

| EV | EPNL | NEL | DBA(M) | DASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|--|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| 1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | |
| 5 | 85.4 | 83.5 | 74.3 | 86.8 | 85.1 | 86.4 | 19.5 | 21.0 | 1.3 | -0.5 |
| 6 | 87.3 | 85.5 | 75.2 | 86.1 | 85.2 | 86.4 | 28.5 | 30.0 | 1.2 | -0.5 |
| 7 | 85.7 | 83.9 | 75.1 | 87.2 | 85.5 | 87.0 | 18.5 | 19.0 | 1.5 | -0.5 |
| 12 | 87.8 | 85.9 | 76.9 | 87.9 | 86.6 | 88.1 | 20.5 | 21.5 | 1.5 | -0.7 |
| 13 | 85.6 | 83.9 | 75.5 | 87.4 | 85.5 | 87.1 | 16.0 | 15.5 | 1.6 | -0.5 |
| 38 | 87.5 | 85.8 | 76.3 | 85.9 | 86.5 | 87.9 | 23.5 | 23.0 | 1.4 | -0.6 |
| 39 | 85.9 | 84.5 | 75.2 | 84.9 | 85.6 | 86.9 | 18.5 | 19.0 | 1.3 | -0.4 |
| Avg. | 86.5 | 84.7 | 75.5 | 86.6 | 85.7 | 87.1 | 20.7 | 21.3 | 1.4 | -0.5 |
| Std Dv | 1.0 | 1.0 | 0.9 | 1.1 | 0.6 | 0.7 | 4.1 | 4.5 | 0.1 | 0.1 |

2000 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|------|------|-----|------|
| 34 | 86.0 | 84.1 | 74.5 | 85.5 | 84.6 | 85.8 | 21.0 | 24.5 | 1.3 | -0.6 |
| 35 | 84.6 | 83.1 | 74.4 | 84.6 | 84.0 | 85.5 | 19.5 | 23.5 | 1.5 | -0.4 |
| 36 | 84.8 | 82.9 | 72.3 | 84.0 | 82.5 | 84.0 | 29.5 | 32.0 | 1.5 | -0.7 |
| 37 | 84.2 | 82.5 | 72.9 | 84.0 | 82.7 | 84.0 | 21.0 | 22.5 | 1.3 | -0.4 |
| Avg. | 84.9 | 83.1 | 73.5 | 84.5 | 83.4 | 84.8 | 22.7 | 25.6 | 1.4 | -0.5 |
| Std Dv | 0.8 | 0.7 | 1.1 | 0.7 | 1.0 | 1.0 | 4.6 | 4.3 | 0.1 | 0.1 |

2500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|------|------|-----|------|
| 30 | 82.7 | 81.1 | 69.5 | 82.6 | 78.8 | 80.5 | 37.5 | 39.0 | 1.7 | -0.7 |
| 31 | 81.3 | 79.7 | 68.7 | 82.6 | 78.6 | 79.8 | 29.5 | 34.0 | 1.3 | -0.6 |
| 32 | 83.8 | 82.2 | 71.9 | 82.8 | 81.2 | 82.4 | 28.5 | 35.5 | 1.2 | -0.6 |
| 33 | 82.2 | 80.3 | 70.2 | 82.4 | 79.9 | 81.2 | 28.5 | 33.0 | 1.3 | -0.3 |
| Avg. | 82.5 | 80.8 | 70.1 | 82.6 | 79.6 | 81.0 | 31.0 | 35.4 | 1.4 | -0.5 |
| Std Dv | 1.0 | 1.1 | 1.4 | 0.2 | 1.2 | 1.1 | 4.4 | 2.6 | 0.2 | 0.2 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE,HUMIDITY,AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ ,THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.4-1.1H

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
10/ 2/80

SUMMARY NOISE LEVEL DATA - MAIN ROTOR RPM 107 %

AS MEASURED *

| SITE: 1H | | CENTERLINE-CENTER (10-METER) | | | | | | JUNE 25, 1980 | | |
|---|-------|------------------------------|--------|-------|--------|---------|--------|---------------|-----|------|
| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
| APPROACH | | | | | | | | | | |
| 40 | 96.3 | 93.2 | 83.7 | 92.3 | 96.2 | 97.1 | 16.0 | 15.5 | 0.9 | -0.4 |
| 42 | 100.1 | 97.4 | 89.9 | 96.6 | 101.7 | 102.4 | 12.5 | 13.0 | 0.8 | -0.5 |
| 44 | 99.4 | 96.6 | 88.1 | 95.9 | 100.5 | 101.0 | 16.5 | 16.0 | 0.5 | -0.5 |
| 46 | 99.4 | 96.6 | 87.5 | 96.2 | 99.9 | 100.2 | 19.5 | 19.5 | 0.3 | -0.6 |
| 48 | 99.0 | 96.0 | 87.7 | 95.6 | 100.6 | 101.3 | 18.5 | 16.0 | 0.7 | -0.5 |
| 50 | 99.7 | 97.0 | 89.7 | 96.3 | 101.3 | 101.8 | 12.5 | 13.5 | 0.7 | -0.4 |
| Avg. | 99.0 | 96.1 | 87.8 | 95.5 | 100.0 | 100.6 | 15.9 | 15.6 | 0.7 | -0.5 |
| Std Dv | 1.4 | 1.5 | 2.2 | 1.6 | 2.0 | 1.9 | 2.9 | 2.3 | 0.2 | 0.0 |
| TAKEOFF | | | | | | | | | | |
| 41 | 92.7 | 88.8 | 80.8 | 88.1 | 93.1 | 95.6 | 11.0 | 10.5 | 2.4 | -1.7 |
| 43 | 91.4 | 87.7 | 80.0 | 85.7 | 91.3 | 93.5 | 12.0 | 12.0 | 2.4 | -1.5 |
| 45 | 91.4 | 87.9 | 80.4 | 86.7 | 92.1 | 94.4 | 10.5 | 10.0 | 2.4 | -1.6 |
| 47 | 91.4 | 87.9 | 80.0 | 86.7 | 91.9 | 94.1 | 12.5 | 10.0 | 2.4 | -1.5 |
| 49 | 91.4 | 88.0 | 80.1 | 86.5 | 92.1 | 94.1 | 11.5 | 10.0 | 2.1 | -1.5 |
| 51 | 91.7 | 88.3 | 80.7 | 86.6 | 92.2 | 94.5 | 11.0 | 10.0 | 2.4 | -1.5 |
| Avg. | 91.7 | 88.1 | 80.3 | 86.7 | 92.1 | 94.4 | 11.4 | 10.4 | 2.3 | -1.5 |
| Std Dv | 0.5 | 0.4 | 0.4 | 0.8 | 0.6 | 0.7 | 0.7 | 0.8 | 0.1 | 0.1 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 109 KTS | | | | | | | | | | |
| 18 | 90.0 | 87.1 | 78.6 | 85.6 | 90.9 | 92.2 | 17.5 | 13.5 | 1.4 | -0.9 |
| 19 | 88.5 | 85.6 | 79.5 | 85.8 | 91.8 | 92.9 | 10.0 | 9.0 | 1.1 | -0.7 |
| 20 | 90.2 | 87.0 | 79.1 | 86.2 | 91.5 | 92.9 | 15.0 | 13.0 | 1.4 | -0.9 |
| 21 | 89.2 | 86.4 | 80.1 | 86.0 | 92.5 | 93.3 | 9.5 | 8.5 | 0.8 | -0.5 |
| 22 | 90.6 | 87.4 | 79.9 | 86.1 | 92.2 | 93.5 | 13.0 | 12.0 | 1.3 | -0.8 |
| 23 | 88.4 | 85.4 | 78.6 | 85.5 | 90.6 | 91.7 | 10.5 | 10.0 | 0.9 | -0.7 |
| Avg. | 89.5 | 86.5 | 79.3 | 85.9 | 91.6 | 92.7 | 12.6 | 11.0 | 1.2 | -0.7 |
| Std Dv | 0.9 | 0.9 | 0.7 | 0.3 | 0.7 | 0.7 | 3.2 | 2.1 | 0.3 | 0.1 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 124 KTS | | | | | | | | | | |
| 24 | 89.9 | 86.7 | 79.8 | 87.5 | 91.7 | 93.6 | 11.0 | 10.5 | 1.8 | -1.0 |
| 25 | 89.1 | 86.1 | 81.1 | 89.5 | 92.7 | 94.2 | 7.5 | 7.5 | 1.5 | -1.0 |
| 26 | 90.5 | 87.6 | 80.6 | 87.6 | 92.7 | 94.4 | 13.0 | 9.5 | 1.8 | -0.8 |
| 27 | 89.4 | 86.6 | 81.5 | 88.8 | 93.0 | 94.3 | 8.0 | 7.5 | 1.3 | -0.9 |
| 28 | 90.8 | 87.8 | 80.5 | 87.5 | 92.7 | 94.2 | 12.5 | 11.0 | 1.5 | -1.0 |
| 29 | 89.0 | 85.9 | 79.7 | 87.7 | 91.7 | 93.1 | 9.5 | 9.0 | 1.3 | -0.9 |
| Avg. | 89.8 | 86.8 | 80.5 | 88.1 | 92.4 | 94.0 | 10.2 | 9.2 | 1.5 | -0.9 |
| Std Dv | 0.8 | 0.8 | 0.7 | 0.9 | 0.6 | 0.5 | 2.3 | 1.5 | 0.2 | 0.1 |

TABLE NO. A.4-2.1H

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
10/ 2/80

SUMMARY NOISE LEVEL DATA - MAIN ROTOR RPM 107 %

AS MEASURED *

SITE: 1H

CENTERLINE-CENTER (10-METER)

JUNE 25,1980

| EV | EPNL | NEL | DBA(M) | DASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|--|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| 300 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | |
| 10 | 92.9 | 89.7 | 84.8 | 97.9 | 96.8 | 98.3 | 7.0 | 6.5 | 1.5 | -0.8 |
| 11 | 92.4 | 89.4 | 85.5 | 96.9 | 97.3 | 98.3 | 5.5 | 5.5 | 1.0 | -0.7 |
| 16 | 95.2 | 91.8 | 87.1 | 97.7 | 99.5 | 101.0 | 6.0 | 6.0 | 1.5 | -1.0 |
| 17 | 92.3 | 89.2 | 85.2 | 96.6 | 97.0 | 98.3 | 6.0 | 6.0 | 1.3 | -0.9 |
| Avg. | 93.2 | 90.0 | 85.6 | 97.3 | 97.7 | 99.0 | 6.1 | 6.0 | 1.3 | -0.8 |
| Std Dv | 1.4 | 1.2 | 1.0 | 0.6 | 1.2 | 1.3 | 0.6 | 0.4 | 0.3 | 0.1 |
| 700 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | |
| 8 | 89.8 | 87.2 | 80.0 | 93.1 | 91.3 | 92.8 | 12.0 | 12.0 | 1.5 | -0.8 |
| 9 | 87.2 | 85.0 | 78.2 | 93.3 | 89.6 | 90.9 | 10.5 | 10.5 | 1.2 | -0.6 |
| 14 | 89.2 | 86.5 | 78.7 | 92.7 | 90.3 | 91.7 | 14.0 | 14.0 | 1.4 | -0.8 |
| 15 | 87.2 | 84.8 | 78.2 | 92.1 | 89.5 | 90.7 | 10.0 | 10.5 | 1.1 | -0.6 |
| Avg. | 88.4 | 85.9 | 78.8 | 92.8 | 90.2 | 91.5 | 11.6 | 11.7 | 1.3 | -0.7 |
| Std Dv | 1.3 | 1.2 | 0.8 | 0.5 | 0.8 | 1.0 | 1.8 | 1.7 | 0.2 | 0.1 |
| 1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | |
| 1 | 85.1 | 82.7 | 74.8 | 90.1 | 86.2 | 87.2 | 13.5 | 15.0 | 1.0 | -0.6 |
| 2 | 86.1 | 84.1 | 74.7 | 90.0 | 85.5 | 87.0 | 22.0 | 21.5 | 1.5 | -0.7 |
| 3 | 85.6 | 83.5 | 76.2 | 91.0 | 86.2 | 87.5 | 13.5 | 15.0 | 1.4 | -0.6 |
| 4 | 86.8 | 84.5 | 75.5 | 90.2 | 86.6 | 88.1 | 18.0 | 18.5 | 1.6 | -0.8 |
| 52 | 87.9 | 86.1 | 77.4 | 91.6 | 87.7 | 89.0 | 19.5 | 20.0 | 1.3 | -0.8 |
| 53 | 85.7 | 84.1 | 76.9 | 91.8 | 87.3 | 88.0 | 15.5 | 16.0 | 0.7 | -0.5 |
| 54 | 88.5 | 86.4 | 77.8 | 91.4 | 88.6 | 90.1 | 19.0 | 19.5 | 1.6 | -0.7 |
| 55 | 86.8 | 85.2 | 78.1 | 91.6 | 88.7 | 89.7 | 11.0 | 11.5 | 0.9 | -0.5 |
| Avg. | 86.6 | 84.6 | 76.4 | 91.0 | 87.1 | 88.3 | 16.5 | 17.1 | 1.2 | -0.6 |
| Std Dv | 1.2 | 1.3 | 1.3 | 0.8 | 1.2 | 1.2 | 3.7 | 3.3 | 0.3 | 0.1 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE,HUMIDITY,AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ ,THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.4-3.1H

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
10/ 2/80

SUMMARY NOISE LEVEL DATA - MAIN ROTOR RPM 107 %

AS MEASURED *

SITE: 1H

CENTERLINE-CENTER (10-METER)

JUNE 25, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|--|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| 1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | |
| 5 | 81.4 | 79.5 | 70.0 | 87.4 | 81.2 | 82.5 | 20.5 | 21.0 | 1.3 | -0.6 |
| 6 | 83.9 | 82.0 | 70.9 | 86.6 | 81.1 | 82.2 | 30.0 | 31.5 | 1.6 | -0.7 |
| 7 | 81.8 | 80.1 | 71.6 | 87.2 | 81.3 | 82.6 | 19.5 | 19.5 | 1.3 | -0.6 |
| 12 | 84.5 | 82.2 | 72.6 | 88.5 | 82.6 | 84.1 | 22.5 | 27.0 | 1.6 | -0.9 |
| 13 | 81.4 | 79.5 | 71.2 | 88.3 | 80.9 | 82.4 | 16.0 | 18.5 | 1.5 | -0.7 |
| 38 | - | 82.0 | 72.1 | 85.9 | 82.2 | 83.8 | 23.0 | - | 1.6 | - |
| 39 | 82.1 | 80.5 | 71.2 | 85.5 | 81.1 | 82.6 | 21.0 | 21.5 | 1.5 | -0.7 |
| Avg. | 82.5 | 80.8 | 71.4 | 87.1 | 81.5 | 82.9 | 21.8 | 19.9 | 1.5 | -0.7 |
| Std Dv | 1.4 | 1.2 | 0.8 | 1.1 | 0.6 | 0.7 | 4.3 | 9.9 | 0.1 | 0.1 |

2000 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|------|------|-----|------|
| 34 | 81.8 | 79.9 | 69.5 | 85.0 | 79.6 | 81.0 | 26.0 | 32.5 | 1.4 | -1.0 |
| 35 | 81.1 | 79.4 | 69.7 | 84.4 | 80.3 | 81.7 | 23.0 | 25.5 | 1.4 | -0.7 |
| 36 | - | 79.4 | 67.9 | 84.2 | 79.3 | 80.6 | 36.0 | - | 1.4 | - |
| 37 | 80.4 | 78.4 | 68.5 | 84.2 | 79.2 | 80.8 | 24.5 | 23.5 | 1.6 | -0.6 |
| Avg. | 81.1 | 79.3 | 68.9 | 84.5 | 79.6 | 81.1 | 27.4 | 20.4 | 1.5 | -0.7 |
| Std Dv | 0.7 | 0.6 | 0.9 | 0.4 | 0.5 | 0.5 | 5.9 | 14.1 | 0.1 | 0.2 |

2500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS

| | | | | | | | | | | |
|--------|-----|------|------|------|------|------|------|-----|-----|-----|
| 30 | - | 77.5 | 65.5 | 83.6 | 75.6 | 77.4 | 38.0 | - | 1.8 | - |
| 31 | - | 76.2 | 65.7 | 83.4 | 76.1 | 77.6 | 28.5 | - | 1.5 | - |
| 32 | - | 78.4 | 66.4 | 83.3 | 76.7 | 78.3 | 38.0 | - | 1.5 | - |
| 33 | - | 76.6 | 64.9 | 82.8 | 75.4 | 76.8 | 33.5 | - | 1.4 | - |
| Avg. | - | 77.2 | 65.6 | 83.3 | 76.0 | 77.5 | 34.5 | 0.0 | 1.6 | - |
| Std Dv | 0.0 | 1.0 | 0.6 | 0.3 | 0.6 | 0.6 | 4.5 | 0.0 | 0.2 | 0.0 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.4-1.2

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
1/13/81

SUMMARY NOISE LEVEL DATA - MAIN ROTOR RPM 107%

AS MEASURED *

SITE: 2

CENTERLINE - 150 M. WEST

JUNE 25, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(F) | TC | /** |
|---|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| APPROACH | | | | | | | | | | |
| 40 | 96.7 | 93.4 | 85.3 | 93.8 | 98.1 | 98.9 | 14.0 | 13.0 | 0.8 | -0.7 |
| 42 | 98.9 | 95.8 | 89.3 | 95.8 | 101.5 | 102.4 | 12.0 | 12.0 | 1.0 | -0.6 |
| 44 | 98.5 | 95.0 | 88.5 | 95.4 | 100.7 | 101.7 | 12.5 | 13.0 | 0.9 | -0.6 |
| 46 | 98.2 | 94.8 | 86.9 | 95.0 | 99.3 | 100.0 | 14.0 | 14.0 | 0.7 | -0.6 |
| 48 | 98.0 | 94.6 | 87.9 | 94.5 | 100.4 | 101.4 | 12.0 | 11.5 | 1.0 | -0.7 |
| 50 | 98.1 | 95.0 | 88.9 | 95.2 | 100.7 | 101.8 | 10.0 | 12.5 | 1.1 | -0.7 |
| Avg. | 98.1 | 94.8 | 87.8 | 95.0 | 100.1 | 101.0 | 12.4 | 12.7 | 0.9 | -0.7 |
| Std Dv | 0.7 | 0.8 | 1.5 | 0.7 | 1.2 | 1.3 | 1.5 | 0.9 | 0.2 | 0.0 |
| TAKEOFF | | | | | | | | | | |
| 41 | 92.3 | 88.2 | 81.3 | 85.6 | 93.2 | 95.1 | 9.5 | 9.5 | 1.9 | -1.6 |
| 43 | 91.9 | 87.6 | 80.8 | 84.2 | 92.8 | 95.0 | 10.5 | 10.0 | 2.2 | -1.7 |
| 45 | 91.9 | 87.8 | 80.8 | 86.4 | 93.0 | 94.9 | 9.5 | 9.0 | 1.9 | -1.6 |
| 47 | 92.2 | 88.1 | 82.1 | 86.5 | 93.8 | 95.4 | 8.5 | 8.5 | 1.4 | -1.6 |
| 49 | 92.1 | 88.0 | 82.0 | 85.2 | 94.0 | 95.9 | 8.5 | 9.0 | 2.1 | -1.6 |
| 51 | 92.1 | 88.0 | 82.0 | 85.6 | 93.8 | 95.9 | 8.0 | 8.0 | 2.1 | -1.6 |
| Avg. | 92.1 | 88.0 | 81.5 | 85.6 | 93.4 | 95.4 | 9.1 | 9.0 | 1.9 | -1.6 |
| Std Dv | 0.2 | 0.2 | 0.6 | 0.8 | 0.5 | 0.4 | 0.9 | 0.7 | 0.3 | 0.0 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 109 KTS | | | | | | | | | | |
| 18 | 90.2 | 87.0 | 79.9 | 85.8 | 92.1 | 93.5 | 12.5 | 12.0 | 1.4 | -1.1 |
| 19 | 88.7 | 85.4 | 78.8 | 84.2 | 91.2 | 92.4 | 11.5 | 10.5 | 1.2 | -1.1 |
| 20 | 90.9 | 87.3 | 79.7 | 85.8 | 91.8 | 93.4 | 13.0 | 12.5 | 1.5 | -1.1 |
| 21 | 89.0 | 86.0 | 78.7 | 84.4 | 91.2 | 92.3 | 11.5 | 11.0 | 0.9 | -0.8 |
| 22 | 90.9 | 87.5 | 81.0 | 86.1 | 93.1 | 94.5 | 11.5 | 11.0 | 1.4 | -1.1 |
| 23 | 88.3 | 85.2 | 78.3 | 84.2 | 91.0 | 92.1 | 10.5 | 9.5 | 1.1 | -0.8 |
| Avg. | 89.7 | 86.4 | 79.4 | 85.1 | 91.7 | 93.0 | 11.7 | 11.1 | 1.2 | -1.0 |
| Std Dv | 1.1 | 1.0 | 1.0 | 0.9 | 0.8 | 0.9 | 0.9 | 1.1 | 0.2 | 0.2 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 124 KTS | | | | | | | | | | |
| 24 | 90.8 | 87.5 | 81.4 | 87.2 | 93.6 | 95.1 | 10.0 | 9.0 | 1.6 | -1.1 |
| 25 | 89.3 | 86.1 | 80.3 | 88.6 | 92.3 | 93.8 | 8.0 | 7.5 | 1.4 | -1.1 |
| 26 | 91.3 | 88.0 | 81.4 | 87.6 | 93.7 | 95.5 | 12.5 | 9.5 | 1.8 | -1.2 |
| 27 | 90.6 | 87.4 | 81.7 | 88.4 | 93.6 | 94.8 | 8.5 | 8.5 | 1.4 | -1.1 |
| 28 | 91.6 | 88.4 | 81.8 | 87.2 | 93.8 | 95.4 | 13.5 | 10.0 | 1.7 | -1.0 |
| 29 | 89.4 | 86.2 | 79.4 | 87.5 | 92.0 | 93.1 | 10.0 | 9.5 | 1.1 | -0.8 |
| Avg. | 90.5 | 87.3 | 81.0 | 87.7 | 93.2 | 94.6 | 10.4 | 9.0 | 1.5 | -1.0 |
| Std Dv | 1.0 | 0.9 | 1.0 | 0.6 | 0.8 | 1.0 | 2.2 | 0.9 | 0.2 | 0.1 |

TABLE NO. A.4-2.2

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/31/80

SUMMARY NOISE LEVEL DATA - MAIN ROTOR RPM 107%

AS MEASURED *

SITE: 2

CENTERLINE - 150 M. WEST

JUNE 25, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|--|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| 300 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | |
| 10 | 93.4 | 89.9 | 85.1 | 97.6 | 97.5 | 98.8 | 7.0 | 7.0 | 1.3 | -0.9 |
| 11 | 92.3 | 89.2 | 84.9 | 96.8 | 96.9 | 98.2 | 6.0 | 6.0 | 1.2 | -0.8 |
| 16 | 95.1 | 91.7 | 86.7 | 97.0 | 99.1 | 100.7 | 7.0 | 6.0 | 1.6 | -1.1 |
| 17 | 92.5 | 88.8 | 84.5 | 97.3 | 96.3 | 97.7 | 6.0 | 10.5 | 1.4 | -1.1 |
| Avg. | 93.3 | 89.9 | 85.3 | 97.2 | 97.5 | 98.8 | 6.5 | 7.4 | 1.4 | -1.0 |
| Std Dv | 1.3 | 1.3 | 1.0 | 0.4 | 1.2 | 1.3 | 0.6 | 2.1 | 0.2 | 0.1 |
| 700 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | |
| 8 | 89.9 | 87.3 | 79.6 | 91.7 | 91.2 | 92.1 | 13.0 | 13.0 | 0.9 | -0.9 |
| 9 | 88.3 | 85.5 | 78.9 | 92.9 | 90.1 | 91.3 | 14.0 | 15.0 | 1.1 | -0.7 |
| 14 | 88.9 | 86.2 | 78.6 | 91.6 | 89.8 | 91.0 | 13.5 | 14.0 | 1.3 | -0.9 |
| 15 | 87.9 | 85.3 | 78.5 | 92.5 | 89.6 | 90.8 | 10.5 | 10.5 | 1.2 | -0.9 |
| Avg. | 88.8 | 86.1 | 78.9 | 92.2 | 90.2 | 91.3 | 12.7 | 13.1 | 1.1 | -0.8 |
| Std Dv | 0.9 | 0.9 | 0.5 | 0.6 | 0.7 | 0.6 | 1.6 | 1.9 | 0.2 | 0.1 |
| 1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | |
| 1 | 85.0 | 82.7 | 74.3 | 89.4 | 84.8 | 86.1 | 14.5 | 15.0 | 1.3 | -0.8 |
| 2 | 86.8 | 84.5 | 75.4 | 89.6 | 86.7 | 88.0 | 21.0 | 20.0 | 1.2 | -0.8 |
| 3 | 85.4 | 83.1 | 74.6 | 89.7 | 85.8 | 86.8 | 15.0 | 15.0 | 0.9 | -0.9 |
| 4 | 86.9 | 84.6 | 76.2 | 89.9 | 87.0 | 88.1 | 16.5 | 18.0 | 1.2 | -0.9 |
| 52 | 86.8 | 84.3 | 76.0 | 89.9 | 86.4 | 87.7 | 17.5 | 20.0 | 1.3 | -0.7 |
| 53 | 85.4 | 83.0 | 76.0 | 89.8 | 86.9 | 88.5 | 15.5 | 16.0 | 1.6 | -0.7 |
| 54 | 86.9 | 84.8 | 76.1 | 89.4 | 86.4 | 87.6 | 20.0 | 22.0 | 1.2 | -0.7 |
| 55 | 85.5 | 83.2 | 75.2 | 89.2 | 86.1 | 87.4 | 14.0 | 13.5 | 1.2 | -0.7 |
| Avg. | 86.1 | 83.8 | 75.5 | 89.6 | 86.3 | 87.5 | 16.7 | 17.4 | 1.2 | -0.8 |
| Std Dv | 0.8 | 0.9 | 0.7 | 0.3 | 0.7 | 0.8 | 2.6 | 3.0 | 0.2 | 0.1 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.4-3.2

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
1/26/81

SUMMARY NOISE LEVEL DATA - MAIN ROTOR RPM 107%

AS MEASURED *

SITE: 2

CENTERLINE - 150 M. WEST

JUNE 25, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|--|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| 1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | |
| 5 | 81.7 | 79.6 | 70.8 | 86.9 | 80.4 | 81.8 | 20.5 | 22.0 | 1.6 | -0.6 |
| 6 | 83.9 | 81.6 | 70.4 | 85.4 | 80.8 | 82.0 | 31.0 | 34.0 | 1.2 | -0.6 |
| 7 | 81.3 | 79.3 | 70.8 | 85.7 | 80.5 | 81.4 | 19.5 | 24.0 | 1.1 | -0.6 |
| 12 | 83.6 | 81.7 | 72.0 | 86.9 | 82.9 | 83.9 | 22.5 | 25.0 | 1.0 | -0.8 |
| 13 | 81.4 | 79.5 | 71.2 | 87.7 | 81.2 | 82.5 | 17.5 | 19.5 | 1.4 | -0.9 |
| 38 | 84.6 | 82.6 | 73.1 | 86.2 | 82.7 | 84.0 | 22.5 | 24.0 | 1.4 | -0.7 |
| 39 | 82.8 | 80.7 | 72.4 | 84.6 | 82.6 | 83.9 | 20.0 | 20.5 | 1.3 | -0.6 |
| Avg. | 82.7 | 80.7 | 71.5 | 86.2 | 81.6 | 82.8 | 21.9 | 24.1 | 1.3 | -0.7 |
| Std Dv | 1.3 | 1.3 | 1.0 | 1.1 | 1.1 | 1.1 | 4.4 | 4.8 | 0.2 | 0.1 |

2000 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|------|------|-----|------|
| 34 | 82.3 | 80.5 | 70.3 | 85.7 | 80.0 | 81.2 | 25.0 | 26.0 | 1.2 | -0.7 |
| 35 | 81.3 | 79.1 | 69.9 | 83.9 | 79.3 | 80.4 | 25.0 | 34.5 | 1.2 | -0.6 |
| 36 | 81.8 | 79.3 | 68.4 | 84.6 | 78.4 | 79.8 | 27.5 | 50.0 | 1.4 | -0.6 |
| 37 | 80.8 | 78.6 | 68.0 | 83.9 | 78.1 | 79.7 | 27.5 | 30.0 | 1.6 | -0.6 |
| Avg. | 81.5 | 79.4 | 69.1 | 84.5 | 79.0 | 80.3 | 26.2 | 35.1 | 1.3 | -0.6 |
| Std Dv | 0.7 | 0.8 | 1.1 | 0.9 | 0.9 | 0.7 | 1.4 | 10.5 | 0.2 | 0.1 |

2500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|------|------|-----|------|
| 30 | - | 77.6 | 66.1 | 83.3 | 75.8 | 77.2 | 36.0 | - | 1.4 | - |
| 31 | 78.9 | 77.0 | 65.8 | 83.7 | 76.0 | 77.4 | 29.5 | 34.5 | 1.4 | -0.7 |
| 32 | - | 78.9 | 67.7 | 83.8 | 77.4 | 78.7 | 32.5 | - | 1.4 | - |
| 33 | 79.5 | 77.2 | 66.6 | 83.2 | 76.8 | 78.4 | 30.0 | 32.0 | 1.7 | -0.6 |
| Avg. | 79.2 | 77.7 | 66.6 | 83.5 | 76.5 | 77.9 | 32.0 | 16.6 | 1.5 | -0.6 |
| Std Dv | 0.4 | 0.9 | 0.9 | 0.3 | 0.7 | 0.8 | 3.0 | 19.2 | 0.1 | 0.1 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.4-1.3
 SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
 1/ 5/81

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 3

CENTERLINE - 150 M. EAST

JUNE 25, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|----------|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| APPROACH | | | | | | | | | | |
| 40 | 95.2 | 91.9 | 82.3 | 90.6 | 94.4 | 95.3 | 25.5 | 22.0 | 0.9 | -0.7 |
| 42 | 96.3 | 93.4 | 85.6 | 91.6 | 96.6 | 97.9 | 16.5 | 17.5 | 1.2 | -0.7 |
| 44 | 97.4 | 94.3 | 85.4 | 93.7 | 97.0 | 98.1 | 23.0 | 22.5 | 1.1 | -0.6 |
| 46 | 97.2 | 94.2 | 84.7 | 92.4 | 96.5 | 97.3 | 22.0 | 22.0 | 0.9 | -0.6 |
| 48 | 97.0 | 94.1 | 86.2 | 92.6 | 97.9 | 98.9 | 16.0 | 16.5 | 1.0 | -0.8 |
| 50 | 96.2 | 93.4 | 85.3 | 92.2 | 97.4 | 98.2 | 17.0 | 15.5 | 0.8 | -0.7 |
| Avg. | 96.5 | 93.6 | 84.9 | 92.2 | 96.7 | 97.6 | 20.0 | 19.3 | 1.0 | -0.7 |
| Std Dv | 0.8 | 0.9 | 1.4 | 1.1 | 1.2 | 1.2 | 4.0 | 3.2 | 0.2 | 0.1 |

TAKEDOFF

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|------|------|-----|------|
| 41 | 89.0 | 85.4 | 77.8 | 82.9 | 89.0 | 90.6 | 12.0 | 11.5 | 2.4 | -1.6 |
| 43 | 88.5 | 84.6 | 76.6 | 81.6 | 88.0 | 90.1 | 14.0 | 14.0 | 2.0 | -1.6 |
| 45 | 89.1 | 85.9 | 77.2 | 83.2 | 88.7 | 90.9 | 13.0 | 12.5 | 2.2 | -1.6 |
| 47 | 87.6 | 84.5 | 74.8 | 81.0 | 86.9 | 89.0 | 16.0 | 14.5 | 2.1 | -1.4 |
| 49 | 88.1 | 84.8 | 75.7 | 81.2 | 87.2 | 89.1 | 15.5 | 15.0 | 2.2 | -1.5 |
| 51 | 88.6 | 85.5 | 76.5 | 81.9 | 88.2 | 90.0 | 15.0 | 14.5 | 2.1 | -1.5 |
| Avg. | 88.5 | 85.1 | 76.4 | 82.0 | 88.0 | 89.9 | 14.2 | 13.7 | 2.2 | -1.5 |
| Std Dv | 0.6 | 0.6 | 1.1 | 0.9 | 0.8 | 0.8 | 1.5 | 1.4 | 0.1 | 0.1 |

500 FT. FLYOVER - TARGET INDICATED AIRSPEED 109 KTS

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|------|------|-----|------|
| 18 | 90.6 | 87.5 | 80.8 | 86.4 | 92.2 | 93.7 | 14.0 | 14.0 | 1.5 | -1.1 |
| 19 | 88.2 | 85.0 | 77.6 | 84.1 | 90.4 | 91.9 | 11.0 | 9.5 | 1.4 | -1.0 |
| 20 | 90.3 | 87.1 | 80.1 | 85.8 | 91.7 | 93.3 | 13.0 | 12.5 | 1.5 | -1.0 |
| 21 | 88.9 | 85.9 | 78.8 | 85.1 | 90.8 | 92.0 | 11.0 | 10.5 | 1.5 | -1.0 |
| 22 | 90.6 | 87.3 | 81.0 | 86.2 | 92.8 | 94.2 | 11.0 | 10.5 | 1.4 | -0.9 |
| 23 | 88.3 | 85.2 | 77.4 | 84.7 | 89.7 | 90.9 | 13.5 | 12.5 | 1.3 | -1.0 |
| Avg. | 89.5 | 86.3 | 79.3 | 85.4 | 91.3 | 92.7 | 12.2 | 11.6 | 1.4 | -1.0 |
| Std Dv | 1.1 | 1.1 | 1.6 | 0.9 | 1.2 | 1.3 | 1.4 | 1.7 | 0.1 | 0.1 |

500 FT. FLYOVER - TARGET INDICATED AIRSPEED 124 KTS

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|------|------|-----|------|
| 24 | 90.2 | 86.7 | 80.4 | 87.0 | 92.4 | 94.5 | 11.0 | 10.0 | 2.1 | -1.4 |
| 25 | 88.3 | 85.5 | 79.2 | 88.2 | 91.2 | 92.8 | 8.5 | 8.0 | 1.7 | -1.1 |
| 26 | 89.9 | 87.0 | 80.4 | 86.2 | 91.4 | 93.0 | 12.0 | 11.5 | 1.6 | -1.1 |
| 27 | 87.8 | 85.0 | 77.9 | 87.1 | 89.9 | 91.4 | 10.5 | 9.5 | 1.5 | -1.0 |
| 28 | 90.1 | 87.2 | 81.0 | 86.7 | 92.3 | 93.8 | 11.0 | 11.0 | 1.5 | -1.1 |
| 29 | 87.8 | 84.9 | 78.0 | 86.8 | 89.6 | 90.7 | 11.5 | 11.5 | 1.0 | -0.9 |
| Avg. | 89.0 | 86.0 | 79.5 | 87.0 | 91.2 | 92.7 | 10.7 | 10.2 | 1.6 | -1.1 |
| Std Dv | 1.2 | 1.0 | 1.3 | 0.7 | 1.2 | 1.4 | 1.2 | 1.4 | 0.3 | 0.2 |

TABLE NO. A.4-2.3

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
1/ 5/81

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 3

CENTERLINE - 150 M. EAST

JUNE 25, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|--|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| 300 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | |
| 10 | 92.6 | 89.4 | 84.6 | 97.7 | 96.2 | 97.4 | 7.5 | 8.0 | 1.2 | -0.9 |
| 11 | 92.2 | 89.1 | 84.1 | 96.9 | 96.2 | 97.4 | 6.5 | 6.0 | 1.2 | -1.0 |
| 16 | 94.5 | 91.0 | 85.4 | 97.1 | 97.7 | 99.1 | 8.5 | 8.5 | 1.5 | -0.9 |
| 17 | 92.4 | 89.1 | 84.5 | 97.1 | 96.6 | 98.4 | 6.0 | 5.5 | 1.9 | -1.3 |
| Avg. | 92.9 | 89.7 | 84.7 | 97.2 | 96.7 | 98.1 | 7.1 | 7.0 | 1.4 | -1.0 |
| Std Dv | 1.1 | 0.9 | 0.5 | 0.3 | 0.7 | 0.9 | 1.1 | 1.5 | 0.3 | 0.2 |
| 700 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | |
| 8 | 89.1 | 86.6 | 79.9 | 90.6 | 90.4 | 91.8 | 12.0 | 14.0 | 1.4 | -0.8 |
| 9 | 86.5 | 84.1 | 76.7 | 92.6 | 88.2 | 89.3 | 11.5 | 11.5 | 1.1 | -0.9 |
| 14 | 88.6 | 85.9 | 79.0 | 92.0 | 89.9 | 91.2 | 13.0 | 14.0 | 1.2 | -0.9 |
| 15 | 87.1 | 84.6 | 77.1 | 92.4 | 88.3 | 89.6 | 12.5 | 11.5 | 1.4 | -1.0 |
| Avg. | 87.8 | 85.3 | 78.2 | 91.9 | 89.2 | 90.5 | 12.2 | 12.7 | 1.3 | -0.9 |
| Std Dv | 1.2 | 1.2 | 1.6 | 0.9 | 1.1 | 1.2 | 0.6 | 1.4 | 0.2 | 0.1 |
| 1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | |
| 1 | 85.0 | 82.6 | 74.6 | 90.6 | 85.3 | 86.8 | 15.0 | 15.5 | 1.5 | -1.1 |
| 2 | 86.3 | 84.1 | 75.1 | 90.6 | 84.7 | 85.9 | 20.0 | 23.0 | 1.2 | -0.9 |
| 3 | 85.2 | 83.1 | 74.4 | 91.1 | 84.9 | 86.4 | 16.0 | 15.5 | 1.5 | -1.0 |
| 4 | 87.1 | 84.6 | 76.5 | 90.3 | 86.7 | 88.0 | 16.5 | 18.0 | 1.3 | -0.9 |
| 52 | 86.6 | 84.4 | 75.9 | 90.5 | 86.3 | 87.5 | 17.5 | 18.0 | 1.2 | -0.9 |
| 53 | 84.0 | 81.6 | 73.1 | 90.2 | 84.3 | 85.6 | 15.0 | 15.5 | 1.3 | -0.9 |
| 54 | 87.4 | 85.0 | 77.9 | 90.1 | 88.2 | 89.4 | 16.5 | 18.0 | 1.1 | -0.9 |
| 55 | 85.9 | 83.6 | 75.0 | 90.5 | 86.0 | 87.1 | 13.5 | 16.0 | 1.1 | -1.0 |
| Avg. | 85.9 | 83.6 | 75.3 | 90.5 | 85.8 | 87.1 | 16.2 | 17.4 | 1.3 | -0.9 |
| Std Dv | 1.1 | 1.1 | 1.5 | 0.3 | 1.2 | 1.2 | 1.9 | 2.5 | 0.2 | 0.1 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.4-3.3

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
1/ 5/81

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 3

CENTERLINE - 150 M. EAST

JUNE 25, 1980

| EV | EPNL | NEL | DBA(M) | DASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|--|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| 1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | |
| 5 | 81.2 | 79.1 | 68.5 | 87.7 | 79.1 | 80.5 | 22.5 | 23.0 | 1.5 | -1.1 |
| 6 | 84.4 | 82.2 | 72.5 | 87.7 | 82.1 | 83.3 | 23.5 | 27.5 | 1.2 | -0.9 |
| 7 | 82.1 | 80.2 | 70.8 | 88.4 | 81.1 | 82.5 | 20.5 | 20.5 | 1.4 | -1.1 |
| 12 | 83.9 | 82.1 | 73.8 | 88.1 | 82.8 | 83.8 | 19.5 | 25.5 | 1.0 | -0.8 |
| 13 | 80.6 | 78.8 | 69.7 | 88.0 | 80.2 | 81.4 | 20.0 | 21.0 | 1.1 | -0.9 |
| 38 | 84.1 | 81.9 | 73.1 | 86.3 | 82.7 | 83.9 | 20.5 | 30.5 | 1.3 | -0.9 |
| 39 | 81.3 | 79.4 | 69.1 | 86.2 | 79.5 | 80.8 | 22.5 | 22.5 | 1.2 | -1.0 |
| Avg. | 82.5 | 80.5 | 71.1 | 87.5 | 81.1 | 82.3 | 21.3 | 24.4 | 1.2 | -1.0 |
| Std Dv | 1.6 | 1.5 | 2.1 | 0.9 | 1.5 | 1.4 | 1.5 | 3.7 | 0.2 | 0.1 |

2000 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|------|------|-----|------|
| 34 | 81.8 | 80.0 | 69.8 | 86.7 | 79.4 | 80.8 | 23.0 | 27.0 | 1.4 | -0.9 |
| 35 | 80.2 | 78.5 | 66.9 | 85.1 | 76.8 | 78.7 | 27.5 | 27.5 | 2.2 | -1.1 |
| 36 | 81.1 | 79.0 | 69.2 | 85.0 | 78.6 | 80.0 | 27.5 | 33.5 | 1.3 | -1.0 |
| 37 | 79.7 | 77.8 | 66.7 | 84.9 | 76.9 | 78.3 | 28.0 | 29.5 | 1.6 | -1.1 |
| Avg. | 80.7 | 78.8 | 68.2 | 85.4 | 77.9 | 79.5 | 26.5 | 29.4 | 1.6 | -1.0 |
| Std Dv | 0.9 | 0.9 | 1.6 | 0.8 | 1.3 | 1.1 | 2.3 | 3.0 | 0.4 | 0.1 |

2500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS

| | | | | | | | | | | |
|--------|-----|------|------|------|------|------|------|-----|-----|-----|
| 30 | - | 76.9 | 65.8 | 83.1 | 74.9 | 76.1 | 34.5 | - | 1.2 | - |
| 31 | - | 74.9 | 64.4 | 83.3 | 74.4 | 75.6 | 32.0 | - | 1.2 | - |
| 32 | - | 78.1 | 66.9 | 83.8 | 76.2 | 77.3 | 33.0 | - | 1.1 | - |
| 33 | - | 75.6 | 64.3 | 82.9 | 74.7 | 75.9 | 32.5 | - | 1.1 | - |
| Avg. | - | 76.4 | 65.4 | 83.3 | 75.0 | 76.2 | 33.0 | 0.0 | 1.2 | - |
| Std Dv | 0.0 | 1.4 | 1.2 | 0.4 | 0.8 | 0.8 | 1.1 | 0.0 | 0.0 | 0.0 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.4-1.4

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
9/23/80

SUMMARY NOISE LEVEL DATA - MAIN ROTOR RPM 107%

AS MEASURED *

SITE: 4

SIDELINE - 164 M. NORTH

JUNE 25, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|---|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| APPROACH | | | | | | | | | | |
| 40 | 94.9 | 92.2 | 83.0 | 88.9 | 93.7 | 95.5 | 21.5 | 18.5 | 1.8 | -0.7 |
| 42 | 95.0 | 92.3 | 81.5 | 86.1 | 92.0 | 94.0 | 25.5 | 25.0 | 2.1 | -1.1 |
| 44 | 95.7 | 92.7 | 84.0 | 89.6 | 94.6 | 96.7 | 21.5 | 22.0 | 2.0 | -1.2 |
| 46 | 96.1 | 93.4 | 84.5 | 89.6 | 95.6 | 97.8 | 24.0 | 21.5 | 2.2 | -0.9 |
| 48 | 94.4 | 91.6 | 82.4 | 88.3 | 93.6 | 95.4 | 21.5 | 21.0 | 1.8 | -1.0 |
| 50 | 93.2 | 90.3 | 78.9 | 86.7 | 91.2 | 92.4 | 26.5 | 26.5 | 1.4 | -0.9 |
| Avg. | 94.9 | 92.1 | 82.4 | 88.2 | 93.5 | 95.3 | 23.4 | 22.4 | 1.9 | -1.0 |
| Std Dv | 1.0 | 1.1 | 2.0 | 1.5 | 1.6 | 1.9 | 2.2 | 2.9 | 0.3 | 0.2 |
| TAKEOFF | | | | | | | | | | |
| 41 | 92.7 | 89.3 | 80.2 | 86.3 | 92.1 | 94.2 | 14.5 | 14.0 | 2.2 | -1.5 |
| 43 | 92.5 | 89.1 | 80.0 | 85.3 | 92.3 | 94.2 | 24.5 | 19.5 | 2.0 | -1.5 |
| 45 | 92.3 | 89.0 | 81.2 | 86.9 | 92.6 | 94.8 | 13.0 | 13.0 | 2.3 | -1.6 |
| 47 | 92.2 | 89.0 | 80.4 | 86.1 | 91.5 | 93.7 | 13.5 | 14.5 | 2.2 | -1.5 |
| 49 | 92.1 | 88.5 | 80.7 | 85.4 | 91.9 | 93.8 | 13.0 | 13.5 | 1.8 | -1.6 |
| 51 | 92.4 | 89.2 | 80.9 | 85.8 | 92.1 | 94.0 | 14.5 | 15.0 | 2.2 | -1.4 |
| Avg. | 92.4 | 89.0 | 80.6 | 86.0 | 92.1 | 94.1 | 15.5 | 14.9 | 2.1 | -1.5 |
| Std Dv | 0.2 | 0.3 | 0.5 | 0.6 | 0.4 | 0.4 | 4.5 | 2.4 | 0.2 | 0.1 |
| 500 FT. FLYBY - TARGET INDICATED AIRSPEED 109 KTS | | | | | | | | | | |
| 18 | 90.3 | 87.5 | 78.2 | 87.9 | 89.4 | 91.1 | 18.0 | 17.0 | 1.7 | -1.1 |
| 19 | 89.6 | 87.2 | 79.5 | 86.6 | 90.9 | 92.3 | 13.0 | 13.0 | 1.5 | -0.9 |
| 20 | 90.0 | 87.0 | 78.1 | 88.1 | 90.4 | 92.3 | 16.0 | 14.0 | 1.9 | -1.1 |
| 21 | 89.6 | 87.1 | 79.5 | 86.5 | 90.6 | 92.0 | 12.5 | 12.5 | 1.4 | -0.9 |
| 22 | 89.9 | 87.1 | 78.6 | 88.4 | 89.9 | 91.5 | 14.5 | 14.0 | 1.8 | -1.2 |
| 23 | 89.3 | 86.9 | 79.1 | 85.6 | 90.2 | 91.5 | 12.5 | 12.0 | 1.3 | -0.9 |
| Avg. | 89.8 | 87.1 | 78.8 | 87.2 | 90.3 | 91.8 | 14.4 | 13.7 | 1.6 | -1.0 |
| Std Dv | 0.4 | 0.2 | 0.6 | 1.1 | 0.6 | 0.5 | 2.2 | 1.8 | 0.3 | 0.1 |
| 500 FT. FLYBY - TARGET INDICATED AIRSPEED 124 KTS | | | | | | | | | | |
| 25 | 90.1 | 87.9 | 80.7 | 89.2 | 92.1 | 93.3 | 11.5 | 11.5 | 1.1 | -0.7 |
| 26 | 90.1 | 87.6 | 78.9 | 91.3 | 90.3 | 91.9 | 14.5 | 14.0 | 1.6 | -0.9 |
| 27 | 90.1 | 88.0 | 80.9 | 89.4 | 92.2 | 93.2 | 10.0 | 10.0 | 1.0 | -0.7 |
| 28 | 90.2 | 87.7 | 79.3 | 91.4 | 90.8 | 92.2 | 13.5 | 13.5 | 1.4 | -0.8 |
| 29 | 90.3 | 87.8 | 80.9 | 89.2 | 92.6 | 94.3 | 11.0 | 10.5 | 1.7 | -0.8 |
| Avg. | 90.2 | 87.8 | 80.2 | 90.1 | 91.6 | 93.0 | 12.1 | 11.9 | 1.4 | -0.8 |
| Std Dv | 0.1 | 0.2 | 1.0 | 1.1 | 1.0 | 1.0 | 1.9 | 1.8 | 0.3 | 0.1 |

TABLE NO. A.4-2.4

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
9/23/80

SUMMARY NOISE LEVEL DATA - MAIN ROTOR RPM 107%

AS MEASURED *

SITE: 4

SIDELINE - 164 M. NORTH

JUNE 25, 1980

| EV | EPNL | NEL | DBA(M) | DASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|--|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| 300 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | |
| 10 | 93.4 | 89.6 | 82.9 | 100.6 | 95.0 | 96.3 | 9.5 | 10.0 | 1.6 | -1.0 |
| 11 | 93.4 | 91.1 | 84.4 | 96.7 | 95.6 | 96.9 | 9.5 | 9.5 | 1.2 | -0.8 |
| 16 | 93.5 | 89.9 | 83.7 | 99.4 | 96.1 | 97.3 | 8.5 | 8.5 | 1.2 | -1.0 |
| 17 | 93.0 | 90.6 | 83.6 | 94.4 | 94.6 | 95.8 | 9.5 | 10.0 | 1.1 | -1.0 |
| Avg. | 93.3 | 90.3 | 83.6 | 97.8 | 95.3 | 96.6 | 9.2 | 9.5 | 1.3 | -0.9 |
| Std Dv | 0.2 | 0.7 | 0.6 | 2.8 | 0.6 | 0.7 | 0.5 | 0.7 | 0.2 | 0.1 |
| 700 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | |
| 8 | 91.1 | 88.5 | 80.0 | 97.2 | 92.1 | 92.3 | 13.5 | 15.0 | 0.2 | -0.5 |
| 9 | 90.8 | 88.0 | 80.5 | 95.1 | 92.2 | 93.9 | 11.5 | 11.0 | 2.0 | -1.1 |
| 14 | 89.8 | 87.2 | 79.2 | 95.8 | 90.4 | 91.6 | 13.5 | 14.5 | 1.3 | -0.7 |
| 15 | 89.9 | 87.2 | 80.0 | 93.2 | 91.6 | 93.4 | 11.5 | 11.0 | 1.8 | -1.1 |
| Avg. | 90.4 | 87.7 | 79.9 | 95.3 | 91.6 | 92.8 | 12.5 | 12.9 | 1.3 | -0.9 |
| Std Dv | 0.7 | 0.6 | 0.5 | 1.7 | 0.8 | 1.0 | 1.2 | 2.2 | 0.8 | 0.3 |
| 1000 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | |
| 1 | 88.6 | 85.7 | 77.7 | 91.7 | 87.9 | 90.1 | 14.5 | 14.5 | 2.1 | -1.2 |
| 2 | 88.7 | 86.0 | 76.0 | 94.6 | 87.3 | 88.3 | 20.5 | 25.0 | 1.1 | -0.6 |
| 3 | 89.1 | 86.6 | 77.4 | 92.3 | 88.7 | 90.3 | 15.5 | 15.0 | 1.9 | -1.0 |
| 4 | 88.6 | 86.1 | 76.1 | 94.5 | 87.6 | 88.3 | 19.5 | 20.0 | 1.3 | -0.7 |
| 52 | 87.1 | 84.7 | 75.2 | 93.6 | 86.7 | 87.4 | 21.5 | 21.5 | 0.6 | -0.7 |
| 53 | 87.6 | 85.1 | 76.6 | 91.1 | 87.3 | 88.9 | 16.0 | 16.0 | 1.5 | -1.0 |
| 54 | 87.5 | 84.9 | 76.2 | 93.3 | 87.5 | 88.4 | 20.0 | 20.0 | 0.9 | -0.6 |
| 55 | 88.2 | 85.4 | 79.1 | 91.7 | 90.6 | 92.5 | 11.0 | 10.0 | 2.0 | -1.2 |
| Avg. | 88.2 | 85.6 | 76.8 | 92.8 | 87.9 | 89.3 | 17.3 | 17.8 | 1.4 | -0.9 |
| Std Dv | 0.7 | 0.7 | 1.2 | 1.4 | 1.2 | 1.6 | 3.6 | 4.8 | 0.5 | 0.3 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.4-3.4

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
9/23/80

SUMMARY NOISE LEVEL DATA - MAIN ROTOR RPM 107%

AS MEASURED *

SITE: 4

SIDELINE - 164 M. NORTH

JUNE 25, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|--|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| 1500 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | |
| 5 | 84.5 | 82.1 | 72.4 | 89.2 | 83.2 | 85.1 | 21.0 | 20.5 | 1.9 | -1.2 |
| 6 | 86.4 | 84.0 | 72.9 | 91.2 | 84.6 | 85.9 | 30.0 | 31.5 | 1.3 | -0.6 |
| 7 | 85.4 | 82.6 | 72.1 | 89.8 | 84.1 | 85.9 | 22.0 | 20.5 | 1.8 | -1.2 |
| 12 | 88.0 | 85.5 | 74.8 | 93.9 | 86.0 | 86.9 | 24.5 | 30.5 | 0.9 | -0.4 |
| 38 | 84.8 | 82.7 | 71.7 | 89.8 | 82.2 | 83.1 | 26.5 | 31.5 | 0.9 | -0.7 |
| 39 | 84.9 | 82.4 | 73.3 | 86.3 | 83.7 | 85.8 | 22.0 | 21.5 | 2.0 | -1.3 |
| Avg. | 85.7 | 83.2 | 72.9 | 90.0 | 84.0 | 85.4 | 24.3 | 26.0 | 1.5 | -0.9 |
| Std Dv | 1.3 | 1.3 | 1.1 | 2.5 | 1.3 | 1.3 | 3.4 | 5.7 | 0.5 | 0.4 |
| 2000 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | |
| 34 | 83.7 | 81.6 | 69.8 | 89.4 | 80.3 | 81.6 | 35.0 | 36.5 | 1.3 | -0.7 |
| 35 | 83.4 | 81.0 | 70.2 | 85.9 | 80.5 | 82.2 | 26.0 | 27.0 | 1.7 | -1.1 |
| 36 | - | 80.9 | 69.1 | 87.6 | 79.8 | 80.9 | 34.0 | - | 1.2 | - |
| 37 | 83.2 | 81.0 | 69.7 | 85.8 | 80.4 | 82.1 | 28.0 | 27.5 | 1.7 | -1.1 |
| Avg. | 83.5 | 81.1 | 69.7 | 87.2 | 80.2 | 81.7 | 30.7 | 22.7 | 1.5 | -1.0 |
| Std Dv | 0.2 | 0.3 | 0.4 | 1.7 | 0.3 | 0.6 | 4.4 | 15.8 | 0.3 | 0.3 |
| 2500 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | |
| 30 | - | 79.2 | 66.7 | 86.2 | 76.8 | 78.1 | 37.0 | - | 1.3 | - |
| 31 | 79.7 | 77.4 | 68.2 | 84.9 | 78.8 | 80.5 | 25.5 | 25.5 | 1.9 | -1.1 |
| 32 | 82.2 | 80.1 | 68.1 | 87.0 | 78.2 | 79.6 | 37.0 | 41.5 | 1.4 | -0.8 |
| 33 | 81.3 | 78.9 | 69.0 | 84.1 | 78.6 | 79.9 | 24.5 | 31.0 | 1.3 | -1.1 |
| Avg. | 81.1 | 78.9 | 68.0 | 85.5 | 78.1 | 79.5 | 31.0 | 24.5 | 1.5 | -1.0 |
| Std Dv | 1.2 | 1.1 | 1.0 | 1.3 | 0.9 | 1.0 | 6.9 | 17.6 | 0.3 | 0.1 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNL T CALCULATIONS

TABLE NO. A.4-1.5

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
9/23/80

SUMMARY NOISE LEVEL DATA - MAIN ROTOR RPM 107%

AS MEASURED *

SITE: 5

SIDELINE - 150 M. SOUTH

JUNE 25, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|---|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| APPROACH | | | | | | | | | | |
| 40 | 92.1 | 88.8 | 76.6 | 84.6 | 89.9 | 90.9 | 36.5 | 29.5 | 2.1 | -0.8 |
| 42 | 92.6 | 89.8 | 79.5 | 85.1 | 90.5 | 92.1 | 33.0 | 32.5 | 2.2 | -0.8 |
| 44 | 93.6 | 90.2 | 78.1 | 86.0 | 91.4 | 92.3 | 33.0 | 29.0 | 0.9 | -0.8 |
| 46 | 93.5 | 90.2 | 77.4 | 85.1 | 90.0 | 91.2 | 33.5 | 32.5 | 1.2 | -0.8 |
| 48 | 93.2 | 90.1 | 79.8 | 84.9 | 90.5 | 91.6 | 29.5 | 30.0 | 1.2 | -0.8 |
| 50 | 92.8 | 90.1 | 78.2 | 85.2 | 90.1 | 91.3 | 35.5 | 25.0 | 1.6 | -0.8 |
| Avg. | 93.0 | 89.9 | 78.3 | 85.2 | 90.4 | 91.6 | 33.5 | 29.7 | 1.5 | -0.8 |
| Std Dv | 0.6 | 0.5 | 1.2 | 0.5 | 0.5 | 0.5 | 2.4 | 2.8 | 0.5 | 0.0 |
| TAKEDOFF | | | | | | | | | | |
| 41 | 88.7 | 86.4 | 78.0 | 83.7 | 89.1 | 90.5 | 13.5 | 13.5 | 1.4 | -1.1 |
| 43 | 88.5 | 86.3 | 77.8 | 82.3 | 88.8 | 90.2 | 16.5 | 16.5 | 1.4 | -1.1 |
| 45 | 90.1 | 87.9 | 80.7 | 85.0 | 91.2 | 92.4 | 11.5 | 13.0 | 1.5 | -1.1 |
| 47 | 89.3 | 87.2 | 79.7 | 85.0 | 89.9 | 91.4 | 12.5 | 14.0 | 1.5 | -1.0 |
| 49 | 89.3 | 87.2 | 79.6 | 84.8 | 90.4 | 91.5 | 11.5 | 12.5 | 1.2 | -1.0 |
| 51 | 89.0 | 87.0 | 78.7 | 85.0 | 89.2 | 90.3 | 14.0 | 14.5 | 1.2 | -1.0 |
| Avg. | 89.1 | 87.0 | 79.1 | 84.3 | 89.8 | 91.1 | 13.2 | 14.0 | 1.4 | -1.1 |
| Std Dv | 0.5 | 0.6 | 1.1 | 1.1 | 0.9 | 0.9 | 1.9 | 1.4 | 0.1 | 0.0 |
| 500 FT. FLYBY - TARGET INDICATED AIRSPEED 109 KTS | | | | | | | | | | |
| 18 | 89.8 | 87.6 | 78.0 | 84.5 | 89.2 | 90.5 | 21.5 | 18.0 | 1.4 | -0.7 |
| 19 | 86.8 | 84.3 | 76.4 | 86.1 | 88.3 | 89.8 | 13.0 | 10.5 | 1.5 | -1.0 |
| 20 | 90.3 | 88.2 | 77.9 | 84.6 | 89.2 | 90.6 | 21.5 | 20.0 | 1.4 | -0.7 |
| 21 | 89.5 | 86.5 | 78.5 | 90.4 | 90.4 | 91.9 | 12.5 | 12.0 | 1.4 | -1.0 |
| 22 | 89.6 | 87.5 | 79.1 | 84.8 | 90.2 | 91.4 | 16.5 | 14.0 | 1.2 | -0.7 |
| 23 | 86.1 | 83.9 | 75.3 | 84.5 | 86.5 | 88.1 | 14.0 | 13.5 | 1.5 | -0.8 |
| Avg. | 88.7 | 86.3 | 77.5 | 85.8 | 89.0 | 90.4 | 16.5 | 14.7 | 1.4 | -0.8 |
| Std Dv | 1.8 | 1.8 | 1.4 | 2.3 | 1.4 | 1.3 | 4.1 | 3.6 | 0.1 | 0.1 |
| 500 FT. FLYBY - TARGET INDICATED AIRSPEED 124 KTS | | | | | | | | | | |
| 24 | 90.1 | 87.7 | 79.0 | 86.0 | 90.2 | 91.6 | 17.5 | 17.0 | 1.5 | -0.9 |
| 25 | 87.0 | 84.7 | 77.7 | 90.4 | 88.9 | 89.7 | 11.0 | 11.0 | 1.1 | -0.8 |
| 26 | 91.0 | 88.8 | 79.8 | 86.3 | 90.6 | 92.0 | 16.5 | 16.5 | 1.4 | -0.9 |
| 27 | 86.9 | 84.7 | 77.5 | 90.0 | 88.9 | 90.0 | 11.5 | 11.0 | 1.2 | -0.8 |
| 28 | 90.6 | 88.6 | 79.4 | 86.1 | 90.6 | 91.9 | 17.0 | 17.0 | 1.4 | -0.8 |
| 29 | 86.5 | 84.2 | 76.6 | 89.0 | 88.3 | 89.6 | 11.5 | 11.0 | 1.3 | -0.7 |
| Avg. | 88.7 | 86.5 | 78.4 | 88.0 | 89.6 | 90.8 | 14.2 | 13.9 | 1.3 | -0.8 |
| Std Dv | 2.1 | 2.1 | 1.3 | 2.1 | 1.0 | 1.1 | 3.1 | 3.2 | 0.1 | 0.0 |

TABLE NO. A.4-2.5

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
9/23/80

SUMMARY NOISE LEVEL DATA - MAIN ROTOR RPM 107%

AS MEASURED *

SITE: 5

SIDELINE - 150 M. SOUTH

JUNE 25, 1980

| EV | EPNL | NEL | DBA(M) | DASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|--|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| 300 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | |
| 10 | 92.6 | 90.8 | 83.0 | 94.1 | 94.2 | 95.3 | 13.0 | 11.0 | 1.1 | -0.5 |
| 11 | 89.7 | 86.7 | 80.7 | 96.3 | 93.1 | 94.1 | 8.0 | 8.0 | 1.0 | -0.8 |
| 16 | 93.4 | 91.7 | 83.4 | 92.2 | 94.5 | 95.5 | 13.5 | 13.0 | 1.0 | -0.7 |
| 17 | 90.5 | 87.6 | 81.4 | 96.0 | 93.5 | 94.7 | 9.0 | 8.0 | 1.2 | -0.8 |
| Avg. | 91.6 | 89.2 | 82.1 | 94.7 | 93.8 | 94.9 | 10.9 | 10.0 | 1.1 | -0.7 |
| Std Dv | 1.7 | 2.4 | 1.3 | 1.9 | 0.6 | 0.6 | 2.8 | 2.4 | 0.1 | 0.1 |
| 700 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | |
| 8 | 90.7 | 88.5 | 78.4 | 92.0 | 90.0 | 91.4 | 20.0 | 18.0 | 1.6 | -0.9 |
| 9 | 86.4 | 84.2 | 76.1 | 93.2 | 87.3 | 87.8 | 12.5 | 13.0 | 0.7 | -0.6 |
| 14 | 90.5 | 87.9 | 78.2 | 91.4 | 89.6 | 90.9 | 18.0 | 18.0 | 1.4 | -0.9 |
| 15 | 86.6 | 84.1 | 76.7 | 93.3 | 88.6 | 89.0 | 11.5 | 12.5 | 0.6 | -0.6 |
| Avg. | 88.6 | 86.2 | 77.4 | 92.5 | 88.8 | 89.8 | 15.5 | 15.4 | 1.1 | -0.7 |
| Std Dv | 2.4 | 2.3 | 1.1 | 0.9 | 1.2 | 1.6 | 4.1 | 3.0 | 0.5 | 0.1 |
| 1000 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | |
| 1 | 85.1 | 82.6 | 74.2 | 91.5 | 86.2 | 86.8 | 15.0 | 16.5 | 0.7 | -0.5 |
| 2 | 88.4 | 86.0 | 75.1 | 90.0 | 86.2 | 87.8 | 23.5 | 22.5 | 1.6 | -0.9 |
| 3 | 84.7 | 82.5 | 73.1 | 92.0 | 84.4 | 85.7 | 18.0 | 18.5 | 1.4 | -0.6 |
| 4 | 88.5 | 85.9 | 75.4 | 90.3 | 86.7 | 88.3 | 21.0 | 20.5 | 1.6 | -1.0 |
| 52 | 88.0 | 85.7 | 76.0 | 89.8 | 86.1 | 87.9 | 19.0 | 20.0 | 1.8 | -1.1 |
| 53 | 85.3 | 83.1 | 74.9 | 90.8 | 86.2 | 86.9 | 16.0 | 18.5 | 0.9 | -0.7 |
| 54 | 88.5 | 86.0 | 76.4 | 89.4 | 87.1 | 88.8 | 21.0 | 20.5 | 1.7 | -1.1 |
| 55 | 85.0 | 82.6 | 74.1 | 91.0 | 85.8 | 86.3 | 23.0 | 22.5 | 0.6 | -0.7 |
| Avg. | 86.7 | 84.3 | 74.9 | 90.6 | 86.1 | 87.3 | 19.6 | 19.9 | 1.3 | -0.8 |
| Std Dv | 1.8 | 1.7 | 1.1 | 0.9 | 0.8 | 1.1 | 3.1 | 2.1 | 0.5 | 0.2 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - / \ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.4-3.5

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
9/23/80

SUMMARY NOISE LEVEL DATA - MAIN ROTOR RPM 107%

AS MEASURED *

SITE: 5

SIDELINE - 150 M. SOUTH

JUNE 25, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|--|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| 1500 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | |
| 5 | 81.8 | 80.1 | 70.0 | 88.1 | 80.5 | 81.4 | 22.0 | 23.0 | 1.0 | -0.6 |
| 6 | 85.0 | 83.0 | 71.9 | 86.7 | 82.8 | 84.2 | 26.5 | 26.5 | 1.4 | -0.8 |
| 7 | 81.8 | 80.0 | 70.1 | 87.8 | 81.4 | 82.4 | 22.5 | 21.5 | 1.0 | -0.5 |
| 12 | 85.3 | 82.9 | 72.1 | 88.0 | 82.2 | 84.0 | 25.0 | 30.5 | 1.8 | -0.8 |
| 13 | 81.6 | 79.8 | 69.6 | 88.4 | 81.4 | 82.2 | 20.5 | 21.5 | 0.8 | -0.5 |
| 38 | 84.6 | 82.5 | 72.0 | 85.7 | 82.2 | 83.6 | 22.5 | 27.0 | 2.0 | -1.0 |
| 39 | 82.2 | 80.3 | 71.4 | 86.0 | 81.5 | 82.4 | 22.0 | 23.0 | 0.9 | -0.7 |
| Avg. | 83.2 | 81.2 | 71.0 | 87.3 | 81.7 | 82.9 | 23.0 | 24.7 | 1.3 | -0.7 |
| Std Dv | 1.7 | 1.5 | 1.1 | 1.1 | 0.7 | 1.1 | 2.0 | 3.4 | 0.5 | 0.2 |

2000 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|------|------|-----|------|
| 34 | 83.2 | 80.8 | 69.7 | 86.1 | 79.5 | 81.4 | 27.5 | 42.0 | 1.9 | -0.9 |
| 35 | 81.1 | 79.4 | 69.3 | 85.2 | 79.4 | 80.2 | 24.0 | 27.0 | 1.1 | -0.6 |
| 36 | 82.4 | 80.3 | 68.9 | 84.4 | 79.1 | 80.5 | 29.0 | 31.5 | 2.1 | -1.1 |
| 37 | - | 78.9 | 68.7 | 85.0 | 79.4 | 80.2 | 22.5 | - | 0.8 | - |
| Avg. | 82.2 | 79.9 | 69.2 | 85.2 | 79.4 | 80.6 | 25.7 | 25.1 | 1.5 | -0.8 |
| Std Dv | 1.1 | 0.9 | 0.4 | 0.7 | 0.2 | 0.6 | 3.0 | 17.9 | 0.6 | 0.3 |

2500 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|------|------|-----|------|
| 30 | - | 78.0 | 65.1 | 83.4 | 75.5 | 77.3 | 40.5 | - | 1.8 | - |
| 31 | - | 76.2 | 64.5 | 84.0 | 75.2 | 75.9 | 31.5 | - | 0.7 | - |
| 32 | - | 79.1 | 66.1 | 83.3 | 76.1 | 78.0 | 43.0 | - | 1.8 | - |
| 33 | 78.2 | 76.7 | 64.6 | 83.6 | 75.4 | 76.3 | 34.0 | 35.0 | 0.9 | -0.5 |
| Avg. | 78.2 | 77.5 | 65.1 | 83.6 | 75.5 | 76.9 | 37.2 | 8.7 | 1.3 | -0.5 |
| Std Dv | - | 1.3 | 0.7 | 0.3 | 0.4 | 1.0 | 5.4 | 17.5 | 0.6 | - |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - / \ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNL T CALCULATIONS

TABLE NO. A.4-1.5G

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC

1/ 2/81

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 5G

SIDELINE - 150 M. SOUTH (FLUSH)

JUNE 25, 1980

| EV | EPNL | NEL | DBA(M) | DASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|---|-------|------|--------|---------|--------|---------|--------|--------|-----|------|
| APPROACH | | | | | | | | | | |
| 40 | 95.3 | 92.2 | 80.9 | 88.0 | 93.0 | 93.8 | 29.5 | 29.0 | 0.9 | -0.4 |
| 42 | 96.3 | 93.7 | 83.6 | 89.3 | 95.8 | 96.8 | 27.0 | 21.5 | 1.0 | -0.5 |
| 44 | 97.0 | 93.8 | 83.0 | 89.7 | 95.3 | 96.4 | 28.5 | 28.0 | 1.1 | -0.4 |
| 46 | 100.0 | 96.7 | 84.9 | 93.5 | 97.3 | 98.2 | 31.0 | 30.5 | 1.1 | -0.5 |
| 48 | 96.7 | 93.9 | 83.0 | 88.8 | 94.4 | 95.1 | 24.5 | 25.0 | 0.7 | -0.4 |
| 50 | 96.6 | 93.9 | 82.6 | 89.7 | 94.8 | 96.0 | 25.0 | 23.5 | 1.5 | -0.5 |
| Avg. | 97.0 | 94.0 | 83.0 | 89.8 | 95.1 | 96.0 | 27.6 | 26.2 | 1.0 | -0.5 |
| Std Dv | 1.6 | 1.4 | 1.3 | 1.9 | 1.4 | 1.5 | 2.6 | 3.5 | 0.3 | 0.0 |
| TAKEOFF | | | | | | | | | | |
| 41 | 94.5 | 91.3 | 83.2 | 87.8 | 95.0 | 96.9 | 12.0 | 12.0 | 1.8 | -1.5 |
| 43 | 94.6 | 91.5 | 83.4 | 87.0 | 94.1 | 96.1 | 14.0 | 14.5 | 2.1 | -1.5 |
| 45 | 95.9 | 93.1 | 86.1 | 89.1 | 96.3 | 98.4 | 11.0 | 11.5 | 2.1 | -1.6 |
| 47 | 95.4 | 92.5 | 85.5 | 88.9 | 95.7 | 97.8 | 11.0 | 13.5 | 2.1 | -1.5 |
| 49 | 95.4 | 92.8 | 85.7 | 88.5 | 96.2 | 97.5 | 11.5 | 12.0 | 0.8 | -1.5 |
| 51 | | | | NO DATA | | | | | | |
| Avg. | 95.1 | 92.3 | 84.8 | 88.3 | 95.5 | 97.3 | 11.9 | 12.7 | 1.8 | -1.5 |
| Std Dv | 0.6 | 0.8 | 1.4 | 0.8 | 0.9 | 0.9 | 1.2 | 1.3 | 0.5 | 0.0 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 109 KTS | | | | | | | | | | |
| 18 | 94.3 | 91.2 | 82.3 | 87.8 | 93.8 | 95.7 | 16.5 | 14.5 | 1.9 | -1.0 |
| 19 | 91.6 | 88.9 | 81.4 | 87.6 | 93.2 | 94.6 | 11.5 | 10.5 | 1.4 | -0.7 |
| 20 | 94.8 | 91.8 | 82.4 | 88.1 | 94.6 | 96.0 | 18.0 | 17.0 | 2.0 | -0.9 |
| 21 | 91.8 | 89.3 | 82.0 | 87.7 | 93.6 | 94.7 | 10.5 | 10.5 | 1.0 | -0.6 |
| 22 | 94.6 | 91.5 | 83.6 | 88.4 | 95.1 | 96.9 | 14.0 | 13.0 | 1.8 | -1.0 |
| 23 | 91.0 | 88.6 | 80.7 | 86.3 | 92.2 | 93.6 | 11.5 | 11.5 | 1.4 | -0.6 |
| Avg. | 93.0 | 90.2 | 82.1 | 87.6 | 93.7 | 95.2 | 13.7 | 12.8 | 1.6 | -0.8 |
| Std Dv | 1.7 | 1.4 | 1.0 | 0.7 | 1.0 | 1.2 | 3.0 | 2.6 | 0.4 | 0.2 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 124 KTS | | | | | | | | | | |
| 24 | 95.1 | 92.0 | 83.9 | 89.4 | 95.2 | 97.0 | 13.5 | 13.0 | 1.8 | -1.0 |
| 25 | 92.3 | 89.9 | 83.5 | 91.9 | 94.9 | 95.9 | 9.5 | 10.0 | 1.0 | -0.6 |
| 26 | 95.8 | 92.9 | 84.6 | 89.8 | 95.9 | 97.4 | 14.5 | 13.5 | 1.8 | -0.9 |
| 27 | 92.2 | 89.7 | 83.0 | 91.1 | 94.7 | 95.7 | 10.0 | 10.0 | 1.0 | -0.5 |
| 28 | 95.2 | 92.4 | 84.4 | 89.6 | 95.7 | 97.5 | 15.5 | 14.0 | 1.9 | -0.8 |
| 29 | 92.0 | 89.6 | 82.4 | 90.4 | 94.1 | 95.1 | 11.0 | 11.0 | 1.0 | -0.4 |
| Avg. | 93.8 | 91.1 | 83.6 | 90.3 | 95.1 | 96.4 | 12.3 | 11.9 | 1.4 | -0.7 |
| Std Dv | 1.8 | 1.5 | 0.8 | 1.0 | 0.7 | 1.0 | 2.5 | 1.8 | 0.4 | 0.2 |

TABLE NO. A.4-2.56

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC

1/ 2/81

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 56

SIDELINE - 150 M. SOUTH (FLUSH)

JUNE 25, 1980

| EV | EPNL | NEL | DBA(M) | DASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|--|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| 300 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | |
| 10 | 97.8 | 94.8 | 87.8 | 95.5 | 99.8 | 101.0 | 9.5 | 9.0 | 1.4 | -0.9 |
| 11 | 94.8 | 91.6 | 86.4 | 97.2 | 98.7 | 99.5 | 7.0 | 7.0 | 0.9 | -0.5 |
| 16 | 97.4 | 94.1 | 87.1 | 93.6 | 99.6 | 100.7 | 9.5 | 9.5 | 1.0 | -1.0 |
| 17 | 95.6 | 92.6 | 87.2 | 96.9 | 99.1 | 100.1 | 7.5 | 8.0 | 0.9 | -0.5 |
| Avg. | 96.4 | 93.3 | 87.1 | 95.8 | 99.3 | 100.3 | 8.4 | 8.4 | 1.1 | -0.7 |
| Std Dv | 1.4 | 1.4 | 0.6 | 1.7 | 0.5 | 0.7 | 1.3 | 1.1 | 0.2 | 0.2 |
| 700 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | |
| 8 | 95.4 | 92.5 | 83.9 | 93.9 | 95.6 | 97.2 | 14.5 | 13.5 | 1.9 | -0.7 |
| 9 | 91.7 | 89.2 | 81.4 | 94.6 | 93.0 | 93.9 | 11.5 | 12.0 | 0.9 | -0.7 |
| 14 | 94.5 | 91.7 | 82.6 | 93.1 | 94.4 | 95.8 | 15.0 | 13.5 | 1.5 | -0.7 |
| 15 | 91.5 | 88.9 | 82.1 | 94.5 | 94.0 | 95.1 | 10.0 | 9.5 | 1.1 | -0.5 |
| Avg. | 93.3 | 90.6 | 82.5 | 94.0 | 94.2 | 95.5 | 12.7 | 12.1 | 1.4 | -0.7 |
| Std Dv | 2.0 | 1.8 | 1.0 | 0.7 | 1.1 | 1.4 | 2.4 | 1.9 | 0.4 | 0.1 |
| 1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | |
| 1 | 89.9 | 87.5 | 78.8 | 92.6 | 91.2 | 91.9 | 14.5 | 14.0 | 0.9 | -0.4 |
| 2 | 92.6 | 90.0 | 79.6 | 92.1 | 91.5 | 93.1 | 21.0 | 18.5 | 1.6 | -0.7 |
| 3 | 89.7 | 87.5 | 78.5 | 93.4 | 90.1 | 90.9 | 16.0 | 16.5 | 0.8 | -0.5 |
| 4 | 92.7 | 90.1 | 80.4 | 92.4 | 92.1 | 93.8 | 20.0 | 17.0 | 1.8 | -0.7 |
| 52 | 92.4 | 89.9 | 80.6 | 92.2 | 92.2 | 93.6 | 17.0 | 16.0 | 1.3 | -0.8 |
| 53 | 90.2 | 88.0 | 79.7 | 92.8 | 91.7 | 92.9 | 13.5 | 14.0 | 1.1 | -0.4 |
| 54 | 92.8 | 90.1 | 81.7 | 91.7 | 93.3 | 94.6 | 19.5 | 19.0 | 1.3 | -0.8 |
| 55 | 89.9 | 87.4 | 79.3 | 92.9 | 91.2 | 91.9 | 13.0 | 20.5 | 0.5 | -0.6 |
| Avg. | 91.3 | 88.8 | 79.8 | 92.5 | 91.6 | 92.8 | 16.8 | 16.9 | 1.2 | -0.6 |
| Std Dv | 1.4 | 1.3 | 1.1 | 0.5 | 0.9 | 1.2 | 3.1 | 2.3 | 0.4 | 0.2 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.4-3.5G

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
1/13/81

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 5G

SIDELINE - 150 M. SOUTH (FLUSH)

JUNE 25, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|--|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| 1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | |
| 5 | 86.6 | 84.9 | 74.9 | 89.4 | 86.3 | 87.2 | 20.0 | 19.5 | 1.1 | -0.4 |
| 6 | 88.9 | 86.7 | 76.0 | 88.9 | 86.7 | 88.1 | 25.5 | 25.5 | 1.5 | -0.7 |
| 7 | 86.5 | 84.6 | 75.2 | 89.2 | 86.7 | 87.5 | 18.0 | 18.0 | 0.7 | -0.3 |
| 12 | 89.5 | 87.2 | 76.4 | 89.9 | 87.4 | 89.0 | 23.0 | 23.5 | 1.7 | -0.7 |
| 13 | 86.1 | 84.3 | 75.7 | 89.6 | 87.1 | 87.9 | 16.5 | 15.5 | 0.7 | -0.4 |
| 38 | 88.6 | 86.5 | 75.8 | 87.7 | 86.8 | 88.2 | 22.5 | 21.0 | 1.5 | -0.7 |
| 39 | 86.6 | 84.8 | 76.1 | 87.0 | 87.2 | 88.3 | 20.0 | 20.0 | 1.1 | -0.5 |
| Avg. | 87.5 | 85.6 | 75.7 | 88.8 | 86.9 | 88.0 | 20.8 | 20.4 | 1.2 | -0.5 |
| Std Dv | 1.4 | 1.2 | 0.5 | 1.1 | 0.4 | 0.6 | 3.1 | 3.3 | 0.4 | 0.1 |
| 2000 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | |
| 34 | 86.7 | 84.8 | 73.9 | 87.8 | 84.7 | 86.2 | 26.5 | 26.5 | 1.5 | -0.5 |
| 35 | 84.9 | 83.4 | 72.9 | 86.0 | 83.6 | 84.7 | 23.0 | 23.0 | 1.1 | -0.5 |
| 36 | 86.1 | 84.1 | 72.9 | 85.9 | 83.6 | 85.2 | 28.5 | 26.5 | 1.6 | -0.7 |
| 37 | 84.6 | 83.1 | 72.3 | 85.9 | 82.8 | 83.9 | 23.5 | 24.5 | 1.1 | -0.4 |
| Avg. | 85.6 | 83.8 | 73.0 | 86.4 | 83.7 | 85.0 | 25.4 | 25.1 | 1.3 | -0.5 |
| Std Dv | 1.0 | 0.8 | 0.6 | 0.9 | 0.8 | 1.0 | 2.6 | 1.7 | 0.3 | 0.2 |
| 2500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | |
| 30 | 84.2 | 82.2 | 69.9 | 85.1 | 80.2 | 81.9 | 36.5 | 37.0 | 1.7 | -0.8 |
| 31 | 82.2 | 80.7 | 69.5 | 85.2 | 80.1 | 80.8 | 25.5 | 29.0 | 0.7 | -0.4 |
| 32 | - | 83.0 | 70.7 | 85.1 | 80.9 | 82.4 | 34.5 | - | 1.5 | - |
| 33 | 82.2 | 80.9 | 70.1 | 84.8 | 80.5 | 81.5 | 30.5 | 31.0 | 1.0 | -0.4 |
| Avg. | 82.9 | 81.7 | 70.1 | 85.1 | 80.4 | 81.6 | 31.7 | 24.2 | 1.3 | -0.5 |
| Std Dv | 1.2 | 1.1 | 0.5 | 0.2 | 0.4 | 0.7 | 4.9 | 16.5 | 0.5 | 0.2 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.4-1.6

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
1/ 2/81

SUMMARY NOISE LEVEL DATA - MAIN ROTOR RPM 107%

AS MEASURED *

SITE: 6

SIDELINE - 284 M. NORTH

JUNE 25, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|---|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| APPROACH | | | | | | | | | | |
| 40 | 89.8 | 87.2 | 77.0 | 82.8 | 88.3 | 88.9 | 33.5 | 37.0 | 0.8 | -0.6 |
| 42 | 90.1 | 87.8 | 78.5 | 83.1 | 89.5 | 90.7 | 32.5 | 33.0 | 1.2 | -0.4 |
| 44 | 90.5 | 88.3 | 76.6 | 82.3 | 87.8 | 88.6 | 35.0 | 35.0 | 0.8 | -0.4 |
| 46 | 90.9 | 88.7 | 79.0 | 83.7 | 89.9 | 91.1 | 33.0 | 33.5 | 1.2 | -0.4 |
| 48 | 88.7 | 86.1 | 74.8 | 81.9 | 86.9 | 87.5 | 34.5 | 34.5 | 0.6 | -0.5 |
| 50 | 88.4 | 85.9 | 74.4 | 81.3 | 85.2 | 86.3 | 42.5 | 42.5 | 1.1 | -0.5 |
| Avg. | 89.7 | 87.3 | 76.7 | 82.5 | 87.9 | 88.8 | 35.2 | 35.9 | 1.0 | -0.5 |
| Std Dv | 1.0 | 1.1 | 1.9 | 0.9 | 1.7 | 1.9 | 3.7 | 3.5 | 0.3 | 0.1 |
| TAKEOFF | | | | | | | | | | |
| 41 | 89.4 | 85.6 | 74.8 | 82.0 | 88.0 | 89.8 | 27.5 | 21.0 | 2.0 | -1.5 |
| 43 | 88.7 | 85.0 | 74.1 | 80.7 | 87.4 | 89.3 | 30.5 | 19.5 | 1.9 | -1.3 |
| 45 | 88.9 | 85.7 | 74.8 | 82.4 | 86.6 | 88.8 | 27.5 | 23.0 | 2.1 | -1.3 |
| 47 | 89.6 | 86.1 | 76.7 | 82.3 | 87.4 | 89.6 | 22.5 | 19.5 | 2.2 | -1.5 |
| 49 | 88.1 | 84.3 | 75.3 | 81.5 | 86.0 | 88.1 | 18.0 | 20.0 | 2.3 | -1.6 |
| 51 | 88.7 | 85.2 | 75.6 | 81.9 | 87.3 | 89.2 | 26.0 | 17.5 | 2.1 | -1.6 |
| Avg. | 88.9 | 85.3 | 75.2 | 81.8 | 87.1 | 89.1 | 25.3 | 20.1 | 2.1 | -1.5 |
| Std Dv | 0.6 | 0.6 | 0.9 | 0.6 | 0.7 | 0.6 | 4.4 | 1.8 | 0.1 | 0.1 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 109 KTS | | | | | | | | | | |
| 18 | 86.1 | 83.3 | 73.2 | 82.9 | 85.1 | 87.1 | 25.0 | 23.0 | 2.2 | -0.9 |
| 19 | 86.6 | 84.4 | 75.3 | 81.9 | 86.0 | 87.0 | 18.0 | 18.0 | 1.5 | -0.7 |
| 20 | 85.6 | 82.7 | 72.1 | 82.8 | 83.7 | 85.6 | 25.5 | 22.5 | 2.2 | -0.8 |
| 21 | 86.7 | 84.4 | 75.4 | 82.0 | 86.4 | 87.9 | 17.5 | 17.0 | 1.4 | -0.8 |
| 22 | 85.6 | 82.7 | 73.0 | 83.1 | 84.4 | 86.1 | 21.0 | 21.0 | 1.7 | -0.9 |
| 23 | 86.0 | 83.8 | 74.2 | 81.2 | 85.1 | 86.3 | 19.5 | 19.5 | 1.2 | -0.6 |
| Avg. | 86.1 | 83.6 | 73.9 | 82.3 | 85.1 | 86.7 | 21.1 | 20.2 | 1.7 | -0.8 |
| Std Dv | 0.5 | 0.8 | 1.3 | 0.7 | 1.0 | 0.8 | 3.5 | 2.4 | 0.4 | 0.1 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 124 KTS | | | | | | | | | | |
| 24 | 86.6 | 84.3 | 75.1 | 86.0 | 86.6 | 87.6 | 19.5 | 19.0 | 1.1 | -0.6 |
| 25 | 87.6 | 85.8 | 77.7 | 85.4 | 88.5 | 89.4 | 16.5 | 16.5 | 0.9 | -0.6 |
| 26 | 86.9 | 84.2 | 75.6 | 85.6 | 87.2 | 88.7 | 19.0 | 18.0 | 1.6 | -0.9 |
| 27 | 87.8 | 85.7 | 77.1 | 84.9 | 88.2 | 89.3 | 14.5 | 14.5 | 1.1 | -0.6 |
| 28 | 87.1 | 84.2 | 74.6 | 85.8 | 86.4 | 87.6 | 20.0 | 20.0 | 1.6 | -0.9 |
| 29 | 88.0 | 85.9 | 78.1 | 85.7 | 89.0 | 89.8 | 14.0 | 14.0 | 0.8 | -0.7 |
| Avg. | 87.3 | 85.0 | 76.3 | 85.5 | 87.6 | 88.7 | 17.2 | 17.0 | 1.2 | -0.7 |
| Std Dv | 0.5 | 0.9 | 1.5 | 0.4 | 1.1 | 0.9 | 2.6 | 2.4 | 0.3 | 0.1 |

TABLE NO. A.4-2.6

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
1/ 2/81

SUMMARY NOISE LEVEL DATA - MAIN ROTOR RPM 107%

AS MEASURED *

SITE: 6

SIDELINE - 284 M. NORTH

JUNE 25, 1980

EV EPNL NEL DBA(M) OASPL PNL(M) PNLT(M) DUR(A) DUR(P) TC /**

300 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|--------|------|------|--------|---------|--------|---------|--------|--------|-----|------|
| 10 | | | | NO DATA | | | | | | |
| 11 | 89.5 | 86.9 | 79.1 | 89.2 | 90.3 | 92.5 | 12.5 | 11.5 | 2.2 | -1.0 |
| 16 | 88.4 | 85.1 | 77.1 | 92.3 | 89.0 | 90.0 | 13.0 | 13.5 | 1.0 | -0.5 |
| 17 | 89.3 | 86.7 | 78.5 | 87.9 | 89.6 | 91.5 | 13.5 | 13.0 | 1.9 | -1.0 |
| Avg. | 89.1 | 86.2 | 78.2 | 89.8 | 89.6 | 91.3 | 13.0 | 12.7 | 1.7 | -0.9 |
| Std Dv | 0.6 | 1.0 | 1.0 | 2.3 | 0.6 | 1.2 | 0.5 | 1.0 | 0.6 | 0.3 |

700 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|--------|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| 8 | 87.7 | 84.7 | 76.1 | 93.1 | 88.1 | 89.6 | 16.0 | 16.0 | 1.6 | -0.9 |
| 9 | 88.3 | 86.1 | 76.8 | 91.4 | 88.0 | 90.1 | 14.0 | 13.0 | 2.1 | -1.0 |
| 14 | 86.8 | 83.4 | 73.9 | 91.7 | 86.8 | 88.5 | 18.5 | 17.5 | 1.7 | -0.7 |
| 15 | 87.9 | 85.0 | 77.0 | 90.6 | 88.9 | 91.1 | 14.0 | 13.0 | 2.2 | -1.2 |
| Avg. | 87.7 | 84.8 | 76.0 | 91.7 | 87.9 | 89.8 | 15.6 | 14.9 | 1.9 | -1.0 |
| Std Dv | 0.6 | 1.1 | 1.4 | 1.0 | 0.9 | 1.1 | 2.1 | 2.2 | 0.3 | 0.2 |

1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|--------|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| 1 | 86.6 | 84.0 | 74.5 | 88.9 | 85.4 | 86.9 | 19.0 | 19.0 | 1.6 | -0.9 |
| 2 | 86.1 | 83.3 | 72.8 | 91.3 | 85.2 | 86.7 | 22.0 | 22.0 | 1.6 | -0.7 |
| 3 | 87.1 | 84.8 | 74.9 | 89.7 | 85.8 | 87.4 | 19.0 | 18.0 | 1.7 | -1.0 |
| 4 | 86.1 | 83.3 | 73.0 | 91.6 | 85.1 | 86.8 | 21.5 | 22.5 | 1.6 | -0.9 |
| 52 | 86.2 | 83.3 | 73.6 | 90.9 | 85.4 | 86.6 | 21.0 | 20.5 | 1.2 | -0.9 |
| 53 | 86.6 | 84.0 | 74.9 | 89.3 | 86.7 | 87.9 | 20.0 | 19.5 | 1.2 | -0.9 |
| 54 | 86.2 | 83.1 | 73.0 | 91.1 | 84.7 | 85.9 | 23.5 | 27.5 | 1.5 | -0.8 |
| 55 | 87.9 | 85.3 | 77.9 | 89.7 | 87.5 | 90.2 | 13.5 | 13.5 | 2.7 | -0.9 |
| Avg. | 86.6 | 83.9 | 74.3 | 90.3 | 85.7 | 87.3 | 19.9 | 20.3 | 1.6 | -0.9 |
| Std Dv | 0.6 | 0.8 | 1.7 | 1.0 | 0.9 | 1.3 | 3.0 | 4.0 | 0.5 | 0.1 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.4-3.6

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
1/ 2/81

SUMMARY NOISE LEVEL DATA - MAIN ROTOR RPM 107%

AS MEASURED *

SITE: 6

SIDELINE - 284 M. NORTH

JUNE 25, 1980

| EV | EPNL | NEL | DBA(M) | DASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|--|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| 1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | |
| 5 | 83.3 | 81.0 | 70.3 | 87.5 | 80.7 | 82.8 | 23.5 | 23.0 | 2.0 | -1.2 |
| 6 | - | 81.4 | 69.2 | 88.6 | 80.8 | 82.2 | 36.0 | - | 1.4 | - |
| 7 | - | 80.9 | 71.7 | 88.0 | 81.9 | 83.9 | 18.0 | - | 2.0 | - |
| 12 | 83.7 | 81.1 | 70.0 | 89.8 | 81.7 | 83.3 | 27.5 | 26.5 | 1.6 | -0.5 |
| 13 | 83.2 | 80.3 | 70.1 | 88.2 | 82.0 | 83.6 | 24.0 | 19.5 | 1.9 | -1.4 |
| 38 | 84.3 | 81.4 | 69.7 | 88.3 | 81.4 | 82.8 | 28.0 | 32.0 | 1.4 | -0.5 |
| 39 | 84.4 | 81.9 | 71.1 | 85.6 | 82.3 | 83.7 | 24.0 | 24.0 | 1.5 | -1.1 |
| Avg. | 83.8 | 81.1 | 70.3 | 88.0 | 81.5 | 83.2 | 25.9 | 17.9 | 1.7 | -1.0 |
| Std Dv | 0.6 | 0.5 | 0.8 | 1.3 | 0.6 | 0.6 | 5.5 | 12.8 | 0.3 | 0.4 |
| 2000 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | |
| 34 | 82.8 | 80.3 | 69.9 | 88.7 | 81.0 | 82.3 | 25.5 | 30.0 | 1.3 | -0.6 |
| 35 | 83.1 | 80.7 | 69.4 | 85.5 | 80.1 | 81.5 | 28.0 | 28.0 | 1.4 | -1.1 |
| 36 | 82.6 | 79.7 | 68.6 | 86.9 | 79.1 | 80.3 | 30.5 | 49.5 | 1.2 | -0.4 |
| 37 | 82.6 | 79.9 | 69.1 | 86.1 | 80.0 | 81.3 | 29.0 | 31.5 | 1.3 | -1.2 |
| Avg. | 82.8 | 80.2 | 69.3 | 86.8 | 80.0 | 81.4 | 28.2 | 34.7 | 1.3 | -0.8 |
| Std Dv | 0.2 | 0.5 | 0.6 | 1.4 | 0.8 | 0.8 | 2.1 | 9.9 | 0.1 | 0.4 |
| 2500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | |
| 30 | 80.5 | 78.2 | 66.9 | 85.1 | 77.2 | 78.2 | 35.5 | 45.0 | 1.0 | -0.5 |
| 31 | 80.5 | 77.8 | 67.1 | 85.1 | 78.3 | 79.7 | 32.5 | 32.5 | 1.4 | -1.1 |
| 32 | 81.3 | 79.0 | 68.1 | 85.7 | 77.9 | 78.9 | 33.5 | 42.0 | 1.0 | -0.5 |
| 33 | 81.6 | 79.2 | 68.8 | 83.9 | 78.9 | 80.5 | 27.5 | 30.0 | 1.5 | -1.2 |
| Avg. | 81.0 | 78.6 | 67.7 | 85.0 | 78.1 | 79.3 | 32.2 | 37.4 | 1.2 | -0.8 |
| Std Dv | 0.6 | 0.7 | 0.9 | 0.8 | 0.7 | 1.0 | 3.4 | 7.2 | 0.3 | 0.4 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.5-2.1

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
10/14/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 1

CENTERLINE - CENTER

JUNE 25, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|---|-------|------|--------|-------|--------|---------|--------|--------|-----|------|
| 300 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS | | | | | | | | | | |
| 56 | 99.7 | 96.0 | 90.6 | 101.7 | 102.9 | 103.9 | 6.5 | 7.5 | 1.0 | -0.6 |
| 57 | 99.1 | 95.2 | 90.1 | 100.4 | 102.8 | 103.4 | 7.0 | 10.0 | 0.9 | -0.5 |
| 58 | 100.1 | 96.7 | 91.2 | 101.5 | 104.0 | 104.8 | 6.0 | 6.5 | 0.7 | -0.6 |
| 59 | 98.7 | 95.2 | 89.0 | 100.2 | 101.4 | 102.3 | 7.5 | 9.0 | 1.2 | -0.6 |
| Avg. | 99.4 | 95.8 | 90.2 | 101.0 | 102.8 | 103.6 | 6.7 | 8.2 | 1.0 | -0.6 |
| Std Dv | 0.6 | 0.7 | 0.9 | 0.8 | 1.1 | 1.0 | 0.6 | 1.6 | 0.2 | 0.1 |

700 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|------|------|-----|------|
| 60 | 95.2 | 92.2 | 84.7 | 94.7 | 95.9 | 96.9 | 11.5 | 12.0 | 1.2 | -0.7 |
| 61 | 94.7 | 91.5 | 83.1 | 93.1 | 94.8 | 95.9 | 13.5 | 22.5 | 1.1 | -0.7 |
| 62 | 93.8 | 90.5 | 83.3 | 92.5 | 94.4 | 95.4 | 16.5 | 17.0 | 1.1 | -0.7 |
| 63 | 94.8 | 91.8 | 82.7 | 93.8 | 94.4 | 95.7 | 14.5 | 15.0 | 1.3 | -0.7 |
| Avg. | 94.6 | 91.5 | 83.4 | 93.5 | 94.9 | 96.0 | 14.0 | 16.6 | 1.2 | -0.7 |
| Std Dv | 0.6 | 0.7 | 0.9 | 0.9 | 0.7 | 0.6 | 2.1 | 4.4 | 0.1 | 0.0 |

1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|------|------|-----|------|
| 64 | 92.6 | 89.6 | 81.2 | 92.2 | 92.8 | 94.2 | 17.0 | 16.5 | 1.4 | -0.7 |
| 65 | - | 89.1 | 79.8 | 90.6 | 90.9 | 92.0 | 19.5 | - | 1.6 | - |
| 66 | 91.2 | 88.3 | 78.6 | 90.1 | 90.4 | 91.0 | 21.0 | 21.5 | 0.7 | -0.6 |
| 67 | 91.3 | 88.5 | 77.8 | 90.8 | 90.4 | 91.7 | 21.0 | 19.5 | 1.7 | -0.7 |
| Avg. | 91.7 | 88.9 | 79.4 | 90.9 | 91.1 | 92.2 | 19.6 | 14.4 | 1.3 | -0.7 |
| Std Dv | 0.8 | 0.6 | 1.5 | 0.9 | 1.1 | 1.4 | 1.9 | 9.8 | 0.5 | 0.0 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.5-3.1

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
10/14/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 1

CENTERLINE - CENTER

JUNE 25, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|--|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| 1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS | | | | | | | | | | |
| 68 | 87.8 | 84.9 | 74.4 | 88.4 | 86.1 | 87.4 | 22.0 | 21.5 | 1.3 | -0.7 |
| 69 | 89.6 | 86.7 | 78.6 | 90.4 | 90.1 | 91.1 | 20.0 | 23.5 | 1.0 | -0.4 |
| 70 | 89.7 | 86.5 | 75.8 | 88.2 | 86.9 | 88.7 | 27.0 | 28.0 | 1.8 | -0.8 |
| 71 | 90.3 | 86.9 | 77.8 | 89.2 | 89.2 | 90.0 | 20.5 | 35.5 | 1.6 | -0.7 |
| Avg. | 89.3 | 86.2 | 76.6 | 89.1 | 88.1 | 89.3 | 22.4 | 27.1 | 1.4 | -0.6 |
| Std Dv | 1.1 | 0.9 | 1.9 | 1.0 | 1.9 | 1.6 | 3.2 | 6.2 | 0.3 | 0.2 |
| 2000 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS | | | | | | | | | | |
| 72 | 88.3 | 85.6 | 76.1 | 87.4 | 87.1 | 89.0 | 22.5 | 22.5 | 2.3 | -0.9 |
| 73 | 86.3 | 83.9 | 71.5 | 86.3 | 83.0 | 84.5 | 36.5 | 33.5 | 1.5 | -0.8 |
| 74 | - | 83.8 | 73.7 | 85.9 | 84.5 | 85.5 | 33.5 | - | 1.2 | - |
| 75 | 88.7 | 86.4 | 75.7 | 86.1 | 85.4 | 86.5 | 30.0 | 37.5 | 1.1 | -0.9 |
| Avg. | 87.8 | 84.9 | 74.3 | 86.4 | 85.0 | 86.4 | 30.6 | 23.4 | 1.5 | -0.9 |
| Std Dv | 1.3 | 1.3 | 2.1 | 0.7 | 1.7 | 1.9 | 6.0 | 16.8 | 0.5 | 0.1 |
| 2500 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS | | | | | | | | | | |
| 76 | 86.7 | 84.5 | 73.0 | 83.4 | 83.8 | 84.6 | 40.5 | 37.5 | 0.9 | -1.0 |
| 77 | 87.2 | 84.7 | 73.5 | 85.1 | 83.1 | 84.5 | 39.5 | 49.0 | 2.2 | -0.9 |
| Avg. | 86.9 | 84.6 | 73.2 | 84.2 | 83.4 | 84.6 | 40.0 | 43.2 | 1.5 | -0.9 |
| Std Dv | 0.4 | 0.1 | 0.3 | 1.2 | 0.4 | 0.1 | 0.7 | 8.1 | 0.9 | 0.0 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.5-2.1G

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
10/14/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 1G

CENTERLINE-CENTER (FLUSH)

JUNE 25, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|--|-------|-------|--------|-------|--------|---------|--------|--------|-----|------|
| 300 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS | | | | | | | | | | |
| 56 | 103.5 | 99.9 | 95.2 | 104.8 | 107.3 | 108.0 | 6.0 | 7.0 | 0.8 | -0.5 |
| 57 | 102.9 | 99.2 | 94.5 | 103.3 | 107.1 | 107.9 | 6.5 | 7.5 | 0.8 | -0.5 |
| 58 | 104.1 | 100.6 | 95.0 | 105.0 | 108.0 | 109.2 | 6.5 | 6.0 | 1.2 | -0.5 |
| 59 | 102.7 | 98.8 | 93.3 | 103.5 | 105.9 | 106.8 | 7.0 | 8.0 | 1.2 | -0.5 |
| Avg. | 103.3 | 99.6 | 94.5 | 104.2 | 107.1 | 108.0 | 6.5 | 7.1 | 1.0 | -0.5 |
| Std Dev | 0.6 | 0.8 | 0.8 | 0.9 | 0.9 | 1.0 | 0.4 | 0.9 | 0.3 | 0.0 |
| 700 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS | | | | | | | | | | |
| 60 | 99.5 | 96.2 | 89.9 | 98.6 | 100.7 | 102.1 | 9.5 | 10.5 | 1.5 | -0.6 |
| 61 | 99.3 | 95.8 | 87.3 | 97.5 | 99.8 | 100.9 | 13.5 | 13.5 | 1.1 | -0.6 |
| 62 | 98.4 | 94.4 | 88.0 | 97.7 | 99.2 | 100.7 | 10.5 | 16.0 | 1.4 | -0.5 |
| 63 | 99.1 | 95.5 | 86.6 | 97.7 | 99.5 | 100.6 | 14.5 | 14.5 | 1.2 | -0.6 |
| Avg. | 99.1 | 95.5 | 87.9 | 97.9 | 99.8 | 101.1 | 12.0 | 13.6 | 1.3 | -0.6 |
| Std Dev | 0.5 | 0.8 | 1.4 | 0.5 | 0.7 | 0.7 | 2.4 | 2.3 | 0.2 | 0.0 |
| 1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS | | | | | | | | | | |
| 64 | 96.5 | 93.1 | 84.9 | 95.3 | 96.9 | 98.1 | 16.5 | 15.5 | 1.2 | -0.3 |
| 65 | 96.5 | 93.0 | 83.8 | 94.9 | 95.3 | 96.7 | 19.5 | 21.5 | 1.4 | -0.6 |
| 66 | 95.8 | 92.4 | 83.5 | 93.9 | 95.4 | 96.6 | 20.5 | 20.5 | 1.1 | -0.4 |
| 67 | 95.4 | 92.3 | 81.7 | 93.5 | 94.5 | 95.8 | 23.0 | 19.0 | 1.6 | -0.7 |
| Avg. | 96.0 | 92.7 | 83.5 | 94.4 | 95.5 | 96.8 | 19.9 | 19.1 | 1.3 | -0.5 |
| Std Dev | 0.5 | 0.4 | 1.3 | 0.9 | 1.0 | 0.9 | 2.7 | 2.6 | 0.2 | 0.2 |

* - INDEXES (A, D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - / \ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.5-3.1G

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
10/14/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 1G

CENTERLINE-CENTER (FLUSH)

JUNE 25, 1980

| EV | EPNL | NEL | DBA(M) | DASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|--|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| 1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS | | | | | | | | | | |
| 68 | 92.5 | 89.1 | 78.7 | 91.2 | 90.4 | 91.7 | 21.0 | 20.5 | 1.5 | -0.5 |
| 69 | 93.4 | 90.2 | 80.3 | 92.7 | 92.5 | 93.2 | 24.0 | 25.0 | 0.7 | -0.6 |
| 70 | 93.9 | 90.5 | 79.7 | 90.7 | 91.5 | 92.8 | 26.5 | 27.0 | 1.5 | -0.5 |
| 71 | 94.3 | 90.7 | 81.2 | 91.8 | 93.2 | 94.2 | 21.0 | 34.5 | 1.0 | -0.6 |
| Avg. | 93.5 | 90.1 | 80.0 | 91.6 | 91.9 | 93.0 | 23.1 | 26.7 | 1.2 | -0.5 |
| Std Dv | 0.8 | 0.7 | 1.0 | 0.9 | 1.2 | 1.0 | 2.7 | 5.8 | 0.4 | 0.1 |
| 2000 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS | | | | | | | | | | |
| 72 | 92.2 | 89.4 | 78.9 | 90.4 | 90.6 | 91.4 | 23.0 | 23.0 | 0.9 | -0.5 |
| 73 | 90.4 | 87.7 | 75.9 | 88.9 | 87.2 | 88.5 | 36.0 | 33.5 | 1.3 | -0.5 |
| 74 | - | 87.6 | 77.1 | 88.5 | 88.6 | 89.6 | 33.0 | - | 1.0 | - |
| 75 | 91.2 | 88.0 | 76.6 | 88.6 | 87.8 | 89.5 | 37.0 | 36.5 | 1.7 | -0.6 |
| Avg. | 91.3 | 88.2 | 77.1 | 89.1 | 88.6 | 89.8 | 32.2 | 23.3 | 1.2 | -0.5 |
| Std Dv | 0.9 | 0.8 | 1.3 | 0.9 | 1.4 | 1.2 | 6.4 | 16.5 | 0.3 | 0.1 |
| 2500 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS | | | | | | | | | | |
| 76 | 89.2 | 86.2 | 74.4 | 86.0 | 85.6 | 86.8 | 40.5 | 37.0 | 1.4 | -0.5 |
| 77 | 89.5 | 86.3 | 74.0 | 87.5 | 85.9 | 86.8 | 41.5 | 41.5 | 0.9 | -0.7 |
| Avg. | 89.3 | 86.3 | 74.2 | 86.8 | 85.7 | 86.8 | 41.0 | 39.2 | 1.2 | -0.6 |
| Std Dv | 0.2 | 0.1 | 0.3 | 1.0 | 0.2 | 0.0 | 0.7 | 3.2 | 0.4 | 0.1 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - / \ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.5-2.1H

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
10/14/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 1H

CENTERLINE-CENTER (10-METER)

JUNE 25, 1980

| EV | EPNL | NEL | DBA(M) | DASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|--|-------|------|--------|-------|--------|---------|--------|--------|-----|------|
| 300 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS | | | | | | | | | | |
| 56 | 101.7 | 97.8 | 92.2 | 103.1 | 105.1 | 106.0 | 7.5 | 8.0 | 0.9 | -0.6 |
| 57 | 101.0 | 97.1 | 91.9 | 102.1 | 104.5 | 105.4 | 7.0 | 8.0 | 0.9 | -0.7 |
| 58 | 102.0 | 98.5 | 93.2 | 103.3 | 105.9 | 106.9 | 6.0 | 6.5 | 1.0 | -0.6 |
| 59 | 101.0 | 96.9 | 90.7 | 101.8 | 103.8 | 105.2 | 8.0 | 8.5 | 1.3 | -0.7 |
| Avg. | 101.4 | 97.5 | 92.0 | 102.6 | 104.8 | 105.9 | 7.1 | 7.7 | 1.0 | -0.7 |
| Std Dv | 0.5 | 0.7 | 1.0 | 0.7 | 0.9 | 0.8 | 0.9 | 0.9 | 0.2 | 0.0 |
| 700 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS | | | | | | | | | | |
| 60 | 97.2 | 93.9 | 86.2 | 96.4 | 98.3 | 99.9 | 11.5 | 11.0 | 1.7 | -0.8 |
| 61 | 97.1 | 93.6 | 85.2 | 96.0 | 97.7 | 99.4 | 13.5 | 13.5 | 1.7 | -0.7 |
| 62 | 96.4 | 92.5 | 84.9 | 95.8 | 97.0 | 97.7 | 16.5 | 17.0 | 0.8 | -0.7 |
| 63 | 97.5 | 93.8 | 85.2 | 96.4 | 97.7 | 99.4 | 15.0 | 14.0 | 1.7 | -0.9 |
| Avg. | 97.1 | 93.5 | 85.4 | 96.1 | 97.7 | 99.1 | 14.1 | 13.9 | 1.4 | -0.8 |
| Std Dv | 0.5 | 0.6 | 0.6 | 0.3 | 0.5 | 1.0 | 2.1 | 2.5 | 0.5 | 0.1 |
| 1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS | | | | | | | | | | |
| 64 | 94.5 | 91.2 | 82.1 | 94.1 | 94.6 | 96.2 | 17.5 | 16.0 | 1.6 | -0.7 |
| 65 | 94.3 | 90.7 | 81.2 | 92.3 | 92.8 | 94.3 | 20.0 | 21.5 | 1.5 | -0.9 |
| 66 | 93.1 | 89.7 | 80.6 | 91.4 | 92.7 | 93.5 | 21.0 | 21.0 | 0.9 | -0.7 |
| 67 | 93.6 | 90.2 | 80.1 | 92.0 | 92.6 | 94.1 | 20.5 | 20.0 | 1.6 | -0.9 |
| Avg. | 93.9 | 90.5 | 81.0 | 92.5 | 93.2 | 94.5 | 19.7 | 19.6 | 1.4 | -0.8 |
| Std Dv | 0.6 | 0.6 | 0.9 | 1.1 | 1.0 | 1.1 | 1.6 | 2.5 | 0.4 | 0.1 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.5-3.1H

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
10/14/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 1H

CENTERLINE-CENTER (10-METER)

JUNE 25, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|--|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| 1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS | | | | | | | | | | |
| 68 | 90.5 | 87.0 | 76.6 | 90.8 | 88.2 | 90.0 | 21.0 | 20.5 | 2.0 | -0.8 |
| 69 | - | 88.2 | 78.2 | 90.8 | 90.3 | 90.7 | 25.5 | - | 0.3 | - |
| 70 | 91.9 | 88.5 | 78.6 | 89.6 | 90.6 | 92.1 | 27.0 | 26.0 | 1.5 | -0.8 |
| 71 | 92.0 | 88.5 | 77.3 | 90.6 | 89.8 | 91.7 | 31.5 | 30.5 | 1.9 | -0.7 |
| Avg. | 91.5 | 88.1 | 77.7 | 90.4 | 89.7 | 91.1 | 26.2 | 19.2 | 1.4 | -0.8 |
| Std Dv | 0.8 | 0.7 | 0.9 | 0.6 | 1.1 | 1.0 | 4.3 | 13.5 | 0.8 | 0.0 |
| 2000 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS | | | | | | | | | | |
| 72 | 90.1 | 87.3 | 76.8 | 89.1 | 88.5 | 90.2 | 24.5 | 23.0 | 1.6 | -0.7 |
| 73 | 88.6 | 85.5 | 73.5 | 87.8 | 85.3 | 87.2 | 35.5 | 34.0 | 1.9 | -0.9 |
| 74 | - | 85.8 | 75.0 | 86.6 | 86.7 | 88.4 | 34.0 | - | 1.7 | - |
| 75 | 89.2 | 86.0 | 73.4 | 86.9 | 86.0 | 87.9 | 39.5 | 37.0 | 1.9 | -0.9 |
| Avg. | 89.3 | 86.1 | 74.7 | 87.6 | 86.6 | 88.4 | 33.4 | 23.5 | 1.8 | -0.8 |
| Std Dv | 0.8 | 0.8 | 1.6 | 1.1 | 1.4 | 1.3 | 6.4 | 16.8 | 0.1 | 0.1 |
| 2500 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS | | | | | | | | | | |
| 76 | 87.3 | 83.9 | 73.0 | 85.4 | 84.3 | 85.6 | 36.5 | 43.0 | 1.3 | -0.9 |
| 77 | - | 84.4 | 71.5 | 86.8 | 83.5 | 85.3 | 41.0 | - | 1.8 | - |
| Avg. | 87.3 | 84.2 | 72.2 | 86.1 | 83.9 | 85.4 | 38.7 | 21.5 | 1.5 | -0.9 |
| Std Dv | - | 0.3 | 1.0 | 1.0 | 0.6 | 0.2 | 3.2 | 30.4 | 0.4 | - |

* - INDEXES (A, D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.5-2.2

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
12/30/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 2

CENTERLINE - 150 M. WEST

JUNE 25, 1980

EV EPNL NEL DBA(M) DASPL PNL(M) PNLT(M) DUR(A) DUR(P) TC /**

300 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS

| | | | | | | | | | | |
|--------|------|------|------|-------|-------|-------|-----|-----|-----|------|
| 56 | 99.4 | 95.9 | 90.9 | 101.4 | 102.7 | 103.4 | 6.5 | 7.0 | 1.0 | -0.7 |
| 57 | 98.7 | 94.6 | 90.2 | 100.5 | 102.9 | 103.5 | 6.0 | 8.0 | 0.6 | -0.6 |
| 58 | 98.6 | 95.0 | 90.2 | 100.5 | 102.5 | 103.3 | 6.0 | 7.0 | 0.8 | -0.6 |
| 59 | 98.4 | 94.4 | 88.6 | 101.1 | 101.6 | 102.6 | 7.0 | 7.5 | 1.1 | -0.6 |
| Avg. | 98.8 | 95.0 | 90.0 | 100.8 | 102.4 | 103.2 | 6.4 | 7.4 | 0.9 | -0.6 |
| Std Dv | 0.4 | 0.7 | 0.9 | 0.4 | 0.6 | 0.4 | 0.5 | 0.5 | 0.3 | 0.0 |

700 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|------|------|-----|------|
| 60 | - | 93.2 | 84.5 | 95.3 | 96.9 | 98.2 | 14.0 | - | 2.0 | - |
| 61 | 94.7 | 91.3 | 82.5 | 94.1 | 95.0 | 96.2 | 16.0 | 16.0 | 1.3 | -0.6 |
| 62 | 95.0 | 91.8 | 83.5 | 93.7 | 95.1 | 96.3 | 14.0 | 15.0 | 1.1 | -0.6 |
| 63 | 94.5 | 91.0 | 81.7 | 93.6 | 93.9 | 95.4 | 17.5 | 17.5 | 1.5 | -0.7 |
| Avg. | 94.7 | 91.8 | 83.1 | 94.2 | 95.2 | 96.5 | 15.4 | 12.1 | 1.5 | -0.7 |
| Std Dv | 0.3 | 1.0 | 1.2 | 0.8 | 1.2 | 1.2 | 1.7 | 8.1 | 0.4 | 0.0 |

1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|------|------|-----|------|
| 64 | 91.8 | 88.9 | 81.1 | 91.5 | 92.9 | 93.8 | 15.0 | 14.5 | 0.9 | -0.7 |
| 65 | 92.3 | 89.0 | 79.8 | 91.2 | 92.0 | 93.0 | 21.0 | 21.0 | 1.0 | -0.7 |
| 66 | 90.7 | 87.4 | 77.8 | 90.1 | 89.5 | 90.9 | 17.0 | 17.5 | 1.4 | -0.8 |
| 67 | 91.4 | 88.2 | 78.6 | 90.9 | 90.3 | 91.2 | 20.0 | 21.5 | 1.2 | -0.8 |
| Avg. | 91.6 | 88.4 | 79.3 | 90.9 | 91.2 | 92.3 | 18.2 | 18.6 | 1.1 | -0.8 |
| Std Dv | 0.7 | 0.8 | 1.4 | 0.6 | 1.5 | 1.4 | 2.8 | 3.3 | 0.2 | 0.0 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.5-3.2

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
12/30/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 2

CENTERLINE - 150 M. WEST

JUNE 25, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|--|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| 1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS | | | | | | | | | | |
| 68 | 87.5 | 84.8 | 74.7 | 87.1 | 85.8 | 87.3 | 20.0 | 19.5 | 1.5 | -0.8 |
| 69 | 88.8 | 85.8 | 74.3 | 88.1 | 85.9 | 87.1 | 30.5 | 31.5 | 1.2 | -0.6 |
| 70 | 88.9 | 85.6 | 75.1 | 87.6 | 87.1 | 88.3 | 25.0 | 26.0 | 1.2 | -0.7 |
| 71 | 89.4 | 86.0 | 74.9 | 88.6 | 86.7 | 88.1 | 26.0 | 33.5 | 1.7 | -0.7 |
| Avg. | 88.7 | 85.6 | 74.7 | 87.8 | 86.4 | 87.7 | 25.4 | 27.6 | 1.4 | -0.7 |
| Std Dv | 0.8 | 0.5 | 0.4 | 0.6 | 0.7 | 0.6 | 4.3 | 6.3 | 0.3 | 0.1 |

2000 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|------|------|-----|------|
| 72 | 87.8 | 85.2 | 75.4 | 87.4 | 86.8 | 87.8 | 27.0 | 26.5 | 1.0 | -0.8 |
| 73 | - | 83.6 | 72.0 | 85.3 | 83.6 | 84.8 | 36.0 | - | 1.2 | - |
| 74 | 86.3 | 83.6 | 72.0 | 85.7 | 82.9 | 84.1 | 30.5 | 29.0 | 1.2 | -0.7 |
| 75 | 86.6 | 83.7 | 71.4 | 86.2 | 83.1 | 84.7 | 33.5 | 34.0 | 1.7 | -0.7 |
| Avg. | 86.9 | 84.0 | 72.7 | 86.2 | 84.1 | 85.3 | 31.7 | 22.4 | 1.3 | -0.7 |
| Std Dv | 0.8 | 0.8 | 1.8 | 0.9 | 1.8 | 1.7 | 3.9 | 15.2 | 0.3 | 0.1 |

2500 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|------|------|-----|------|
| 76 | 85.1 | 82.2 | 71.5 | 83.9 | 82.6 | 84.6 | 38.5 | 39.5 | 2.0 | -0.8 |
| 77 | - | 81.9 | 69.6 | 84.6 | 80.7 | 81.8 | 37.5 | - | 1.5 | - |
| Avg. | 85.1 | 82.0 | 70.5 | 84.2 | 81.7 | 83.2 | 38.0 | 19.7 | 1.7 | -0.8 |
| Std Dv | - | 0.2 | 1.4 | 0.5 | 1.3 | 2.0 | 0.7 | 27.9 | 0.3 | - |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - / \ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.5-2.3

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
1/ 5/81

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 3

CENTERLINE - 150 M. EAST

JUNE 25, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(F) | TC | /** |
|--|-------|------|--------|-------|--------|---------|--------|--------|-----|------|
| 300 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS | | | | | | | | | | |
| 56 | 100.1 | 96.4 | 90.5 | 101.6 | 103.0 | 104.0 | 7.0 | 7.0 | 1.1 | -0.8 |
| 57 | 99.6 | 95.3 | 89.5 | 101.3 | 102.8 | 103.9 | 8.5 | 8.0 | 1.3 | -0.7 |
| 58 | 99.9 | 96.5 | 89.7 | 101.5 | 102.3 | 103.3 | 8.5 | 8.5 | 1.0 | -0.7 |
| 59 | 99.6 | 95.5 | 89.4 | 101.7 | 101.9 | 103.2 | 7.5 | 9.0 | 1.3 | -0.7 |
| Avg. | 99.8 | 95.9 | 89.8 | 101.6 | 102.5 | 103.6 | 7.9 | 8.1 | 1.2 | -0.7 |
| Std Dv | 0.2 | 0.6 | 0.5 | 0.2 | 0.5 | 0.4 | 0.7 | 0.9 | 0.2 | 0.0 |
| 700 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS | | | | | | | | | | |
| 60 | 94.8 | 91.3 | 83.5 | 95.5 | 95.6 | 96.6 | 13.0 | 13.5 | 0.9 | -0.7 |
| 61 | 95.2 | 91.6 | 83.1 | 95.2 | 95.1 | 96.4 | 15.0 | 20.5 | 1.4 | -0.7 |
| 62 | 94.3 | 90.8 | 83.5 | 95.4 | 95.4 | 96.8 | 12.5 | 12.5 | 1.4 | -0.9 |
| 63 | 95.4 | 91.9 | 82.8 | 96.8 | 95.5 | 96.6 | 13.5 | 13.5 | 1.0 | -0.7 |
| Avg. | 94.9 | 91.4 | 83.2 | 95.7 | 95.4 | 96.6 | 13.5 | 15.0 | 1.2 | -0.7 |
| Std Dv | 0.5 | 0.5 | 0.3 | 0.7 | 0.2 | 0.1 | 1.1 | 3.7 | 0.2 | 0.1 |
| 1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS | | | | | | | | | | |
| 64 | 92.6 | 89.4 | 81.6 | 92.9 | 93.1 | 94.5 | 18.5 | 18.0 | 1.7 | -0.9 |
| 65 | 92.8 | 89.3 | 79.2 | 92.7 | 91.6 | 92.9 | 25.5 | 25.0 | 1.2 | -0.7 |
| 66 | 91.7 | 88.5 | 79.5 | 92.0 | 91.2 | 92.5 | 23.0 | 23.0 | 1.2 | -0.7 |
| 67 | 91.3 | 88.1 | 78.7 | 92.1 | 90.6 | 92.2 | 18.0 | 18.0 | 1.6 | -0.8 |
| Avg. | 92.1 | 88.8 | 79.8 | 92.4 | 91.6 | 93.0 | 21.2 | 21.0 | 1.4 | -0.8 |
| Std Dv | 0.7 | 0.6 | 1.3 | 0.5 | 1.0 | 1.0 | 3.6 | 3.6 | 0.2 | 0.1 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.5-3.3

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
1/ 5/81

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 3

CENTERLINE - 150 M. EAST

JUNE 25, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|--|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| 1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS | | | | | | | | | | |
| 68 | 88.5 | 85.6 | 75.4 | 88.1 | 86.6 | 87.9 | 23.0 | 23.5 | 1.4 | -0.6 |
| 69 | 89.8 | 86.5 | 76.3 | 90.0 | 87.9 | 88.9 | 36.0 | 37.0 | 1.1 | -0.8 |
| 70 | 88.8 | 85.6 | 75.1 | 88.8 | 86.9 | 87.9 | 31.5 | 31.0 | 1.0 | -0.7 |
| 71 | 90.2 | 86.6 | 78.3 | 90.2 | 89.9 | 90.8 | 27.0 | 32.5 | 0.9 | -0.7 |
| Avg. | 89.3 | 86.1 | 76.3 | 89.3 | 87.8 | 88.9 | 29.4 | 31.0 | 1.1 | -0.7 |
| Std Dv | 0.8 | 0.6 | 1.4 | 1.0 | 1.5 | 1.4 | 5.6 | 5.6 | 0.2 | 0.1 |

2000 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|------|------|-----|------|
| 72 | 88.2 | 85.3 | 73.6 | 87.9 | 85.2 | 86.5 | 30.5 | 30.5 | 1.3 | -0.9 |
| 73 | 87.3 | 84.4 | 72.3 | 86.5 | 83.6 | 84.3 | 49.5 | 50.0 | 0.7 | -0.7 |
| 74 | 87.7 | 84.8 | 74.4 | 87.1 | 86.0 | 87.5 | 38.0 | 37.0 | 1.5 | -0.9 |
| 75 | 87.1 | 84.2 | 75.1 | 87.6 | 86.5 | 88.0 | 26.0 | 24.5 | 1.5 | -0.9 |
| Avg. | 87.6 | 84.7 | 73.9 | 87.3 | 85.3 | 86.6 | 36.0 | 35.5 | 1.3 | -0.8 |
| Std Dv | 0.5 | 0.5 | 1.2 | 0.6 | 1.3 | 1.6 | 10.3 | 10.9 | 0.4 | 0.1 |

2500 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|------|------|-----|------|
| 76 | 85.9 | 82.8 | 70.5 | 85.9 | 82.3 | 83.8 | 42.0 | 42.0 | 1.5 | -0.9 |
| 77 | - | 83.0 | 69.8 | 86.4 | 81.3 | 83.1 | 48.5 | - | 1.8 | - |
| Avg. | 85.9 | 82.9 | 70.2 | 86.1 | 81.8 | 83.4 | 45.2 | 21.0 | 1.7 | -0.9 |
| Std Dv | - | 0.1 | 0.5 | 0.4 | 0.7 | 0.5 | 4.6 | 29.7 | 0.2 | - |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.5-2.4
 SIKORSKY UH-60A BLACKHAWK HELICOPTER
 SUMMARY NOISE LEVEL DATA

DOT/TSC
 10/14/80

AS MEASURED *

SITE: 4

SIDELINE -164M. NORTH

JUNE 25, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|---|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| 300 FT. FLYBY - TARGET INDICATED AIRSPEED 152 KTS | | | | | | | | | | |
| 56 | 97.6 | 93.6 | 87.9 | 95.2 | 99.3 | 101.1 | 8.5 | 9.5 | 1.8 | -1.0 |
| 57 | 98.9 | 95.6 | 89.5 | 96.9 | 100.7 | 103.1 | 9.0 | 10.0 | 2.3 | -0.9 |
| 58 | 97.3 | 93.4 | 87.3 | 95.4 | 98.6 | 100.3 | 8.5 | 11.0 | 1.9 | -1.1 |
| 59 | 99.5 | 96.1 | 89.3 | 98.7 | 100.4 | 101.5 | 11.0 | 12.0 | 1.2 | -0.7 |
| Avg. | 98.3 | 94.7 | 88.5 | 96.5 | 99.8 | 101.5 | 9.2 | 10.6 | 1.8 | -0.9 |
| Std Dv | 1.1 | 1.4 | 1.1 | 1.6 | 1.0 | 1.2 | 1.2 | 1.1 | 0.5 | 0.2 |

700 FT. FLYBY - TARGET INDICATED AIRSPEED 152 KTS

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|------|------|-----|------|
| 60 | 96.0 | 93.1 | 84.0 | 95.6 | 96.0 | 97.1 | 15.5 | 15.0 | 1.1 | -0.9 |
| 61 | 96.2 | 93.3 | 84.6 | 94.9 | 95.6 | 96.4 | 16.0 | 20.5 | 1.1 | -0.7 |
| 62 | 95.4 | 92.1 | 84.3 | 94.5 | 95.6 | 96.7 | 17.0 | 18.0 | 1.1 | -0.7 |
| 63 | 95.3 | 92.6 | 83.6 | 94.6 | 94.8 | 95.5 | 14.5 | 17.0 | 0.6 | -0.4 |
| Avg. | 95.7 | 92.8 | 84.1 | 94.9 | 95.5 | 96.4 | 15.7 | 17.6 | 1.0 | -0.7 |
| Std Dv | 0.4 | 0.5 | 0.4 | 0.5 | 0.5 | 0.7 | 1.0 | 2.3 | 0.2 | 0.2 |

1000 FT. FLYBY - TARGET INDICATED AIRSPEED 152 KTS

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|------|------|-----|------|
| 64 | 96.1 | 93.5 | 84.9 | 94.2 | 96.2 | 97.8 | 15.0 | 15.0 | 1.6 | -0.9 |
| 65 | 94.4 | 91.0 | 81.1 | 94.3 | 92.6 | 94.0 | 19.0 | 27.0 | 1.4 | -0.5 |
| 66 | 95.6 | 92.7 | 84.2 | 93.4 | 94.6 | 95.7 | 17.0 | 22.5 | 1.1 | -0.9 |
| 67 | - | 90.4 | 80.3 | 93.2 | 91.6 | 92.9 | 21.5 | - | 1.4 | - |
| Avg. | 95.4 | 91.9 | 82.6 | 93.8 | 93.8 | 95.1 | 18.1 | 16.1 | 1.4 | -0.8 |
| Std Dv | 0.9 | 1.4 | 2.3 | 0.6 | 2.0 | 2.1 | 2.8 | 11.8 | 0.2 | 0.2 |

* - INDEXES (A,Dv ,ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.5-3.4

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
10/14/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 4

SIDELINE -164M. NORTH

JUNE 25, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|--|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| 1500 FT. FLYBY - TARGET INDICATED AIRSPEED 152 KTS | | | | | | | | | | |
| 68 | 92.4 | 90.0 | 82.1 | 90.9 | 91.9 | 93.1 | 17.0 | 19.5 | 1.2 | -0.9 |
| 69 | 91.6 | 88.4 | 77.2 | 92.5 | 89.5 | 90.8 | 33.0 | 32.0 | 1.3 | -0.6 |
| 70 | 92.6 | 90.1 | 81.4 | 90.6 | 91.0 | 92.2 | 19.5 | 20.5 | 1.2 | -0.9 |
| 71 | 91.8 | 88.7 | 77.4 | 92.3 | 88.6 | 89.7 | 38.0 | 39.0 | 1.1 | -0.6 |
| Avg. | 92.1 | 89.3 | 79.5 | 91.5 | 90.3 | 91.4 | 26.9 | 27.7 | 1.2 | -0.8 |
| Std Dv | 0.5 | 0.9 | 2.6 | 1.0 | 1.5 | 1.5 | 10.2 | 9.4 | 0.1 | 0.1 |

2000 FT. FLYBY - TARGET INDICATED AIRSPEED 152 KTS

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|------|------|-----|------|
| 72 | 91.5 | 89.0 | 77.9 | 89.2 | 89.4 | 90.5 | 33.5 | 35.5 | 1.1 | -0.7 |
| 73 | 88.6 | 85.8 | 74.3 | 88.0 | 85.5 | 86.7 | 39.5 | 44.0 | 1.2 | -0.6 |
| 74 | 90.4 | 88.3 | 78.0 | 89.1 | 88.9 | 90.1 | 25.5 | 26.0 | 1.2 | -0.7 |
| 75 | 88.4 | 85.6 | 75.0 | 88.1 | 85.4 | 86.3 | 35.5 | 39.0 | 0.9 | -0.5 |
| Avg. | 89.7 | 87.2 | 76.3 | 88.6 | 87.3 | 88.4 | 33.5 | 36.1 | 1.1 | -0.6 |
| Std Dv | 1.5 | 1.7 | 1.9 | 0.6 | 2.1 | 2.2 | 5.9 | 7.6 | 0.2 | 0.1 |

2500 FT. FLYBY - TARGET INDICATED AIRSPEED 152 KTS

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|------|------|-----|------|
| 76 | 88.1 | 85.8 | 75.8 | 86.7 | 85.2 | 86.3 | 34.5 | 39.5 | 1.0 | -0.7 |
| 77 | - | 84.0 | 71.8 | 87.0 | 83.2 | 84.4 | 40.5 | - | 1.2 | - |
| Avg. | 88.1 | 84.9 | 73.8 | 86.9 | 84.2 | 85.3 | 37.5 | 19.7 | 1.1 | -0.7 |
| Std Dv | - | 1.3 | 2.8 | 0.2 | 1.5 | 1.3 | 4.2 | 27.9 | 0.2 | - |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO.A.5-2.5

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
10/14/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 5

SIDELINE - 150 M. SOUTH

JUNE 25,1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|---|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| 300 FT. FLYBY - TARGET INDICATED AIRSPEED 152 KTS | | | | | | | | | | |
| 56 | 98.1 | 94.7 | 89.3 | 97.8 | 100.7 | 101.9 | 8.0 | 9.5 | 1.2 | -0.8 |
| 57 | 98.0 | 94.5 | 88.1 | 96.6 | 99.4 | 100.8 | 11.0 | 11.0 | 1.6 | -1.1 |
| 58 | 97.9 | 94.8 | 89.2 | 96.2 | 100.7 | 101.8 | 7.5 | 8.5 | 1.0 | -0.9 |
| 59 | 98.1 | 94.4 | 87.1 | 96.2 | 98.7 | 100.6 | 11.5 | 12.0 | 1.9 | -1.1 |
| Avg. | 98.0 | 94.6 | 88.4 | 96.7 | 99.9 | 101.3 | 9.5 | 10.2 | 1.4 | -0.9 |
| Std Dv | 0.1 | 0.2 | 1.1 | 0.8 | 1.0 | 0.7 | 2.0 | 1.6 | 0.4 | 0.2 |

700 FT. FLYBY - TARGET INDICATED AIRSPEED 152 KTS

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|------|------|-----|------|
| 60 | 94.9 | 91.6 | 84.0 | 94.1 | 96.0 | 96.9 | 15.5 | 15.5 | 0.9 | -0.5 |
| 61 | - | 94.4 | 85.2 | 95.0 | 96.8 | 97.9 | 16.0 | - | 1.1 | - |
| 62 | 93.6 | 90.3 | 82.9 | 93.2 | 94.7 | 95.4 | 13.0 | 13.5 | 0.8 | -0.6 |
| 63 | 96.8 | 94.1 | 86.3 | 94.8 | 96.9 | 98.1 | 16.0 | 16.5 | 1.3 | -0.8 |
| Avg. | 95.1 | 92.6 | 84.6 | 94.3 | 96.1 | 97.1 | 15.1 | 11.4 | 1.0 | -0.6 |
| Std Dv | 1.6 | 2.0 | 1.5 | 0.8 | 1.0 | 1.2 | 1.4 | 7.7 | 0.2 | 0.2 |

1000 FT. FLYBY - TARGET INDICATED AIRSPEED 152 KTS

| | ----- | | | NO DATA | | ----- | | | | |
|--------|-------|------|------|---------|------|-------|------|------|-----|------|
| 64 | | | | 92.9 | 95.2 | 96.2 | 16.5 | 23.0 | 1.0 | -0.8 |
| 65 | 95.7 | 93.1 | 84.9 | 92.9 | 95.2 | 96.2 | 16.5 | 23.0 | 1.0 | -0.8 |
| 66 | 92.1 | 89.5 | 80.4 | 90.6 | 92.0 | 92.7 | 16.0 | 16.5 | 0.9 | -0.7 |
| 67 | 94.9 | 92.4 | 83.6 | 92.9 | 93.5 | 94.7 | 18.5 | 19.5 | 1.3 | -0.8 |
| Avg. | 94.2 | 91.6 | 83.0 | 92.1 | 93.5 | 94.5 | 17.0 | 19.7 | 1.1 | -0.8 |
| Std Dv | 1.9 | 1.9 | 2.3 | 1.3 | 1.6 | 1.7 | 1.3 | 3.3 | 0.2 | 0.1 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE,HUMIDITY,AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ ,THE CHANGE IN EPNL ASSUMING TONES 800 H_z AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.5-3.5

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
10/14/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 5

SIDELINE - 150 M. SOUTH

JUNE 25, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|--|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| 1500 FT. FLYBY - TARGET INDICATED AIRSPEED 152 KTS | | | | | | | | | | |
| 68 | 89.2 | 86.6 | 78.2 | 88.8 | 89.5 | 90.2 | 20.5 | 21.5 | 0.3 | -0.6 |
| 69 | 91.9 | 89.6 | 80.3 | 90.1 | 89.8 | 91.1 | 25.0 | 25.0 | 1.3 | -0.8 |
| 70 | 88.9 | 86.2 | 76.9 | 87.9 | 88.1 | 88.9 | 21.0 | 29.0 | 0.5 | -0.7 |
| 71 | 92.6 | 90.0 | 82.1 | 90.7 | 91.9 | 93.0 | 21.5 | 24.5 | 1.1 | -0.8 |
| Avg. | 90.6 | 88.1 | 79.3 | 89.4 | 89.8 | 90.8 | 22.0 | 25.0 | 0.8 | -0.7 |
| Std Dv | 1.9 | 2.0 | 2.3 | 1.3 | 1.6 | 1.7 | 2.0 | 3.1 | 0.5 | 0.1 |

2000 FT. FLYBY - TARGET INDICATED AIRSPEED 152 KTS

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|------|------|-----|------|
| 72 | 87.3 | 84.6 | 73.5 | 87.0 | 85.8 | 86.9 | 31.0 | 31.0 | 1.1 | -0.6 |
| 73 | 88.3 | 85.7 | 74.8 | 88.0 | 86.4 | 87.6 | 29.0 | 27.5 | 1.5 | -0.6 |
| 74 | 87.5 | 85.3 | 77.5 | 86.3 | 88.1 | 89.8 | 22.0 | 21.0 | 1.7 | -0.6 |
| 75 | 89.6 | 86.9 | 75.6 | 87.2 | 85.9 | 87.1 | 35.0 | 39.0 | 1.2 | -0.7 |
| Avg. | 88.2 | 85.6 | 75.4 | 87.1 | 86.6 | 87.9 | 29.2 | 29.6 | 1.4 | -0.6 |
| Std Dv | 1.0 | 1.0 | 1.7 | 0.7 | 1.1 | 1.3 | 5.4 | 7.5 | 0.3 | 0.0 |

2500 FT. FLYBY - TARGET INDICATED AIRSPEED 152 KTS

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|------|------|-----|------|
| 76 | 84.6 | 81.8 | 69.9 | 84.3 | 81.0 | 82.1 | 36.0 | 38.0 | 1.1 | -0.6 |
| 77 | 87.8 | 85.0 | 73.7 | 86.1 | 84.3 | 85.9 | 37.0 | 45.0 | 1.6 | -0.8 |
| Avg. | 86.2 | 83.4 | 71.8 | 85.2 | 82.7 | 84.0 | 36.5 | 41.5 | 1.3 | -0.7 |
| Std Dv | 2.3 | 2.2 | 2.7 | 1.3 | 2.4 | 2.7 | 0.7 | 4.9 | 0.3 | 0.1 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.5-2.5G

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC

SUMMARY NOISE LEVEL DATA

1/ 2/81

AS MEASURED *

SITE: 5G

SIDELINE - 150 M. SOUTH (FLUSH)

JUNE 25, 1980

| EV | EPNL | NEL | DBA(M) | DASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|--|-------|------|--------|-------|--------|---------|--------|--------|-----|------|
| 300 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS | | | | | | | | | | |
| 56 | 101.9 | 98.8 | 94.1 | 99.0 | 105.3 | 106.2 | 6.5 | 8.5 | 1.2 | -0.7 |
| 57 | 101.8 | 98.3 | 92.6 | 100.0 | 103.9 | 105.5 | 8.0 | 8.0 | 1.7 | -0.8 |
| 58 | 102.1 | 99.4 | 94.1 | 98.4 | 105.3 | 106.0 | 6.5 | 8.0 | 0.8 | -0.5 |
| 59 | 101.3 | 97.7 | 91.4 | 99.5 | 103.2 | 104.7 | 9.5 | 9.0 | 1.5 | -0.8 |
| Avg. | 101.8 | 98.6 | 93.0 | 99.2 | 104.4 | 105.6 | 7.6 | 8.4 | 1.3 | -0.7 |
| Std Dv | 0.4 | 0.7 | 1.3 | 0.7 | 1.0 | 0.6 | 1.4 | 0.5 | 0.4 | 0.1 |
| 700 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS | | | | | | | | | | |
| 60 | 99.0 | 95.9 | 89.6 | 96.6 | 101.9 | 102.8 | 10.0 | 12.0 | 0.9 | -0.1 |
| 61 | 100.9 | 98.3 | 90.2 | 97.6 | 100.6 | 101.7 | 14.5 | 17.5 | 1.2 | -0.6 |
| 62 | - | 95.1 | 88.0 | 95.1 | 99.7 | 100.0 | 12.0 | - | 0.3 | - |
| 63 | 100.8 | 98.4 | 91.1 | 97.5 | 101.3 | 102.6 | 13.5 | 14.5 | 1.4 | -0.6 |
| Avg. | 100.2 | 96.9 | 89.7 | 96.7 | 100.9 | 101.8 | 12.5 | 11.0 | 0.9 | -0.4 |
| Std Dv | 1.1 | 1.7 | 1.3 | 1.1 | 0.9 | 1.3 | 2.0 | 7.7 | 0.5 | 0.3 |
| 1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS | | | | | | | | | | |
| 64 | 96.7 | 94.5 | 86.6 | 94.1 | 97.6 | 98.1 | 14.0 | 16.5 | 0.5 | -0.2 |
| 65 | 99.5 | 97.1 | 89.9 | 96.1 | 99.8 | 101.3 | 15.0 | 16.5 | 1.6 | -0.7 |
| 66 | 96.4 | 93.8 | 85.3 | 92.6 | 97.0 | 97.3 | 14.5 | 16.5 | 0.3 | -0.2 |
| 67 | 98.5 | 96.1 | 88.2 | 95.4 | 98.0 | 99.5 | 14.5 | 18.0 | 1.5 | -0.7 |
| Avg. | 97.8 | 95.4 | 87.5 | 94.5 | 98.1 | 99.0 | 14.5 | 16.9 | 1.0 | -0.4 |
| Std Dv | 1.5 | 1.5 | 2.0 | 1.5 | 1.2 | 1.8 | 0.4 | 0.7 | 0.6 | 0.3 |

* - INDEXES (A, D, , ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.5-3.5G

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
1/ 2/81

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 5G

SIDELINE - 150 M. SOUTH (FLUSH)

JUNE 25, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|--|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| 1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS | | | | | | | | | | |
| 68 | 93.3 | 90.9 | 83.0 | 90.7 | 94.1 | 94.9 | 19.0 | 20.0 | 0.7 | -0.3 |
| 69 | 96.0 | 93.4 | 85.1 | 92.6 | 94.5 | 96.1 | 21.5 | 24.0 | 1.6 | -0.6 |
| 70 | 92.9 | 90.3 | 81.2 | 89.9 | 92.6 | 93.3 | 18.0 | 27.0 | 0.7 | -0.2 |
| 71 | 96.3 | 93.8 | 86.6 | 92.8 | 96.3 | 97.8 | 18.0 | 22.0 | 1.5 | -0.6 |
| Avg. | 94.6 | 92.1 | 84.0 | 91.5 | 94.4 | 95.5 | 19.1 | 23.2 | 1.1 | -0.4 |
| Std Dv | 1.8 | 1.7 | 2.3 | 1.4 | 1.5 | 1.9 | 1.7 | 3.0 | 0.5 | 0.2 |
| 2000 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS | | | | | | | | | | |
| 72 | 91.1 | 88.5 | 78.0 | 89.6 | 89.2 | 90.2 | 30.5 | 31.0 | 1.0 | -0.4 |
| 73 | 92.1 | 89.4 | 78.9 | 90.9 | 89.5 | 91.1 | 28.5 | 28.0 | 1.6 | -0.6 |
| 74 | 91.4 | 89.3 | 81.6 | 89.0 | 92.3 | 92.9 | 19.5 | 22.0 | 0.5 | -0.3 |
| 75 | 93.2 | 90.4 | 80.0 | 89.8 | 90.2 | 91.6 | 32.0 | 36.5 | 1.3 | -0.6 |
| Avg. | 91.9 | 89.4 | 79.6 | 89.8 | 90.3 | 91.5 | 27.6 | 29.4 | 1.1 | -0.5 |
| Std Dv | 0.9 | 0.8 | 1.5 | 0.8 | 1.4 | 1.1 | 5.6 | 6.0 | 0.5 | 0.2 |
| 2500 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS | | | | | | | | | | |
| 76 | 88.6 | 85.8 | 74.1 | 86.6 | 84.8 | 86.1 | 33.5 | 37.0 | 1.4 | -0.4 |
| 77 | 91.6 | 88.7 | 78.2 | 89.0 | 87.9 | 89.5 | 32.0 | 43.0 | 1.6 | -0.6 |
| Avg. | 90.1 | 87.2 | 76.1 | 87.8 | 86.4 | 87.8 | 32.7 | 40.0 | 1.5 | -0.5 |
| Std Dv | 2.1 | 2.0 | 2.9 | 1.7 | 2.2 | 2.4 | 1.1 | 4.2 | 0.1 | 0.1 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.5-2.6

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC

1/ 2/81

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 6

SIDELINE - 284 M. NORTH

JUNE 25, 1980

| EV | EPNL | NEL | DBA(M) | DASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|--|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| 300 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS | | | | | | | | | | |
| 56 | 92.1 | 87.7 | 80.7 | 91.0 | 92.4 | 94.4 | 13.5 | 14.5 | 1.9 | -0.7 |
| 57 | 94.8 | 91.0 | 83.5 | 93.4 | 94.5 | 96.2 | 12.5 | 14.5 | 2.4 | -1.3 |
| 58 | 93.3 | 89.5 | 83.0 | 91.3 | 94.3 | 96.1 | 11.0 | 11.0 | 1.9 | -0.5 |
| 59 | 97.2 | 93.7 | 85.9 | 93.5 | 97.4 | 98.5 | 13.5 | 18.5 | 1.1 | -0.6 |
| Avg. | 94.3 | 90.5 | 83.3 | 92.3 | 94.6 | 96.3 | 12.6 | 14.6 | 1.8 | -0.8 |
| Std Dv | 2.2 | 2.5 | 2.1 | 1.3 | 2.1 | 1.7 | 1.2 | 3.1 | 0.5 | 0.4 |
| 700 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS | | | | | | | | | | |
| 60 | 92.4 | 89.1 | 80.5 | 89.9 | 91.8 | 93.3 | 16.0 | 16.5 | 2.1 | -0.9 |
| 61 | 94.9 | 92.1 | 83.2 | 91.4 | 94.7 | 95.9 | 16.5 | 22.0 | 1.1 | -0.9 |
| 62 | 94.1 | 89.8 | 80.3 | 93.7 | 92.7 | 93.9 | 23.0 | 29.0 | 1.9 | -0.7 |
| 63 | 95.5 | 92.7 | 83.2 | 93.5 | 94.5 | 96.0 | 20.5 | 21.0 | 1.5 | -0.7 |
| Avg. | 94.2 | 91.0 | 81.8 | 92.1 | 93.4 | 94.8 | 19.0 | 22.1 | 1.7 | -0.8 |
| Std Dv | 1.3 | 1.8 | 1.6 | 1.8 | 1.4 | 1.4 | 3.3 | 5.2 | 0.5 | 0.1 |
| 1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS | | | | | | | | | | |
| 64 | 94.4 | 91.3 | 82.2 | 91.8 | 93.1 | 94.0 | 16.0 | 19.5 | 1.6 | -0.7 |
| 65 | 93.5 | 90.3 | 81.6 | 91.1 | 93.4 | 94.2 | 19.0 | 25.5 | 0.9 | -0.7 |
| 66 | 93.2 | 90.2 | 80.6 | 91.9 | 91.9 | 93.0 | 21.0 | 19.0 | 1.6 | -0.7 |
| 67 | 91.7 | 88.8 | 78.7 | 89.5 | 90.4 | 91.2 | 24.5 | 25.5 | 0.8 | -0.7 |
| Avg. | 93.2 | 90.1 | 80.8 | 91.1 | 92.2 | 93.1 | 20.1 | 22.4 | 1.2 | -0.7 |
| Std Dv | 1.1 | 1.0 | 1.5 | 1.1 | 1.4 | 1.4 | 3.6 | 3.6 | 0.5 | 0.0 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.5-3.6

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC

SUMMARY NOISE LEVEL DATA

1/ 2/81

AS MEASURED *

SITE: 6

SIDELINE - 284 M. NORTH

JUNE 25, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|--|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| 1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS | | | | | | | | | | |
| 68 | 91.3 | 88.6 | 79.0 | 89.4 | 89.2 | 90.7 | 28.0 | 32.5 | 1.5 | -0.8 |
| 69 | 89.4 | 86.2 | 76.1 | 88.1 | 86.9 | 88.0 | 24.5 | 44.0 | 1.1 | -0.6 |
| 70 | 92.0 | 89.0 | 78.8 | 89.7 | 89.8 | 92.1 | 25.5 | 29.0 | 2.3 | -0.8 |
| 71 | 90.4 | 87.0 | 75.9 | 88.4 | 86.9 | 87.9 | 29.5 | 39.5 | 1.0 | -0.6 |
| Avg. | 90.8 | 87.7 | 77.5 | 88.9 | 88.2 | 89.7 | 26.9 | 36.2 | 1.5 | -0.7 |
| Std Dv | 1.1 | 1.3 | 1.7 | 0.8 | 1.5 | 2.1 | 2.3 | 6.8 | 0.6 | 0.1 |
| 2000 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS | | | | | | | | | | |
| 72 | 90.6 | 87.9 | 77.9 | 88.0 | 88.0 | 89.4 | 30.0 | 31.5 | 1.5 | -1.0 |
| 73 | - | 85.5 | 75.1 | 86.8 | 85.4 | 86.4 | 28.0 | - | 1.0 | - |
| 74 | 90.2 | 87.6 | 77.2 | 88.9 | 88.7 | 90.5 | 28.0 | 25.5 | 1.9 | -0.9 |
| 75 | 88.4 | 85.6 | 73.8 | 86.9 | 84.8 | 86.4 | 43.0 | 49.0 | 1.6 | -0.6 |
| Avg. | 89.7 | 86.6 | 76.0 | 87.7 | 86.7 | 88.2 | 32.2 | 26.5 | 1.5 | -0.8 |
| Std Dv | 1.2 | 1.3 | 1.9 | 1.0 | 1.9 | 2.1 | 7.2 | 20.3 | 0.4 | 0.2 |
| 2500 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS | | | | | | | | | | |
| 76 | 88.5 | 86.2 | 76.5 | 86.0 | 86.1 | 87.3 | 36.0 | 39.0 | 1.2 | -1.0 |
| 77 | - | 82.7 | 70.8 | 86.7 | 82.7 | 83.9 | 40.5 | - | 1.2 | - |
| Avg. | 88.5 | 84.5 | 73.6 | 86.4 | 84.4 | 85.6 | 38.2 | 19.5 | 1.2 | -1.0 |
| Std Dv | - | 2.5 | 4.1 | 0.5 | 2.4 | 2.4 | 3.2 | 27.6 | 0.0 | - |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.7-1.1

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
1/13/81

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 1

CENTERLINE - CENTER

JUNE 26, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|----|------|-----|--------|-------|--------|---------|--------|--------|----|------|
|----|------|-----|--------|-------|--------|---------|--------|--------|----|------|

APPROACH - BEST RATE OF CLIMB PLUS 10 KTS

| | | | | | | | | | | |
|--------|------|------|------|------|-------|-------|------|------|-----|------|
| 22 | 98.4 | 94.1 | 87.7 | 98.1 | 101.0 | 101.8 | 10.5 | 10.5 | 0.8 | -0.5 |
| 24 | 97.5 | 92.8 | 86.3 | 97.1 | 100.4 | 101.2 | 10.5 | 10.5 | 0.8 | -0.6 |
| 26 | 97.9 | 93.5 | 86.5 | 96.6 | 100.1 | 100.7 | 11.0 | 11.0 | 0.6 | -0.5 |
| 28 | 97.5 | 93.2 | 87.0 | 97.8 | 100.7 | 101.3 | 10.5 | 10.0 | 0.7 | -0.4 |
| Avg. | 97.8 | 93.4 | 86.9 | 97.4 | 100.5 | 101.3 | 10.6 | 10.5 | 0.7 | -0.5 |
| Std Dv | 0.4 | 0.5 | 0.6 | 0.6 | 0.4 | 0.4 | 0.2 | 0.4 | 0.1 | 0.1 |

APPROACH - BEST RATE OF CLIMB MINUS 10 KTS

| | | | | | | | | | | |
|--------|------|------|------|---------|-------|-------|------|------|-----|------|
| 30 | 97.3 | 93.1 | 86.6 | 96.5 | 99.6 | 100.5 | 12.5 | 12.0 | 0.9 | -0.5 |
| 32 | 99.1 | 94.4 | 86.0 | 96.4 | 100.0 | 100.9 | 15.0 | 14.5 | 0.9 | -0.7 |
| 34 | 96.1 | 92.2 | 84.1 | 92.1 | 97.0 | 97.8 | 16.5 | 16.5 | 0.8 | -0.6 |
| 36 | | | | NO DATA | | | | | | |
| Avg. | 97.5 | 93.3 | 85.5 | 95.0 | 98.9 | 99.7 | 14.7 | 14.3 | 0.9 | -0.6 |
| Std Dv | 1.5 | 1.1 | 1.3 | 2.5 | 1.6 | 1.7 | 2.0 | 2.3 | 0.1 | 0.1 |

APPROACH BEST RATE OF CLIMB

| | | | | | | | | | | |
|--------|------|------|------|------|-------|-------|------|------|-----|------|
| 38 | 97.7 | 93.5 | 86.1 | 95.3 | 98.6 | 99.8 | 14.5 | 14.5 | 1.2 | -0.4 |
| 40 | 97.1 | 92.6 | 85.9 | 96.8 | 99.8 | 100.4 | 11.0 | 10.5 | 0.6 | -0.3 |
| 42 | 97.6 | 93.5 | 86.6 | 97.6 | 100.7 | 101.3 | 14.5 | 11.0 | 0.6 | -0.2 |
| Avg. | 97.5 | 93.2 | 86.2 | 96.6 | 99.7 | 100.5 | 13.3 | 12.0 | 0.8 | -0.3 |
| Std Dv | 0.3 | 0.5 | 0.4 | 1.2 | 1.0 | 0.8 | 2.0 | 2.2 | 0.3 | 0.1 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.7-2.1 (REV 1)

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC

6/10/81

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 1

CENTERLINE - CENTER

JUNE 26, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|--------------------------------|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| TAKEOFF - HOVER POWER PLUS 10% | | | | | | | | | | |
| 21 | 90.6 | 85.3 | 76.8 | 84.1 | 90.4 | 92.3 | 15.0 | 16.0 | 1.9 | -0.6 |
| 23 | 90.7 | 85.4 | 77.6 | 84.8 | 90.9 | 92.3 | 13.5 | 15.5 | 1.8 | -0.6 |
| 25 | 90.6 | 85.3 | 77.6 | 85.3 | 90.7 | 91.9 | 13.0 | 17.0 | 1.4 | -0.8 |
| 27 | 90.5 | 85.5 | 77.8 | 85.9 | 90.9 | 92.2 | 12.5 | 15.5 | 1.2 | -0.8 |
| 29 | 90.0 | 84.7 | 77.2 | 85.1 | 90.5 | 91.8 | 12.5 | 16.5 | 1.3 | -0.8 |
| 31 | 91.8 | 86.7 | 78.0 | 86.2 | 91.6 | 92.9 | 16.5 | 17.0 | 1.3 | -0.8 |
| 33 | 91.4 | 86.4 | 77.9 | 85.3 | 91.5 | 92.5 | 16.0 | 16.5 | 1.1 | -0.7 |
| Avg. | 90.8 | 85.6 | 77.5 | 85.2 | 90.9 | 92.3 | 14.1 | 16.3 | 1.4 | -0.7 |
| Std Dv | 0.6 | 0.7 | 0.4 | 0.7 | 0.5 | 0.4 | 1.7 | 0.6 | 0.3 | 0.1 |

TAKEOFF - MAXIMUM POWER

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|------|------|-----|------|
| 35 | 90.9 | 86.1 | 78.2 | 84.2 | 90.4 | 92.1 | 15.0 | 17.5 | 1.6 | -0.9 |
| 37 | 91.2 | 86.6 | 78.1 | 84.7 | 90.8 | 92.1 | 16.5 | 18.0 | 1.4 | -0.8 |
| 39 | 91.3 | 86.2 | 77.6 | 84.4 | 90.7 | 92.0 | 16.5 | 17.5 | 1.3 | -0.9 |
| 41 | 90.3 | 85.6 | 76.1 | 85.8 | 89.0 | 90.6 | 17.5 | 18.5 | 1.6 | -0.7 |
| Avg. | 90.9 | 86.1 | 77.5 | 84.8 | 90.2 | 91.7 | 16.4 | 17.9 | 1.5 | -0.8 |
| Std Dv | 0.4 | 0.4 | 1.0 | 0.7 | 0.8 | 0.7 | 1.0 | 0.5 | 0.1 | 0.1 |

500 FT. FLYOVER - TARGET INDICATED AIRSPEED 150 KTS TORQUE >90%

| EV | EPNL | NEL | DBA(M) | NO DATA | | DUR(A) | DUR(P) | TC | /** | |
|--------|------|------|--------|---------|------|--------|--------|------|------|------|
| 43 | | | | | | | | | | |
| 44 | 95.1 | 90.9 | 84.3 | 97.1 | 97.2 | 98.0 | 10.0 | 10.5 | 1.5 | -0.6 |
| 45 | 95.3 | 91.1 | 83.9 | 97.2 | 96.4 | 97.2 | 11.0 | 12.5 | 1.5 | -0.7 |
| 46 | 94.6 | 90.4 | 83.9 | 96.9 | 96.9 | 98.2 | 10.0 | 10.5 | 1.3 | -0.7 |
| 47 | 96.4 | 92.5 | 84.9 | 97.9 | 97.5 | 98.7 | 11.0 | 11.5 | 1.3 | -0.8 |
| Avg. | 95.3 | 91.2 | 84.2 | 97.3 | 97.0 | 98.0 | 10.5 | 11.2 | 1.4 | -0.7 |
| Std Dv | 0.8 | 0.9 | 0.5 | 0.5 | 0.5 | 0.6 | 0.6 | 1.0 | 0.1 | 0.1 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.7-1.16

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
12/ 2/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 16

CENTERLINE - CENTER (FLUSH)

JUNE 26, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|----|------|-----|--------|-------|--------|---------|--------|--------|----|------|
|----|------|-----|--------|-------|--------|---------|--------|--------|----|------|

APPROACH - BEST RATE OF CLIMB PLUS 10 KTS

| | | | | | | | | | | |
|--------|-------|------|------|-------|-------|-------|------|------|-----|------|
| 22 | 102.0 | 98.2 | 91.9 | 102.2 | 104.8 | 105.3 | 10.5 | 10.5 | 0.5 | -0.3 |
| 24 | 101.2 | 97.2 | 91.2 | 101.9 | 104.5 | 105.0 | 10.0 | 10.5 | 0.5 | -0.4 |
| 26 | 102.3 | 98.1 | 91.5 | 101.7 | 104.9 | 105.3 | 10.5 | 11.0 | 0.5 | -0.4 |
| 28 | 101.8 | 97.7 | 91.3 | 102.2 | 104.5 | 104.7 | 10.5 | 11.5 | 0.4 | -0.3 |
| Avg. | 101.8 | 97.8 | 91.5 | 102.0 | 104.7 | 105.1 | 10.4 | 10.9 | 0.5 | -0.3 |
| Std Dv | 0.5 | 0.5 | 0.3 | 0.2 | 0.2 | 0.3 | 0.2 | 0.5 | 0.0 | 0.1 |

APPROACH - BEST RATE OF CLIMB MINUS 10 KTS

| | | | | | | | | | | |
|--------|-------|------|------|-------|-------|-------|------|------|-----|------|
| 30 | 100.9 | 97.3 | 91.0 | 100.4 | 103.3 | 103.6 | 12.5 | 13.5 | 0.3 | -0.1 |
| 32 | 101.2 | 97.2 | 88.7 | 99.1 | 102.7 | 103.5 | 15.0 | 14.0 | 0.8 | -0.3 |
| 34 | 99.2 | 95.5 | 87.6 | 95.7 | 100.1 | 100.4 | 16.0 | 18.0 | 0.3 | -0.2 |
| 36 | 99.6 | 95.8 | 88.4 | 97.3 | 101.2 | 101.7 | 14.0 | 14.5 | 0.5 | -0.3 |
| Avg. | 100.3 | 96.4 | 88.9 | 98.1 | 101.8 | 102.3 | 14.4 | 15.0 | 0.5 | -0.2 |
| Std Dv | 1.0 | 1.0 | 1.4 | 2.0 | 1.5 | 1.5 | 1.5 | 2.0 | 0.2 | 0.1 |

APPROACH - BEST RATE OF CLIMB

| | | | | | | | | | | |
|--------|-------|------|------|-------|-------|-------|------|------|-----|------|
| 38 | 100.7 | 96.9 | 88.8 | 98.0 | 101.6 | 102.6 | 14.5 | 15.0 | 1.0 | -0.1 |
| 40 | 100.0 | 96.0 | 89.1 | 99.8 | 102.4 | 102.9 | 11.5 | 11.0 | 0.5 | -0.1 |
| 42 | 101.0 | 97.0 | 90.0 | 100.7 | 103.2 | 103.7 | 14.5 | 15.5 | 0.5 | -0.2 |
| Avg. | 100.6 | 96.7 | 89.3 | 99.5 | 102.4 | 103.1 | 13.5 | 13.8 | 0.7 | -0.2 |
| Std Dv | 0.5 | 0.5 | 0.6 | 1.4 | 0.8 | 0.5 | 1.7 | 2.5 | 0.3 | 0.0 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.7-2.16

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
12/ 2/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 16

CENTERLINE - CENTER (FLUSH)

JUNE 26, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|----|------|-----|--------|-------|--------|---------|--------|--------|----|------|
|----|------|-----|--------|-------|--------|---------|--------|--------|----|------|

TAKEOFF - HOVER POWER PLUS 10%

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|------|------|-----|------|
| 21 | 92.1 | 87.0 | 78.5 | 89.7 | 91.1 | 93.1 | 14.5 | 16.5 | 2.0 | -0.7 |
| 23 | 95.1 | 89.9 | 81.9 | 90.3 | 95.1 | 96.4 | 13.5 | 15.0 | 1.3 | -0.6 |
| 25 | 95.2 | 89.6 | 81.9 | 91.6 | 94.9 | 97.0 | 13.5 | 16.0 | 2.1 | -0.8 |
| 27 | 95.9 | 90.5 | 82.8 | 92.6 | 95.9 | 98.0 | 13.0 | 14.0 | 2.2 | -0.9 |
| 29 | 95.0 | 89.4 | 81.8 | 92.0 | 95.1 | 97.3 | 13.0 | 14.0 | 2.2 | -0.9 |
| 31 | 95.2 | 89.8 | 81.0 | 92.1 | 94.5 | 96.7 | 16.0 | 16.5 | 2.2 | -0.9 |
| 33 | 95.0 | 89.6 | 81.2 | 91.1 | 94.4 | 96.4 | 15.5 | 16.5 | 2.2 | -0.9 |
| Avg. | 94.8 | 89.4 | 81.3 | 91.3 | 94.4 | 96.4 | 14.1 | 15.5 | 2.0 | -0.8 |
| Std Dv | 1.2 | 1.1 | 1.4 | 1.1 | 1.6 | 1.6 | 1.2 | 1.2 | 0.3 | 0.1 |

TAKEOFF - MAXIMUM POWER

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|------|------|-----|------|
| 35 | 94.0 | 89.1 | 81.3 | 89.3 | 92.9 | 94.5 | 15.0 | 17.5 | 2.4 | -1.1 |
| 37 | 94.4 | 89.7 | 81.6 | 89.8 | 94.0 | 95.9 | 15.0 | 16.0 | 1.9 | -1.0 |
| 39 | 94.2 | 89.1 | 80.1 | 89.0 | 93.3 | 95.4 | 16.5 | 17.0 | 2.2 | -1.0 |
| 41 | 93.8 | 88.8 | 79.4 | 89.0 | 92.1 | 94.4 | 16.5 | 17.0 | 2.3 | -1.1 |
| Avg. | 94.1 | 89.2 | 80.6 | 89.3 | 93.1 | 95.1 | 15.7 | 16.9 | 2.2 | -1.0 |
| Std Dv | 0.3 | 0.4 | 1.0 | 0.4 | 0.8 | 0.7 | 0.9 | 0.6 | 0.2 | 0.0 |

500 FT. FLYOVER - TARGET INDICATED AIRSPEED 150 KTS TORQUE > 90%

| | | | | | | | | | | |
|--------|------|------|------|-------|-------|-------|------|------|-----|------|
| 43 | 98.5 | 94.6 | 87.9 | 100.3 | 100.1 | 101.3 | 10.0 | 10.5 | 1.4 | -0.6 |
| 44 | 98.6 | 94.3 | 88.0 | 100.3 | 100.5 | 101.3 | 10.0 | 10.5 | 1.3 | -0.6 |
| 45 | 98.7 | 94.7 | 88.1 | 100.2 | 100.3 | 101.7 | 10.5 | 10.5 | 1.3 | -0.4 |
| 46 | 98.1 | 93.9 | 87.6 | 100.2 | 100.8 | 102.1 | 9.0 | 9.5 | 1.4 | -0.6 |
| 47 | 99.9 | 96.1 | 89.0 | 101.1 | 101.3 | 102.5 | 10.5 | 10.5 | 1.1 | -0.5 |
| Avg. | 98.8 | 94.7 | 88.1 | 100.4 | 100.6 | 101.8 | 10.0 | 10.3 | 1.3 | -0.5 |
| Std Dv | 0.7 | 0.8 | 0.5 | 0.4 | 0.5 | 0.5 | 0.6 | 0.4 | 0.1 | 0.1 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - / \ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.7-1.1H

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
1/21/81

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 1H

CENTERLINE - CENTER (10 METER)

JUNE 26, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|---|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| APPROACH - BEST RATE OF CLIMB PLUS 10 KTS | | | | | | | | | | |
| 22 | 98.6 | 94.1 | 87.9 | 98.3 | 102.0 | 102.5 | 10.5 | 10.0 | 0.5 | -0.3 |
| 24 | 97.8 | 93.2 | 87.3 | 98.0 | 101.8 | 102.2 | 10.5 | 9.0 | 0.4 | -0.3 |
| 26 | 99.1 | 94.1 | 86.8 | 98.1 | 102.2 | 102.8 | 11.0 | 9.0 | 0.6 | -0.3 |
| 28 | 98.4 | 93.7 | 87.4 | 98.3 | 101.8 | 102.0 | 9.5 | 9.5 | 0.3 | -0.2 |
| Avg. | 98.5 | 93.8 | 87.4 | 98.2 | 101.9 | 102.4 | 10.4 | 9.4 | 0.5 | -0.3 |
| Std Dv | 0.5 | 0.4 | 0.5 | 0.2 | 0.2 | 0.3 | 0.6 | 0.5 | 0.2 | 0.0 |

APPROACH - BEST RATE OF CLIMB MINUS 10 KTS

| | | | | | | | | | | |
|--------|------|------|------|------|-------|-------|------|------|-----|------|
| 30 | 98.3 | 93.9 | 87.4 | 97.6 | 101.3 | 101.6 | 12.5 | 11.0 | 0.3 | -0.3 |
| 32 | 98.1 | 93.4 | 86.1 | 97.2 | 100.7 | 101.2 | 13.5 | 12.5 | 0.5 | -0.3 |
| 34 | 95.6 | 91.4 | 83.8 | 91.7 | 97.0 | 97.5 | 13.0 | 15.0 | 0.6 | -0.2 |
| 36 | 96.4 | 91.9 | 84.4 | 93.2 | 97.8 | 98.3 | 14.0 | 14.5 | 0.5 | -0.3 |
| Avg. | 97.1 | 92.6 | 85.4 | 94.9 | 99.2 | 99.6 | 13.2 | 13.2 | 0.5 | -0.3 |
| Std Dv | 1.3 | 1.2 | 1.7 | 2.9 | 2.1 | 2.0 | 0.6 | 1.8 | 0.1 | 0.1 |

APPROACH - BEST RATE OF CLIMB

| | | | | | | | | | | |
|--------|------|------|------|------|-------|-------|------|------|-----|------|
| 38 | 97.3 | 92.9 | 84.7 | 94.5 | 98.4 | 98.8 | 15.0 | 15.5 | 0.5 | -0.2 |
| 40 | 96.9 | 92.3 | 86.5 | 98.0 | 100.5 | 100.8 | 10.0 | 10.0 | 0.3 | -0.1 |
| 42 | 97.3 | 92.8 | 87.5 | 98.5 | 101.4 | 101.7 | 10.0 | 10.0 | 0.2 | -0.2 |
| Avg. | 97.1 | 92.6 | 85.6 | 96.3 | 99.4 | 99.8 | 12.5 | 12.7 | 0.4 | -0.2 |
| Std Dv | 0.3 | 0.4 | 1.2 | 2.5 | 1.5 | 1.4 | 3.5 | 3.9 | 0.2 | 0.1 |

* - INDEXES (A,D, ,ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.7-2.1H

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
12/ 2/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 1H

CENTERLINE - CENTER (10 METER)

JUNE 26, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|--------------------------------|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| TAKEOFF - HOVER POWER PLUS 10% | | | | | | | | | | |
| 21 | 93.1 | 87.4 | 78.7 | 84.8 | 92.7 | 94.4 | 14.5 | 15.0 | 1.9 | -0.7 |
| 23 | 94.2 | 88.7 | 80.2 | 85.5 | 94.4 | 95.5 | 22.0 | 21.5 | 2.2 | -0.6 |
| 25 | 93.9 | 88.1 | 81.1 | 87.1 | 95.3 | 97.5 | 11.5 | 11.0 | 2.2 | -0.8 |
| 27 | 94.3 | 88.6 | 81.6 | 87.2 | 95.6 | 97.8 | 11.5 | 11.5 | 2.1 | -0.7 |
| 29 | 93.2 | 87.5 | 80.9 | 86.8 | 95.1 | 97.3 | 10.5 | 10.0 | 2.2 | -0.8 |
| 31 | 92.1 | 86.4 | 78.9 | 86.9 | 93.2 | 95.4 | 13.0 | 12.0 | 2.3 | -1.0 |
| 33 | 91.9 | 86.2 | 78.6 | 86.2 | 92.8 | 94.6 | 14.5 | 14.0 | 1.9 | -0.9 |
| Avg. | 93.2 | 87.6 | 80.0 | 86.4 | 94.1 | 96.1 | 13.9 | 13.6 | 2.1 | -0.8 |
| Std Dv | 1.0 | 1.0 | 1.2 | 0.9 | 1.3 | 1.4 | 3.9 | 3.9 | 0.2 | 0.1 |

TAKEOFF - MAXIMUM POWER

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|------|------|-----|------|
| 35 | 91.5 | 86.0 | 77.9 | 84.7 | 91.4 | 93.4 | 14.5 | 14.5 | 2.3 | -1.0 |
| 37 | 91.8 | 86.6 | 78.2 | 85.8 | 91.7 | 93.4 | 20.5 | 15.0 | 1.7 | -0.9 |
| 39 | 91.6 | 85.7 | 77.3 | 85.3 | 91.3 | 93.7 | 15.0 | 14.0 | 2.4 | -1.0 |
| 41 | 91.0 | 85.6 | 76.4 | 84.8 | 89.9 | 92.0 | 26.0 | 25.0 | 2.4 | -1.0 |
| Avg. | 91.4 | 86.0 | 77.5 | 85.2 | 91.1 | 93.1 | 19.0 | 17.1 | 2.2 | -1.0 |
| Std Dv | 0.3 | 0.4 | 0.8 | 0.5 | 0.8 | 0.8 | 5.4 | 5.3 | 0.3 | 0.1 |

500 FT. FLYOVER - TARGET INDICATED AIRSPEED 150 KTS TORQUE > 90%

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|--------|------|------|--------|---------|--------|---------|--------|--------|-----|------|
| 43 | | | | NO DATA | | | | | | |
| 44 | 94.4 | 89.8 | 83.5 | 94.1 | 97.0 | 98.0 | 9.5 | 10.0 | 1.0 | -0.7 |
| 45 | 94.2 | 89.6 | 83.5 | 93.8 | 96.5 | 97.7 | 9.0 | 11.0 | 1.2 | -0.8 |
| 46 | 94.1 | 89.4 | 83.5 | 93.5 | 97.1 | 98.1 | 8.5 | 9.5 | 1.3 | -0.7 |
| 47 | 95.6 | 91.5 | 84.6 | 95.0 | 97.6 | 98.7 | 10.5 | 10.5 | 1.1 | -0.7 |
| Avg. | 94.6 | 90.1 | 83.8 | 94.1 | 97.1 | 98.1 | 9.4 | 10.2 | 1.1 | -0.7 |
| Std Dv | 0.7 | 1.0 | 0.6 | 0.6 | 0.4 | 0.4 | 0.9 | 0.6 | 0.1 | 0.0 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.7-1.2

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
11/25/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 2

CENTERLINE - 150 M. WEST

JUNE 26, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|---|-------|------|--------|-------|--------|---------|--------|--------|-----|------|
| APPROACH - BEST RATE OF CLIMB PLUS 10 KTS | | | | | | | | | | |
| 22 | 98.9 | 94.0 | 86.7 | 97.0 | 101.0 | 101.6 | 11.5 | 11.0 | 0.6 | -0.6 |
| 24 | 98.9 | 94.3 | 87.2 | 97.8 | 101.3 | 102.2 | 10.5 | 10.5 | 0.9 | -0.6 |
| 26 | 100.1 | 95.3 | 89.8 | 100.5 | 103.7 | 104.3 | 8.5 | 8.5 | 0.5 | -0.6 |
| 28 | 99.9 | 95.0 | 88.6 | 100.4 | 103.5 | 104.2 | 9.5 | 8.0 | 0.8 | -0.6 |
| Avg. | 99.4 | 94.6 | 88.1 | 98.9 | 102.4 | 103.1 | 10.0 | 9.5 | 0.7 | -0.6 |
| Std Dv | 0.6 | 0.6 | 1.4 | 1.8 | 1.4 | 1.4 | 1.3 | 1.5 | 0.2 | 0.0 |

APPROACH - BEST RATE OF CLIMB MINUS 10 KTS

| | | | | | | | | | | |
|--------|-------|------|------|------|-------|-------|------|------|-----|------|
| 30 | 100.1 | 95.6 | 89.7 | 99.8 | 103.3 | 104.1 | 9.0 | 9.5 | 0.8 | -0.5 |
| 32 | 98.1 | 93.9 | 88.1 | 96.7 | 100.9 | 101.9 | 10.0 | 10.5 | 1.0 | -0.5 |
| 34 | 97.9 | 93.6 | 86.6 | 96.0 | 99.8 | 100.9 | 13.5 | 13.0 | 1.1 | -0.6 |
| 36 | 99.5 | 94.8 | 87.8 | 98.0 | 101.4 | 102.3 | 11.0 | 11.0 | 0.9 | -0.6 |
| Avg. | 98.9 | 94.5 | 88.1 | 97.6 | 101.4 | 102.3 | 10.9 | 11.0 | 1.0 | -0.5 |
| Std Dv | 1.1 | 0.9 | 1.3 | 1.7 | 1.5 | 1.4 | 1.9 | 1.5 | 0.1 | 0.1 |

APPROACH - BEST RATE OF CLIMB

| | | | | | | | | | | |
|--------|------|------|------|------|-------|-------|------|------|-----|------|
| 38 | 98.9 | 94.3 | 86.9 | 98.4 | 101.6 | 102.4 | 11.5 | 11.0 | 0.8 | -0.4 |
| 40 | 98.3 | 94.0 | 87.6 | 98.4 | 101.4 | 102.4 | 11.5 | 10.5 | 1.0 | -0.4 |
| 42 | 99.0 | 94.3 | 87.3 | 98.4 | 101.8 | 102.6 | 12.0 | 10.5 | 0.8 | -0.5 |
| Avg. | 98.7 | 94.2 | 87.3 | 98.4 | 101.6 | 102.5 | 11.7 | 10.7 | 0.8 | -0.4 |
| Std Dv | 0.4 | 0.2 | 0.3 | 0.0 | 0.2 | 0.1 | 0.3 | 0.3 | 0.1 | 0.1 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.7-2.2

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC

SUMMARY NOISE LEVEL DATA

1/21/81

AS MEASURED *

SITE: 2

CENTERLINE - 150 M. WEST

JUNE 26, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|--|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| TAKEOFF - HOVER POWER PLUS 10% | | | | | | | | | | |
| 21 | 94.4 | 88.6 | 80.9 | 87.5 | 94.7 | 96.4 | 15.0 | 15.5 | 1.9 | -0.7 |
| 23 | 94.5 | 88.8 | 82.1 | 88.7 | 96.0 | 97.5 | 10.0 | 11.5 | 1.5 | -0.5 |
| 25 | 94.4 | 89.0 | 82.5 | 88.9 | 96.0 | 97.3 | 10.0 | 11.5 | 1.3 | -0.9 |
| 27 | 94.9 | 89.3 | 83.2 | 89.0 | 96.7 | 97.8 | 9.5 | 13.5 | 1.1 | -0.8 |
| 29 | 93.8 | 88.3 | 81.5 | 88.2 | 95.3 | 96.5 | 11.0 | 13.5 | 1.2 | -0.6 |
| 31 | 93.5 | 88.2 | 80.8 | 87.3 | 94.5 | 95.6 | 15.5 | 15.5 | 1.1 | -0.7 |
| 33 | 93.9 | 88.6 | 81.1 | 87.2 | 95.1 | 96.1 | 15.0 | 15.0 | 1.0 | -0.7 |
| Avg. | 94.2 | 88.7 | 81.7 | 88.1 | 95.5 | 96.7 | 12.3 | 13.7 | 1.3 | -0.7 |
| Std Dv | 0.5 | 0.4 | 0.9 | 0.8 | 0.8 | 0.8 | 2.7 | 1.7 | 0.3 | 0.1 |
| TAKEOFF - MAXIMUM POWER | | | | | | | | | | |
| 35 | 93.3 | 88.1 | 81.0 | 86.9 | 94.5 | 95.9 | 13.5 | 14.0 | 1.5 | -0.7 |
| 37 | 93.6 | 88.1 | 81.6 | 87.1 | 95.2 | 96.4 | 10.0 | 13.0 | 1.2 | -0.9 |
| 39 | 93.8 | 88.4 | 81.2 | 87.0 | 95.1 | 96.6 | 12.5 | 12.0 | 1.5 | -0.7 |
| 41 | 92.7 | 87.5 | 79.8 | 86.2 | 93.3 | 94.5 | 13.5 | 15.0 | 1.3 | -0.6 |
| Avg. | 93.4 | 88.0 | 80.9 | 86.8 | 94.5 | 95.8 | 12.4 | 13.5 | 1.4 | -0.7 |
| Std Dv | 0.5 | 0.4 | 0.8 | 0.4 | 0.9 | 0.9 | 1.7 | 1.3 | 0.1 | 0.1 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 150 KTS - TORQUE > 90% | | | | | | | | | | |
| 43 | - | 90.2 | 83.4 | 95.7 | 95.6 | 96.9 | 16.0 | - | 1.3 | - |
| 44 | 95.1 | 90.8 | 84.5 | 96.4 | 97.6 | 98.3 | 9.5 | 11.0 | 1.0 | -0.7 |
| 45 | 94.4 | 90.4 | 82.9 | 95.9 | 95.2 | 96.3 | 14.0 | 14.0 | 1.1 | -0.7 |
| 46 | 94.1 | 89.8 | 83.2 | 96.2 | 96.9 | 98.3 | 9.0 | 8.5 | 1.4 | -0.5 |
| 47 | 95.9 | 92.0 | 84.8 | 97.6 | 97.7 | 98.7 | 10.5 | 11.0 | 1.1 | -0.6 |
| Avg. | 94.9 | 90.6 | 83.8 | 96.3 | 96.6 | 97.7 | 11.8 | 8.9 | 1.2 | -0.6 |
| Std Dv | 0.8 | 0.8 | 0.8 | 0.7 | 1.1 | 1.0 | 3.1 | 5.3 | 0.2 | 0.1 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.7-1.3

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
11/25/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 3

CENTERLINE - 150 M. EAST

JUNE 26, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|----|------|-----|--------|-------|--------|---------|--------|--------|----|------|
|----|------|-----|--------|-------|--------|---------|--------|--------|----|------|

APPROACH - BEST RATE OF CLIMB PLUS 10 KTS

| | | | | | | | | | | |
|--------|------|------|------|------|-------|-------|------|------|-----|------|
| 22 | 98.2 | 93.8 | 86.9 | 97.6 | 100.5 | 101.4 | 13.0 | 12.0 | 0.9 | -0.6 |
| 24 | 98.5 | 93.8 | 86.6 | 98.0 | 100.4 | 101.4 | 12.5 | 12.0 | 1.1 | -0.5 |
| 26 | 98.3 | 93.7 | 86.6 | 96.9 | 100.3 | 101.4 | 12.0 | 12.0 | 1.1 | -0.6 |
| 28 | 97.6 | 93.6 | 85.5 | 96.6 | 99.3 | 99.9 | 12.0 | 11.5 | 1.1 | -0.5 |
| Avg. | 98.2 | 93.7 | 86.4 | 97.3 | 100.1 | 101.0 | 12.4 | 11.9 | 1.0 | -0.5 |
| Std Dv | 0.4 | 0.1 | 0.6 | 0.6 | 0.6 | 0.7 | 0.5 | 0.2 | 0.1 | 0.1 |

APPROACH - BEST RATE OF CLIMB MINUS 10 KTS

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|------|------|-----|------|
| 30 | 97.0 | 92.9 | 85.0 | 94.4 | 97.8 | 99.0 | 15.0 | 14.5 | 1.2 | -0.6 |
| 32 | 96.3 | 92.0 | 82.7 | 93.7 | 96.5 | 97.6 | 18.5 | 18.0 | 1.1 | -0.6 |
| 34 | 95.9 | 92.2 | 85.1 | 93.5 | 97.9 | 98.3 | 12.5 | 13.0 | 0.5 | -0.6 |
| 36 | 97.0 | 92.7 | 84.4 | 93.7 | 97.3 | 98.2 | 15.0 | 15.0 | 1.0 | -0.7 |
| Avg. | 96.6 | 92.5 | 84.3 | 93.8 | 97.4 | 98.3 | 15.2 | 15.1 | 0.9 | -0.6 |
| Std Dv | 0.6 | 0.4 | 1.1 | 0.4 | 0.6 | 0.6 | 2.5 | 2.1 | 0.3 | 0.1 |

APPROACH - BEST RATE OF CLIMB

| | | | | | | | | | | |
|--------|------|------|------|------|------|-------|------|------|-----|------|
| 38 | 97.9 | 93.1 | 83.4 | 95.1 | 98.0 | 98.9 | 17.0 | 16.5 | 0.9 | -0.6 |
| 40 | 95.3 | 91.3 | 81.5 | 90.3 | 94.9 | 95.8 | 24.0 | 21.5 | 0.9 | -0.7 |
| 42 | 97.6 | 93.1 | 84.4 | 96.4 | 99.2 | 100.1 | 16.5 | 14.5 | 0.9 | -0.5 |
| Avg. | 96.9 | 92.5 | 83.1 | 93.9 | 97.4 | 98.3 | 19.2 | 17.5 | 0.9 | -0.6 |
| Std Dv | 1.5 | 1.0 | 1.5 | 3.2 | 2.2 | 2.2 | 4.2 | 3.6 | 0.0 | 0.1 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.7-2.3
 SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
 11/25/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 3

CENTERLINE - 150 M. EAST

JUNE 26, 1980

EV EPNL NEL DBA(M) OASPL PNL(M) PNLT(M) DUR(A) DUR(P) TC /**
 TAKEOFF - HOVER POWER PLUS 10%

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|------|------|-----|------|
| 21 | 90.3 | 85.0 | 75.7 | 84.5 | 89.5 | 91.1 | 18.5 | 19.0 | 1.6 | -0.7 |
| 23 | 90.8 | 85.7 | 76.8 | 85.5 | 90.1 | 91.6 | 16.0 | 17.5 | 2.0 | -0.6 |
| 25 | 90.9 | 85.8 | 77.1 | 85.2 | 90.4 | 91.9 | 22.0 | 22.5 | 1.4 | -0.7 |
| 27 | 90.5 | 85.4 | 76.2 | 85.6 | 89.9 | 91.0 | 18.5 | 18.0 | 1.6 | -0.8 |
| 29 | 90.3 | 85.0 | 76.3 | 85.2 | 89.6 | 91.2 | 16.0 | 21.0 | 1.6 | -0.7 |
| 31 | 90.4 | 85.4 | 76.0 | 85.3 | 89.0 | 90.3 | 22.0 | 22.5 | 1.3 | -0.7 |
| 33 | 90.5 | 85.5 | 76.4 | 84.1 | 90.0 | 91.2 | 17.5 | 18.0 | 1.2 | -0.7 |
| Avg. | 90.5 | 85.4 | 76.4 | 85.1 | 89.8 | 91.2 | 18.6 | 19.8 | 1.5 | -0.7 |
| Std Dv | 0.2 | 0.3 | 0.5 | 0.5 | 0.5 | 0.5 | 2.5 | 2.2 | 0.3 | 0.1 |

TAKEOFF - MAXIMUM POWER

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|------|------|-----|------|
| 35 | 89.2 | 84.8 | 75.1 | 82.6 | 87.9 | 89.3 | 18.0 | 20.5 | 1.4 | -0.7 |
| 37 | 89.7 | 85.3 | 75.5 | 83.4 | 88.7 | 89.8 | 19.5 | 20.5 | 1.1 | -0.6 |
| 39 | 89.9 | 85.0 | 75.2 | 83.3 | 88.2 | 89.4 | 21.5 | 25.5 | 1.3 | -0.7 |
| 41 | 88.7 | 84.3 | 74.4 | 83.0 | 87.4 | 88.5 | 20.0 | 22.5 | 1.1 | -0.7 |
| Avg. | 89.4 | 84.8 | 75.1 | 83.1 | 88.1 | 89.3 | 19.7 | 22.2 | 1.2 | -0.7 |
| Std Dv | 0.6 | 0.4 | 0.4 | 0.4 | 0.6 | 0.5 | 1.4 | 2.4 | 0.1 | 0.1 |

500 FT. FLYOVER - TARGET INDICATED AIRSPEED 150 KTS - TORQUE > 90%

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|------|------|-----|------|
| 43 | 95.0 | 90.9 | 83.0 | 96.8 | 95.4 | 96.9 | 12.0 | 12.5 | 1.7 | -0.8 |
| 44 | 95.4 | 91.3 | 84.4 | 97.9 | 97.2 | 98.0 | 10.0 | 10.5 | 1.4 | -0.8 |
| 45 | 95.8 | 91.7 | 83.5 | 97.0 | 96.2 | 97.8 | 15.5 | 15.5 | 1.6 | -0.8 |
| 46 | 94.5 | 90.2 | 84.3 | 96.1 | 97.0 | 97.8 | 9.0 | 10.5 | 0.8 | -0.7 |
| 47 | 96.4 | 92.6 | 84.6 | 97.5 | 97.0 | 98.4 | 11.5 | 13.0 | 1.4 | -0.8 |
| Avg. | 95.4 | 91.4 | 84.0 | 97.1 | 96.6 | 97.8 | 11.6 | 12.4 | 1.4 | -0.8 |
| Std Dv | 0.7 | 0.9 | 0.7 | 0.7 | 0.8 | 0.5 | 2.5 | 2.1 | 0.4 | 0.0 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.7-1.4

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
11/24/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 4

SIDELINE - 164M. NORTH

JUNE 26, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|--|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| APPROACH - BEST RATE OF CLIMB + 10 KTS | | | | | | | | | | |
| 22 | 97.9 | 93.5 | 85.6 | 94.3 | 98.1 | 99.4 | 13.0 | 15.5 | 1.3 | -1.1 |
| 24 | 98.2 | 94.2 | 87.2 | 94.6 | 99.3 | 100.5 | 15.5 | 16.0 | 1.2 | -1.0 |
| 26 | 99.5 | 95.6 | 88.4 | 95.8 | 100.6 | 102.3 | 12.0 | 11.5 | 1.8 | -1.0 |
| 28 | 98.8 | 94.7 | 87.5 | 95.1 | 99.7 | 101.1 | 14.5 | 15.0 | 1.7 | -1.0 |
| Avg. | 98.6 | 94.5 | 87.2 | 94.9 | 99.4 | 100.8 | 13.7 | 14.5 | 1.5 | -1.0 |
| Std Dv | 0.7 | 0.9 | 1.2 | 0.7 | 1.1 | 1.2 | 1.6 | 2.0 | 0.3 | 0.1 |

APPROACH - BEST RATE OF CLIMB - 10 KTS

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|------|------|-----|------|
| 30 | 94.6 | 90.7 | 81.1 | 91.2 | 94.5 | 96.2 | 22.5 | 21.0 | 1.6 | -1.1 |
| 32 | 94.8 | 90.8 | 85.3 | 94.0 | 97.7 | 98.7 | 11.0 | 11.5 | 0.9 | -0.9 |
| 34 | 93.9 | 90.0 | 78.5 | 88.2 | 90.7 | 92.9 | 22.5 | 22.5 | 2.9 | -1.2 |
| 36 | 94.3 | 90.7 | 79.9 | 88.6 | 92.6 | 93.9 | 22.5 | 22.5 | 1.6 | -0.9 |
| Avg. | 94.4 | 90.5 | 81.2 | 90.5 | 93.9 | 95.4 | 19.6 | 19.4 | 1.7 | -1.0 |
| Std Dv | 0.4 | 0.3 | 2.9 | 2.7 | 3.0 | 2.6 | 5.7 | 5.3 | 0.8 | 0.1 |

APPROACH - BEST RATE OF CLIMB

| | | | | | | | | | | |
|--------|------|------|------|------|------|-------|------|------|-----|------|
| 38 | 96.7 | 92.7 | 83.9 | 91.8 | 96.4 | 97.3 | 20.0 | 20.0 | 0.9 | -0.9 |
| 40 | 94.2 | 90.5 | 82.6 | 92.3 | 96.2 | 97.7 | 22.5 | 14.5 | 1.9 | -0.7 |
| 42 | 97.3 | 93.1 | 85.9 | 94.6 | 99.0 | 100.3 | 15.5 | 15.0 | 1.3 | -1.2 |
| Avg. | 96.1 | 92.1 | 84.1 | 92.9 | 97.2 | 98.4 | 19.3 | 16.5 | 1.4 | -0.9 |
| Std Dv | 1.6 | 1.4 | 1.7 | 1.5 | 1.6 | 1.6 | 3.5 | 3.0 | 0.5 | 0.2 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.7-2.4

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
11/25/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 4

SIDELINE - 164M. NORTH

JUNE 26, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|--|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| TAKEOFF - HOVER POWER PLUS 10% | | | | | | | | | | |
| 21 | 92.1 | 86.8 | 77.9 | 85.8 | 91.1 | 92.7 | 17.5 | 18.5 | 1.5 | -1.2 |
| 23 | 92.4 | 86.9 | 78.0 | 86.4 | 91.3 | 93.1 | 16.5 | 19.5 | 1.7 | -1.3 |
| 25 | 92.9 | 87.9 | 79.2 | 87.5 | 91.7 | 93.2 | 16.0 | 17.5 | 1.9 | -1.2 |
| 27 | 93.3 | 88.4 | 80.4 | 87.7 | 93.5 | 95.3 | 14.0 | 15.0 | 1.8 | -1.2 |
| 29 | 92.6 | 87.6 | 78.9 | 86.7 | 92.1 | 93.8 | 16.0 | 20.0 | 1.7 | -1.2 |
| 31 | 92.2 | 87.4 | 78.6 | 86.4 | 91.1 | 92.1 | 17.5 | 20.0 | 1.4 | -1.1 |
| 33 | 92.1 | 87.4 | 78.3 | 86.8 | 91.0 | 93.0 | 19.0 | 19.5 | 2.0 | -1.2 |
| Avg. | 92.5 | 87.5 | 78.7 | 86.7 | 91.7 | 93.3 | 16.6 | 18.6 | 1.7 | -1.2 |
| Std Dv | 0.4 | 0.5 | 0.9 | 0.7 | 0.9 | 1.0 | 1.6 | 1.8 | 0.2 | 0.0 |
| TAKEOFF - MAXIMUM POWER | | | | | | | | | | |
| 35 | 91.8 | 86.9 | 78.1 | 86.9 | 90.6 | 92.9 | 18.0 | 18.5 | 2.3 | -1.3 |
| 37 | 92.1 | 87.3 | 78.1 | 86.9 | 90.2 | 92.5 | 19.5 | 20.0 | 2.2 | -1.3 |
| 39 | - | 86.9 | 77.7 | 87.2 | 90.2 | 92.2 | 19.5 | - | 2.0 | - |
| 41 | 91.8 | 86.8 | 76.9 | 86.4 | 89.3 | 91.7 | 22.0 | 21.5 | 2.6 | -1.3 |
| Avg. | 91.9 | 87.0 | 77.7 | 86.8 | 90.1 | 92.3 | 19.7 | 15.0 | 2.3 | -1.3 |
| Std Dv | 0.1 | 0.2 | 0.6 | 0.3 | 0.6 | 0.5 | 1.7 | 10.1 | 0.2 | 0.0 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 150 KTS - TORQUE > 90% | | | | | | | | | | |
| 43 | 96.4 | 92.9 | 86.3 | 94.9 | 98.0 | 99.2 | 14.0 | 15.0 | 1.2 | -0.8 |
| 44 | 96.7 | 93.2 | 85.9 | 97.3 | 97.7 | 99.0 | 12.0 | 12.0 | 1.2 | -0.6 |
| 45 | 96.5 | 92.7 | 86.2 | 95.0 | 97.9 | 99.1 | 9.5 | 14.5 | 1.2 | -0.9 |
| 46 | 95.6 | 92.0 | 85.5 | 94.5 | 97.2 | 98.1 | 9.5 | 13.0 | 1.3 | -0.7 |
| 47 | 96.9 | 93.4 | 86.1 | 94.8 | 97.7 | 98.7 | 14.5 | 15.5 | 1.1 | -0.8 |
| Avg. | 96.4 | 92.8 | 86.0 | 95.3 | 97.7 | 98.8 | 11.9 | 14.0 | 1.2 | -0.8 |
| Std Dv | 0.5 | 0.5 | 0.3 | 1.1 | 0.3 | 0.4 | 2.4 | 1.5 | 0.1 | 0.1 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.7-1.5
 SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
 11/24/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 5

SIDELINE - 150 M. SOUTH

JUNE 26, 1980

| EV | EPNL | NEL | DBA(M) | DASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|---|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| APPROACH - BEST RATE OF CLIMB - PLUS 10 KTS | | | | | | | | | | |
| 22 | 92.7 | 88.7 | 80.0 | 89.1 | 92.9 | 93.7 | 15.5 | 15.5 | 1.0 | -0.5 |
| 24 | 92.5 | 88.6 | 80.2 | 89.5 | 92.8 | 93.7 | 15.0 | 15.0 | 1.1 | -0.6 |
| 26 | 92.4 | 88.5 | 80.3 | 89.5 | 92.9 | 93.9 | 15.0 | 15.0 | 1.0 | -0.6 |
| 28 | 91.7 | 87.9 | 79.4 | 88.7 | 92.0 | 93.0 | 16.0 | 16.0 | 0.8 | -0.8 |
| Avg. | 92.3 | 88.4 | 80.0 | 89.2 | 92.7 | 93.6 | 15.4 | 15.4 | 1.0 | -0.6 |
| Std Dv | 0.4 | 0.4 | 0.4 | 0.4 | 0.5 | 0.4 | 0.5 | 0.5 | 0.1 | 0.1 |

APPROACH - BEST RATE OF CLIMB - MINUS 10 KTS

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|------|------|-----|------|
| 30 | 93.6 | 89.8 | 80.0 | 88.2 | 93.0 | 93.7 | 24.0 | 22.5 | 0.9 | -0.7 |
| 32 | 94.2 | 90.2 | 78.9 | 88.0 | 92.4 | 93.4 | 23.0 | 22.5 | 1.0 | -0.5 |
| 34 | 92.9 | 89.4 | 80.9 | 88.2 | 93.2 | 93.9 | 20.5 | 20.0 | 0.7 | -0.8 |
| 36 | 93.6 | 89.8 | 79.9 | 87.4 | 92.2 | 93.7 | 20.0 | 19.5 | 1.4 | -0.7 |
| Avg. | 93.6 | 89.8 | 79.9 | 87.9 | 92.7 | 93.7 | 21.9 | 21.1 | 1.0 | -0.7 |
| Std Dv | 0.5 | 0.3 | 0.8 | 0.4 | 0.4 | 0.2 | 1.9 | 1.6 | 0.3 | 0.1 |

APPROACH - BEST RATE OF CLIMB

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|------|------|-----|------|
| 38 | 91.3 | 87.4 | 77.8 | 85.8 | 90.4 | 91.5 | 21.5 | 21.0 | 1.1 | -0.7 |
| 40 | 93.0 | 89.6 | 80.1 | 87.0 | 92.7 | 93.8 | 20.0 | 19.5 | 1.0 | -0.6 |
| 42 | 92.1 | 88.4 | 78.7 | 87.2 | 91.5 | 92.5 | 20.0 | 19.5 | 1.0 | -0.5 |
| Avg. | 92.1 | 88.4 | 78.9 | 86.7 | 91.5 | 92.6 | 20.5 | 20.0 | 1.0 | -0.6 |
| Std Dv | 0.8 | 1.1 | 1.2 | 0.8 | 1.2 | 1.1 | 0.9 | 0.9 | 0.1 | 0.1 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.7-2.5

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC

11/25/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 5

SIDELINE - 150 M. SOUTH

JUNE 26, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|--|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| TAKEOFF - HOVER POWER PLUS 10% | | | | | | | | | | |
| 21 | 90.2 | 85.8 | 76.0 | 85.0 | 88.9 | 90.2 | 20.5 | 21.5 | 1.4 | -0.9 |
| 23 | 90.1 | 86.0 | 76.2 | 85.9 | 89.0 | 90.4 | 19.0 | 19.5 | 1.7 | -0.9 |
| 25 | 90.4 | 86.3 | 76.8 | 85.8 | 89.5 | 90.7 | 20.0 | 20.5 | 1.2 | -0.8 |
| 27 | 90.4 | 86.3 | 77.0 | 85.7 | 89.5 | 91.1 | 18.5 | 19.0 | 1.6 | -0.9 |
| 29 | 90.5 | 86.2 | 76.6 | 85.2 | 89.1 | 90.5 | 18.5 | 19.5 | 1.6 | -0.8 |
| 31 | 89.8 | 85.7 | 76.1 | 85.1 | 88.8 | 89.9 | 21.0 | 21.5 | 1.4 | -0.7 |
| 33 | 90.5 | 86.5 | 77.3 | 85.0 | 89.8 | 91.0 | 18.0 | 18.5 | 1.2 | -0.6 |
| Avg. | 90.3 | 86.1 | 76.6 | 85.4 | 89.2 | 90.6 | 19.4 | 20.0 | 1.4 | -0.8 |
| Std Dv | 0.3 | 0.3 | 0.5 | 0.4 | 0.4 | 0.4 | 1.1 | 1.2 | 0.2 | 0.1 |
| TAKEOFF - MAXIMUM POWER | | | | | | | | | | |
| 35 | 89.4 | 85.2 | 75.4 | 83.5 | 88.4 | 89.5 | 18.5 | 18.5 | 1.2 | -0.8 |
| 37 | 89.2 | 85.1 | 75.1 | 84.4 | 87.8 | 89.1 | 19.0 | 19.5 | 1.3 | -0.8 |
| 39 | 89.2 | 85.0 | 74.4 | 82.7 | 87.3 | 88.4 | 22.0 | 23.0 | 1.1 | -0.8 |
| 41 | - | 84.4 | 73.7 | 84.9 | 87.0 | 88.4 | 24.0 | - | 1.5 | - |
| Avg. | 89.3 | 84.9 | 74.7 | 83.9 | 87.6 | 88.9 | 20.9 | 15.2 | 1.3 | -0.8 |
| Std Dv | 0.1 | 0.4 | 0.8 | 1.0 | 0.6 | 0.6 | 2.6 | 10.3 | 0.2 | 0.0 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 150 KTS - TORQUE > 90% | | | | | | | | | | |
| 43 | 94.6 | 91.4 | 84.3 | 94.2 | 95.8 | 96.7 | 11.5 | 15.5 | 0.9 | -0.6 |
| 44 | 96.1 | 92.3 | 85.2 | 95.2 | 97.2 | 98.6 | 13.0 | 13.5 | 1.4 | -0.7 |
| 45 | 95.2 | 91.8 | 84.3 | 95.2 | 95.9 | 96.5 | 11.0 | 16.0 | 0.5 | -0.4 |
| 46 | 95.4 | 91.9 | 85.3 | 95.7 | 97.0 | 98.1 | 15.5 | 14.5 | 1.1 | -0.9 |
| 47 | 95.7 | 92.3 | 85.1 | 94.9 | 96.5 | 97.1 | 12.0 | 17.5 | 0.5 | -0.6 |
| Avg. | 95.4 | 91.9 | 84.9 | 95.0 | 96.5 | 97.4 | 12.6 | 15.4 | 0.9 | -0.6 |
| Std Dv | 0.5 | 0.4 | 0.5 | 0.6 | 0.6 | 0.9 | 1.8 | 1.5 | 0.4 | 0.2 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.7-1.5G
 SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
 11/26/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 5G

SIDELINE - 150 M. SOUTH (FLUSH)

JUNE 26, 1980

| EV | EPNL | NEL | DBA(M) | DASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|---|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| APPROACH - BEST RATE OF CLIMB PLUS 10 KTS | | | | | | | | | | |
| 22 | 96.6 | 92.6 | 84.0 | 92.2 | 97.0 | 97.9 | 15.0 | 15.0 | 0.9 | -0.2 |
| 24 | 96.6 | 92.7 | 84.5 | 92.9 | 97.3 | 98.4 | 15.0 | 15.0 | 1.1 | -0.1 |
| 26 | 96.9 | 92.7 | 84.7 | 92.5 | 97.8 | 98.8 | 14.0 | 14.5 | 1.0 | -0.3 |
| 28 | 95.9 | 92.0 | 84.3 | 91.9 | 97.2 | 98.1 | 15.0 | 14.5 | 1.0 | -0.4 |
| Avg. | 96.5 | 92.5 | 84.3 | 92.4 | 97.3 | 98.3 | 14.7 | 14.7 | 1.0 | -0.2 |
| Std Dv | 0.4 | 0.3 | 0.3 | 0.4 | 0.4 | 0.4 | 0.5 | 0.3 | 0.1 | 0.1 |

APPROACH - BEST RATE OF CLIMB MINUS 10 KTS

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|------|------|-----|------|
| 30 | 95.3 | 91.3 | 82.9 | 88.4 | 95.7 | 97.0 | 16.5 | 16.5 | 1.4 | -0.6 |
| 32 | 98.1 | 93.9 | 83.6 | 91.6 | 97.5 | 98.6 | 19.5 | 18.5 | 1.3 | -0.1 |
| 34 | 97.3 | 93.3 | 84.9 | 91.6 | 97.8 | 98.5 | 16.0 | 16.0 | 0.7 | -0.2 |
| 36 | 97.6 | 93.7 | 84.3 | 91.3 | 97.2 | 98.2 | 18.0 | 18.0 | 1.1 | -0.1 |
| Avg. | 97.1 | 93.0 | 83.9 | 90.7 | 97.0 | 98.1 | 17.5 | 17.2 | 1.1 | -0.3 |
| Std Dv | 1.2 | 1.2 | 0.9 | 1.5 | 1.0 | 0.7 | 1.6 | 1.2 | 0.3 | 0.3 |

APPROACH - BEST RATE OF CLIMB

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|------|------|-----|------|
| 38 | 96.2 | 91.8 | 82.9 | 89.6 | 96.7 | 97.5 | 19.5 | 19.0 | 0.8 | -0.3 |
| 40 | 97.0 | 93.4 | 85.2 | 92.1 | 98.4 | 99.5 | 15.0 | 14.5 | 1.1 | -0.2 |
| 42 | 97.1 | 92.8 | 83.4 | 92.0 | 97.0 | 98.1 | 19.0 | 19.0 | 1.2 | -0.2 |
| Avg. | 96.8 | 92.7 | 83.8 | 91.2 | 97.3 | 98.4 | 17.8 | 17.5 | 1.0 | -0.2 |
| Std Dv | 0.5 | 0.8 | 1.2 | 1.4 | 0.9 | 1.0 | 2.5 | 2.6 | 0.2 | 0.1 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - / \ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.7-2.5G

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
11/26/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 5G

SIDELINE - 150 M. SOUTH (FLUSH)

JUNE 26, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|--|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| TAKEOFF - HOVER POWER PLUS 10% | | | | | | | | | | |
| 21 | 94.3 | 90.0 | 81.0 | 86.4 | 94.1 | 95.4 | 15.0 | 15.5 | 1.3 | -0.8 |
| 23 | 94.5 | 90.1 | 81.1 | 87.2 | 94.0 | 95.3 | 16.0 | 16.5 | 1.3 | -0.7 |
| 25 | 95.0 | 90.6 | 81.9 | 87.6 | 94.7 | 95.9 | 15.5 | 17.0 | 1.1 | -0.5 |
| 27 | 95.2 | 90.8 | 82.3 | 87.6 | 95.0 | 96.6 | 14.5 | 15.5 | 1.5 | -0.6 |
| 29 | 94.7 | 90.4 | 81.4 | 87.1 | 94.3 | 95.4 | 14.0 | 15.0 | 1.4 | -0.7 |
| 31 | 94.5 | 90.0 | 80.9 | 86.8 | 93.9 | 95.4 | 17.5 | 18.0 | 1.4 | -0.7 |
| 33 | 95.4 | 90.9 | 82.9 | 86.7 | 95.9 | 96.9 | 14.5 | 16.0 | 1.0 | -0.7 |
| Avg. | 94.8 | 90.4 | 81.6 | 87.1 | 94.6 | 95.8 | 15.3 | 16.2 | 1.3 | -0.7 |
| Std Dv | 0.4 | 0.4 | 0.7 | 0.5 | 0.7 | 0.6 | 1.2 | 1.0 | 0.2 | 0.1 |
| TAKEOFF - MAXIMUM POWER | | | | | | | | | | |
| 35 | 94.5 | 89.9 | 81.1 | 86.3 | 94.2 | 95.6 | 17.0 | 17.5 | 1.4 | -0.7 |
| 37 | 94.2 | 89.6 | 80.4 | 86.6 | 94.3 | 95.1 | 15.0 | 16.0 | 0.8 | -0.7 |
| 39 | 93.9 | 89.3 | 79.7 | 85.2 | 93.1 | 94.1 | 17.5 | 18.5 | 1.0 | -0.7 |
| 41 | 93.3 | 88.8 | 79.0 | 85.2 | 92.5 | 94.0 | 17.0 | 17.0 | 1.5 | -0.7 |
| Avg. | 94.0 | 89.4 | 80.1 | 85.8 | 93.5 | 94.7 | 16.6 | 17.2 | 1.2 | -0.7 |
| Std Dv | 0.5 | 0.5 | 0.9 | 0.7 | 0.9 | 0.8 | 1.1 | 1.0 | 0.3 | 0.0 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 150 KTS - TORQUE > 90% | | | | | | | | | | |
| 43 | 99.1 | 96.2 | 89.4 | 95.6 | 100.7 | 101.8 | 10.5 | 12.0 | 1.0 | -0.4 |
| 44 | 99.9 | 96.5 | 89.9 | 98.3 | 101.4 | 102.5 | 11.5 | 12.0 | 1.4 | -0.6 |
| 45 | 99.4 | 96.5 | 90.0 | 96.5 | 101.6 | 102.2 | 10.0 | 11.0 | 0.6 | -0.4 |
| 46 | 99.6 | 96.0 | 89.9 | 98.6 | 101.7 | 103.0 | 9.0 | 10.5 | 1.3 | -0.7 |
| 47 | 99.8 | 97.0 | 90.8 | 96.3 | 102.4 | 103.0 | 9.5 | 10.5 | 0.5 | -0.4 |
| Avg. | 99.6 | 96.5 | 90.0 | 97.1 | 101.6 | 102.5 | 10.1 | 11.2 | 1.0 | -0.5 |
| Std Dv | 0.4 | 0.4 | 0.5 | 1.3 | 0.6 | 0.5 | 1.0 | 0.8 | 0.4 | 0.1 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - / \ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.7-1.6
 SIKORSKY UH-60A BLACKHAWK HELICOPTER
 SUMMARY NOISE LEVEL DATA

DOT/TSC
 1/22/81

AS MEASURED *

SITE: 6

SIDELINE - 284 M. NORTH

JUNE 26, 1980

EV EPNL NEL DBA(M) OASPL PNL(M) PNLT(M) DUR(A) DUR(P) TC /**

APPROACH - BEST RATE OF CLIMB PLUS 10 KTS

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|------|------|-----|------|
| 22 | 91.6 | 88.6 | 78.2 | 88.9 | 89.6 | 91.5 | 22.5 | 22.0 | 2.1 | -0.7 |
| 24 | 92.6 | 89.6 | 80.3 | 88.3 | 91.5 | 93.7 | 19.5 | 19.0 | 2.3 | -0.9 |
| 26 | 92.5 | 89.4 | 81.1 | 89.3 | 92.8 | 94.1 | 19.0 | 17.0 | 1.2 | -0.8 |
| 28 | 91.5 | 88.5 | 79.5 | 89.7 | 91.6 | 92.5 | 21.5 | 20.0 | 1.0 | -0.7 |
| Avg. | 92.1 | 89.0 | 79.8 | 89.0 | 91.4 | 93.0 | 20.6 | 19.5 | 1.7 | -0.8 |
| Std Dv | 0.6 | 0.5 | 1.2 | 0.6 | 1.3 | 1.2 | 1.7 | 2.1 | 0.7 | 0.1 |

APPROACH - BEST RATE OF CLIMB MINUS 10 KTS

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|------|------|-----|------|
| 30 | 88.9 | 85.7 | 74.7 | 87.3 | 86.5 | 88.1 | 33.5 | 33.0 | 1.9 | -0.7 |
| 32 | 88.9 | 85.6 | 77.7 | 87.2 | 89.7 | 91.2 | 21.5 | 21.0 | 1.5 | -1.0 |
| 34 | 89.4 | 86.4 | 74.5 | 86.1 | 85.6 | 87.2 | 32.5 | 33.0 | 2.1 | -0.8 |
| 36 | 89.3 | 86.3 | 74.3 | 86.6 | 86.0 | 87.3 | 38.5 | 38.0 | 1.4 | -0.7 |
| Avg. | 89.1 | 86.0 | 75.3 | 86.8 | 86.9 | 88.5 | 31.5 | 31.2 | 1.7 | -0.8 |
| Std Dv | 0.3 | 0.4 | 1.6 | 0.5 | 1.8 | 1.9 | 7.2 | 7.2 | 0.4 | 0.2 |

APPROACH - BEST RATE OF CLIMB

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|------|------|-----|------|
| 38 | 90.4 | 87.3 | 79.2 | 86.6 | 90.9 | 92.7 | 22.5 | 19.0 | 1.7 | -0.6 |
| 40 | 89.4 | 86.7 | 75.5 | 87.6 | 87.9 | 88.6 | 35.5 | 37.0 | 0.6 | -0.6 |
| 42 | 97.1 | 93.3 | 83.2 | 89.1 | 94.3 | 97.1 | 22.0 | 22.0 | 2.9 | -1.4 |
| Avg. | 92.3 | 89.1 | 79.3 | 87.8 | 91.0 | 92.8 | 26.7 | 26.0 | 1.7 | -0.9 |
| Std Dv | 4.1 | 3.7 | 3.9 | 1.2 | 3.2 | 4.2 | 7.7 | 9.6 | 1.2 | 0.5 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.7-2.6

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
11/26/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 6

SIDELINE - 284 M. NORTH

JUNE 26, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|--|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| TAKEOFF - HOVER POWER PLUS 10% | | | | | | | | | | |
| 21 | 89.6 | 84.4 | 73.9 | 86.2 | 86.5 | 88.6 | 22.0 | 21.5 | 2.3 | -1.5 |
| 23 | 89.6 | 84.0 | 74.2 | 86.9 | 87.1 | 89.7 | 21.0 | 20.0 | 2.6 | -1.5 |
| 25 | 89.2 | 84.3 | 75.3 | 86.9 | 86.5 | 88.7 | 20.5 | 21.0 | 2.3 | -1.3 |
| 27 | 88.8 | 83.7 | 74.3 | 86.9 | 86.5 | 88.8 | 20.5 | 20.5 | 2.3 | -1.4 |
| 29 | 88.6 | 83.5 | 73.8 | 87.2 | 86.8 | 89.1 | 20.5 | 19.5 | 2.2 | -1.3 |
| 31 | 89.5 | 84.4 | 74.2 | 87.4 | 87.4 | 89.7 | 21.5 | 21.0 | 2.3 | -1.4 |
| 33 | 88.9 | 83.5 | 73.6 | 86.7 | 86.7 | 89.1 | 21.5 | 20.0 | 2.4 | -1.3 |
| Avg. | 89.2 | 84.0 | 74.2 | 86.9 | 86.8 | 89.1 | 21.1 | 20.5 | 2.3 | -1.4 |
| Std Dv | 0.4 | 0.4 | 0.5 | 0.4 | 0.3 | 0.4 | 0.6 | 0.7 | 0.1 | 0.1 |
| TAKEOFF - MAXIMUM POWER | | | | | | | | | | |
| 35 | 89.4 | 84.1 | 74.0 | 87.7 | 87.1 | 89.5 | 22.0 | 22.0 | 2.4 | -1.4 |
| 37 | 89.7 | 84.3 | 74.3 | 87.6 | 87.2 | 89.5 | 19.5 | 19.0 | 2.4 | -1.4 |
| 39 | 89.6 | 84.2 | 74.6 | 87.8 | 87.7 | 90.0 | 20.5 | 20.0 | 2.4 | -1.5 |
| 41 | 89.7 | 84.4 | 73.5 | 87.6 | 87.5 | 90.1 | 23.0 | 19.5 | 2.6 | -1.3 |
| Avg. | 89.6 | 84.3 | 74.1 | 87.7 | 87.4 | 89.8 | 21.2 | 20.1 | 2.4 | -1.4 |
| Std Dv | 0.1 | 0.1 | 0.5 | 0.1 | 0.3 | 0.3 | 1.6 | 1.3 | 0.1 | 0.1 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 150 KTS - TORQUE > 90% | | | | | | | | | | |
| 43 | 94.1 | 90.0 | 81.6 | 91.6 | 93.1 | 94.8 | 23.5 | 24.5 | 1.8 | -0.8 |
| 44 | 94.5 | 91.5 | 83.4 | 92.9 | 94.3 | 96.2 | 15.5 | 15.5 | 1.9 | -0.7 |
| 45 | 94.3 | 89.8 | 82.3 | 92.1 | 93.4 | 95.3 | 16.5 | 20.5 | 1.9 | -0.9 |
| 46 | 93.8 | 90.5 | 83.6 | 91.3 | 94.6 | 96.0 | 11.0 | 14.5 | 1.4 | -0.8 |
| 47 | 94.3 | 90.0 | 82.1 | 92.6 | 92.8 | 94.7 | 15.5 | 18.5 | 1.8 | -0.9 |
| Avg. | 94.2 | 90.3 | 82.6 | 92.1 | 93.6 | 95.4 | 16.4 | 18.7 | 1.8 | -0.8 |
| Std Dv | 0.3 | 0.7 | 0.9 | 0.7 | 0.8 | 0.7 | 4.5 | 4.0 | 0.2 | 0.1 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.6-2.1
 BELL 206-L HELICOPTER
 SUMMARY NOISE LEVEL DATA
 AS MEASURED *

DOT/TSC
 11/24/80

SITE: 1

CENTERLINE - CENTER

JUNE 26, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|--|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| 300 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS | | | | | | | | | | |
| 1 | 90.9 | 87.3 | 81.1 | 88.6 | 93.9 | 95.0 | 10.5 | 10.0 | 1.1 | -0.5 |
| 2 | 89.3 | 85.6 | 79.9 | 88.1 | 92.8 | 93.9 | 8.5 | 8.5 | 1.1 | -0.8 |
| 3 | 90.5 | 86.9 | 80.8 | 88.6 | 93.9 | 95.1 | 9.0 | 8.5 | 1.2 | -0.6 |
| 4 | 90.3 | 86.7 | 81.5 | 89.4 | 94.4 | 95.5 | 8.0 | 7.5 | 1.2 | -0.7 |
| Avg. | 90.2 | 86.6 | 80.8 | 88.7 | 93.7 | 94.8 | 9.0 | 8.6 | 1.1 | -0.7 |
| Std Dv | 0.7 | 0.7 | 0.7 | 0.5 | 0.7 | 0.7 | 1.1 | 1.0 | 0.1 | 0.1 |
| 700 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS | | | | | | | | | | |
| 5 | 86.5 | 83.3 | 73.9 | 83.6 | 86.3 | 87.3 | 19.5 | 19.5 | 0.9 | -0.8 |
| 6 | 83.6 | 80.5 | 71.4 | 82.4 | 83.2 | 83.9 | 19.0 | 19.0 | 0.7 | -0.8 |
| 7 | 85.7 | 82.4 | 72.8 | 81.7 | 84.8 | 85.9 | 23.5 | 23.0 | 1.2 | -0.7 |
| 8 | 84.4 | 81.2 | 72.0 | 82.5 | 83.9 | 84.8 | 18.5 | 18.5 | 1.3 | -0.9 |
| Avg. | 85.0 | 81.8 | 72.5 | 82.5 | 84.6 | 85.4 | 20.1 | 20.0 | 1.0 | -0.8 |
| Std Dv | 1.3 | 1.2 | 1.1 | 0.8 | 1.3 | 1.4 | 2.3 | 2.0 | 0.2 | 0.1 |
| 1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS | | | | | | | | | | |
| 9 | 83.3 | 80.3 | 69.5 | 78.4 | 81.2 | 82.3 | 27.5 | 29.0 | 0.9 | -0.8 |
| 10 | 82.7 | 79.8 | 70.1 | 80.0 | 81.0 | 83.0 | 22.5 | 22.5 | 1.9 | -0.9 |
| 11 | 83.3 | 80.6 | 69.0 | 79.7 | 80.9 | 82.2 | 30.5 | 29.5 | 1.3 | -0.8 |
| 12 | 81.3 | 78.3 | 67.9 | 78.1 | 79.7 | 80.8 | 27.0 | 26.0 | 1.1 | -0.8 |
| Avg. | 82.6 | 79.8 | 69.1 | 79.1 | 80.7 | 82.1 | 26.9 | 26.7 | 1.3 | -0.8 |
| Std Dv | 0.9 | 1.0 | 0.9 | 0.9 | 0.7 | 0.9 | 3.3 | 3.2 | 0.5 | 0.0 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - / \ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.6-3.1
 BELL 206L HELICOPTER
 SUMMARY NOISE LEVEL DATA
 AS MEASURED *

DOT/TSC
 11/24/80

SITE: 1

CENTERLINE - CENTER

JUNE 26, 1980

| EV | EPNL | NEL | DBA(M) | DASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|--|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| 1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS | | | | | | | | | | |
| 13 | 80.4 | 77.8 | 65.3 | 74.7 | 76.9 | 78.2 | 55.5 | 42.0 | 1.3 | -0.5 |
| 14 | 78.5 | 75.7 | 64.5 | 74.5 | 76.3 | 77.5 | 38.0 | 37.0 | 1.2 | -0.7 |
| 15 | 79.9 | 77.1 | 64.3 | 74.6 | 76.0 | 77.1 | 48.5 | 58.0 | 1.1 | -0.8 |
| 16 | 78.6 | 75.7 | 63.8 | 74.7 | 75.3 | 76.5 | 38.0 | 41.0 | 1.2 | -0.9 |
| Avg. | 79.3 | 76.6 | 64.5 | 74.6 | 76.1 | 77.3 | 45.0 | 44.5 | 1.2 | -0.7 |
| Std Dv | 0.9 | 1.1 | 0.6 | 0.1 | 0.6 | 0.7 | 8.6 | 9.3 | 0.1 | 0.2 |

2000 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|------|------|-----|------|
| 17 | 77.2 | 74.6 | 61.8 | 71.2 | 73.1 | 74.6 | 57.5 | 52.5 | 1.5 | -0.9 |
| 18 | 75.8 | 73.3 | 60.2 | 70.9 | 71.5 | 72.7 | 49.0 | 48.0 | 1.8 | -1.0 |
| 19 | 76.7 | 74.2 | 60.8 | 70.3 | 72.2 | 73.6 | 63.0 | 62.5 | 1.3 | -0.9 |
| Avg. | 76.6 | 74.0 | 60.9 | 70.8 | 72.3 | 73.6 | 56.5 | 54.3 | 1.6 | -0.9 |
| Std Dv | 0.7 | 0.6 | 0.8 | 0.4 | 0.8 | 1.0 | 7.1 | 7.4 | 0.3 | 0.0 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

R

TABLE NO. A.6-2.1G
 BELL 206L HELICOPTER
 SUMMARY NOISE LEVEL DATA

DOT/TSC
 12/ 2/80

AS MEASURED *

SITE: 1G

CENTERLINE - CENTER (FLUSH)

JUNE 26, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|--|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| 300 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS | | | | | | | | | | |
| 1 | 94.4 | 90.4 | 84.7 | 92.3 | 97.3 | 98.7 | 8.5 | 9.0 | 1.4 | -0.4 |
| 2 | 92.8 | 89.0 | 83.5 | 91.9 | 96.3 | 97.6 | 8.0 | 7.5 | 1.3 | -0.6 |
| 3 | 93.9 | 90.1 | 84.3 | 92.6 | 96.8 | 98.4 | 8.5 | 8.0 | 1.7 | -0.6 |
| 4 | 93.6 | 90.1 | 84.8 | 93.1 | 97.6 | 98.8 | 8.0 | 7.0 | 1.1 | -0.5 |
| Avg. | 93.7 | 89.9 | 84.3 | 92.5 | 97.0 | 98.3 | 8.2 | 7.9 | 1.4 | -0.5 |
| Std Dv | 0.7 | 0.6 | 0.6 | 0.5 | 0.6 | 0.5 | 0.3 | 0.9 | 0.2 | 0.1 |
| 700 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS | | | | | | | | | | |
| 5 | 89.9 | 86.8 | 78.4 | 87.9 | 90.7 | 91.8 | 16.0 | 15.5 | 1.2 | -0.2 |
| 6 | 87.2 | 84.2 | 74.9 | 86.1 | 86.7 | 87.8 | 18.0 | 17.5 | 1.2 | -0.4 |
| 7 | 89.0 | 85.6 | 76.4 | 85.4 | 88.6 | 90.2 | 20.0 | 18.0 | 1.9 | -0.4 |
| 8 | 87.6 | 84.5 | 75.4 | 86.0 | 87.5 | 88.8 | 18.0 | 17.0 | 1.3 | -0.5 |
| Avg. | 88.4 | 85.2 | 76.3 | 86.3 | 88.4 | 89.6 | 18.0 | 17.0 | 1.4 | -0.4 |
| Std Dv | 1.3 | 1.2 | 1.5 | 1.1 | 1.7 | 1.8 | 1.6 | 1.1 | 0.4 | 0.1 |
| 1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS | | | | | | | | | | |
| 9 | 86.8 | 83.8 | 73.7 | 82.2 | 85.6 | 86.8 | 25.0 | 24.0 | 1.2 | -0.3 |
| 10 | 85.7 | 82.9 | 72.5 | 83.2 | 84.3 | 85.7 | 23.5 | 23.0 | 1.3 | -0.5 |
| 11 | 86.5 | 83.9 | 73.1 | 82.8 | 85.1 | 86.4 | 27.0 | 25.0 | 1.3 | -0.2 |
| 12 | 84.8 | 82.0 | 71.9 | 82.1 | 83.8 | 84.9 | 25.5 | 23.5 | 1.2 | -0.4 |
| Avg. | 86.0 | 83.1 | 72.8 | 82.6 | 84.7 | 85.9 | 25.2 | 23.9 | 1.3 | -0.3 |
| Std Dv | 0.9 | 0.9 | 0.8 | 0.5 | 0.8 | 0.8 | 1.4 | 0.9 | 0.1 | 0.1 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.6-3.1G

BELL 206L HELICOPTER

DOT/TSC
12/ 2/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 1G

CENTERLINE - CENTER (FLUSH)

JUNE 26, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|--|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| 1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS | | | | | | | | | | |
| 13 | 84.2 | 81.3 | 69.4 | 78.7 | 81.2 | 82.9 | 37.0 | 34.0 | 1.6 | -0.5 |
| 14 | 82.7 | 79.9 | 68.5 | 79.0 | 80.6 | 81.6 | 37.5 | 34.5 | 1.0 | -0.5 |
| 15 | 83.6 | 80.9 | 68.6 | 78.4 | 80.6 | 81.8 | 40.0 | 40.0 | 1.4 | -0.2 |
| 16 | 84.1 | 81.5 | 70.0 | 79.3 | 81.6 | 82.7 | 33.0 | 35.5 | 1.0 | -0.6 |
| Avg. | 83.7 | 80.9 | 69.2 | 78.9 | 81.0 | 82.2 | 36.9 | 36.0 | 1.3 | -0.5 |
| Std Dv | 0.7 | 0.7 | 0.7 | 0.4 | 0.5 | 0.7 | 2.9 | 2.7 | 0.3 | 0.2 |

2000 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|------|------|-----|------|
| 17 | 81.3 | 78.6 | 65.5 | 75.7 | 77.0 | 78.8 | 56.0 | 43.5 | 1.8 | -0.7 |
| 18 | 79.9 | 77.6 | 64.8 | 75.4 | 76.2 | 77.8 | 47.5 | 40.0 | 1.6 | -0.6 |
| 19 | - | 78.2 | 65.3 | 74.7 | 76.8 | 78.4 | 50.0 | - | 1.6 | - |
| Avg. | 80.6 | 78.1 | 65.2 | 75.3 | 76.7 | 78.3 | 51.2 | 27.8 | 1.7 | -0.6 |
| Std Dv | 0.9 | 0.5 | 0.4 | 0.5 | 0.4 | 0.5 | 4.4 | 24.2 | 0.1 | 0.1 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.6-2.1H
 BELL 206L HELICOPTER
 SUMMARY NOISE LEVEL DATA

DOT/TSC
 12/ 2/80

AS MEASURED *

SITE: 1H

CENTERLINE - CENTER (10 METER)

JUNE 26,1980

| EV | EPNL | NEL | DBA(M) | DASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|---|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| 300 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS | | | | | | | | | | |
| 1 | 92.2 | 88.1 | 82.7 | 88.2 | 96.3 | 97.5 | 8.0 | 7.0 | 1.2 | -0.9 |
| 2 | 91.1 | 86.8 | 81.6 | 87.4 | 95.4 | 96.3 | 8.0 | 6.5 | 1.4 | -0.9 |
| 3 | 92.3 | 88.0 | 82.9 | 88.1 | 96.4 | 97.7 | 7.0 | 6.0 | 1.4 | -1.0 |
| 4 | 92.3 | 87.9 | 83.2 | 89.0 | 96.9 | 98.2 | 7.0 | 6.0 | 1.3 | -0.7 |
| Avg. | 92.0 | 87.7 | 82.6 | 88.2 | 96.2 | 97.4 | 7.5 | 6.4 | 1.3 | -0.9 |
| Std Dv | 0.6 | 0.6 | 0.7 | 0.6 | 0.7 | 0.8 | 0.6 | 0.5 | 0.1 | 0.1 |

700 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|------|------|-----|------|
| 5 | 87.3 | 84.0 | 75.4 | 83.2 | 88.2 | 89.2 | 16.0 | 14.0 | 1.1 | -0.6 |
| 6 | 83.1 | 79.8 | 72.1 | 77.0 | 84.3 | 85.3 | 13.5 | 13.0 | 1.0 | -0.7 |
| 7 | 84.8 | 81.4 | 73.0 | 76.3 | 85.4 | 86.5 | 17.0 | 14.5 | 1.2 | -1.0 |
| 8 | 83.6 | 80.2 | 72.3 | 76.7 | 84.7 | 85.8 | 14.0 | 13.0 | 1.2 | -0.8 |
| Avg. | 84.7 | 81.3 | 73.2 | 78.3 | 85.6 | 86.7 | 15.1 | 13.6 | 1.1 | -0.8 |
| Std Dv | 1.9 | 1.9 | 1.5 | 3.3 | 1.7 | 1.8 | 1.7 | 0.7 | 0.1 | 0.2 |

1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|------|------|-----|------|
| 9 | 83.6 | 80.6 | 69.9 | 77.8 | 82.0 | 83.0 | 26.0 | 24.0 | 1.6 | -0.6 |
| 10 | 83.3 | 80.5 | 69.9 | 78.4 | 81.8 | 82.9 | 27.0 | 25.5 | 1.1 | -0.6 |
| 11 | - | 79.3 | 68.1 | 78.1 | 80.1 | 81.3 | 27.5 | - | 1.2 | - |
| 12 | 80.7 | 77.6 | 67.9 | 77.2 | 79.9 | 80.7 | 26.0 | 25.5 | 0.7 | -0.6 |
| Avg. | 82.6 | 79.5 | 68.9 | 77.9 | 80.9 | 82.0 | 26.6 | 18.7 | 1.2 | -0.6 |
| Std Dv | 1.6 | 1.4 | 1.1 | 0.5 | 1.1 | 1.2 | 0.7 | 12.5 | 0.3 | 0.0 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE,HUMIDITY,AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ ,THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.6-3.1H

BELL 206L HELICOPTER

DOT/TSC
12/ 2/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 1H

CENTERLINE - CENTER (10 METER)

JUNE 26, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|--|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| 1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS | | | | | | | | | | |
| 13 | 79.8 | 76.8 | 64.7 | 73.9 | 76.6 | 78.0 | 38.0 | 35.0 | 1.8 | -0.8 |
| 14 | 77.6 | 74.6 | 63.4 | 73.5 | 75.4 | 76.1 | 38.0 | 37.5 | 0.7 | -0.6 |
| 15 | 78.8 | 76.0 | 63.3 | 74.1 | 75.4 | 76.5 | 44.5 | 44.0 | 1.6 | -0.4 |
| 16 | 77.9 | 74.9 | 63.2 | 74.2 | 75.3 | 76.3 | 40.0 | 38.5 | 0.9 | -0.6 |
| Avg. | 78.5 | 75.6 | 63.7 | 73.9 | 75.7 | 76.7 | 40.1 | 38.7 | 1.3 | -0.6 |
| Std Dv | 1.0 | 1.0 | 0.7 | 0.3 | 0.6 | 0.9 | 3.1 | 3.8 | 0.5 | 0.2 |

2000 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|------|------|-----|------|
| 17 | 76.8 | 73.6 | 60.6 | 70.6 | 72.5 | 73.7 | 60.5 | 57.5 | 2.3 | -1.0 |
| 18 | 75.9 | 72.9 | 59.6 | 70.4 | 71.2 | 72.5 | 53.5 | 51.5 | 1.5 | -0.6 |
| 19 | 76.5 | 73.5 | 60.2 | 70.3 | 72.0 | 73.1 | 61.5 | 61.5 | 1.9 | -0.7 |
| Avg. | 76.4 | 73.3 | 60.1 | 70.4 | 71.9 | 73.1 | 58.5 | 56.8 | 1.9 | -0.8 |
| Std Dv | 0.5 | 0.4 | 0.5 | 0.1 | 0.6 | 0.6 | 4.4 | 5.0 | 0.4 | 0.2 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - / \ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.6-2.2
 BELL 206L HELICOPTER
 SUMMARY NOISE LEVEL DATA

DOT/TSC
 11/25/80

AS MEASURED *

SITE: 2

CENTERLINE - 150 M. WEST

JUNE 26, 1980

| EV | EPNL | NEL | DBA(M) | DASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|---|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| 300 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS | | | | | | | | | | |
| 1 | 92.1 | 88.5 | 82.1 | 89.7 | 95.1 | 96.0 | 10.5 | 9.5 | 0.8 | -0.6 |
| 2 | 90.8 | 86.9 | 81.5 | 89.4 | 94.6 | 95.3 | 8.5 | 7.5 | 1.2 | -0.8 |
| 3 | 91.6 | 88.0 | 81.9 | 90.2 | 94.9 | 95.9 | 9.5 | 9.0 | 1.0 | -0.6 |
| 4 | 91.3 | 87.5 | 82.2 | 90.6 | 95.5 | 96.5 | 8.0 | 7.0 | 1.0 | -0.6 |
| Avg. | 91.5 | 87.7 | 81.9 | 90.0 | 95.0 | 95.9 | 9.1 | 8.2 | 1.0 | -0.7 |
| Std Dv | 0.6 | 0.7 | 0.3 | 0.5 | 0.4 | 0.5 | 1.1 | 1.2 | 0.2 | 0.1 |

700 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|------|------|-----|------|
| 5 | 87.2 | 83.8 | 74.7 | 83.9 | 87.3 | 88.2 | 19.0 | 18.5 | 0.9 | -0.8 |
| 6 | 84.8 | 81.6 | 73.6 | 83.4 | 85.8 | 86.6 | 17.0 | 16.5 | 0.8 | -0.8 |
| 7 | 86.6 | 83.2 | 73.6 | 83.1 | 86.1 | 87.2 | 24.0 | 20.5 | 1.1 | -0.7 |
| 8 | 85.0 | 81.8 | 73.1 | 82.9 | 85.0 | 85.7 | 19.0 | 19.5 | 1.3 | -0.7 |
| Avg. | 85.9 | 82.6 | 73.7 | 83.3 | 86.0 | 86.9 | 19.7 | 18.7 | 1.0 | -0.7 |
| Std Dv | 1.2 | 1.1 | 0.7 | 0.5 | 0.9 | 1.0 | 3.0 | 1.7 | 0.2 | 0.0 |

1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|------|------|-----|------|
| 9 | 84.1 | 81.1 | 70.1 | 79.7 | 82.3 | 83.3 | 29.0 | 27.0 | 1.0 | -0.7 |
| 10 | 83.0 | 80.3 | 70.7 | 80.2 | 82.3 | 83.2 | 24.5 | 24.0 | 0.7 | -0.8 |
| 11 | 83.8 | 81.2 | 70.6 | 80.3 | 82.9 | 83.9 | 31.5 | 26.5 | 1.1 | -0.7 |
| 12 | 82.3 | 79.2 | 69.8 | 79.7 | 81.6 | 82.6 | 24.5 | 23.5 | 1.0 | -0.7 |
| Avg. | 83.3 | 80.5 | 70.3 | 80.0 | 82.3 | 83.3 | 27.4 | 25.2 | 0.9 | -0.7 |
| Std Dv | 0.8 | 0.9 | 0.4 | 0.3 | 0.5 | 0.5 | 3.5 | 1.8 | 0.2 | 0.0 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.6-3.2
 BELL 206L HELICOPTER
 SUMMARY NOISE LEVEL DATA
 AS MEASURED *

DOT/TSC
 11/25/80

SITE: 2

CENTERLINE - 150 M. WEST

JUNE 26, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|--|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| 1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS | | | | | | | | | | |
| 13 | 81.7 | 78.9 | 66.7 | 76.3 | 78.6 | 79.8 | 50.0 | 49.5 | 1.3 | -0.8 |
| 14 | 79.4 | 76.6 | 64.9 | 76.1 | 76.4 | 77.2 | 39.5 | 39.5 | 0.7 | -0.8 |
| 15 | 80.8 | 78.0 | 64.9 | 75.6 | 77.0 | 78.3 | 47.0 | 44.5 | 1.3 | -0.7 |
| 16 | 79.6 | 76.8 | 64.9 | 76.1 | 76.4 | 77.5 | 40.0 | 38.0 | 1.1 | -0.8 |
| Avg. | 80.4 | 77.6 | 65.3 | 76.0 | 77.1 | 78.2 | 44.1 | 42.9 | 1.1 | -0.8 |
| Std Dv | 1.1 | 1.1 | 0.9 | 0.3 | 1.0 | 1.1 | 5.2 | 5.2 | 0.3 | 0.0 |

2000 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|------|------|-----|------|
| 17 | 79.1 | 76.0 | 62.6 | 73.4 | 74.6 | 76.2 | 54.5 | 53.5 | 1.9 | -1.0 |
| 18 | 77.1 | 74.4 | 61.8 | 72.0 | 73.4 | 74.7 | 49.0 | 49.5 | 1.2 | -0.8 |
| 19 | - | 75.1 | 61.9 | 71.9 | 73.6 | 74.9 | 57.0 | - | 1.2 | - |
| Avg. | 78.1 | 75.2 | 62.1 | 72.4 | 73.9 | 75.3 | 53.5 | 34.3 | 1.4 | -0.9 |
| Std Dv | 1.4 | 0.8 | 0.4 | 0.9 | 0.6 | 0.8 | 4.1 | 29.8 | 0.4 | 0.1 |

* - INDEXES (A, D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - / \ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.6-2.3
 BELL 206L HELICOPTER
 SUMMARY NOISE LEVEL DATA
 AS MEASURED *

DOT/TSC
 11/25/80

SITE: 3

CENTERLINE - 150 M. EAST

JUNE 26, 1980

| EV | EPNL | NEL | DBA(M) | DASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|--|------|------|--------|---------|--------|---------|--------|--------|-----|------|
| 300 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS | | | | | | | | | | |
| 1 | 91.2 | 87.6 | 80.5 | 89.1 | 93.3 | 94.4 | 12.0 | 12.5 | 1.1 | -0.6 |
| 2 | 89.9 | 86.1 | 80.3 | 88.7 | 93.0 | 93.8 | 9.5 | 10.0 | 0.8 | -0.8 |
| 3 | 91.1 | 87.3 | 80.5 | 89.5 | 93.7 | 94.8 | 11.0 | 10.0 | 1.2 | -0.7 |
| 4 | 90.9 | 87.4 | 82.2 | 90.4 | 94.9 | 95.5 | 7.5 | 8.0 | 0.6 | -0.7 |
| Avg. | 90.8 | 87.1 | 80.9 | 89.4 | 93.7 | 94.6 | 10.0 | 10.1 | 0.9 | -0.7 |
| Std Dv | 0.6 | 0.7 | 0.9 | 0.7 | 0.8 | 0.7 | 2.0 | 1.8 | 0.3 | 0.1 |
| 700 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS | | | | | | | | | | |
| 5 | 87.2 | 83.8 | 74.1 | 84.2 | 86.2 | 87.4 | 19.5 | 23.0 | 1.2 | -0.8 |
| 6 | 84.3 | 81.1 | 72.1 | 84.0 | 83.9 | 85.1 | 19.5 | 19.0 | 1.2 | -0.8 |
| 7 | 86.4 | 83.0 | 72.9 | 82.2 | 85.0 | 86.4 | 25.0 | 24.0 | 1.5 | -0.8 |
| 8 | 85.0 | 81.6 | 73.7 | 83.6 | 85.3 | 86.3 | 16.0 | 18.0 | 0.9 | -0.9 |
| Avg. | 85.7 | 82.4 | 73.2 | 83.5 | 85.1 | 86.3 | 20.0 | 21.0 | 1.2 | -0.8 |
| Std Dv | 1.3 | 1.2 | 0.9 | 0.9 | 1.0 | 0.9 | 3.7 | 2.9 | 0.2 | 0.0 |
| 1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS | | | | | | | | | | |
| 9 | 83.8 | 80.8 | 69.1 | 79.7 | 81.2 | 82.6 | 32.5 | 30.5 | 1.4 | -1.0 |
| 10 | | | | NO DATA | | | | | | |
| 11 | 83.5 | 80.9 | 69.9 | 80.2 | 80.7 | 81.8 | 31.0 | 32.0 | 1.3 | -0.7 |
| 12 | 82.3 | 79.0 | 69.3 | 79.7 | 80.4 | 81.9 | 25.0 | 29.0 | 1.6 | -0.8 |
| Avg. | 83.2 | 80.2 | 69.4 | 79.9 | 80.8 | 82.1 | 29.5 | 30.5 | 1.4 | -0.8 |
| Std Dv | 0.8 | 1.1 | 0.4 | 0.3 | 0.4 | 0.4 | 4.0 | 1.5 | 0.1 | 0.1 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.6-3.3

BELL 206L HELICOPTER

DOT/TSC
1/21/81

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 3

CENTERLINE - 150 M. EAST

JUNE 26, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|--|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| 1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS | | | | | | | | | | |
| 13 | - | 78.2 | 65.1 | 76.1 | 77.0 | 78.6 | 47.5 | - | 1.8 | - |
| 14 | - | 76.5 | 64.7 | 76.6 | 76.1 | 77.2 | 41.0 | - | 1.2 | - |
| 15 | - | 77.5 | 64.7 | 75.6 | 78.8 | 80.4 | 41.0 | - | 1.6 | - |
| 16 | 80.6 | 77.0 | 64.9 | 76.3 | 78.2 | 80.9 | 44.0 | 33.5 | 2.5 | -0.6 |
| Avg. | 80.6 | 77.3 | 64.8 | 76.1 | 77.5 | 79.3 | 43.4 | 8.4 | 1.8 | -0.6 |
| Std Dv | - | 0.7 | 0.2 | 0.4 | 1.2 | 1.7 | 3.1 | 16.7 | 0.6 | - |
| 2000 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS | | | | | | | | | | |
| 17 | - | 75.4 | 61.6 | 73.2 | 73.4 | 74.7 | 58.5 | - | 1.5 | - |
| 18 | - | 74.1 | 61.5 | 72.5 | 73.0 | 74.8 | 46.5 | - | 1.7 | - |
| 19 | - | 75.1 | 60.6 | 71.7 | 72.8 | 74.5 | 63.5 | - | 1.7 | - |
| Avg. | - | 74.6 | 61.0 | 72.1 | 72.9 | 74.6 | 55.0 | 0.0 | 1.7 | - |
| Std Dv | 0.0 | 0.7 | 0.7 | 0.5 | 0.1 | 0.2 | 12.0 | 0.0 | 0.0 | 0.0 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.6-2.4
 BELL 206L HELICOPTER
 SUMMARY NOISE LEVEL DATA
 AS MEASURED *

DOT/TSC
 11/24/80

SITE: 4

SIDELINE - 164M. NORTH

JUNE 26, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|--|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| 300 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS | | | | | | | | | | |
| 1 | 88.4 | 85.3 | 76.9 | 86.8 | 88.1 | 89.6 | 19.0 | 18.5 | 1.5 | -0.7 |
| 2 | 87.8 | 83.8 | 76.7 | 89.2 | 88.7 | 90.8 | 13.0 | 12.0 | 2.2 | -0.6 |
| 3 | 88.3 | 85.3 | 76.9 | 86.8 | 88.2 | 89.3 | 18.0 | 18.5 | 1.2 | -0.7 |
| 4 | 88.2 | 84.4 | 76.7 | 89.9 | 88.9 | 90.4 | 13.5 | 12.5 | 1.7 | -0.5 |
| Avg. | 88.2 | 84.7 | 76.8 | 88.2 | 88.5 | 90.0 | 15.9 | 15.4 | 1.6 | -0.6 |
| Std Dv | 0.3 | 0.7 | 0.1 | 1.6 | 0.4 | 0.7 | 3.1 | 3.6 | 0.4 | 0.1 |
| 700 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS | | | | | | | | | | |
| 5 | 88.1 | 84.8 | 76.6 | 87.5 | 88.7 | 90.2 | 17.5 | 18.0 | 1.9 | -0.7 |
| 6 | 84.9 | 81.9 | 72.8 | 86.0 | 84.1 | 85.6 | 20.0 | 20.0 | 2.0 | -0.8 |
| 7 | 86.9 | 84.0 | 75.1 | 85.9 | 86.7 | 88.1 | 25.0 | 25.5 | 1.4 | -0.9 |
| 8 | 85.0 | 82.1 | 73.0 | 86.8 | 84.7 | 85.9 | 18.0 | 19.5 | 1.2 | -0.6 |
| Avg. | 86.2 | 83.2 | 74.4 | 86.5 | 86.0 | 87.5 | 20.1 | 20.7 | 1.6 | -0.7 |
| Std Dv | 1.5 | 1.4 | 1.8 | 0.7 | 2.1 | 2.2 | 3.4 | 3.3 | 0.4 | 0.1 |
| 1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS | | | | | | | | | | |
| 9 | 85.5 | 82.2 | 71.5 | 83.1 | 84.4 | 86.0 | 26.5 | 23.5 | 1.7 | -0.9 |
| 10 | 83.6 | 80.5 | 70.1 | 84.8 | 81.7 | 83.2 | 26.5 | 29.5 | 1.4 | -0.6 |
| 11 | 85.8 | 82.5 | 71.9 | 83.1 | 85.0 | 86.7 | 30.5 | 21.5 | 1.8 | -0.9 |
| 12 | 82.8 | 80.2 | 70.4 | 82.9 | 82.3 | 83.6 | 26.0 | 25.0 | 1.4 | -0.6 |
| Avg. | 84.4 | 81.3 | 71.0 | 83.5 | 83.4 | 84.9 | 27.4 | 24.9 | 1.6 | -0.8 |
| Std Dv | 1.5 | 1.1 | 0.9 | 0.9 | 1.6 | 1.8 | 2.1 | 3.4 | 0.2 | 0.2 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - / \ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.6-3.4
 BELL 206L HELICOPTER
 SUMMARY NOISE LEVEL DATA
 AS MEASURED *

DOT/TSC
 11/24/80

SITE: 4

SIDELINE - 164M. NORTH

JUNE 26, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|--|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| 1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS | | | | | | | | | | |
| 13 | 82.9 | 79.7 | 67.9 | 79.9 | 80.7 | 82.6 | 37.0 | 32.5 | 1.9 | -0.8 |
| 14 | 80.4 | 77.7 | 66.7 | 80.0 | 78.1 | 79.0 | 34.5 | 39.5 | 0.9 | -0.6 |
| 15 | 82.6 | 79.6 | 67.6 | 79.4 | 80.4 | 82.5 | 42.0 | 30.0 | 2.0 | -0.5 |
| 16 | 80.5 | 77.8 | 65.5 | 80.9 | 77.0 | 78.1 | 40.5 | 42.5 | 1.2 | -0.7 |
| Avg. | 81.6 | 78.7 | 66.9 | 80.1 | 79.1 | 80.6 | 38.5 | 36.1 | 1.5 | -0.7 |
| Std Dv | 1.4 | 1.1 | 1.1 | 0.6 | 1.8 | 2.3 | 3.4 | 5.9 | 0.6 | 0.1 |

2000 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|------|------|-----|------|
| 17 | 80.8 | 77.6 | 64.9 | 76.8 | 77.5 | 79.5 | 60.5 | 55.5 | 2.1 | -1.0 |
| 18 | 78.4 | 75.4 | 62.6 | 76.9 | 74.2 | 75.1 | 54.0 | 54.5 | 1.0 | -0.6 |
| 19 | 79.8 | 76.9 | 63.9 | 75.3 | 76.2 | 78.2 | 57.0 | 42.0 | 2.1 | -0.7 |
| Avg. | 79.7 | 76.6 | 63.8 | 76.3 | 76.0 | 77.6 | 57.2 | 50.7 | 1.7 | -0.8 |
| Std Dv | 1.2 | 1.1 | 1.1 | 0.9 | 1.7 | 2.3 | 3.3 | 7.5 | 0.6 | 0.2 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.6-2.5

BELL 206L HELICOPTER

DOT/TSC
11/24/80

SUMMARY NOISE LEVEL DATA

AS MEASURED *

SITE: 5

SIDELINE - 150 M. SOUTH

JUNE 26, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|--|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| 300 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS | | | | | | | | | | |
| 1 | 87.6 | 84.2 | 76.3 | 88.5 | 88.5 | 89.6 | 14.5 | 13.5 | 1.1 | -0.6 |
| 2 | 87.0 | 84.2 | 76.7 | 86.1 | 88.2 | 89.8 | 13.5 | 12.5 | 1.9 | -0.9 |
| 3 | 87.9 | 84.6 | 76.7 | 88.7 | 88.9 | 90.1 | 14.0 | 12.5 | 1.2 | -0.6 |
| 4 | 87.6 | 84.9 | 77.1 | 86.7 | 88.6 | 90.2 | 13.5 | 12.5 | 1.7 | -0.7 |
| Avg. | 87.5 | 84.5 | 76.7 | 87.5 | 88.5 | 89.9 | 13.9 | 12.7 | 1.5 | -0.7 |
| Std Dv | 0.3 | 0.3 | 0.3 | 1.3 | 0.3 | 0.3 | 0.5 | 0.5 | 0.4 | 0.1 |
| 700 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS | | | | | | | | | | |
| 5 | 85.4 | 82.4 | 73.3 | 86.4 | 85.1 | 86.7 | 20.5 | 21.0 | 1.5 | -0.7 |
| 6 | 86.3 | 82.9 | 74.2 | 85.0 | 86.4 | 88.1 | 15.5 | 13.5 | 1.8 | -1.1 |
| 7 | 84.9 | 82.3 | 72.7 | 84.9 | 84.8 | 86.1 | 26.0 | 20.5 | 1.4 | -0.5 |
| 8 | 86.3 | 83.0 | 73.9 | 84.7 | 86.1 | 88.0 | 16.5 | 15.0 | 1.8 | -1.1 |
| Avg. | 85.7 | 82.7 | 73.5 | 85.3 | 85.6 | 87.2 | 19.6 | 17.5 | 1.6 | -0.9 |
| Std Dv | 0.7 | 0.3 | 0.6 | 0.8 | 0.8 | 1.0 | 4.8 | 3.8 | 0.2 | 0.3 |
| 1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS | | | | | | | | | | |
| 9 | 82.3 | 79.8 | 68.4 | 82.0 | 80.2 | 81.3 | 33.5 | 28.5 | 1.1 | -0.7 |
| 10 | 84.4 | 81.4 | 71.8 | 81.6 | 82.6 | 84.1 | 22.5 | 22.5 | 1.6 | -0.8 |
| 11 | 82.4 | 79.9 | 68.3 | 82.4 | 79.8 | 81.5 | 34.5 | 34.5 | 1.7 | -0.7 |
| 12 | 83.3 | 80.1 | 70.4 | 80.9 | 82.8 | 83.7 | 23.0 | 21.0 | 1.2 | -1.0 |
| Avg. | 83.1 | 80.3 | 69.7 | 81.7 | 81.3 | 82.7 | 28.4 | 26.6 | 1.4 | -0.8 |
| Std Dv | 1.0 | 0.7 | 1.7 | 0.6 | 1.6 | 1.5 | 6.5 | 6.2 | 0.3 | 0.2 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.6-3.5
 BELL 206L HELICOPTER
 SUMMARY NOISE LEVEL DATA

DOT/TSC
 11/24/80

AS MEASURED *

SITE: 5

SIDELINE - 150 M. SOUTH

JUNE 26, 1980

| EV | EPNL | NEL | DBA(M) | DASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|--|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| 1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS | | | | | | | | | | |
| 13 | 81.1 | 78.5 | 65.3 | 78.1 | 76.9 | 77.7 | 55.0 | 49.5 | 1.4 | -0.7 |
| 14 | 80.8 | 77.5 | 66.6 | 76.2 | 79.0 | 79.7 | 30.0 | 26.5 | 0.9 | -1.1 |
| 15 | 80.1 | 77.7 | 64.4 | 77.8 | 76.2 | 77.1 | 50.5 | 49.5 | 0.9 | -0.7 |
| 16 | 80.6 | 77.5 | 66.1 | 76.8 | 78.2 | 79.8 | 32.0 | 29.0 | 1.7 | -1.1 |
| Avg. | 80.6 | 77.8 | 65.6 | 77.2 | 77.5 | 78.6 | 41.9 | 38.6 | 1.2 | -0.9 |
| Std Dv | 0.4 | 0.5 | 0.9 | 0.9 | 1.3 | 1.4 | 12.7 | 12.6 | 0.4 | 0.2 |

2000 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|------|------|-----|------|
| 17 | 78.6 | 75.8 | 62.8 | 73.1 | 74.1 | 75.1 | 56.0 | 55.0 | 1.5 | -1.0 |
| 18 | 77.9 | 74.9 | 62.7 | 73.3 | 74.5 | 75.8 | 43.0 | 41.0 | 1.4 | -1.1 |
| 19 | 77.7 | 75.1 | 61.0 | 73.5 | 72.7 | 74.1 | 60.0 | 54.0 | 1.4 | -0.8 |
| Avg. | 78.1 | 75.3 | 62.2 | 73.3 | 73.8 | 75.0 | 53.0 | 50.0 | 1.4 | -1.0 |
| Std Dv | 0.5 | 0.5 | 1.0 | 0.2 | 0.9 | 0.9 | 8.9 | 7.8 | 0.1 | 0.2 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.6-2.5G
 BELL 206L HELICOPTER
 SUMMARY NOISE LEVEL DATA

DOT/TSC
 11/26/80

AS MEASURED *

SITE: 5G SIDELINE - 150 M. SOUTH (FLUSH) JUNE 26, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|--|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| 300 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS | | | | | | | | | | |
| 1 | 91.0 | 87.2 | 80.3 | 88.5 | 92.4 | 93.3 | 11.0 | 11.5 | 0.9 | -0.5 |
| 2 | 90.6 | 87.2 | 80.7 | 87.1 | 93.0 | 94.3 | 10.5 | 10.0 | 1.5 | -0.9 |
| 3 | 91.4 | 87.6 | 80.6 | 89.1 | 92.5 | 93.5 | 10.5 | 11.5 | 1.1 | -0.4 |
| 4 | 91.0 | 87.4 | 80.7 | 87.5 | 93.3 | 94.6 | 10.5 | 10.0 | 1.4 | -0.8 |
| Avg. | 91.0 | 87.3 | 80.6 | 88.1 | 92.8 | 93.9 | 10.6 | 10.7 | 1.2 | -0.6 |
| Std Dv | 0.3 | 0.2 | 0.2 | 0.9 | 0.4 | 0.6 | 0.2 | 0.9 | 0.3 | 0.2 |
| 700 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS | | | | | | | | | | |
| 5 | 88.8 | 86.2 | 77.6 | 87.2 | 88.8 | 90.1 | 16.0 | 16.5 | 1.2 | -0.4 |
| 6 | 89.6 | 86.3 | 77.9 | 86.3 | 89.9 | 91.6 | 14.5 | 13.0 | 1.8 | -1.0 |
| 7 | 88.3 | 85.7 | 77.1 | 85.7 | 88.5 | 89.5 | 16.5 | 17.0 | 0.9 | -0.3 |
| 8 | 89.7 | 86.6 | 78.1 | 86.2 | 90.4 | 92.1 | 14.5 | 12.5 | 1.7 | -0.9 |
| Avg. | 89.1 | 86.2 | 77.7 | 86.4 | 89.4 | 90.8 | 15.4 | 14.7 | 1.4 | -0.6 |
| Std Dv | 0.7 | 0.4 | 0.4 | 0.6 | 0.9 | 1.2 | 1.0 | 2.3 | 0.4 | 0.3 |
| 1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS | | | | | | | | | | |
| 9 | 86.4 | 83.9 | 73.4 | 83.3 | 84.9 | 85.7 | 25.0 | 25.0 | 1.1 | -0.3 |
| 10 | 87.9 | 85.0 | 74.4 | 83.1 | 86.2 | 87.9 | 23.5 | 22.5 | 1.7 | -0.9 |
| 11 | 85.8 | 83.5 | 72.9 | 83.3 | 83.8 | 85.0 | 24.0 | 26.0 | 1.3 | -0.3 |
| 12 | 86.8 | 83.7 | 73.6 | 82.5 | 85.5 | 86.9 | 23.5 | 21.5 | 1.6 | -1.0 |
| Avg. | 86.7 | 84.1 | 73.6 | 83.1 | 85.1 | 86.4 | 24.0 | 23.7 | 1.4 | -0.7 |
| Std Dv | 0.9 | 0.7 | 0.6 | 0.4 | 1.0 | 1.3 | 0.7 | 2.1 | 0.3 | 0.4 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.6-3.5G
 BELL 206L HELICOPTER
 SUMMARY NOISE LEVEL DATA
 AS MEASURED *

DOT/TSC
 11/26/80

SITE: 5G SIDELINE - 150 M. SOUTH (FLUSH) JUNE 26, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|--|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| 1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS | | | | | | | | | | |
| 13 | 84.2 | 81.8 | 69.6 | 79.4 | 81.7 | 82.5 | 37.0 | 35.5 | 0.7 | -0.4 |
| 14 | 83.8 | 80.8 | 70.1 | 78.3 | 82.0 | 83.4 | 28.5 | 25.5 | 1.5 | -0.9 |
| 15 | 83.5 | 81.4 | 68.7 | 79.5 | 80.4 | 81.0 | 39.5 | 38.0 | 0.9 | -0.2 |
| 16 | 84.1 | 81.1 | 70.0 | 78.8 | 81.4 | 82.8 | 31.0 | 28.5 | 1.7 | -0.9 |
| Avg. | 83.9 | 81.3 | 69.6 | 79.0 | 81.4 | 82.4 | 34.0 | 31.9 | 1.2 | -0.6 |
| Std Dv | 0.3 | 0.4 | 0.6 | 0.6 | 0.7 | 1.0 | 5.1 | 5.9 | 0.5 | 0.4 |

2000 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS

| | | | | | | | | | | |
|---------------------|------|------|------|------|------|------|------|------|-----|------|
| 17 | 82.0 | 79.3 | 67.8 | 75.9 | 79.6 | 81.2 | 40.5 | 36.5 | 1.7 | -0.7 |
| 18 | 81.5 | 78.5 | 66.9 | 75.5 | 78.4 | 80.1 | 37.0 | 32.0 | 1.7 | -1.1 |
| 19 | 81.1 | 78.8 | 65.8 | 75.4 | 77.4 | 78.6 | 50.0 | 45.5 | 1.1 | -0.4 |
| ----- NO DATA ----- | | | | | | | | | | |
| Avg. | 81.5 | 78.9 | 66.8 | 75.6 | 78.5 | 80.0 | 42.5 | 38.0 | 1.5 | -0.7 |
| Std Dv | 0.5 | 0.4 | 1.0 | 0.3 | 1.1 | 1.3 | 6.7 | 6.9 | 0.3 | 0.4 |

* - INDEXES (A, D, , ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.6-2.6
 BELL 206L HELICOPTER
 SUMMARY NOISE LEVEL DATA
 AS MEASURED *

DOT/TSC
 11/26/80

SITE: 6 SIDELINE - 284 M. NORTH JUNE 26, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|---|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| 300 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS | | | | | | | | | | |
| 1 | 85.4 | 83.2 | 72.4 | 80.5 | 83.3 | 84.8 | 27.5 | 27.0 | 1.5 | -0.3 |
| 2 | 82.7 | 79.7 | 70.6 | 82.5 | 81.8 | 82.7 | 19.0 | 21.5 | 1.2 | -0.3 |
| 3 | 85.1 | 82.7 | 72.4 | 80.2 | 83.0 | 84.5 | 25.0 | 25.0 | 1.5 | -0.2 |
| 4 | 83.2 | 80.4 | 71.4 | 82.8 | 82.4 | 83.8 | 18.5 | 18.0 | 1.5 | 0.1 |
| Avg. | 84.1 | 81.5 | 71.7 | 81.5 | 82.6 | 83.9 | 22.5 | 22.9 | 1.4 | -0.2 |
| Std Dv | 1.3 | 1.7 | 0.9 | 1.3 | 0.6 | 0.9 | 4.5 | 4.0 | 0.2 | 0.1 |

| | | | | | | | | | | |
|---|------|------|------|------|------|------|------|------|-----|------|
| 700 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS | | | | | | | | | | |
| 5 | 85.2 | 82.5 | 72.4 | 83.7 | 83.2 | 84.9 | 26.0 | 27.5 | 1.9 | -0.8 |
| 6 | 82.6 | 80.0 | 70.2 | 82.7 | 81.4 | 82.5 | 23.5 | 25.0 | 1.1 | -0.6 |
| 7 | 84.2 | 81.5 | 71.0 | 81.8 | 81.7 | 83.5 | 28.5 | 31.0 | 1.8 | -0.9 |
| 8 | 82.4 | 79.6 | 69.5 | 83.3 | 81.4 | 82.5 | 24.5 | 23.5 | 1.2 | -0.5 |
| Avg. | 83.6 | 80.9 | 70.8 | 82.8 | 81.9 | 83.4 | 25.6 | 26.7 | 1.5 | -0.7 |
| Std Dv | 1.3 | 1.3 | 1.3 | 0.8 | 0.8 | 1.1 | 2.2 | 3.3 | 0.4 | 0.2 |

| | | | | | | | | | | |
|--|------|------|------|------|------|------|------|------|-----|------|
| 1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS | | | | | | | | | | |
| 9 | 83.6 | 80.6 | 70.3 | 81.9 | 81.7 | 83.1 | 27.5 | 30.0 | 1.3 | -0.6 |
| 10 | 81.4 | 78.6 | 67.8 | 82.8 | 79.6 | 81.0 | 29.5 | 27.5 | 1.4 | -0.6 |
| 11 | 84.0 | 81.0 | 70.1 | 82.2 | 82.1 | 83.5 | 32.0 | 31.5 | 1.4 | -0.9 |
| 12 | 80.7 | 78.1 | 68.0 | 80.6 | 79.9 | 81.6 | 24.5 | 23.0 | 1.7 | -0.5 |
| Avg. | 82.4 | 79.6 | 69.1 | 81.9 | 80.8 | 82.3 | 28.4 | 28.0 | 1.5 | -0.6 |
| Std Dv | 1.6 | 1.5 | 1.4 | 0.9 | 1.3 | 1.2 | 3.2 | 3.7 | 0.2 | 0.2 |

* - INDEXES (A,D, ,ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

TABLE NO. A.6-3.6
 BELL 206L HELICOPTER
 SUMMARY NOISE LEVEL DATA
 AS MEASURED *

DOT/TSC
 11/26/80

SITE: 6

SIDELINE - 284 M. NORTH

JUNE 26, 1980

| EV | EPNL | NEL | DBA(M) | OASPL | PNL(M) | PNLT(M) | DUR(A) | DUR(P) | TC | /** |
|--|------|------|--------|-------|--------|---------|--------|--------|-----|------|
| 1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS | | | | | | | | | | |
| 13 | 81.3 | 78.4 | 66.4 | 78.9 | 78.0 | 79.3 | 41.0 | 46.0 | 1.3 | -0.8 |
| 14 | 78.8 | 76.6 | 65.0 | 78.6 | 75.8 | 77.0 | 37.5 | 41.0 | 1.2 | -0.5 |
| 15 | 81.8 | 79.0 | 67.4 | 79.4 | 79.3 | 80.8 | 38.0 | 34.5 | 1.5 | -0.9 |
| 16 | 79.4 | 76.9 | 64.6 | 79.9 | 75.8 | 77.1 | 40.5 | 39.0 | 1.3 | -0.3 |
| Avg. | 80.3 | 77.7 | 65.8 | 79.2 | 77.2 | 78.5 | 39.2 | 40.1 | 1.3 | -0.6 |
| Std Dv | 1.4 | 1.2 | 1.3 | 0.6 | 1.7 | 1.8 | 1.8 | 4.8 | 0.1 | 0.3 |

2000 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS

| | | | | | | | | | | |
|--------|------|------|------|------|------|------|------|------|-----|------|
| 17 | 79.5 | 76.3 | 63.4 | 76.0 | 75.4 | 77.0 | 50.0 | 45.0 | 1.6 | -0.9 |
| 18 | 77.6 | 74.9 | 63.5 | 76.5 | 74.7 | 75.9 | 47.0 | 46.5 | 1.3 | -0.7 |
| 19 | 79.9 | 76.6 | 62.9 | 75.4 | 75.4 | 77.4 | 63.5 | 60.0 | 1.9 | -0.7 |
| Avg. | 79.0 | 75.9 | 63.2 | 76.0 | 75.2 | 76.8 | 53.5 | 50.5 | 1.6 | -0.8 |
| Std Dv | 1.2 | 0.9 | 0.3 | 0.6 | 0.4 | 0.8 | 8.8 | 8.3 | 0.3 | 0.1 |

* - INDEXES (A,D, .ETC.) CALCULATED USING MEASURED DATA UNCORRECTED FOR TEMPERATURE, HUMIDITY, AND AIRCRAFT DEVIATION FROM FLIGHT TRACK

** - /\ , THE CHANGE IN EPNL ASSUMING TONES 800 Hz AND BELOW TO BE PSEUDOTONES AND EXCLUDING THEM FROM THE PNLT CALCULATIONS

APPENDIX B

CORRECTED ACOUSTICAL DATA

Main body of handwritten text, appearing to be a list or series of entries, possibly organized in columns or rows.

Appendix B

Appendix B provides corrected acoustical data (previously discussed in Section 3) using "As Measured" acoustical data from Appendix A and applying adjustments as follows:

1. Appendix C position and tracking data along with Appendix E meteorological data are used to correct dBA(m) and PNLTM for distance deviations from reference paths and differences between test day absorption and reference day absorption. This correction is identified as Delta 1(P) for PNLT and Delta 1(A) for dBA. Concise details for computing Delta 1 corrections are provided in FAR-36.
2. The Delta 2(P) and Delta 2(A) corrections are applied to EPNL and NEL respectively in order to account for changes in event duration associated with deviations in altitude from reference conditions. The Delta 2 corrections are computed as follows:

$$\text{Delta 2} = k \log(d1/d2)$$

where k has traditionally been taken as equal to 10. In hope of improving upon the performance of k=10, the constants k(P) and k(A) have been derived for each specific event and used to compute Delta 2(P) and Delta 2(A) respectively. The derivation is consistent with FAR-36 data correction assumptions and simple Exposure Level or energy dose as equal to the maximum transient sound level plus a function of the event duration expressed in seconds. The constant k(A)=10 can be re-evaluated by using measured SEL, dBAm and DUR then solving for k(A), $k(A) = \text{SEL} - \text{dBAm} / \log(\text{DUR})$. k(A) is significant as an indicator of event duration influence on Sound Exposure Level. If we assume (as in FAR-36) that event duration is proportional to distance then the values of k(A) can be used to account for changes in SEL with changes in distance.

The same line of reasoning applies to EPNL, PNLTM and DUR(P) with an adjustment necessary to account for the 10 second normalization duration time factor (T) appearing in the EPNL calculation. Thus $k(P) = (\text{EPNL} + 10 - \text{PNLTM}) / (\log \text{DUR}(P))$. It is anticipated that this procedure for computing DELTA 2 will be more accurate than the use of $10 \log(d1/d2)$.

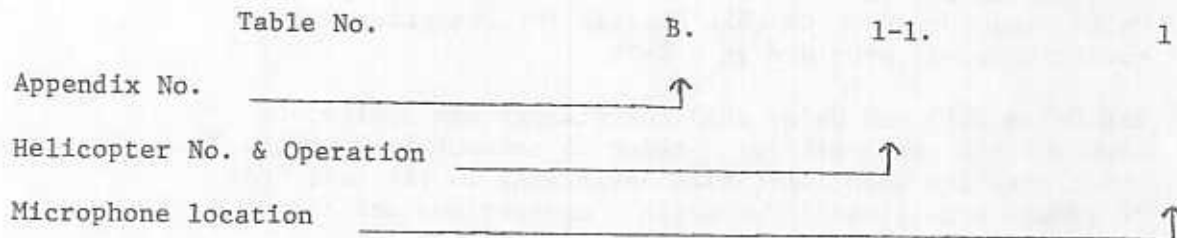
In addition to the adjustments discussed above we have provided certain key position information. The final four columns on each table show:

1. the actual closest point of approach (CPA) to the microphone.
2. the actual helicopter slant range (SR) at the time of PNLTM.
3. the reference CPA identified CPAR and,
4. the reference slant range (SRR).

Appendix B

Corrected Noise Level Data are presented.

The key to the table numbering system is as follows:



| | | <u>Takeoff Approach</u> | <u>Flyover 500 ft</u> | <u>Flyover 300-1500 ft</u> | <u>Type</u> | <u>Date</u> |
|-----------|----|-----------------------------|---------------------------|--------------------------------|-----------------|---------------|
| Table No. | B. | 1-1. | 1-2, | 1-3 | Sikorsky UH-60A | June 22, 1980 |
| | | 2-1, | 2-2, | 2-3 | Sikorsky S-76 | June 23, 1980 |
| | | 3-1, | 3-2, | 3-3 | Augusta A-109 | June 24, 1980 |
| | | 4-1, | 4-2, | 4-3 | Sikorsky S-76 | June 25, 1980 |
| | | 5-1, | 5-2, | 5-3 | Sikorsky UH-60A | June 25, 1980 |
| | | 6-1, | 6-2, | 6-3 | Bell 206L | June 26, 1980 |
| | B. | 7-1, | 7-2, | 7-3 | Sikorsky UH-60A | June 26, 1980 |

| | | |
|---------------------|----|-----------------------------|
| Microphone Location | 1 | centerline-center |
| | 1H | centerline-center 10 meter |
| | 1G | centerline-center (flush) |
| | 2 | centerline 150m west |
| | 3 | centerline 150m east |
| | 4 | sideline 164m north |
| | 5 | sideline 150m south |
| | 5G | sideline 150m south (flush) |
| | 6 | sideline 284m north |

TABLE NO. B.1-2.1

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
12/12/81

CORRECTION DATA

| EV | CORRECTED | | | SITE: 1 | CENTERLINE - CENTER | CORRECTIONS (dB) | | | CONSTANTS | TRACKING DATA (METERS) (ACTUAL) | | | | | |
|---|-----------|------|-------|---------|---------------------|------------------|---------------|---------------|-----------|------------------------------------|---------------|-------|-------|-------|-------|
| | EPNL | NEL | PNLTM | | | dBAM | $\wedge 1(P)$ | $\wedge 1(A)$ | | $\wedge 2(P)$ | $\wedge 2(A)$ | K(P) | K(A) | SR | CPA |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS | | | | | | | | | | | | | | | |
| 27 | 93.6 | 89.9 | 95.2 | 81.9 | | -0.04 | -0.04 | -0.01 | -0.01 | 7.0 | 6.7 | 160.1 | 159.5 | 151.8 | 151.2 |
| 30 | 92.9 | 89.3 | 95.4 | 82.5 | | 0.40 | 0.35 | -0.13 | -0.12 | 7.2 | 6.6 | 176.9 | 169.4 | 157.8 | 151.2 |
| 33 | 93.9 | 90.4 | 94.8 | 81.9 | | -0.21 | -0.21 | 0.05 | 0.05 | 7.7 | 7.4 | 257.5 | 261.6 | 148.8 | 151.2 |
| 36 | 92.4 | 88.7 | 94.8 | 81.4 | | 0.21 | 0.18 | -0.07 | -0.07 | 7.1 | 6.9 | 214.8 | 209.8 | 154.7 | 151.2 |
| Avg. | 93.2 | 89.6 | 95.1 | 81.9 | | 0.09 | 0.07 | -0.04 | -0.04 | 7.3 | 6.9 | 202.3 | 200.1 | 153.3 | 151.2 |
| Std Dv | 0.8 | 0.9 | 0.4 | 0.5 | | 0.33 | 0.30 | 0.09 | 0.09 | 0.4 | 0.4 | 53.0 | 56.9 | 4.8 | 0.0 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 132 KTS | | | | | | | | | | | | | | | |
| 26 | 94.6 | 91.1 | 97.2 | 84.1 | | 0.12 | 0.10 | -0.06 | -0.06 | 7.1 | 7.1 | 285.3 | 279.8 | 154.1 | 151.2 |
| 29 | 94.8 | 91.4 | 97.3 | 83.8 | | -0.11 | -0.13 | 0.02 | 0.02 | 7.0 | 7.2 | 211.0 | 212.4 | 150.2 | 151.2 |
| 32 | 94.1 | 90.8 | 97.4 | 84.6 | | -0.52 | -0.49 | 0.12 | 0.11 | 6.3 | 6.1 | 154.1 | 160.9 | 144.8 | 151.2 |
| 35 | 94.3 | 90.7 | 96.4 | 83.1 | | -0.04 | -0.08 | 0.01 | 0.01 | 7.3 | 7.1 | 186.6 | 186.9 | 150.9 | 151.2 |
| Avg. | 94.4 | 91.0 | 97.1 | 83.9 | | -0.14 | -0.15 | 0.02 | 0.02 | 6.9 | 6.9 | 209.3 | 210.0 | 150.0 | 151.2 |
| Std Dv | 0.4 | 0.4 | 0.6 | 0.8 | | 0.33 | 0.30 | 0.09 | 0.09 | 0.5 | 0.7 | 68.4 | 62.6 | 4.7 | 0.0 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS | | | | | | | | | | | | | | | |
| 25 | 96.8 | 93.3 | 98.9 | 85.3 | | 1.19 | 1.11 | -0.40 | -0.41 | 7.6 | 7.8 | 344.6 | 305.1 | 170.7 | 151.2 |
| 28 | 96.4 | 92.5 | 100.0 | 86.7 | | 0.71 | 0.66 | -0.19 | -0.20 | 6.1 | 6.1 | 180.6 | 167.7 | 162.8 | 151.2 |
| 31 | 97.4 | 94.1 | 100.9 | 87.5 | | -0.24 | -0.24 | 0.05 | 0.05 | 6.4 | 6.6 | 240.5 | 245.0 | 148.4 | 151.2 |
| 34 | 97.2 | 93.8 | 100.4 | 86.8 | | 0.23 | 0.21 | -0.08 | -0.08 | 6.9 | 7.0 | 258.5 | 251.6 | 155.4 | 151.2 |
| Avg. | 97.0 | 93.4 | 100.0 | 86.6 | | 0.47 | 0.43 | -0.15 | -0.16 | 6.7 | 6.9 | 256.0 | 242.4 | 159.3 | 151.2 |
| Std Dv | 0.5 | 0.9 | 1.0 | 1.1 | | 0.75 | 0.71 | 0.23 | 0.24 | 0.8 | 0.9 | 83.0 | 69.3 | 11.8 | 0.0 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 165 KTS | | | | | | | | | | | | | | | |
| 49 | 95.2 | 91.1 | 98.1 | 83.7 | | -0.53 | -0.51 | 0.15 | 0.15 | 6.6 | 6.9 | 205.8 | 216.6 | 143.6 | 151.2 |
| 50 | 96.4 | 92.4 | 98.9 | 85.6 | | -1.67 | -1.64 | 0.46 | 0.46 | 6.5 | 6.5 | 179.0 | 210.3 | 128.6 | 151.2 |
| 51 | 96.2 | 92.2 | 98.6 | 84.7 | | 0.56 | 0.52 | -0.18 | -0.18 | 7.1 | 7.1 | 275.6 | 260.1 | 160.2 | 151.2 |
| Avg. | 95.9 | 91.9 | 98.5 | 84.7 | | -0.55 | -0.54 | 0.14 | 0.14 | 6.7 | 6.8 | 220.1 | 229.0 | 144.1 | 151.2 |
| Std Dv | 0.9 | 1.0 | 0.6 | 1.4 | | 1.58 | 1.53 | 0.45 | 0.45 | 0.5 | 0.4 | 70.5 | 38.3 | 22.3 | 0.0 |

JUNE 22, 1980

TABLE NO. B.1-3.1

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
12/12/81

CORRECTION DATA

SITE: 1 CENTERLINE - CENTER

JUNE 22, 1980

| EV | CORRECTED | | | | CORRECTIONS (dB) | | | | CONSTANTS | | | TRACKING DATA (ACTUAL) | | | TRACKING DATA (METERS) (REFERENCE) | | | |
|--|-----------|------|-------|------|------------------|---------------|---------------|---------------|-----------|------|------------------|------------------------|-------|-------|------------------------------------|-------|-------|-------|
| | EPNL | NEL | PNLTM | GRAM | $\sqrt{1(P)}$ | $\sqrt{1(A)}$ | $\sqrt{2(P)}$ | $\sqrt{2(A)}$ | K(P) | K(A) | SR | CPA | SRR | CPAR | SR | CPA | SRR | CPAR |
| 300 FT. FLYOVER - TARGET INDICATED AIRSPEED 150 KTS | | | | | | | | | | | | | | | | | | |
| 43 | - | 94.5 | 102.4 | 88.9 | -0.09 | -0.11 | - | 0.02 | - | 6.6 | 6.6 | 136.2 | 137.4 | 89.4 | 90.2 | 89.4 | 90.2 | 90.2 |
| 44 | 98.6 | 95.1 | 102.9 | 88.9 | -0.31 | -0.32 | 0.09 | 0.09 | 6.5 | 6.9 | 116.4 | 120.2 | 87.4 | 90.2 | 87.4 | 90.2 | 90.2 | 90.2 |
| Avg. | 98.6 | 94.8 | 102.6 | 88.9 | -0.20 | -0.21 | 0.09 | 0.05 | 6.5 | 6.7 | 126.3 | 128.8 | 88.4 | 90.2 | 88.4 | 90.2 | 90.2 | 90.2 |
| Std Dv | - | 0.4 | 0.4 | 0.0 | 0.16 | 0.15 | - | 0.05 | - | 0.2 | 14.0 | 12.2 | 1.4 | 0.0 | 1.4 | 0.0 | 0.0 | 0.0 |
| 700 FT. FLYOVER - TARGET INDICATED AIRSPEED 150 KTS | | | | | | | | | | | | | | | | | | |
| 41 | 93.0 | 90.1 | 95.2 | 81.9 | 0.13 | 0.10 | -0.05 | -0.05 | 6.8 | 7.2 | 285.6 | 280.9 | 215.7 | 212.1 | 215.7 | 212.1 | 212.1 | 212.1 |
| 42 | 93.3 | 90.0 | 94.5 | 82.0 | 0.10 | 0.08 | -0.04 | -0.04 | 7.1 | 6.6 | 281.1 | 277.3 | 215.0 | 212.1 | 215.0 | 212.1 | 212.1 | 212.1 |
| Avg. | 93.2 | 90.0 | 94.8 | 81.9 | 0.12 | 0.09 | -0.04 | -0.04 | 7.0 | 6.9 | 283.3 | 279.1 | 215.3 | 212.1 | 215.3 | 212.1 | 212.1 | 212.1 |
| Std Dv | 0.2 | 0.0 | 0.5 | 0.1 | 0.02 | 0.01 | 0.01 | 0.01 | 0.3 | 0.4 | 3.2 | 2.5 | 0.4 | 0.0 | 0.4 | 0.0 | 0.0 | 0.0 |
| 1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 150 KTS | | | | | | | | | | | | | | | | | | |
| 1 | 91.2 | 88.3 | 92.9 | 80.2 | -0.31 | -0.28 | 0.00 | 0.00 | 7.1 | 7.0 | 455.2 | 454.5 | 304.1 | 303.6 | 304.1 | 303.6 | 303.6 | 303.6 |
| 2 | 91.7 | 88.3 | 92.3 | 78.7 | 0.26 | 0.25 | -0.17 | -0.17 | 7.5 | 7.6 | 409.0 | 577.6 | 320.1 | 303.6 | 320.1 | 303.6 | 303.6 | 303.6 |
| 3 | 91.1 | 88.1 | 91.2 | 77.8 | -0.25 | -0.29 | -0.01 | -0.01 | 7.7 | 7.8 | 378.8 | 377.9 | 304.2 | 303.6 | 304.2 | 303.6 | 303.6 | 303.6 |
| 4 | 91.6 | 88.9 | 91.4 | 79.5 | -0.22 | -0.20 | -0.03 | -0.03 | 7.7 | 7.3 | 573.4 | 567.6 | 306.7 | 303.6 | 306.7 | 303.6 | 303.6 | 303.6 |
| 5 | 91.0 | 88.3 | 91.8 | 79.2 | -0.19 | -0.24 | -0.03 | -0.03 | 7.1 | 7.4 | 395.6 | 391.3 | 306.9 | 303.6 | 306.9 | 303.6 | 303.6 | 303.6 |
| 6 | - | - | - | - | - | - | - | - | - | - | NO TRACKING DATA | | | | | | | |
| 40 | 91.4 | 88.6 | 91.9 | 79.2 | -0.07 | -0.06 | 0.00 | 0.00 | 7.8 | 7.6 | 463.3 | 462.7 | 304.0 | 303.6 | 304.0 | 303.6 | 303.6 | 303.6 |
| 47 | 90.8 | 87.9 | 92.0 | 79.0 | 1.05 | 0.95 | -0.29 | -0.29 | 6.7 | 6.7 | 627.4 | 568.6 | 334.9 | 303.6 | 334.9 | 303.6 | 303.6 | 303.6 |
| 48 | 90.2 | 87.4 | 91.0 | 78.7 | -0.12 | -0.14 | 0.01 | 0.01 | 7.2 | 7.1 | 364.1 | 365.7 | 302.2 | 303.6 | 302.2 | 303.6 | 303.6 | 303.6 |
| Avg. | 91.1 | 88.2 | 91.8 | 79.0 | 0.02 | -0.00 | -0.06 | -0.06 | 7.4 | 7.3 | 483.3 | 470.7 | 310.4 | 303.6 | 310.4 | 303.6 | 303.6 | 303.6 |
| Std Dv | 0.5 | 0.5 | 0.7 | 0.7 | 0.49 | 0.46 | 0.12 | 0.12 | 0.4 | 0.4 | 114.5 | 97.2 | 12.3 | 0.0 | 12.3 | 0.0 | 0.0 | 0.0 |
| 1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 150 KTS | | | | | | | | | | | | | | | | | | |
| 37 | - | 86.1 | 88.9 | 75.9 | -0.12 | -0.11 | - | -0.01 | - | 7.7 | 1010.5 | 1008.6 | 456.8 | 456.0 | 456.8 | 456.0 | 456.0 | 456.0 |
| 38 | 88.2 | 85.8 | 88.3 | 76.0 | 0.10 | 0.09 | -0.06 | -0.06 | 7.4 | 7.3 | 811.9 | 797.1 | 464.4 | 456.0 | 464.4 | 456.0 | 456.0 | 456.0 |
| 45 | - | - | - | - | - | - | - | - | - | - | NO TRACKING DATA | | | | | | | |
| 46 | - | - | - | - | - | - | - | - | - | - | NO TRACKING DATA | | | | | | | |
| Avg. | 88.2 | 85.9 | 88.6 | 75.9 | -0.01 | -0.01 | -0.06 | -0.03 | 7.4 | 7.5 | 911.2 | 902.8 | 460.6 | 456.0 | 460.6 | 456.0 | 456.0 | 456.0 |
| Std Dv | - | 0.2 | 0.4 | 0.1 | 0.16 | 0.14 | - | 0.04 | - | 0.2 | 99.3 | 105.8 | 5.4 | 0.0 | 99.3 | 105.8 | 5.4 | 0.0 |

TABLE NO. B.1-2.1G

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
12/12/81

CORRECTION DATA

| SITE: 1G | | CENTERLINE - CENTER (FLUSH) | | | | JUNE 22, 1980 | | | | | | | |
|---|-------|-----------------------------|-------|------|-----------------------------|-----------------------------|-----------|----------|-----|-------|-------|-------|-------|
| CORRECTED | | CORRECTIONS (dB) | | | | TRACKING DATA (METERS) | | | | | | | |
| EV | EPNL | NEL | PNLTH | dBAM | $\sqrt{1(P)} / \sqrt{1(A)}$ | $\sqrt{2(P)} / \sqrt{2(A)}$ | CONSTANTS | (ACTUAL) | CPA | SRR | CPAR | | |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS | | | | | | | | | | | | | |
| 27 | 97.3 | 93.4 | 99.4 | 85.7 | -0.03 | -0.04 | -0.01 | 6.6 | 6.7 | 161.5 | 160.9 | 153.0 | 152.4 |
| 30 | 96.5 | 92.8 | 99.4 | 86.1 | 0.38 | 0.35 | -0.12 | 7.0 | 6.7 | 165.8 | 158.9 | 159.0 | 152.4 |
| 33 | 97.7 | 94.2 | 99.4 | 86.1 | -0.22 | -0.21 | 0.05 | 7.4 | 7.2 | 159.7 | 162.3 | 150.0 | 152.4 |
| 36 | 96.6 | 92.7 | 98.8 | 85.5 | 0.19 | 0.17 | -0.07 | 7.2 | 6.9 | 163.2 | 159.5 | 156.0 | 152.4 |
| Avg. | 97.0 | 93.3 | 99.2 | 85.8 | 0.08 | 0.07 | -0.04 | 7.0 | 6.9 | 162.5 | 160.4 | 154.5 | 152.4 |
| Std Dv | 0.7 | 0.8 | 0.4 | 0.4 | 0.32 | 0.30 | 0.09 | 0.4 | 0.3 | 3.2 | 1.9 | 4.8 | 0.0 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 132 KTS | | | | | | | | | | | | | |
| 26 | 98.1 | 94.5 | 101.1 | 87.6 | 0.13 | 0.10 | -0.06 | 7.0 | 7.3 | 249.5 | 244.8 | 155.4 | 152.4 |
| 29 | 98.8 | 95.3 | 101.4 | 88.1 | -0.12 | -0.13 | 0.02 | 7.0 | 7.2 | 211.9 | 213.2 | 151.4 | 152.4 |
| 32 | 98.0 | 94.5 | 101.1 | 87.5 | -0.50 | -0.49 | 0.12 | 6.6 | 6.7 | 197.2 | 205.8 | 146.0 | 152.4 |
| 35 | 98.5 | 94.9 | 100.6 | 87.2 | -0.05 | -0.08 | 0.01 | 7.3 | 7.4 | 211.3 | 211.7 | 152.1 | 152.4 |
| Avg. | 98.3 | 94.8 | 101.1 | 87.6 | -0.13 | -0.15 | 0.02 | 7.0 | 7.2 | 217.5 | 218.9 | 151.2 | 152.4 |
| Std Dv | 0.5 | 0.5 | 0.4 | 0.5 | 0.32 | 0.30 | 0.09 | 0.3 | 0.4 | 27.5 | 21.5 | 4.7 | 0.0 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS | | | | | | | | | | | | | |
| 25 | 100.5 | 96.8 | 102.7 | 89.3 | 1.17 | 1.11 | -0.39 | 7.5 | 7.6 | 211.7 | 187.6 | 172.0 | 152.4 |
| 28 | 99.8 | 95.7 | 103.7 | 89.7 | 0.69 | 0.65 | -0.19 | 5.9 | 6.5 | 208.4 | 193.7 | 164.0 | 152.4 |
| 31 | 100.9 | 97.6 | 104.0 | 91.0 | -0.25 | -0.25 | 0.06 | 7.0 | 6.7 | 241.2 | 245.8 | 149.6 | 152.4 |
| 34 | 100.5 | 96.8 | 104.1 | 90.0 | 0.23 | 0.20 | -0.08 | 6.5 | 6.7 | 259.2 | 252.3 | 156.6 | 152.4 |
| Avg. | 100.4 | 96.7 | 103.6 | 90.0 | 0.46 | 0.43 | -0.16 | 6.7 | 6.9 | 230.1 | 219.9 | 160.5 | 152.4 |
| Std Dv | 0.6 | 1.0 | 0.8 | 0.9 | 0.75 | 0.72 | 0.24 | 0.8 | 0.6 | 29.8 | 41.5 | 11.8 | 0.0 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 165 KTS | | | | | | | | | | | | | |
| 49 | 100.3 | 96.4 | 103.2 | 90.2 | -0.60 | -0.61 | 0.15 | 6.9 | 6.2 | 308.9 | 325.1 | 144.8 | 152.4 |
| 50 | 100.1 | 96.3 | 103.1 | 89.9 | -1.74 | -1.65 | 0.44 | 6.3 | 6.1 | 180.4 | 211.8 | 129.8 | 152.4 |
| 51 | 100.2 | 96.2 | 102.7 | 89.6 | 0.54 | 0.51 | -0.18 | 7.2 | 6.6 | 205.6 | 194.1 | 161.4 | 152.4 |
| Avg. | 100.2 | 96.3 | 103.0 | 89.9 | -0.60 | -0.58 | 0.14 | 6.8 | 6.3 | 231.6 | 243.7 | 145.4 | 152.4 |
| Std Dv | 0.1 | 0.1 | 0.4 | 0.5 | 1.61 | 1.53 | 0.44 | 0.6 | 0.3 | 96.3 | 100.5 | 22.3 | 0.0 |

CORRECTION DATA

| SITE: 16 | | CENTERLINE - CENTER (FLUSH) | | | | JUNE 22, 1980 | | | | | | |
|--|-------|-----------------------------|-------|------|-----------------------------|-----------------------------|-------|------------------------|------------------|-------------|-------|-------|
| CORRECTED | | CORRECTIONS (dB) | | | | CONSTANTS | | TRACKING DATA (METERS) | | | | |
| EV | EPNL | NEL | PNLTM | dBAM | $\sqrt{1(P)} / \sqrt{1(A)}$ | $\sqrt{2(P)} / \sqrt{2(A)}$ | K(P) | K(A) | (ACTUAL) | (REFERENCE) | | |
| | | | | | | | | | SR | CPA | SRR | CPAR |
| 300 FT. FLYOVER - TARGET INDICATED AIRSPEED 150 KTS | | | | | | | | | | | | |
| 43 | - | 99.1 | 107.4 | 94.2 | -0.10 | -0.11 | - | 6.3 | 137.0 | 138.2 | 90.7 | 91.4 |
| 44 | 102.4 | 98.8 | 106.9 | 93.2 | -0.29 | -0.33 | 6.5 | 6.7 | 156.4 | 161.3 | 88.6 | 91.4 |
| Avg. | 102.4 | 99.0 | 107.1 | 93.7 | -0.19 | -0.22 | 6.5 | 6.5 | 146.7 | 149.7 | 89.6 | 91.4 |
| Std Dv | - | 0.3 | 0.4 | 0.7 | 0.13 | 0.16 | - | 0.3 | 13.7 | 16.4 | 1.4 | 0.0 |
| 700 FT. FLYOVER - TARGET INDICATED AIRSPEED 150 KTS | | | | | | | | | | | | |
| 41 | 97.1 | 93.9 | 99.1 | 86.1 | 0.11 | 0.10 | -0.05 | 6.9 | 260.7 | 256.4 | 216.9 | 213.4 |
| 42 | 97.2 | 93.7 | 99.1 | 85.6 | 0.09 | 0.07 | -0.04 | 6.8 | 282.0 | 278.2 | 216.2 | 213.4 |
| Avg. | 97.2 | 93.8 | 99.1 | 85.9 | 0.10 | 0.08 | -0.04 | 6.8 | 271.3 | 267.3 | 216.6 | 213.4 |
| Std Dv | 0.1 | 0.1 | 0.0 | 0.3 | 0.01 | 0.02 | 0.01 | 0.1 | 15.1 | 15.4 | 0.4 | 0.0 |
| 1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 150 KTS | | | | | | | | | | | | |
| 1 | 95.0 | 91.7 | 96.3 | 83.2 | -0.32 | -0.33 | -0.01 | 7.2 | 456.6 | 455.9 | 305.3 | 304.8 |
| 2 | 95.5 | 91.8 | 95.4 | 81.8 | 0.31 | 0.30 | -0.18 | 7.9 | 321.9 | 305.4 | 321.3 | 304.8 |
| 3 | 95.2 | 91.6 | 95.7 | 81.9 | -0.25 | -0.32 | -0.01 | 7.4 | 409.3 | 408.4 | 305.5 | 304.8 |
| 4 | 95.9 | 92.8 | 96.6 | 84.4 | -0.14 | -0.15 | -0.03 | 7.3 | 310.8 | 307.6 | 307.9 | 304.8 |
| 5 | 95.1 | 92.3 | 96.0 | 83.4 | -0.41 | -0.30 | -0.03 | 7.3 | 429.0 | 424.4 | 308.1 | 304.8 |
| 6 | | | | | | | | | NO TRACKING DATA | | | |
| 39 | 95.7 | 92.5 | 96.0 | 83.0 | 0.15 | 0.12 | -0.07 | 7.5 | 527.8 | 517.3 | 311.0 | 304.8 |
| 40 | 95.1 | 92.0 | 96.0 | 82.5 | -0.09 | -0.08 | 0.00 | 7.4 | 544.4 | 543.6 | 305.2 | 304.8 |
| 47 | 95.6 | 92.2 | 96.4 | 83.2 | 1.01 | 0.96 | -0.30 | 7.1 | 551.9 | 500.5 | 336.1 | 304.8 |
| 48 | 94.7 | 91.7 | 95.7 | 82.8 | -0.18 | -0.15 | 0.01 | 7.4 | 393.7 | 395.5 | 303.4 | 304.8 |
| Avg. | 95.3 | 92.1 | 96.0 | 82.9 | 0.01 | 0.01 | -0.07 | 7.4 | 438.4 | 428.7 | 311.5 | 304.8 |
| Std Dv | 0.4 | 0.4 | 0.4 | 0.8 | 0.47 | 0.44 | 0.11 | 0.2 | 96.5 | 91.3 | 11.4 | 0.0 |
| 1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 150 KTS | | | | | | | | | | | | |
| 37 | - | 90.0 | 93.1 | 79.6 | -0.14 | -0.13 | - | - | 1011.0 | 1009.1 | 458.1 | 457.2 |
| 38 | - | 93.7 | 97.1 | 84.0 | 0.10 | 0.10 | - | - | 768.2 | 754.2 | 465.7 | 457.2 |
| 45 | | | | | | | | | NO TRACKING DATA | | | |
| 46 | | | | | | | | | NO TRACKING DATA | | | |
| Avg. | - | 91.9 | 95.1 | 81.8 | -0.02 | -0.01 | - | - | 889.6 | 881.7 | 461.9 | 457.2 |
| Std Dv | - | 2.6 | 2.8 | 3.1 | 0.17 | 0.16 | - | - | 121.4 | 127.5 | 5.4 | 0.0 |

TABLE NO. B.1-2.1H

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
12/14/81

CORRECTION DATA

JUNE 22, 1980

SITE: 1H CENTERLINE - CENTER (10-METER)

| EV | CORRECTED | | | CORRECTIONS (dB) | | | | CONSTANTS | | TRACKING DATA (METERS) | | | |
|---|-----------|------|-------|------------------|---------------------------|---------------|---------------|-----------|------|------------------------|-------|-------|-------|
| | EPNL | NEL | PNLTM | dBAM | $\wedge 1(P) \wedge 1(A)$ | $\wedge 2(P)$ | $\wedge 2(A)$ | K(P) | K(A) | SR | CPA | SRR | CPAR |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS | | | | | | | | | | | | | |
| 27 | 93.3 | 89.3 | 95.2 | 81.4 | -0.02 | -0.03 | -0.01 | 6.7 | 6.6 | 151.4 | 150.8 | 142.9 | 142.3 |
| 30 | 92.9 | 88.9 | 95.5 | 81.6 | 0.43 | 0.38 | -0.14 | 7.0 | 7.1 | 168.5 | 161.0 | 149.0 | 142.3 |
| 33 | 93.8 | 90.0 | 95.4 | 81.7 | -0.21 | -0.23 | 0.05 | 7.3 | 7.1 | 225.0 | 228.8 | 139.9 | 142.3 |
| 36 | 92.8 | 88.8 | 95.1 | 82.0 | 0.23 | 0.20 | -0.08 | 6.9 | 6.5 | 153.1 | 149.3 | 146.0 | 142.3 |
| Avg. | 93.2 | 89.2 | 95.3 | 81.7 | 0.11 | 0.08 | -0.04 | 7.0 | 6.8 | 174.5 | 172.5 | 144.5 | 142.3 |
| Std Dv | 0.6 | 0.7 | 0.2 | 0.3 | 0.34 | 0.33 | 0.10 | 0.3 | 0.4 | 42.3 | 46.5 | 4.8 | 0.0 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 132 KTS | | | | | | | | | | | | | |
| 26 | 94.4 | 90.4 | 97.3 | 83.2 | 0.15 | 0.13 | -0.07 | 6.9 | 7.3 | 241.7 | 236.8 | 145.3 | 142.3 |
| 29 | 94.6 | 90.9 | 97.7 | 83.9 | -0.12 | -0.13 | 0.02 | 6.6 | 7.0 | 233.5 | 235.1 | 141.4 | 142.3 |
| 32 | 94.4 | 90.8 | 97.6 | 84.0 | -0.54 | -0.50 | 0.13 | 6.5 | 6.5 | 163.1 | 170.5 | 136.1 | 142.3 |
| 35 | 94.3 | 90.6 | 96.7 | 83.1 | -0.08 | -0.08 | 0.01 | 6.9 | 6.9 | 178.7 | 179.0 | 142.0 | 142.3 |
| Avg. | 94.4 | 90.7 | 97.3 | 83.6 | -0.15 | -0.14 | 0.02 | 6.7 | 6.9 | 204.3 | 205.4 | 141.2 | 142.3 |
| Std Dv | 0.2 | 0.3 | 0.5 | 0.6 | 0.35 | 0.32 | 0.10 | 0.2 | 0.4 | 48.0 | 43.5 | 4.6 | 0.0 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS | | | | | | | | | | | | | |
| 25 | 96.7 | 92.8 | 99.1 | 85.6 | 1.28 | 1.18 | -0.42 | 7.5 | 7.3 | 167.1 | 146.9 | 161.9 | 142.3 |
| 28 | 96.4 | 92.3 | 99.3 | 85.6 | 0.77 | 0.70 | -0.23 | 6.6 | 6.3 | 199.7 | 184.7 | 153.9 | 142.3 |
| 31 | 96.9 | 93.4 | 100.0 | 86.4 | -0.24 | -0.24 | 0.06 | 6.8 | 6.9 | 234.0 | 238.5 | 139.6 | 142.3 |
| 34 | 96.9 | 93.1 | 100.1 | 86.2 | 0.25 | 0.23 | -0.08 | 6.6 | 6.7 | 252.3 | 245.0 | 146.5 | 142.3 |
| Avg. | 96.7 | 92.9 | 99.6 | 85.9 | 0.51 | 0.47 | -0.17 | 6.9 | 6.8 | 213.3 | 203.8 | 150.5 | 142.3 |
| Std Dv | 0.3 | 0.6 | 0.6 | 0.5 | 0.80 | 0.75 | 0.24 | 0.5 | 0.5 | 46.2 | 57.1 | 11.8 | 0.0 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 165 KTS | | | | | | | | | | | | | |
| 49 | 97.3 | 93.2 | 100.3 | 86.7 | -0.58 | -0.58 | 0.16 | 6.8 | 6.3 | 198.6 | 209.8 | 134.8 | 142.3 |
| 50 | 97.2 | 93.2 | 99.7 | 86.3 | -1.89 | -1.74 | 0.49 | 6.6 | 6.3 | 171.6 | 203.8 | 119.9 | 142.3 |
| 51 | 97.0 | 92.6 | 99.8 | 86.4 | 0.59 | 0.55 | -0.19 | 7.0 | 6.4 | 230.5 | 216.8 | 151.4 | 142.3 |
| Avg. | 97.2 | 93.0 | 99.9 | 86.5 | -0.63 | -0.59 | 0.15 | 6.8 | 6.3 | 200.3 | 210.1 | 135.3 | 142.3 |
| Std Dv | 0.3 | 0.5 | 0.4 | 0.3 | 1.75 | 1.62 | 0.48 | 0.3 | 0.1 | 41.7 | 9.2 | 22.3 | 0.0 |

TABLE NO. B.1-3.1H

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
12/14/81

CORRECTION DATA

JUNE 22, 1980

CENTERLINE - CENTER (10-METER)

SITE: 1H

| EV | CORRECTED | | | CORRECTIONS (dB) | | | CONSTANTS | | TRACKING DATA (METERS) | | | | | |
|--|-----------|------|-------|------------------|---------------------------|---------------|---------------|-------|------------------------|-----|------------------|-------|-------|-------|
| | EPNL | NEL | PNLTM | dBAM | $\sqrt{1(P)} \sqrt{1(A)}$ | $\sqrt{2(P)}$ | $\sqrt{2(A)}$ | K(P) | K(A) | SR | CPA | SRR | CPAR | |
| 300 FT. FLYOVER - TARGET INDICATED AIRSPEED 150 KTS | | | | | | | | | | | | | | |
| 44 | 99.4 | 95.8 | 104.0 | 90.0 | -0.34 | -0.34 | 0.09 | 0.10 | 6.1 | 6.8 | 150.2 | 155.4 | 78.7 | 81.4 |
| Avg. | 99.4 | 95.8 | 104.0 | 90.0 | -0.34 | -0.34 | 0.09 | 0.10 | 6.1 | 6.8 | 150.2 | 155.4 | 78.7 | 81.4 |
| Std Dv | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 700 FT. FLYOVER - TARGET INDICATED AIRSPEED 150 KTS | | | | | | | | | | | | | | |
| 41 | 93.5 | 90.1 | 95.7 | 81.9 | 0.14 | 0.11 | -0.05 | -0.05 | 6.8 | 7.2 | 278.0 | 273.3 | 206.8 | 203.3 |
| 42 | 94.2 | 90.5 | 95.7 | 82.4 | 0.12 | 0.09 | -0.04 | -0.04 | 7.1 | 6.7 | 210.6 | 207.6 | 206.2 | 203.3 |
| Avg. | 93.8 | 90.3 | 95.7 | 82.2 | 0.13 | 0.10 | -0.04 | -0.04 | 7.0 | 7.0 | 244.3 | 240.4 | 206.5 | 203.3 |
| Std Dv | 0.5 | 0.3 | 0.0 | 0.4 | 0.01 | 0.01 | 0.01 | 0.01 | 0.2 | 0.4 | 47.7 | 46.4 | 0.4 | 0.0 |
| 1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 150 KTS | | | | | | | | | | | | | | |
| 1 | 88.0 | 85.5 | 88.9 | 76.6 | -0.39 | -0.42 | -0.01 | -0.01 | 7.7 | 7.7 | 530.6 | 529.6 | 295.3 | 294.7 |
| 2 | 87.9 | 84.9 | 88.3 | 74.8 | 0.35 | 0.22 | -0.18 | -0.19 | 7.7 | 8.0 | 419.3 | 396.9 | 311.4 | 294.7 |
| 3 | 88.0 | 85.2 | 88.6 | 74.0 | -0.43 | -0.38 | -0.01 | -0.01 | 7.3 | 7.4 | 370.9 | 370.1 | 295.4 | 294.7 |
| 4 | 88.5 | 86.2 | 89.6 | 77.7 | -0.18 | -0.18 | -0.03 | -0.03 | 7.3 | 6.9 | 298.0 | 294.8 | 298.0 | 294.7 |
| 5 | 88.2 | 85.9 | 89.9 | 77.4 | -0.40 | -0.33 | -0.04 | -0.04 | 7.1 | 7.2 | 387.8 | 383.4 | 298.1 | 294.7 |
| 6 | - | - | - | - | - | - | - | - | - | - | NO TRACKING DATA | | | |
| 39 | - | 88.4 | 92.3 | 78.6 | 0.14 | 0.13 | - | -0.07 | - | 7.5 | 559.1 | 547.6 | 301.0 | 294.7 |
| 40 | 91.3 | 88.1 | 91.9 | 78.3 | -0.05 | -0.06 | 0.00 | 0.00 | 7.7 | 7.8 | 419.6 | 419.0 | 295.2 | 294.7 |
| 47 | 92.4 | 89.0 | 93.4 | 79.6 | 1.03 | 0.98 | -0.30 | -0.31 | 6.9 | 7.0 | 443.0 | 400.3 | 326.2 | 294.7 |
| 48 | 91.7 | 88.3 | 92.4 | 79.1 | -0.12 | -0.14 | 0.01 | 0.01 | 7.2 | 7.1 | 384.6 | 386.4 | 293.4 | 294.7 |
| Avg. | 89.5 | 86.8 | 90.6 | 77.6 | -0.01 | -0.02 | -0.07 | -0.07 | 7.4 | 7.4 | 423.7 | 414.2 | 301.5 | 294.7 |
| Std Dv | 2.1 | 1.7 | 2.0 | 1.7 | 0.50 | 0.46 | 0.12 | 0.12 | 0.3 | 0.4 | 85.8 | 84.1 | 11.4 | 0.0 |
| 1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 150 KTS | | | | | | | | | | | | | | |
| 37 | - | 85.6 | 88.5 | 75.5 | -0.07 | -0.08 | - | -0.01 | - | 8.0 | 593.2 | 592.1 | 448.0 | 447.1 |
| 38 | 88.6 | 85.6 | 89.4 | 75.8 | 0.09 | 0.09 | -0.06 | -0.06 | 7.0 | 7.3 | 805.5 | 790.5 | 455.6 | 447.1 |
| 45 | - | - | - | - | - | - | - | - | - | - | NO TRACKING DATA | | | |
| 46 | - | - | - | - | - | - | - | - | - | - | NO TRACKING DATA | | | |
| Avg. | 88.6 | 85.6 | 88.9 | 75.7 | 0.01 | 0.00 | -0.06 | -0.03 | 7.0 | 7.7 | 699.4 | 691.3 | 451.8 | 447.1 |
| Std Dv | - | 0.1 | 0.6 | 0.2 | 0.11 | 0.12 | - | 0.04 | - | 0.5 | 150.1 | 140.3 | 5.4 | 0.0 |

TABLE NO. B.1-1.2

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
12/14/81

CORRECTION DATA

| EV | CORRECTED | | | CORRECTIONS (dB) | | | CONSTANTS | | TRACKING DATA (METERS) | | | | | |
|---|-----------|------|-------|------------------|---------------|---------------|---------------|-------|------------------------|-----|------------------|-------|-------|-------|
| | EPNL | NEL | PNLTH | $\sqrt{1(P)}$ | $\sqrt{1(A)}$ | $\sqrt{2(P)}$ | $\sqrt{2(A)}$ | K(P) | K(A) | SR | CPA | SRR | CPAR | |
| APPROACH | | | | | | | | | | | | | | |
| 16 | 98.0 | 93.1 | 100.3 | 85.3 | 0.44 | 0.42 | -0.17 | -0.17 | 7.2 | 7.3 | 117.9 | 111.8 | 108.1 | 102.6 |
| 17 | 99.2 | 94.5 | 101.8 | 86.6 | 0.09 | 0.09 | -0.05 | -0.05 | 7.0 | 7.3 | 113.4 | 111.6 | 104.2 | 102.6 |
| 18 | 100.3 | 95.4 | 103.9 | 88.3 | -0.03 | -0.02 | -0.01 | -0.01 | 6.4 | 6.7 | 110.8 | 110.5 | 102.8 | 102.6 |
| 19 | 100.5 | 95.7 | 104.2 | 88.7 | 0.25 | 0.25 | -0.09 | -0.09 | 6.3 | 6.7 | 109.9 | 106.5 | 105.9 | 102.6 |
| 20 | 101.0 | 96.3 | 105.0 | 89.5 | 0.47 | 0.46 | -0.15 | -0.16 | 6.3 | 6.7 | 118.3 | 112.0 | 108.4 | 102.6 |
| 21 | 100.8 | 95.9 | 104.9 | 89.6 | 0.02 | 0.03 | -0.02 | -0.02 | 5.8 | 6.4 | 108.3 | 107.6 | 103.3 | 102.6 |
| 22 | 100.5 | 95.8 | 104.8 | 89.3 | 0.23 | 0.23 | -0.07 | -0.08 | 5.9 | 6.5 | 112.6 | 109.3 | 105.6 | 102.6 |
| 23 | 100.5 | 95.9 | 104.6 | 89.6 | 0.17 | 0.16 | -0.05 | -0.05 | 6.1 | 6.4 | 117.2 | 114.9 | 104.6 | 102.6 |
| 24 | 100.6 | 96.0 | 104.4 | 89.3 | 0.01 | 0.00 | -0.01 | -0.01 | 6.4 | 6.6 | 111.6 | 111.4 | 102.8 | 102.6 |
| Avg. | 100.2 | 95.4 | 103.8 | 88.5 | 0.18 | 0.18 | -0.07 | -0.07 | 6.4 | 6.7 | 113.3 | 110.6 | 105.1 | 102.6 |
| Std Dv | 1.0 | 1.1 | 1.7 | 1.6 | 0.19 | 0.19 | 0.06 | 0.06 | 0.5 | 0.4 | 3.9 | 2.7 | 2.2 | 0.0 |
| TAKEOFF | | | | | | | | | | | | | | |
| 8 | - | 84.4 | 91.1 | 76.8 | 1.22 | 1.12 | - | -0.42 | - | 7.2 | 203.2 | 178.0 | 199.4 | 174.6 |
| 9 | - | 83.6 | 91.6 | 76.2 | 2.04 | 1.94 | - | -0.62 | - | 7.2 | 215.5 | 176.6 | 213.1 | 174.6 |
| 10 | 89.3 | 85.2 | 91.2 | 75.7 | 2.29 | 2.17 | -0.70 | -0.74 | 6.7 | 7.1 | 223.3 | 176.0 | 221.5 | 174.6 |
| 11 | 90.0 | 85.8 | 91.3 | 75.7 | 2.87 | 2.74 | -0.83 | -0.94 | 6.5 | 7.3 | 239.5 | 178.1 | 234.9 | 174.6 |
| 12 | 89.5 | 85.2 | 91.3 | 75.5 | 2.08 | 1.98 | -0.63 | -0.72 | 6.6 | 7.6 | 219.7 | 176.6 | 217.3 | 174.6 |
| 13 | - | - | - | - | - | - | - | - | - | - | NO TRACKING DATA | | | |
| 14 | 89.4 | 85.0 | 91.1 | 74.9 | 2.61 | 2.49 | -0.78 | -0.90 | 6.7 | 7.7 | 231.7 | 177.2 | 228.4 | 174.6 |
| 15 | 89.1 | 84.8 | 90.6 | 75.1 | 2.43 | 2.31 | -0.75 | -0.83 | 6.9 | 7.6 | 225.8 | 175.7 | 224.4 | 174.6 |
| Avg. | 89.5 | 84.9 | 91.2 | 75.7 | 2.22 | 2.11 | -0.74 | -0.74 | 6.7 | 7.4 | 222.7 | 176.9 | 219.9 | 174.6 |
| Std Dv | 0.4 | 0.8 | 0.3 | 0.7 | 0.58 | 0.57 | 0.09 | 0.20 | 0.2 | 0.3 | 12.8 | 1.0 | 12.6 | 0.0 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 100 KTS | | | | | | | | | | | | | | |
| 52 | 92.1 | 88.0 | 95.5 | 81.3 | -0.29 | -0.28 | 0.07 | 0.07 | 6.4 | 6.4 | 153.8 | 157.5 | 147.6 | 151.2 |
| Avg. | 92.1 | 88.0 | 95.5 | 81.3 | -0.29 | -0.28 | 0.07 | 0.07 | 6.4 | 6.4 | 153.8 | 157.5 | 147.6 | 151.2 |
| Std Dv | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

JUNE 22, 1980

CENTERLINE - 150 M, WEST

SITE: 2

TABLE NO. B.1-2.2

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
12/14/81

CORRECTION DATA

| EV | CORRECTED | | | CORRECTIONS (dB) | | | | CONSTANTS | | | TRACKING DATA (METERS) | | | |
|---|-----------|------|-------|------------------|---------------|---------------|---------------|---------------|------|------|------------------------|-------|-------|-------|
| | EPNL | NEL | PNLTH | dBAM | $\wedge 1(P)$ | $\wedge 1(A)$ | $\wedge 2(P)$ | $\wedge 2(A)$ | K(P) | K(A) | SR | CPA | SRR | CPAR |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS | | | | | | | | | | | | | | |
| 27 | 93.9 | 90.0 | 95.3 | 81.5 | -0.03 | -0.04 | -0.01 | -0.01 | 7.5 | 7.5 | 241.8 | 241.1 | 151.6 | 151.2 |
| 30 | 93.6 | 89.9 | 97.2 | 82.4 | 0.44 | 0.39 | -0.13 | -0.14 | 6.2 | 6.8 | 211.5 | 201.9 | 158.4 | 151.2 |
| 33 | 95.1 | 91.4 | 98.3 | 84.1 | -0.18 | -0.18 | 0.04 | 0.04 | 6.5 | 6.8 | 249.2 | 252.7 | 149.1 | 151.2 |
| 36 | 92.9 | 89.1 | 95.2 | 82.2 | 0.04 | 0.03 | -0.02 | -0.02 | 7.2 | 6.6 | 159.0 | 157.7 | 152.4 | 151.2 |
| Avg. | 93.9 | 90.1 | 96.5 | 82.6 | 0.07 | 0.05 | -0.03 | -0.03 | 6.8 | 6.9 | 215.4 | 213.4 | 152.9 | 151.2 |
| Std Dv | 1.1 | 1.2 | 1.9 | 1.4 | 0.32 | 0.30 | 0.09 | 0.09 | 0.7 | 0.5 | 50.2 | 52.7 | 4.8 | 0.0 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 132 KTS | | | | | | | | | | | | | | |
| 26 | 94.0 | 90.4 | 97.4 | 83.9 | 0.32 | 0.27 | -0.10 | -0.10 | 6.7 | 6.7 | 194.0 | 187.4 | 156.6 | 151.2 |
| 29 | 94.7 | 91.3 | 97.0 | 84.0 | 0.00 | 0.00 | -0.02 | -0.02 | 7.4 | 7.0 | 161.7 | 160.6 | 152.2 | 151.2 |
| 32 | 94.8 | 91.3 | 98.6 | 84.7 | -0.46 | -0.48 | 0.11 | 0.12 | 6.4 | 6.9 | 234.4 | 243.8 | 145.3 | 151.2 |
| 35 | 94.7 | 91.0 | 96.5 | 82.8 | -0.05 | -0.08 | 0.01 | 0.01 | 7.5 | 7.6 | 195.0 | 195.5 | 150.8 | 151.2 |
| Avg. | 94.6 | 91.0 | 97.4 | 83.9 | -0.05 | -0.07 | 0.00 | 0.00 | 7.0 | 7.1 | 196.3 | 196.8 | 151.2 | 151.2 |
| Std Dv | 0.5 | 0.5 | 1.1 | 1.0 | 0.39 | 0.38 | 0.11 | 0.11 | 0.7 | 0.5 | 36.4 | 42.5 | 5.7 | 0.0 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS | | | | | | | | | | | | | | |
| 25 | 96.9 | 93.4 | 99.5 | 86.0 | 1.00 | 0.93 | -0.32 | -0.33 | 7.1 | 7.4 | 302.1 | 272.5 | 167.6 | 151.2 |
| 28 | 95.9 | 92.5 | 100.1 | 86.4 | 0.85 | 0.78 | -0.23 | -0.25 | 6.1 | 6.7 | 227.4 | 208.5 | 164.9 | 151.2 |
| 31 | 97.7 | 94.4 | 100.7 | 87.1 | -0.30 | -0.29 | 0.07 | 0.07 | 6.8 | 7.1 | 314.7 | 322.0 | 147.8 | 151.2 |
| 34 | 96.7 | 93.1 | 98.6 | 84.9 | 0.29 | 0.26 | -0.10 | -0.10 | 7.3 | 7.5 | 255.2 | 247.2 | 156.1 | 151.2 |
| Avg. | 96.8 | 93.4 | 99.7 | 86.1 | 0.46 | 0.42 | -0.14 | -0.15 | 6.8 | 7.2 | 274.8 | 262.5 | 159.1 | 151.2 |
| Std Dv | 0.9 | 1.0 | 1.1 | 1.1 | 0.72 | 0.68 | 0.21 | 0.22 | 0.6 | 0.4 | 49.9 | 58.3 | 11.0 | 0.0 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 165 KTS | | | | | | | | | | | | | | |
| 49 | 96.9 | 92.9 | 100.3 | 86.3 | -0.67 | -0.67 | 0.18 | 0.19 | 6.4 | 6.6 | 143.6 | 153.3 | 141.6 | 151.2 |
| 50 | 96.1 | 92.5 | 100.4 | 87.2 | -1.74 | -1.64 | 0.41 | 0.39 | 5.7 | 5.4 | 137.9 | 162.4 | 128.3 | 151.2 |
| 51 | 96.8 | 92.6 | 100.2 | 86.1 | 0.43 | 0.31 | -0.10 | -0.10 | 6.4 | 6.5 | 518.8 | 500.4 | 156.7 | 151.2 |
| Avg. | 96.6 | 92.7 | 100.3 | 86.5 | -0.66 | -0.67 | 0.16 | 0.16 | 6.2 | 6.2 | 266.8 | 272.1 | 142.2 | 151.2 |
| Std Dv | 0.6 | 0.3 | 0.1 | 0.9 | 1.53 | 1.38 | 0.36 | 0.35 | 0.6 | 0.9 | 308.7 | 279.8 | 20.1 | 0.0 |

JUNE 22, 1980

SITE: 2 CENTERLINE - 150 M. WEST

TABLE NO. B.1-3.2

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
12/14/81

CORRECTION DATA

| SITE: 2 | | CENTERLINE - 150 M, WEST | | | | JUNE 22, 1980 | | | | | | | | | | | | | | |
|--|-----------|--------------------------|-------|------|------------------|---------------|---------------|---------------|-----------|------|------------------|-------|------------------------|-------|-------|-------|---------------------------|-------|-------|--|
| EV | CORRECTED | | | | CORRECTIONS (dB) | | | | CONSTANTS | | | | TRACKING DATA (ACTUAL) | | | | TRACKING DATA (REFERENCE) | | | |
| | EPNL | NEL | PNLTH | dBAM | $\wedge 1(P)$ | $\wedge 1(A)$ | $\wedge 2(P)$ | $\wedge 2(A)$ | K(P) | K(A) | SR | CPA | SRR | CPAR | SR | CPA | SRR | CPAR | | |
| 300 FT. FLYOVER - TARGET INDICATED AIRSPEED 150 KTS | | | | | | | | | | | | | | | | | | | | |
| 43 | 99.4 | 95.7 | 103.8 | 90.0 | -0.03 | -0.03 | 0.00 | 0.00 | 6.2 | 6.3 | 92.0 | 92.2 | 90.1 | 90.2 | 90.2 | 92.0 | 92.2 | 90.1 | 90.2 | |
| 44 | 99.9 | 96.3 | 104.5 | 91.1 | -0.21 | -0.22 | 0.06 | 0.06 | 6.3 | 6.1 | 90.2 | 92.1 | 88.3 | 90.2 | 90.2 | 90.2 | 92.1 | 88.3 | 90.2 | |
| Avg. | 99.7 | 96.0 | 104.2 | 90.6 | -0.12 | -0.12 | 0.03 | 0.03 | 6.3 | 6.2 | 91.1 | 92.1 | 89.2 | 90.2 | 90.2 | 92.1 | 92.1 | 89.2 | 90.2 | |
| Std Dv | 0.4 | 0.4 | 0.5 | 0.8 | 0.13 | 0.13 | 0.04 | 0.04 | 0.1 | 0.2 | 1.3 | 0.0 | 1.3 | 0.0 | 0.0 | 1.3 | 0.0 | 1.3 | 0.0 | |
| 700 FT. FLYOVER - TARGET INDICATED AIRSPEED 150 KTS | | | | | | | | | | | | | | | | | | | | |
| 41 | 94.5 | 91.2 | 96.2 | 83.1 | 0.12 | 0.10 | -0.05 | -0.05 | 7.3 | 7.5 | 354.2 | 348.5 | 215.6 | 212.1 | 215.6 | 348.5 | 348.5 | 215.6 | 212.1 | |
| 42 | 94.7 | 91.4 | 97.6 | 84.2 | 0.15 | 0.11 | -0.05 | -0.05 | 6.7 | 6.8 | 218.9 | 215.3 | 215.7 | 212.1 | 215.7 | 215.3 | 215.7 | 215.7 | 212.1 | |
| Avg. | 94.6 | 91.3 | 96.9 | 83.6 | 0.13 | 0.11 | -0.05 | -0.05 | 7.0 | 7.1 | 286.5 | 281.9 | 215.6 | 212.1 | 215.6 | 281.9 | 281.9 | 215.6 | 212.1 | |
| Std Dv | 0.2 | 0.1 | 1.0 | 0.8 | 0.02 | 0.01 | 0.00 | 0.00 | 0.4 | 0.5 | 95.7 | 94.2 | 0.1 | 0.0 | 0.1 | 94.2 | 94.2 | 0.1 | 0.0 | |
| 1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 150 KTS | | | | | | | | | | | | | | | | | | | | |
| 1 | 92.5 | 89.7 | 94.3 | 81.5 | -0.20 | -0.18 | -0.04 | -0.04 | 7.0 | 7.1 | 479.0 | 473.0 | 307.4 | 303.6 | 307.4 | 473.0 | 473.0 | 307.4 | 303.6 | |
| 2 | 92.7 | 89.5 | 93.2 | 79.6 | 0.20 | 0.19 | -0.16 | -0.16 | 7.7 | 7.8 | 574.6 | 548.0 | 318.3 | 303.6 | 318.3 | 548.0 | 548.0 | 318.3 | 303.6 | |
| 3 | 92.2 | 89.1 | 92.5 | 79.5 | -0.15 | -0.19 | -0.04 | -0.04 | 7.4 | 7.5 | 403.1 | 398.2 | 307.4 | 303.6 | 307.4 | 398.2 | 398.2 | 307.4 | 303.6 | |
| 4 | 93.4 | 90.6 | 94.6 | 82.1 | -0.10 | -0.09 | -0.04 | -0.04 | 6.9 | 6.6 | 307.7 | 303.6 | 307.6 | 303.6 | 307.6 | 303.6 | 303.6 | 307.6 | 303.6 | |
| 5 | 92.5 | 89.8 | 93.5 | 81.1 | -0.19 | -0.19 | -0.05 | -0.05 | 7.0 | 7.1 | 490.4 | 481.9 | 308.9 | 303.6 | 308.9 | 481.9 | 481.9 | 308.9 | 303.6 | |
| 6 | - | - | - | - | - | - | - | - | - | - | NO TRACKING DATA | | | | | | | | | |
| 39 | 92.2 | 89.4 | 91.9 | 79.0 | 0.22 | 0.18 | -0.09 | -0.09 | 7.9 | 8.0 | 314.5 | 306.8 | 311.2 | 303.6 | 311.2 | 306.8 | 311.2 | 311.2 | 303.6 | |
| 40 | 92.4 | 89.4 | 93.1 | 80.3 | -0.02 | -0.04 | -0.01 | -0.01 | 7.4 | 7.5 | 310.3 | 309.2 | 304.6 | 303.6 | 304.6 | 309.2 | 309.2 | 304.6 | 303.6 | |
| 47 | 92.3 | 89.1 | 92.4 | 79.2 | 0.89 | 0.81 | -0.29 | -0.29 | 7.8 | 7.9 | 330.9 | 303.8 | 330.7 | 303.6 | 330.7 | 303.8 | 303.8 | 330.7 | 303.6 | |
| 48 | - | 88.1 | 92.4 | 79.4 | 0.00 | -0.02 | - | -0.02 | - | 7.9 | 322.1 | 320.1 | 305.4 | 303.6 | 322.1 | 320.1 | 305.4 | 303.6 | 303.6 | |
| Avg. | 92.5 | 89.4 | 93.1 | 80.2 | 0.07 | 0.05 | -0.09 | -0.08 | 7.4 | 7.5 | 392.5 | 382.7 | 311.3 | 303.6 | 392.5 | 382.7 | 311.3 | 311.3 | 303.6 | |
| Std Dv | 0.4 | 0.7 | 1.0 | 1.2 | 0.37 | 0.34 | 0.10 | 0.10 | 0.4 | 0.5 | 106.3 | 102.2 | 8.9 | 0.0 | 106.3 | 102.2 | 8.9 | 0.0 | 0.0 | |
| 1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 150 KTS | | | | | | | | | | | | | | | | | | | | |
| 37 | 90.2 | 87.3 | 89.2 | 76.6 | -0.10 | -0.10 | -0.01 | -0.01 | 7.5 | 7.8 | 665.5 | 664.0 | 457.0 | 456.0 | 665.5 | 664.0 | 457.0 | 457.0 | 456.0 | |
| 38 | - | 86.0 | 89.8 | 77.4 | 0.05 | 0.05 | - | -0.05 | - | 7.8 | 927.2 | 912.3 | 463.4 | 456.0 | 927.2 | 912.3 | 463.4 | 463.4 | 456.0 | |
| 45 | - | - | - | - | - | - | - | - | - | - | NO TRACKING DATA | | | | | | | | | |
| 46 | - | - | - | - | - | - | - | - | - | - | NO TRACKING DATA | | | | | | | | | |
| Avg. | 90.2 | 86.7 | 89.5 | 77.0 | -0.03 | -0.03 | -0.01 | -0.03 | 7.5 | 7.8 | 796.4 | 788.2 | 460.2 | 456.0 | 796.4 | 788.2 | 460.2 | 460.2 | 456.0 | |
| Std Dv | - | 0.9 | 0.5 | 0.6 | 0.11 | 0.11 | - | 0.03 | - | 0.0 | 185.1 | 175.5 | 4.6 | 0.0 | 185.1 | 175.5 | 4.6 | 4.6 | 0.0 | |

TABLE NO. B.1-1.3

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
12/14/81

CORRECTION DATA

SITE: 3

CENTERLINE - 150 M. EAST

JUNE 22, 1980

| EV | CORRECTED | | | CORRECTIONS (dB) | | | CONSTANTS | | TRACKING DATA (METERS) | | | | |
|---|-----------|------|-------|------------------|---------------------------|---------------------------|-----------|------|------------------------|-------|-------|-------|-------|
| | EPNL | NEL | PNLTH | dBAM | $\wedge 1(P) \wedge 1(A)$ | $\wedge 2(P) \wedge 2(A)$ | K(P) | K(A) | SR | CPA | SRR | CPAR | |
| APPROACH | | | | | | | | | | | | | |
| 16 | 97.1 | 92.7 | 98.8 | 84.2 | 0.33 | 0.32 | -0.14 | 7.4 | 7.5 | 165.6 | 158.6 | 139.8 | 133.9 |
| 17 | 98.1 | 93.3 | 101.0 | 85.6 | -0.12 | -0.11 | 0.02 | 6.5 | 6.9 | 148.7 | 149.6 | 133.1 | 133.9 |
| 18 | 97.8 | 93.0 | 100.2 | 85.5 | 0.02 | 0.03 | -0.03 | 7.0 | 6.7 | 140.7 | 139.6 | 135.0 | 133.9 |
| 19 | 98.1 | 93.4 | 100.9 | 85.9 | 0.29 | 0.28 | -0.11 | 6.7 | 6.8 | 141.3 | 136.3 | 138.9 | 133.9 |
| 20 | 98.4 | 93.6 | 101.6 | 85.9 | 0.34 | 0.33 | -0.11 | 6.3 | 6.9 | 150.7 | 144.6 | 139.6 | 133.9 |
| 21 | 98.1 | 93.4 | 101.1 | 85.9 | 0.18 | 0.18 | -0.07 | 6.4 | 6.8 | 139.5 | 136.1 | 137.2 | 133.9 |
| 22 | 98.3 | 93.7 | 101.4 | 86.5 | 0.42 | 0.41 | -0.14 | 6.6 | 6.6 | 151.0 | 143.7 | 140.7 | 133.9 |
| 23 | 98.1 | 93.9 | 101.0 | 86.4 | 0.14 | 0.13 | -0.05 | 6.6 | 6.5 | 141.1 | 138.7 | 136.2 | 133.9 |
| 24 | 97.3 | 92.8 | 101.1 | 86.3 | 0.06 | 0.05 | -0.02 | 5.9 | 6.1 | 172.7 | 171.2 | 135.0 | 133.9 |
| Avg. | 97.9 | 93.3 | 100.8 | 85.8 | 0.18 | 0.18 | -0.07 | 6.6 | 6.8 | 150.1 | 146.5 | 137.3 | 133.9 |
| Std Dv | 0.5 | 0.4 | 0.9 | 0.7 | 0.19 | 0.18 | 0.06 | 0.4 | 0.4 | 12.6 | 12.5 | 2.8 | 0.0 |
| TAKEOFF | | | | | | | | | | | | | |
| 8 | 92.4 | 87.6 | 95.5 | 81.1 | 0.32 | 0.32 | -0.15 | 7.0 | 6.9 | 119.3 | 113.6 | 107.7 | 102.6 |
| 9 | 92.9 | 88.2 | 94.8 | 80.8 | 1.75 | 1.66 | -0.57 | 6.9 | 6.4 | 124.8 | 103.4 | 123.8 | 102.6 |
| 10 | 92.3 | 87.6 | 94.4 | 80.3 | 2.05 | 1.94 | -0.64 | 6.8 | 6.3 | 127.6 | 102.7 | 127.4 | 102.6 |
| 11 | 92.6 | 88.0 | 94.6 | 79.4 | 2.92 | 2.81 | -0.91 | 6.8 | 7.2 | 145.4 | 107.1 | 139.2 | 102.6 |
| 12 | 92.4 | 87.7 | 94.8 | 80.2 | 1.92 | 1.82 | -0.58 | 6.6 | 6.5 | 126.3 | 103.2 | 125.6 | 102.6 |
| 13 | 92.9 | 88.2 | 95.0 | 79.9 | 2.38 | 2.30 | -0.78 | 7.1 | 7.2 | 135.7 | 105.6 | 131.8 | 102.6 |
| 14 | 92.8 | 88.1 | 95.0 | 80.2 | 2.30 | 2.22 | -0.74 | 7.0 | 7.0 | 132.5 | 104.0 | 130.7 | 102.6 |
| Avg. | 92.6 | 87.9 | 94.9 | 80.3 | 1.95 | 1.87 | -0.62 | 6.9 | 6.8 | 130.2 | 105.7 | 126.6 | 102.6 |
| Std Dv | 0.3 | 0.3 | 0.4 | 0.6 | 0.89 | 0.85 | 0.28 | 0.2 | 0.4 | 9.4 | 4.2 | 10.7 | 0.0 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 100 KTS | | | | | | | | | | | | | |
| 52 | 91.2 | 87.5 | 93.9 | 80.2 | -0.63 | -0.59 | 0.14 | 6.8 | 6.8 | 213.6 | 224.3 | 143.9 | 151.2 |
| Avg. | 91.2 | 87.5 | 93.9 | 80.2 | -0.63 | -0.59 | 0.14 | 6.8 | 6.8 | 213.6 | 224.3 | 143.9 | 151.2 |
| Std Dv | - | - | - | - | - | - | - | - | - | - | - | - | - |

NO TRACKING DATA

TABLE NO. B.1-2.3

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
12/14/81

CORRECTION DATA

JUNE 22, 1980

SITE: 3 CENTERLINE - 150 M. EAST

| EV | CORRECTED | | | CORRECTIONS (dB) | | | | CONSTANTS | | | TRACKING DATA (METERS) | | | |
|---|-----------|------|-------|------------------|---------------|---------------|---------------|---------------|------|------|------------------------|-------|-------|-------|
| | EPNL | NEL | PNLTM | dBAM | $\wedge 1(P)$ | $\wedge 1(A)$ | $\wedge 2(P)$ | $\wedge 2(A)$ | K(P) | K(A) | SR | CPA | SRR | CPAR |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS | | | | | | | | | | | | | | |
| 27 | 91.7 | 88.0 | 93.6 | 80.6 | 0.02 | 0.01 | -0.02 | -0.02 | 6.9 | 6.4 | 164.5 | 163.2 | 152.4 | 151.2 |
| 30 | 92.1 | 88.3 | 95.0 | 81.0 | 0.38 | 0.33 | -0.12 | -0.12 | 6.6 | 6.7 | 220.8 | 211.9 | 157.5 | 151.2 |
| 33 | 92.6 | 88.8 | 94.2 | 81.0 | -0.51 | -0.47 | 0.13 | 0.13 | 6.9 | 6.8 | 148.7 | 155.2 | 144.8 | 151.2 |
| 36 | 91.9 | 88.1 | 93.9 | 80.8 | 0.19 | 0.15 | -0.07 | -0.06 | 7.4 | 6.8 | 241.9 | 236.8 | 154.4 | 151.2 |
| Avg. | 92.0 | 88.3 | 94.2 | 80.8 | 0.02 | 0.00 | -0.02 | -0.02 | 6.9 | 6.7 | 194.0 | 191.8 | 152.3 | 151.2 |
| Std Dv | 0.4 | 0.4 | 0.7 | 0.3 | 0.47 | 0.42 | 0.13 | 0.13 | 0.4 | 0.3 | 54.5 | 47.9 | 6.6 | 0.0 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 132 KTS | | | | | | | | | | | | | | |
| 26 | 93.2 | 90.0 | 96.6 | 83.3 | 0.02 | -0.01 | -0.02 | -0.02 | 6.3 | 7.1 | 211.1 | 209.6 | 152.2 | 151.2 |
| 29 | 93.8 | 90.4 | 95.6 | 82.5 | -0.19 | -0.21 | 0.05 | 0.05 | 7.7 | 7.5 | 224.8 | 228.0 | 149.1 | 151.2 |
| 32 | 93.3 | 90.0 | 96.6 | 83.5 | -0.38 | -0.40 | 0.09 | 0.09 | 6.4 | 6.6 | 221.1 | 228.5 | 146.3 | 151.2 |
| 35 | 93.2 | 89.6 | 95.0 | 82.1 | -0.04 | -0.04 | 0.00 | 0.00 | 7.7 | 7.1 | 162.8 | 162.6 | 151.4 | 151.2 |
| Avg. | 93.4 | 90.0 | 95.9 | 82.8 | -0.15 | -0.16 | 0.03 | 0.03 | 7.0 | 7.1 | 205.0 | 207.2 | 149.7 | 151.2 |
| Std Dv | 0.3 | 0.4 | 0.9 | 0.8 | 0.22 | 0.22 | 0.06 | 0.06 | 0.9 | 0.5 | 35.2 | 37.9 | 3.2 | 0.0 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS | | | | | | | | | | | | | | |
| 25 | 95.5 | 91.9 | 97.3 | 84.3 | 1.21 | 1.13 | -0.41 | -0.39 | 7.5 | 7.1 | 178.7 | 157.7 | 171.2 | 151.2 |
| 28 | 95.2 | 91.5 | 97.8 | 84.2 | 0.53 | 0.48 | -0.18 | -0.17 | 7.2 | 7.0 | 216.1 | 204.3 | 159.9 | 151.2 |
| 31 | 95.9 | 92.7 | 98.1 | 85.1 | -0.15 | -0.16 | 0.03 | 0.03 | 7.3 | 7.3 | 280.5 | 283.1 | 149.8 | 151.2 |
| 34 | 96.2 | 92.9 | 98.7 | 85.9 | -0.12 | -0.13 | 0.02 | 0.02 | 7.1 | 6.9 | 307.2 | 309.0 | 150.3 | 151.2 |
| Avg. | 95.7 | 92.3 | 98.0 | 84.9 | 0.37 | 0.33 | -0.13 | -0.13 | 7.3 | 7.1 | 245.6 | 238.5 | 157.8 | 151.2 |
| Std Dv | 0.5 | 0.8 | 0.7 | 1.0 | 0.79 | 0.75 | 0.25 | 0.24 | 0.2 | 0.2 | 72.0 | 85.6 | 12.3 | 0.0 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 165 KTS | | | | | | | | | | | | | | |
| 49 | 97.0 | 93.0 | 98.5 | 85.0 | -0.36 | -0.37 | 0.11 | 0.10 | 7.6 | 7.1 | 196.6 | 203.2 | 146.2 | 151.2 |
| 50 | 96.1 | 92.4 | 98.6 | 85.8 | -2.02 | -1.85 | 0.53 | 0.48 | 6.9 | 6.2 | 198.5 | 236.9 | 126.6 | 151.2 |
| 51 | 96.5 | 92.2 | 98.4 | 84.7 | 0.74 | 0.69 | -0.23 | -0.23 | 7.1 | 7.0 | 267.5 | 248.2 | 162.9 | 151.2 |
| Avg. | 96.6 | 92.5 | 98.5 | 85.2 | -0.55 | -0.51 | 0.14 | 0.12 | 7.2 | 6.8 | 220.9 | 229.5 | 145.3 | 151.2 |
| Std Dv | 0.7 | 0.6 | 0.2 | 0.8 | 1.96 | 1.80 | 0.54 | 0.50 | 0.5 | 0.6 | 57.1 | 33.1 | 25.7 | 0.0 |

TABLE NO. B.1-3.3

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
12/14/81

CORRECTION DATA

JUNE 22, 1980

CENTERLINE - 150 M. EAST

SITE: 3

| EV | CORRECTED | | | CORRECTIONS (dB) | | | CONSTANTS | | | TRACKING DATA (METERS) | | | | |
|--|-----------|------|-------|------------------|---------------|---------------|---------------|---------------|------|------------------------|------------------|--------|-------|-------|
| | EPNL | NEL | PNLTH | dBAM | $\sqrt{1(P)}$ | $\sqrt{1(A)}$ | $\sqrt{2(P)}$ | $\sqrt{2(A)}$ | K(P) | K(A) | SR | CPA | SRR | CPAR |
| 300 FT. FLYOVER - TARGET INDICATED AIRSPEED 150 KTS | | | | | | | | | | | | | | |
| 43 | 98.8 | 95.0 | 102.7 | 89.2 | 0.10 | 0.05 | -0.04 | -0.04 | 6.4 | 6.6 | 491.1 | 484.9 | 91.4 | 90.2 |
| 44 | 99.0 | 95.3 | 103.0 | 89.6 | -0.43 | -0.42 | 0.11 | 0.12 | 6.5 | 6.8 | 256.5 | 266.9 | 86.7 | 90.2 |
| Avg. | 98.9 | 95.1 | 102.8 | 89.4 | -0.16 | -0.19 | 0.03 | 0.04 | 6.4 | 6.7 | 373.8 | 375.9 | 89.0 | 90.2 |
| Std Dv | 0.1 | 0.2 | 0.2 | 0.3 | 0.37 | 0.33 | 0.11 | 0.11 | 0.0 | 0.1 | 165.9 | 154.1 | 3.3 | 0.0 |
| 700 FT. FLYOVER - TARGET INDICATED AIRSPEED 150 KTS | | | | | | | | | | | | | | |
| 41 | 93.3 | 90.2 | 95.1 | 82.4 | -0.08 | -0.02 | -0.06 | -0.06 | 6.8 | 6.5 | 217.0 | 212.8 | 216.3 | 212.1 |
| 42 | 94.2 | 90.7 | 95.5 | 82.1 | 0.01 | 0.00 | -0.02 | -0.02 | 6.9 | 7.6 | 450.7 | 447.6 | 213.6 | 212.1 |
| Avg. | 93.8 | 90.4 | 95.3 | 82.3 | -0.03 | -0.01 | -0.04 | -0.04 | 6.9 | 7.1 | 333.8 | 330.2 | 215.0 | 212.1 |
| Std Dv | 0.6 | 0.4 | 0.2 | 0.2 | 0.06 | 0.01 | 0.03 | 0.03 | 0.1 | 0.8 | 165.3 | 166.0 | 1.9 | 0.0 |
| 1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 150 KTS | | | | | | | | | | | | | | |
| 1 | 90.5 | 87.7 | 91.8 | 79.0 | -0.43 | -0.41 | 0.03 | 0.03 | 7.2 | 7.3 | 469.5 | 473.6 | 301.0 | 303.6 |
| 2 | 90.9 | 87.7 | 90.5 | 77.1 | 0.32 | 0.30 | -0.19 | -0.20 | 7.9 | 8.0 | 487.7 | 461.0 | 321.1 | 303.6 |
| 3 | 91.1 | 88.1 | 91.3 | 77.9 | -0.54 | -0.45 | 0.04 | 0.04 | 7.5 | 7.9 | 614.0 | 620.6 | 300.3 | 303.6 |
| 4 | 91.5 | 88.7 | 91.9 | 79.7 | -0.23 | -0.23 | -0.01 | -0.01 | 7.2 | 7.2 | 306.7 | 306.2 | 304.1 | 303.6 |
| 5 | 91.1 | 88.4 | 91.5 | 79.5 | -0.31 | -0.31 | -0.02 | -0.02 | 7.5 | 7.4 | 477.5 | 474.7 | 305.4 | 303.6 |
| 6 | 91.9 | 89.1 | 91.0 | 78.4 | 0.11 | 0.10 | -0.06 | -0.06 | 7.8 | 7.7 | 642.8 | 630.7 | 309.4 | 303.6 |
| 40 | 91.8 | 88.8 | 92.1 | 79.7 | -0.13 | -0.12 | 0.01 | 0.01 | 7.2 | 6.9 | 473.9 | 476.1 | 302.2 | 303.6 |
| 47 | 91.9 | 89.0 | 93.2 | 80.4 | 1.19 | 1.11 | -0.35 | -0.34 | 7.1 | 6.9 | 588.3 | 524.8 | 340.3 | 303.6 |
| 48 | 91.1 | 88.2 | 91.7 | 79.0 | -0.41 | -0.39 | 0.08 | 0.08 | 7.5 | 7.4 | 591.0 | 605.9 | 296.1 | 303.6 |
| Avg. | 91.3 | 88.4 | 91.7 | 79.0 | -0.05 | -0.04 | -0.05 | -0.05 | 7.4 | 7.4 | 516.8 | 508.2 | 308.9 | 303.6 |
| Std Dv | 0.5 | 0.6 | 0.8 | 1.1 | 0.58 | 0.53 | 0.14 | 0.14 | 0.3 | 0.4 | 111.2 | 109.5 | 14.7 | 0.0 |
| 1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 150 KTS | | | | | | | | | | | | | | |
| 37 | - | 85.6 | 87.2 | 75.1 | -0.09 | -0.09 | - | -0.02 | - | 7.5 | 924.1 | 919.3 | 458.4 | 456.0 |
| 38 | - | 85.6 | 87.4 | 74.8 | 0.06 | 0.06 | - | -0.06 | - | 8.1 | 1064.7 | 1046.7 | 463.8 | 456.0 |
| 45 | - | - | - | - | - | - | - | - | - | - | NO TRACKING DATA | | | |
| 46 | - | - | - | - | - | - | - | - | - | - | NO TRACKING DATA | | | |
| Avg. | - | 85.6 | 87.3 | 75.0 | -0.01 | -0.01 | - | -0.04 | - | 7.8 | 994.4 | 983.0 | 461.1 | 456.0 |
| Std Dv | - | 0.0 | 0.2 | 0.2 | 0.11 | 0.11 | - | 0.03 | - | 0.4 | 70.3 | 63.7 | 3.8 | 0.0 |

TABLE NO. B.1-1.4

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
12/14/81

CORRECTION DATA

JUNE 22, 1980

SIDELINE - 164 M. NORTH

SITE: 4

| EV | CORRECTED | | | CORRECTIONS (dB) | | | | CONSTANTS | | TRACKING DATA (METERS) (ACTUAL) | | | TRACKING DATA (METERS) (REFERENCE) | | |
|----------|-----------|------|-------|------------------|---------------|---------------|---------------|---------------|------|------------------------------------|------------------|-------|---------------------------------------|-------|--|
| | EPNL | NEL | PNLTM | dBAM | $\wedge 1(P)$ | $\wedge 1(A)$ | $\wedge 2(P)$ | $\wedge 2(A)$ | K(P) | K(A) | SR | CPA | SRR | CPAR | |
| APPROACH | | | | | | | | | | | | | | | |
| 17 | 98.4 | 94.7 | 100.6 | 86.9 | -0.43 | -0.38 | 0.10 | 0.10 | 7.1 | 7.2 | 218.8 | 225.9 | 184.9 | 191.0 | |
| 18 | 99.0 | 94.9 | 100.9 | 86.8 | -0.19 | -0.16 | 0.03 | 0.03 | 7.1 | 7.1 | 196.9 | 198.8 | 189.2 | 191.0 | |
| 19 | 99.6 | 95.6 | 101.0 | 86.8 | -0.01 | 0.01 | -0.03 | -0.03 | 7.6 | 7.7 | 203.5 | 201.7 | 192.7 | 191.0 | |
| 20 | 99.0 | 95.4 | 100.5 | 87.0 | -0.42 | -0.38 | 0.11 | 0.11 | 7.4 | 7.4 | 196.2 | 203.0 | 184.6 | 191.0 | |
| 21 | 98.7 | 94.8 | 100.8 | 86.9 | -0.27 | -0.24 | 0.06 | 0.06 | 7.1 | 7.2 | 201.6 | 205.5 | 187.4 | 191.0 | |
| 22 | 98.7 | 95.0 | 100.3 | 86.9 | -0.56 | -0.51 | 0.16 | 0.15 | 7.4 | 7.2 | 192.0 | 201.7 | 181.8 | 191.0 | |
| 23 | 98.0 | 94.4 | 100.1 | 87.4 | 0.23 | 0.24 | -0.11 | -0.10 | 7.4 | 6.6 | 217.3 | 209.8 | 197.8 | 191.0 | |
| 24 | 96.8 | 93.4 | 97.9 | 84.0 | -0.73 | -0.69 | 0.22 | 0.22 | 7.2 | 7.3 | 183.4 | 196.8 | 177.9 | 191.0 | |
| Avg. | 98.5 | 94.8 | 100.3 | 86.6 | -0.30 | -0.26 | 0.07 | 0.07 | 7.3 | 7.2 | 201.2 | 205.4 | 187.0 | 191.0 | |
| Std Dv | 0.9 | 0.7 | 1.1 | 1.1 | 0.33 | 0.32 | 0.11 | 0.11 | 0.2 | 0.3 | 13.0 | 9.9 | 6.7 | 0.0 | |
| TAKEOFF | | | | | | | | | | | | | | | |
| 8 | - | 85.6 | 89.4 | 76.0 | 0.09 | 0.16 | - | -0.12 | - | 7.5 | 215.5 | 207.7 | 211.9 | 204.2 | |
| 9 | 90.0 | 86.2 | 89.5 | 76.1 | 0.72 | 0.63 | -0.28 | -0.27 | 7.7 | 7.3 | 229.2 | 210.6 | 222.2 | 204.2 | |
| 10 | 89.6 | 85.7 | 89.5 | 75.8 | 0.95 | 0.88 | -0.36 | -0.36 | 7.7 | 7.6 | 236.2 | 211.9 | 227.6 | 204.2 | |
| 11 | 89.5 | 85.7 | 89.6 | 76.3 | 1.48 | 1.34 | -0.52 | -0.50 | 7.7 | 7.4 | 238.7 | 204.2 | 238.7 | 204.2 | |
| 12 | 90.4 | 86.4 | 90.4 | 77.0 | 0.87 | 0.81 | -0.34 | -0.32 | 7.7 | 7.3 | 237.2 | 214.4 | 225.9 | 204.2 | |
| 13 | - | - | - | - | - | - | - | - | - | - | NO TRACKING DATA | | | | |
| 14 | 90.1 | 86.3 | 89.9 | 76.5 | 1.29 | 1.20 | -0.48 | -0.46 | 7.8 | 7.6 | 235.0 | 204.2 | 234.9 | 204.2 | |
| 15 | 90.1 | 86.2 | 90.3 | 77.0 | 1.27 | 1.15 | -0.45 | -0.43 | 7.7 | 7.3 | 241.8 | 211.2 | 233.7 | 204.2 | |
| Avg. | 89.9 | 86.0 | 89.8 | 76.4 | 0.95 | 0.88 | -0.40 | -0.35 | 7.7 | 7.4 | 233.4 | 209.2 | 227.9 | 204.2 | |
| Std Dv | 0.4 | 0.4 | 0.4 | 0.5 | 0.51 | 0.44 | 0.10 | 0.14 | 0.1 | 0.2 | 9.6 | 4.3 | 9.9 | 0.0 | |

TABLE NO. B.1-2.4

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
12/14/81

CORRECTION DATA

JUNE 22, 1980

SITE: 4 SIDELINE - 164 M. NORTH

| EV | CORRECTED | | | CORRECTIONS (dB) | | | | CONSTANTS | | TRACKING DATA (METERS) | | | | |
|---|-----------|------|-------|------------------|---------------|---------------|---------------|---------------|------|------------------------|-------|-------|-------|-------|
| | EPNL | NEL | PNLTH | dBAM | $\wedge 1(P)$ | $\wedge 1(A)$ | $\wedge 2(P)$ | $\wedge 2(A)$ | K(P) | K(A) | SR | CPA | SRR | CPAR |
| 500 FT. FLYBY - TARGET INDICATED AIRSPEED 115 KTS | | | | | | | | | | | | | | |
| 27 | 92.8 | 89.9 | 94.6 | 82.0 | -0.19 | -0.20 | 0.04 | 0.04 | 6.5 | 6.3 | 228.1 | 231.2 | 210.1 | 212.9 |
| 30 | 92.2 | 89.5 | 93.8 | 81.6 | -0.27 | -0.28 | 0.04 | 0.04 | 7.5 | 7.1 | 432.8 | 438.8 | 210.0 | 212.9 |
| 33 | 93.4 | 90.6 | 95.5 | 82.6 | 0.10 | 0.08 | -0.04 | -0.04 | 6.7 | 6.9 | 216.4 | 213.2 | 216.1 | 212.9 |
| 36 | 93.8 | 91.0 | 95.4 | 83.2 | 0.57 | 0.52 | -0.18 | -0.17 | 7.0 | 6.6 | 225.8 | 213.0 | 225.8 | 212.9 |
| Avg. | 93.0 | 90.2 | 94.8 | 82.4 | 0.05 | 0.03 | -0.03 | -0.03 | 6.9 | 6.7 | 275.8 | 274.0 | 215.5 | 212.9 |
| Std Dv | 0.8 | 0.8 | 0.9 | 0.9 | 0.47 | 0.44 | 0.13 | 0.12 | 0.6 | 0.4 | 128.4 | 134.9 | 9.1 | 0.0 |
| 500 FT. FLYBY - TARGET INDICATED AIRSPEED 132 KTS | | | | | | | | | | | | | | |
| 26 | 93.4 | 90.6 | 95.7 | 83.6 | -0.30 | -0.30 | 0.07 | 0.07 | 6.6 | 6.6 | 208.1 | 212.9 | 208.1 | 212.9 |
| 29 | 95.6 | 92.7 | 97.9 | 85.4 | -0.04 | -0.05 | -0.01 | -0.01 | 6.6 | 6.6 | 214.3 | 213.8 | 213.4 | 212.9 |
| 32 | 93.3 | 90.5 | 96.0 | 82.9 | -1.32 | -1.26 | 0.34 | 0.36 | 6.3 | 6.6 | 189.1 | 214.2 | 187.9 | 212.9 |
| 35 | 94.6 | 91.7 | 96.9 | 84.4 | 0.06 | 0.05 | -0.03 | -0.03 | 6.7 | 6.7 | 216.0 | 213.7 | 215.2 | 212.9 |
| Avg. | 94.2 | 91.4 | 96.6 | 84.1 | -0.40 | -0.39 | 0.09 | 0.10 | 6.5 | 6.6 | 206.9 | 213.7 | 206.1 | 212.9 |
| Std Dv | 1.3 | 1.3 | 1.2 | 1.3 | 0.77 | 0.73 | 0.21 | 0.22 | 0.2 | 0.1 | 15.1 | 0.7 | 15.3 | 0.0 |
| 500 FT. FLYBY - TARGET INDICATED AIRSPEED 152 KTS | | | | | | | | | | | | | | |
| 25 | 97.2 | 93.8 | 98.5 | 85.9 | 0.15 | 0.13 | -0.07 | -0.06 | 7.4 | 6.9 | 224.4 | 219.7 | 217.5 | 212.9 |
| 28 | 97.2 | 93.6 | 98.5 | 85.9 | -0.01 | -0.02 | -0.01 | -0.01 | 7.2 | 6.3 | 218.8 | 217.8 | 213.9 | 212.9 |
| 31 | 96.2 | 92.9 | 97.2 | 84.4 | -1.03 | -0.99 | 0.30 | 0.29 | 7.0 | 6.8 | 205.1 | 225.9 | 193.3 | 212.9 |
| 34 | 97.0 | 93.6 | 99.0 | 86.5 | 0.49 | 0.44 | -0.15 | -0.15 | 6.7 | 6.6 | 228.1 | 216.7 | 224.2 | 212.9 |
| Avg. | 96.9 | 93.5 | 98.3 | 85.7 | -0.10 | -0.11 | 0.02 | 0.02 | 7.1 | 6.7 | 219.1 | 220.1 | 212.2 | 212.9 |
| Std Dv | 0.6 | 0.5 | 1.0 | 1.1 | 0.80 | 0.76 | 0.24 | 0.23 | 0.3 | 0.3 | 12.4 | 5.0 | 16.3 | 0.0 |

TABLE NO. B.1-3.4

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
12/14/81

CORRECTION DATA

JUNE 22, 1980

SITE: 4 SIDELINE - 164 M. NORTH

| EV | CORRECTED | | | CORRECTIONS (dB) | | | CONSTANTS | | | TRACKING DATA (ACTUAL) | | | TRACKING DATA (REFERENCE) | | |
|--|-----------|------|-------|------------------|---------------|---------------|---------------|---------------|------|------------------------|------------------|-------|---------------------------|-------|--|
| | EPNL | NEL | PNLTH | dBAM | $\wedge 1(P)$ | $\wedge 1(A)$ | $\wedge 2(P)$ | $\wedge 2(A)$ | K(P) | K(A) | SR | CPA | SRR | CPAR | |
| 300 FT. FLYBY - TARGET INDICATED AIRSPEED 150 KTS | | | | | | | | | | | | | | | |
| 43 | 97.4 | 93.6 | 99.4 | 86.9 | -0.07 | -0.08 | 0.01 | 0.01 | 7.3 | 6.2 | 190.5 | 191.3 | 174.3 | 175.0 | |
| 44 | 99.2 | 95.5 | 102.9 | 90.2 | 0.50 | 0.46 | -0.14 | -0.14 | 6.3 | 6.0 | 190.7 | 181.1 | 184.3 | 175.0 | |
| Avg. | 98.3 | 94.6 | 101.2 | 88.5 | 0.21 | 0.19 | -0.06 | -0.06 | 6.8 | 6.1 | 190.6 | 186.2 | 179.3 | 175.0 | |
| Std Dv | 1.3 | 1.4 | 2.5 | 2.4 | 0.40 | 0.38 | 0.11 | 0.11 | 0.7 | 0.1 | 0.1 | 7.3 | 7.1 | 0.0 | |
| 700 FT. FLYBY - TARGET INDICATED AIRSPEED 150 KTS | | | | | | | | | | | | | | | |
| 41 | 97.9 | 95.3 | 99.9 | 87.9 | 0.53 | 0.50 | -0.18 | -0.16 | 7.3 | 6.7 | 396.4 | 374.7 | 274.8 | 259.8 | |
| 42 | 95.4 | 92.3 | 96.6 | 84.9 | 0.30 | 0.27 | -0.11 | -0.09 | 7.3 | 6.6 | 269.2 | 260.4 | 268.6 | 259.8 | |
| Avg. | 96.7 | 93.8 | 98.2 | 86.4 | 0.41 | 0.38 | -0.14 | -0.12 | 7.3 | 6.6 | 332.8 | 317.6 | 271.7 | 259.8 | |
| Std Dv | 1.8 | 2.1 | 2.4 | 2.1 | 0.16 | 0.16 | 0.05 | 0.05 | 0.0 | 0.1 | 90.0 | 80.9 | 4.4 | 0.0 | |
| 1000 FT. FLYBY - TARGET INDICATED AIRSPEED 150 KTS | | | | | | | | | | | | | | | |
| 1 | 92.4 | 89.4 | 92.3 | 80.2 | -0.56 | -0.57 | 0.06 | 0.06 | 7.6 | 7.5 | 517.3 | 526.8 | 332.5 | 338.6 | |
| 2 | 94.7 | 91.8 | 94.6 | 82.6 | -0.48 | -0.44 | 0.08 | 0.07 | 7.9 | 7.4 | 331.8 | 339.5 | 330.9 | 338.6 | |
| 3 | 93.0 | 89.9 | 92.5 | 80.9 | -0.42 | -0.32 | -0.02 | -0.02 | 7.7 | 7.2 | 344.5 | 342.8 | 340.3 | 338.6 | |
| 4 | 95.0 | 92.5 | 94.5 | 83.1 | -0.83 | -0.78 | 0.19 | 0.17 | 8.1 | 7.4 | 321.0 | 338.6 | 321.0 | 338.6 | |
| 5 | 92.5 | 89.5 | 91.7 | 79.3 | -1.11 | -1.14 | 0.18 | 0.18 | 7.7 | 7.7 | 641.7 | 677.6 | 320.7 | 338.6 | |
| 6 | | | | | | | | | | | NO TRACKING DATA | | | | |
| 39 | 95.5 | 92.9 | 95.5 | 84.5 | 0.05 | 0.05 | -0.04 | -0.03 | 7.6 | 6.7 | 342.8 | 339.0 | 342.4 | 338.6 | |
| 40 | 93.9 | 90.1 | 93.3 | 81.0 | -0.03 | -0.05 | -0.03 | -0.03 | 7.3 | 7.2 | 942.1 | 934.2 | 341.5 | 338.6 | |
| Avg. | 93.9 | 90.9 | 93.5 | 81.7 | -0.48 | -0.46 | 0.06 | 0.06 | 7.7 | 7.3 | 491.6 | 499.8 | 332.7 | 338.6 | |
| Std Dv | 1.4 | 1.6 | 1.5 | 2.0 | 0.45 | 0.45 | 0.11 | 0.10 | 0.3 | 0.3 | 254.8 | 254.3 | 10.1 | 0.0 | |
| 1500 FT. FLYBY - TARGET INDICATED AIRSPEED 150 KTS | | | | | | | | | | | | | | | |
| 37 | | 90.2 | 91.2 | 80.4 | -0.12 | -0.10 | | 0.00 | | 7.2 | 820.4 | 820.8 | 479.8 | 480.0 | |
| 38 | 90.5 | 87.4 | 88.6 | 76.7 | -0.11 | -0.12 | -0.01 | -0.01 | 7.9 | 7.6 | 782.4 | 780.6 | 481.1 | 480.0 | |
| 45 | | | | | | | | | | | NO TRACKING DATA | | | | |
| 46 | | | | | | | | | | | NO TRACKING DATA | | | | |
| Avg. | 90.5 | 88.8 | 89.9 | 78.5 | -0.12 | -0.11 | -0.01 | -0.00 | 7.9 | 7.4 | 801.4 | 800.7 | 480.5 | 480.0 | |
| Std Dv | | 2.0 | 1.8 | 2.6 | 0.01 | 0.01 | | 0.01 | | 0.3 | 26.8 | 28.4 | 1.0 | 0.0 | |

TABLE NO. B.1-2.5

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
12/14/81

CORRECTION DATA

| SITE: 5 | | SIDELINE - 150 M. SOUTH | | | | JUNE 22, 1980 | | | | | | | | | | | |
|---|-----------|-------------------------|-------|------|------------------|---------------|---------------|---------------|-----------|------|-------|-------|------------------------|-------|----------|-------------|--|
| EV | CORRECTED | | | | CORRECTIONS (dB) | | | | CONSTANTS | | | | TRACKING DATA (METERS) | | | | |
| | EPNL | NEL | PNLTH | dBAM | $\wedge 1(P)$ | $\wedge 1(A)$ | $\wedge 2(P)$ | $\wedge 2(A)$ | K(P) | K(A) | SR | CPA | SRR | CPAR | (ACTUAL) | (REFERENCE) | |
| 500 FT. FLYBY - TARGET INDICATED AIRSPEED 115 KTS | | | | | | | | | | | | | | | | | |
| 27 | 93.2 | 90.5 | 93.3 | 81.5 | 0.12 | 0.08 | -0.06 | -0.05 | 7.6 | 7.3 | 219.6 | 216.0 | 216.5 | 212.9 | | | |
| 30 | 93.4 | 91.0 | 96.2 | 84.3 | 0.52 | 0.48 | -0.16 | -0.15 | 6.8 | 6.4 | 232.7 | 220.1 | 225.1 | 212.9 | | | |
| 33 | 93.3 | 90.7 | 93.6 | 81.6 | -0.38 | -0.39 | 0.11 | 0.10 | 7.6 | 7.3 | 215.5 | 222.5 | 206.3 | 212.9 | | | |
| 36 | 91.4 | 89.1 | 93.0 | 81.1 | -0.45 | -0.44 | 0.12 | 0.11 | 6.7 | 6.4 | 212.6 | 221.2 | 204.7 | 212.9 | | | |
| Avg. | 92.8 | 90.3 | 94.0 | 82.1 | -0.05 | -0.07 | 0.00 | 0.00 | 7.2 | 6.9 | 220.1 | 220.0 | 213.1 | 212.9 | | | |
| Std Dv | 1.2 | 1.0 | 1.8 | 1.8 | 0.56 | 0.53 | 0.17 | 0.15 | 0.6 | 0.7 | 10.9 | 3.4 | 11.7 | 0.0 | | | |
| 500 FT. FLYBY - TARGET INDICATED AIRSPEED 132 KTS | | | | | | | | | | | | | | | | | |
| 26 | 95.4 | 93.2 | 97.9 | 86.2 | 0.35 | 0.32 | -0.14 | -0.13 | 7.7 | 7.3 | 226.7 | 217.6 | 221.8 | 212.9 | | | |
| 29 | 94.3 | 91.9 | 95.7 | 83.8 | -0.15 | -0.17 | 0.03 | 0.03 | 6.9 | 6.8 | 227.5 | 229.5 | 211.1 | 212.9 | | | |
| 32 | 96.0 | 93.5 | 98.6 | 87.0 | 0.62 | 0.57 | -0.20 | -0.19 | 7.2 | 6.7 | 237.4 | 222.6 | 227.1 | 212.9 | | | |
| 35 | 93.7 | 91.4 | 94.9 | 83.4 | -0.18 | -0.19 | 0.04 | 0.04 | 7.6 | 6.9 | 215.6 | 218.4 | 210.3 | 212.9 | | | |
| Avg. | 94.9 | 92.5 | 96.8 | 85.1 | 0.16 | 0.13 | -0.07 | -0.06 | 7.4 | 6.9 | 226.8 | 222.0 | 217.6 | 212.9 | | | |
| Std Dv | 1.2 | 1.3 | 2.1 | 2.2 | 0.48 | 0.46 | 0.15 | 0.14 | 0.4 | 0.3 | 10.9 | 6.7 | 10.1 | 0.0 | | | |
| 500 FT. FLYBY - TARGET INDICATED AIRSPEED 152 KTS | | | | | | | | | | | | | | | | | |
| 25 | 96.9 | 94.1 | 98.0 | 86.1 | 1.03 | 0.96 | -0.33 | -0.30 | 7.2 | 6.6 | 237.3 | 213.6 | 236.6 | 212.9 | | | |
| 28 | 97.6 | 94.6 | 100.2 | 87.6 | 0.66 | 0.62 | -0.22 | -0.21 | 7.2 | 6.9 | 247.3 | 230.4 | 228.5 | 212.9 | | | |
| 31 | 96.6 | 93.9 | 99.0 | 86.9 | 0.63 | 0.57 | -0.19 | -0.20 | 6.9 | 7.2 | 258.1 | 242.0 | 227.1 | 212.9 | | | |
| 34 | 96.6 | 94.0 | 98.5 | 85.6 | -0.33 | -0.34 | 0.08 | 0.09 | 7.1 | 7.4 | 300.2 | 308.3 | 207.4 | 212.9 | | | |
| Avg. | 96.9 | 94.1 | 98.9 | 86.6 | 0.50 | 0.45 | -0.16 | -0.15 | 7.1 | 7.0 | 260.7 | 248.6 | 224.9 | 212.9 | | | |
| Std Dv | 0.6 | 0.4 | 1.2 | 1.1 | 0.71 | 0.68 | 0.21 | 0.21 | 0.2 | 0.4 | 33.9 | 50.8 | 15.2 | 0.0 | | | |
| 500 FT. FLYBY - TARGET INDICATED AIRSPEED 165 KTS | | | | | | | | | | | | | | | | | |
| 49 | 96.7 | 93.5 | 98.4 | 86.6 | -0.08 | -0.10 | 0.01 | 0.01 | 7.0 | 6.7 | 213.5 | 214.5 | 212.0 | 212.9 | | | |
| 50 | 97.5 | 94.2 | 100.4 | 88.1 | -0.13 | -0.14 | 0.02 | 0.02 | 6.9 | 6.4 | 230.5 | 232.5 | 211.2 | 212.9 | | | |
| 51 | 96.2 | 93.1 | 97.6 | 85.7 | 0.46 | 0.42 | -0.15 | -0.15 | 7.0 | 7.2 | 223.8 | 213.3 | 223.4 | 212.9 | | | |
| Avg. | 96.8 | 93.6 | 98.8 | 86.8 | 0.08 | 0.06 | -0.04 | -0.04 | 7.0 | 6.8 | 222.6 | 220.1 | 215.5 | 212.9 | | | |
| Std Dv | 0.9 | 0.8 | 2.0 | 1.7 | 0.46 | 0.44 | 0.13 | 0.13 | 0.1 | 0.6 | 12.1 | 15.2 | 9.7 | 0.0 | | | |

TABLE NO. B.1-3.5

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
12/14/81

CORRECTION DATA

| CORRECTED | | CORRECTIONS (dB) | | | | CONSTANTS | | TRACKING DATA (METERS) | | | | |
|--|------|------------------|-------|------|-----------------------------|-----------------------------|-------|------------------------|------------------|--------|-------|-------|
| EV | EPNL | NEL | PNLTM | dBAM | $\sqrt{1(P)} / \sqrt{1(A)}$ | $\sqrt{2(P)} / \sqrt{2(A)}$ | K(P) | K(A) | SR | CPA | SRR | CPAR |
| 300 FT. FLYBY - TARGET INDICATED AIRSPEED 150 KTS | | | | | | | | | | | | |
| 43 | 97.9 | 94.8 | 102.5 | 89.2 | -0.03 | -0.04 | 0.00 | 0.00 | 175.0 | 175.0 | 175.0 | 175.0 |
| 44 | 96.3 | 92.9 | 99.3 | 86.1 | -0.81 | -0.80 | 0.23 | 0.22 | 220.0 | 237.5 | 162.1 | 175.0 |
| Avg. | 97.1 | 93.8 | 100.9 | 87.6 | -0.42 | -0.42 | 0.12 | 0.11 | 197.5 | 206.2 | 168.6 | 175.0 |
| Std Dv | 1.1 | 1.4 | 2.3 | 2.2 | 0.55 | 0.54 | 0.16 | 0.16 | 31.8 | 44.2 | 9.1 | 0.0 |
| 700 FT. FLYBY - TARGET INDICATED AIRSPEED 150 KTS | | | | | | | | | | | | |
| 41 | 93.8 | 91.2 | 95.6 | 83.4 | -0.08 | -0.10 | 0.01 | 0.01 | 267.8 | 268.5 | 259.1 | 259.8 |
| 42 | 96.5 | 93.6 | 98.0 | 86.1 | -0.22 | -0.21 | 0.05 | 0.05 | 256.0 | 260.2 | 255.6 | 259.8 |
| Avg. | 95.1 | 92.4 | 96.8 | 84.8 | -0.15 | -0.15 | 0.03 | 0.03 | 261.9 | 264.4 | 257.4 | 259.8 |
| Std Dv | 1.9 | 1.7 | 1.7 | 1.9 | 0.10 | 0.08 | 0.03 | 0.03 | 8.3 | 5.8 | 2.5 | 0.0 |
| 1000 FT. FLYBY - TARGET INDICATED AIRSPEED 150 KTS | | | | | | | | | | | | |
| 1 | 94.6 | 91.6 | 96.0 | 83.6 | 0.12 | 0.12 | -0.11 | -0.11 | 357.1 | 344.6 | 350.8 | 338.6 |
| 2 | 91.2 | 88.4 | 91.9 | 78.6 | 0.78 | 0.71 | -0.33 | -0.34 | 536.4 | 484.8 | 374.6 | 338.6 |
| 3 | 94.4 | 91.8 | 94.7 | 83.3 | -0.29 | -0.28 | 0.01 | 0.01 | 343.0 | 343.5 | 338.0 | 338.6 |
| 4 | 91.6 | 89.0 | 91.7 | 79.8 | 0.33 | 0.26 | -0.21 | -0.21 | 539.1 | 506.1 | 360.6 | 338.6 |
| 5 | 94.4 | 91.5 | 95.2 | 82.7 | 0.42 | 0.39 | -0.22 | -0.21 | 363.0 | 340.2 | 361.2 | 338.6 |
| 6 | | | | | | | | | NO TRACKING DATA | | | |
| 39 | 92.5 | 90.1 | 92.3 | 80.4 | 0.16 | 0.13 | -0.07 | -0.07 | 457.4 | 447.7 | 345.9 | 338.6 |
| 40 | 95.2 | 92.8 | 95.9 | 83.7 | -0.16 | -0.16 | 0.02 | 0.02 | 567.2 | 570.9 | 336.4 | 338.6 |
| 47 | 92.1 | 89.3 | 92.6 | 80.6 | 1.43 | 1.27 | -0.38 | -0.39 | 443.3 | 391.6 | 383.3 | 338.6 |
| 48 | 94.5 | 91.9 | 95.0 | 83.0 | 0.22 | 0.20 | -0.10 | -0.09 | 739.7 | 719.1 | 348.3 | 338.6 |
| Avg. | 93.4 | 90.7 | 93.9 | 81.7 | 0.33 | 0.29 | -0.15 | -0.15 | 482.9 | 460.9 | 355.5 | 338.6 |
| Std Dv | 1.7 | 1.6 | 1.9 | 2.0 | 0.55 | 0.50 | 0.15 | 0.15 | 136.8 | 135.3 | 17.0 | 0.0 |
| 1500 FT. FLYBY - TARGET INDICATED AIRSPEED 150 KTS | | | | | | | | | | | | |
| 37 | 89.2 | 87.2 | 88.3 | 76.3 | -0.08 | -0.10 | -0.01 | -0.01 | 654.5 | 652.0 | 481.8 | 480.0 |
| 38 | 91.7 | 89.1 | 91.9 | 79.2 | 0.23 | 0.20 | -0.10 | -0.10 | 1108.9 | 1075.5 | 494.9 | 480.0 |
| 45 | | | | | | | | | NO TRACKING DATA | | | |
| 46 | | | | | | | | | NO TRACKING DATA | | | |
| Avg. | 90.5 | 88.2 | 90.1 | 77.7 | 0.07 | 0.05 | -0.06 | -0.06 | 881.7 | 863.8 | 488.4 | 480.0 |
| Std Dv | 1.8 | 1.4 | 2.5 | 2.1 | 0.22 | 0.21 | 0.06 | 0.06 | 227.2 | 211.8 | 9.2 | 0.0 |

JUNE 22, 1980

SITE: 5 SIDELINE - 150 M. SOUTH

TABLE NO. B.1-2.5G

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
12/14/81

CORRECTION DATA

| CORRECTED | | CORRECTIONS (dB) | | | | CONSTANTS | | TRACKING DATA (METERS) | | | | |
|--|-------|------------------|-------|------|---------------|---------------|------|------------------------|-------|-------|-------|-------|
| EV | EPNL | NEL | PNLTM | dBAM | $\wedge 1(P)$ | $\wedge 1(A)$ | K(P) | K(A) | SR | CPA | SRR | CPAR |
| SITE: 5G SIDELINE - 150 M. SOUTH (FLUSH) JUNE 22, 1980 | | | | | | | | | | | | |
| 500 FT. FLYBY - TARGET INDICATED AIRSPEED 115 KTS | | | | | | | | | | | | |
| 27 | 97.3 | 94.7 | 98.4 | 86.4 | 0.11 | 0.08 | 7.7 | 7.3 | 220.5 | 216.9 | 217.4 | 213.8 |
| 30 | 97.7 | 95.1 | 100.8 | 88.6 | 0.51 | 0.47 | 6.7 | 6.6 | 233.7 | 221.1 | 226.0 | 213.8 |
| 33 | 97.3 | 95.0 | 98.5 | 86.9 | -0.38 | 0.10 | 7.3 | 7.0 | 210.1 | 216.8 | 207.1 | 213.8 |
| 36 | 95.3 | 93.1 | 97.1 | 85.8 | -0.45 | 0.13 | 7.7 | 6.8 | 205.6 | 213.8 | 205.6 | 213.8 |
| Avg. | 96.9 | 94.5 | 98.7 | 86.9 | -0.05 | 0.00 | 7.3 | 6.9 | 217.5 | 217.2 | 214.0 | 213.8 |
| Std Dv | 1.3 | 1.2 | 1.9 | 1.5 | 0.55 | 0.17 | 0.6 | 0.4 | 15.3 | 3.7 | 11.7 | 0.0 |
| 500 FT. FLYBY - TARGET INDICATED AIRSPEED 132 KTS | | | | | | | | | | | | |
| 26 | 99.2 | 96.7 | 102.1 | 90.1 | 0.34 | 0.32 | 7.4 | 6.8 | 227.5 | 218.5 | 222.6 | 213.8 |
| 29 | 98.5 | 96.4 | 100.1 | 88.7 | -0.19 | 0.03 | 7.4 | 6.9 | 217.6 | 219.4 | 212.0 | 213.8 |
| 32 | 99.6 | 97.1 | 103.3 | 91.1 | 0.60 | 0.56 | 6.7 | 6.2 | 230.1 | 215.8 | 227.9 | 213.8 |
| 35 | 98.2 | 95.9 | 100.1 | 88.4 | -0.22 | 0.19 | 7.2 | 6.8 | 216.6 | 219.3 | 211.1 | 213.8 |
| Avg. | 98.9 | 96.5 | 101.4 | 89.6 | 0.13 | 0.13 | 7.2 | 6.7 | 222.9 | 218.3 | 218.4 | 213.8 |
| Std Dv | 0.8 | 0.6 | 1.9 | 1.5 | 0.49 | 0.14 | 0.4 | 0.4 | 8.4 | 2.0 | 10.0 | 0.0 |
| 500 FT. FLYBY - TARGET INDICATED AIRSPEED 152 KTS | | | | | | | | | | | | |
| 25 | 100.3 | 97.8 | 102.8 | 90.9 | 1.07 | 0.97 | 7.0 | 6.9 | 295.7 | 266.2 | 237.5 | 213.8 |
| 28 | 101.3 | 98.4 | 104.2 | 92.1 | 0.65 | 0.62 | 7.1 | 6.4 | 271.1 | 252.7 | 229.4 | 213.8 |
| 31 | 100.9 | 98.5 | 103.7 | 91.9 | 0.62 | 0.56 | 6.8 | 7.2 | 258.8 | 242.8 | 227.9 | 213.8 |
| 34 | 100.0 | 97.1 | 102.6 | 89.6 | -0.33 | 0.08 | 7.0 | 7.1 | 300.8 | 308.8 | 208.3 | 213.8 |
| Avg. | 100.6 | 98.0 | 103.3 | 91.1 | 0.50 | 0.45 | 7.0 | 6.9 | 281.6 | 267.6 | 225.8 | 213.8 |
| Std Dv | 0.7 | 0.8 | 0.9 | 1.4 | 0.72 | 0.70 | 0.1 | 0.4 | 24.4 | 35.6 | 15.2 | 0.0 |
| 500 FT. FLYBY - TARGET INDICATED AIRSPEED 165 KTS | | | | | | | | | | | | |
| 49 | 100.8 | 98.1 | 103.3 | 91.7 | -0.13 | -0.11 | 6.9 | 6.6 | 223.7 | 224.7 | 212.8 | 213.8 |
| 50 | 101.5 | 98.4 | 104.6 | 92.5 | -0.13 | -0.16 | 6.9 | 6.1 | 254.1 | 256.4 | 211.9 | 213.8 |
| 51 | 100.4 | 97.8 | 102.6 | 90.7 | 0.46 | 0.42 | 7.2 | 7.3 | 292.7 | 279.1 | 224.3 | 213.8 |
| Avg. | 100.9 | 98.1 | 103.5 | 91.6 | 0.07 | -0.04 | 7.0 | 6.7 | 256.8 | 253.4 | 216.3 | 213.8 |
| Std Dv | 0.8 | 0.4 | 1.4 | 1.3 | 0.48 | 0.14 | 0.3 | 0.8 | 49.0 | 38.6 | 9.8 | 0.0 |

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
12/14/81

CORRECTION DATA

| CORRECTED | | CORRECTIONS (dB) | | CONSTANTS | | TRACKING DATA (METERS) | | | | | | | |
|--|-------|---------------------------------|-------|-----------|---|------------------------|-------|----------|------------------|-----|--------|--------|-------|
| EV | EPNL | NEL | PNLTH | dBAM | $\sqrt{1(P)} \sqrt{1(A)} \sqrt{2(P)} \sqrt{2(A)}$ | K(P) | K(A) | (ACTUAL) | CPA | SR | SRR | CPAR | |
| JUNE 22, 1980 | | | | | | | | | | | | | |
| SITE: 5G | | SIDELINE - 150 M. SOUTH (FLUSH) | | | | | | | | | | | |
| 300 FT. FLYBY - TARGET INDICATED AIRSPEED 150 KTS | | | | | | | | | | | | | |
| 43 | 94.9 | 91.9 | 99.0 | 86.7 | -0.03 | -0.04 | 0.00 | 0.00 | 6.1 | 6.4 | 178.9 | 178.9 | 175.6 |
| 44 | 94.9 | 91.6 | 98.3 | 85.6 | -0.81 | -0.82 | 0.22 | 0.20 | 6.7 | 6.0 | 220.5 | 237.9 | 162.8 |
| Avg. | 94.9 | 91.7 | 98.7 | 86.2 | -0.42 | -0.43 | 0.11 | 0.10 | 6.4 | 6.2 | 199.7 | 208.4 | 169.2 |
| Std Dv | 0.0 | 0.2 | 0.5 | 0.8 | 0.55 | 0.55 | 0.16 | 0.14 | 0.4 | 0.2 | 29.4 | 41.7 | 9.1 |
| 700 FT. FLYBY - TARGET INDICATED AIRSPEED 150 KTS | | | | | | | | | | | | | |
| 41 | 98.1 | 96.0 | 99.9 | 88.5 | -0.11 | -0.10 | 0.01 | 0.01 | 7.2 | 6.9 | 282.2 | 282.9 | 260.1 |
| 42 | 100.0 | 97.5 | 102.3 | 90.9 | -0.22 | -0.22 | 0.05 | 0.04 | 6.9 | 6.0 | 257.1 | 261.2 | 256.6 |
| Avg. | 99.1 | 96.8 | 101.1 | 89.7 | -0.17 | -0.16 | 0.03 | 0.02 | 7.1 | 6.4 | 269.6 | 272.1 | 258.4 |
| Std Dv | 1.4 | 1.1 | 1.7 | 1.7 | 0.08 | 0.08 | 0.03 | 0.02 | 0.2 | 0.7 | 17.8 | 15.3 | 2.5 |
| 1000 FT. FLYBY - TARGET INDICATED AIRSPEED 150 KTS | | | | | | | | | | | | | |
| 1 | 97.0 | 94.5 | 98.5 | 87.3 | 0.14 | 0.12 | -0.11 | -0.10 | 7.2 | 6.6 | 358.1 | 345.7 | 351.9 |
| 2 | 94.4 | 92.1 | 95.0 | 83.0 | 0.75 | 0.74 | -0.33 | -0.33 | 7.5 | 7.6 | 425.8 | 385.0 | 375.7 |
| 3 | 97.3 | 95.1 | 98.4 | 87.3 | -0.27 | -0.25 | 0.01 | 0.00 | 7.2 | 6.6 | 344.1 | 344.6 | 339.1 |
| 4 | 97.6 | 96.2 | 97.9 | 86.8 | 0.22 | 0.17 | -0.21 | -0.22 | 7.9 | 7.9 | 574.6 | 539.6 | 361.7 |
| 5 | 99.2 | 97.0 | 101.2 | 89.7 | 0.40 | 0.35 | -0.19 | -0.18 | 6.9 | 6.5 | 370.7 | 347.6 | 362.3 |
| 6 | | | | | | | | | NO TRACKING DATA | | | | |
| 39 | 96.7 | 94.7 | 97.4 | 85.4 | 0.16 | 0.13 | -0.07 | -0.07 | 7.3 | 7.5 | 431.4 | 422.3 | 347.0 |
| 40 | 98.8 | 96.4 | 98.7 | 87.4 | -0.14 | -0.17 | 0.02 | 0.02 | 8.0 | 7.4 | 423.9 | 426.6 | 337.5 |
| 47 | 96.0 | 93.9 | 96.6 | 84.9 | 1.35 | 1.23 | -0.41 | -0.40 | 7.6 | 7.5 | 444.6 | 392.9 | 384.4 |
| 48 | 97.9 | 95.4 | 99.2 | 88.0 | 0.22 | 0.20 | -0.09 | -0.08 | 7.2 | 6.5 | 349.4 | 339.7 | 349.4 |
| Avg. | 97.2 | 95.0 | 98.1 | 86.6 | 0.31 | 0.28 | -0.15 | -0.15 | 7.4 | 7.1 | 413.6 | 393.8 | 356.5 |
| Std Dv | 1.6 | 1.6 | 1.8 | 2.1 | 0.52 | 0.49 | 0.16 | 0.15 | 0.4 | 0.6 | 76.8 | 68.7 | 17.0 |
| 1500 FT. FLYBY - TARGET INDICATED AIRSPEED 150 KTS | | | | | | | | | | | | | |
| 37 | 93.3 | 91.7 | 92.6 | 81.1 | -0.09 | -0.10 | -0.01 | -0.01 | 7.6 | 7.7 | 655.9 | 653.4 | 483.0 |
| 38 | 95.3 | 92.9 | 94.6 | 83.0 | 0.22 | 0.20 | -0.10 | -0.10 | 7.9 | 7.5 | 1056.1 | 1024.5 | 496.0 |
| 45 | | | | | | | | | NO TRACKING DATA | | | | |
| 46 | | | | | | | | | NO TRACKING DATA | | | | |
| Avg. | 94.3 | 92.3 | 93.6 | 82.0 | 0.06 | 0.05 | -0.06 | -0.06 | 7.8 | 7.6 | 856.0 | 838.9 | 489.5 |
| Std Dv | 1.4 | 0.8 | 1.5 | 1.3 | 0.22 | 0.21 | 0.06 | 0.06 | 0.2 | 0.1 | 200.1 | 185.6 | 9.2 |

TABLE NO. B.1-2.6

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
12/14/81

CORRECTION DATA

JUNE 22, 1980

SITE: 6 SIDELINE - 284 M. NORTH

| EV | CORRECTED | | | | CORRECTIONS (dB) | | | | CONSTANTS | | TRACKING DATA (METERS) | | | |
|---|-----------|------|-------|------|------------------|---------------|---------------|---------------|-----------|------|------------------------|-------|-------|-------|
| | EPNL | NEL | PNLTM | dBAM | $\wedge 1(P)$ | $\wedge 1(A)$ | $\wedge 2(P)$ | $\wedge 2(A)$ | K(P) | K(A) | SR | CPA | SRR | CPAR |
| 500 FT. FLYBY - TARGET INDICATED AIRSPEED 115 KTS | | | | | | | | | | | | | | |
| 27 | 89.9 | 87.2 | 89.7 | 77.4 | -0.24 | -0.23 | 0.04 | 0.03 | 6.8 | 6.5 | 320.9 | 324.8 | 317.7 | 321.5 |
| 30 | 90.8 | 88.6 | 91.6 | 78.8 | -0.32 | -0.31 | 0.06 | 0.06 | 6.9 | 6.9 | 315.2 | 321.7 | 315.0 | 321.5 |
| 33 | 90.9 | 88.2 | 90.6 | 78.7 | 0.08 | 0.07 | -0.05 | -0.05 | 7.6 | 7.3 | 326.5 | 321.6 | 326.4 | 321.5 |
| 36 | 91.8 | 89.3 | 93.5 | 81.0 | 0.42 | 0.38 | -0.13 | -0.13 | 6.6 | 6.5 | 339.3 | 324.5 | 336.2 | 321.5 |
| Avg. | 90.9 | 88.3 | 91.4 | 79.0 | -0.02 | -0.02 | 0.05 | 0.05 | 7.0 | 6.8 | 325.5 | 323.1 | 323.8 | 321.5 |
| Std Dv | 1.0 | 1.1 | 2.0 | 1.8 | 0.41 | 0.38 | 0.11 | 0.10 | 0.5 | 0.5 | 12.6 | 2.1 | 11.7 | 0.0 |
| 500 FT. FLYBY - TARGET INDICATED AIRSPEED 132 KTS | | | | | | | | | | | | | | |
| 26 | 92.5 | 89.9 | 93.3 | 81.4 | -0.37 | -0.35 | 0.07 | 0.07 | 6.9 | 7.3 | 320.2 | 327.7 | 314.1 | 321.5 |
| 29 | 93.3 | 90.3 | 93.2 | 80.1 | -0.08 | -0.09 | -0.01 | -0.01 | 7.3 | 7.8 | 437.4 | 436.1 | 322.4 | 321.5 |
| 32 | 91.5 | 88.7 | 92.2 | 79.8 | -1.06 | -1.01 | 0.24 | 0.26 | 6.2 | 6.6 | 293.4 | 321.6 | 293.4 | 321.5 |
| 35 | - | 89.6 | 92.3 | 79.8 | 0.02 | 0.01 | - | -0.03 | - | 7.5 | 324.6 | 321.6 | 324.5 | 321.5 |
| Avg. | 92.4 | 89.6 | 92.7 | 80.3 | -0.37 | -0.36 | 0.10 | 0.07 | 6.8 | 7.3 | 343.9 | 351.8 | 313.6 | 321.5 |
| Std Dv | 1.3 | 0.8 | 0.7 | 0.9 | 0.60 | 0.56 | 0.18 | 0.16 | 0.8 | 0.6 | 78.2 | 69.0 | 17.4 | 0.0 |
| 500 FT. FLYBY - TARGET INDICATED AIRSPEED 152 KTS | | | | | | | | | | | | | | |
| 25 | 95.4 | 91.7 | 94.6 | 81.1 | -0.18 | -0.20 | 0.03 | 0.03 | 8.0 | 7.8 | 375.8 | 379.3 | 318.6 | 321.5 |
| 28 | 94.6 | 91.7 | 97.2 | 84.2 | -0.24 | -0.23 | 0.03 | 0.03 | 6.4 | 6.4 | 339.5 | 343.7 | 317.6 | 321.5 |
| 31 | 93.6 | 90.7 | 93.9 | 80.4 | -0.87 | -0.85 | 0.23 | 0.24 | 7.1 | 7.4 | 392.5 | 423.1 | 298.3 | 321.5 |
| 34 | 95.1 | 92.7 | 97.5 | 84.6 | 0.33 | 0.30 | -0.11 | -0.10 | 6.4 | 6.3 | 340.9 | 328.2 | 334.0 | 321.5 |
| Avg. | 94.7 | 91.7 | 95.8 | 82.6 | -0.24 | -0.24 | 0.05 | 0.05 | 7.0 | 7.0 | 362.2 | 368.6 | 317.1 | 321.5 |
| Std Dv | 1.0 | 1.0 | 2.2 | 2.6 | 0.60 | 0.58 | 0.17 | 0.17 | 1.0 | 0.9 | 32.2 | 51.6 | 17.9 | 0.0 |
| 500 FT. FLYBY - TARGET INDICATED AIRSPEED 165 KTS | | | | | | | | | | | | | | |
| 49 | - | 90.4 | 94.6 | 81.9 | -0.35 | -0.36 | - | 0.08 | - | 6.7 | 389.5 | 400.7 | 312.5 | 321.5 |
| 50 | 93.9 | 90.9 | 94.8 | 83.4 | -1.03 | -0.98 | 0.28 | 0.26 | 7.4 | 6.6 | 318.1 | 347.8 | 294.1 | 321.5 |
| 51 | 94.2 | 89.9 | 94.7 | 81.0 | -0.08 | -0.10 | 0.01 | 0.01 | 7.1 | 6.7 | 382.9 | 383.9 | 320.7 | 321.5 |
| Avg. | 94.0 | 90.4 | 94.7 | 82.1 | -0.49 | -0.48 | 0.14 | 0.12 | 7.2 | 6.7 | 363.5 | 377.5 | 309.1 | 321.5 |
| Std Dv | 0.2 | 0.7 | 0.1 | 1.7 | 0.69 | 0.64 | 0.19 | 0.18 | 0.2 | 0.1 | 55.8 | 38.2 | 19.2 | 0.0 |

TABLE NO. B.1-3.6

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
12/14/81

CORRECTION DATA

| | | SITE: 6 | | SIDELINE - 284 M. NORTH | | JUNE 22, 1980 | | TRACKING DATA (METERS) | | | | | |
|--|------|-----------|-------|-------------------------|-------------------------------------|---------------|-------------------------|------------------------|------|---------------------------|--------|-------|-------|
| | | CORRECTED | | CORRECTIONS (dB) | | CONSTANTS | | TRACKING DATA (ACTUAL) | | TRACKING DATA (REFERENCE) | | | |
| EV | EPNL | NEL | PNLTH | dBAM | $\sqrt{1(P)} \setminus \sqrt{1(A)}$ | $\sqrt{2(P)}$ | $\setminus \sqrt{2(A)}$ | K(P) | K(A) | SR | CPA | SRR | CPAR |
| 300 FT. FLYBY - TARGET INDICATED AIRSPEED 150 KTS | | | | | | | | | | | | | |
| 43 | 94.2 | 90.3 | 94.7 | 82.7 | -0.08 | 0.01 | 0.01 | 7.7 | 6.3 | 315.2 | 315.9 | 297.1 | 297.8 |
| 44 | 95.2 | 92.7 | 97.7 | 84.9 | 0.34 | -0.11 | -0.11 | 6.7 | 6.7 | 311.4 | 300.1 | 308.9 | 297.8 |
| Avg. | 94.7 | 91.5 | 96.2 | 83.8 | 0.13 | 0.12 | -0.05 | 7.2 | 6.5 | 313.3 | 308.0 | 303.0 | 297.8 |
| Std Dv | 0.7 | 1.7 | 2.1 | 1.6 | 0.30 | 0.28 | 0.08 | 0.7 | 0.3 | 2.7 | 11.1 | 8.3 | 0.0 |
| 700 FT. FLYBY - TARGET INDICATED AIRSPEED 150 KTS | | | | | | | | | | | | | |
| 41 | 94.1 | 90.7 | 95.2 | 82.1 | -0.05 | -0.05 | -0.06 | 7.0 | 6.8 | 385.4 | 378.0 | 361.3 | 354.3 |
| 42 | 93.1 | 90.6 | 94.3 | 82.8 | 0.26 | 0.23 | -0.09 | 7.2 | 6.7 | 366.9 | 356.1 | 365.0 | 354.3 |
| Avg. | 93.6 | 90.7 | 94.8 | 82.5 | 0.10 | 0.09 | -0.07 | 7.1 | 6.7 | 376.2 | 367.1 | 363.1 | 354.3 |
| Std Dv | 0.7 | 0.1 | 0.7 | 0.5 | 0.22 | 0.20 | 0.02 | 0.1 | 0.1 | 13.1 | 15.5 | 2.6 | 0.0 |
| 1000 FT. FLYBY - TARGET INDICATED AIRSPEED 150 KTS | | | | | | | | | | | | | |
| 1 | 90.1 | 87.3 | 89.8 | 77.5 | -0.81 | -0.78 | 0.15 | 7.5 | 7.6 | 398.2 | 416.8 | 397.0 | 415.6 |
| 2 | 90.9 | 87.8 | 90.0 | 76.7 | -1.13 | -1.06 | 0.20 | 7.8 | 7.9 | 783.4 | 830.2 | 392.1 | 415.6 |
| 3 | 91.1 | 88.3 | 90.2 | 78.3 | -0.29 | -0.02 | -0.02 | 7.9 | 7.5 | 432.6 | 430.3 | 417.7 | 415.6 |
| 4 | 91.9 | 89.3 | 90.1 | 78.4 | -1.14 | -1.07 | 0.25 | 8.4 | 7.8 | 410.2 | 441.6 | 386.0 | 415.6 |
| 5 | 90.3 | 87.8 | 89.6 | 77.9 | -1.15 | -1.11 | 0.24 | 7.6 | 7.3 | 385.4 | 415.6 | 385.4 | 415.6 |
| 6 | 93.2 | 90.5 | 92.3 | 80.4 | -0.10 | -0.10 | -0.02 | 7.7 | 7.4 | 1031.2 | 1025.6 | 417.9 | 415.6 |
| 39 | 90.9 | 88.3 | 91.0 | 78.9 | 0.03 | 0.01 | -0.03 | 7.2 | 7.1 | 422.9 | 418.8 | 419.7 | 415.6 |
| 47 | 91.4 | 88.5 | 91.8 | 78.6 | -0.18 | -0.18 | 0.03 | 6.9 | 6.9 | 547.9 | 553.0 | 411.7 | 415.6 |
| 48 | 89.5 | 86.7 | 89.2 | 77.0 | -0.58 | -0.56 | 0.15 | 7.3 | 7.6 | 397.2 | 415.7 | 397.1 | 415.6 |
| Avg. | 91.0 | 88.3 | 90.5 | 78.2 | -0.59 | -0.57 | 0.11 | 7.6 | 7.5 | 534.3 | 549.7 | 402.7 | 415.6 |
| Std Dv | 1.2 | 1.2 | 1.1 | 1.2 | 0.51 | 0.48 | 0.12 | 0.5 | 0.3 | 151.1 | 158.3 | 15.0 | 0.0 |
| 1500 FT. FLYBY - TARGET INDICATED AIRSPEED 150 KTS | | | | | | | | | | | | | |
| 37 | 92.2 | 89.9 | 90.9 | 78.8 | -0.14 | -0.13 | 0.01 | 7.7 | 7.6 | 858.8 | 860.4 | 536.0 | 537.1 |
| 38 | - | 86.4 | 87.6 | 76.0 | -0.24 | -0.25 | - | - | 7.2 | 719.2 | 725.4 | 532.5 | 537.1 |
| 45 | - | - | - | - | - | - | - | - | - | NO TRACKING DATA | | | |
| 46 | - | - | - | - | - | - | - | - | - | NO TRACKING DATA | | | |
| Avg. | 92.2 | 88.1 | 89.3 | 77.4 | -0.19 | -0.19 | 0.01 | 7.7 | 7.4 | 789.0 | 792.9 | 534.3 | 537.1 |
| Std Dv | - | 2.5 | 2.4 | 2.0 | 0.07 | 0.08 | - | - | 0.2 | 98.7 | 95.4 | 2.5 | 0.0 |

TABLE NO. B.2-1.1

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/15/81

CORRECTION DATA

| EV | CORRECTED | | | CORRECTIONS (dB) | | | CONSTANTS | | TRACKING DATA (METERS) | | | | | |
|----------|-----------|------|-------|------------------|---------------|---------------|---------------|---------------|------------------------|------|-------|-------|-------|-------|
| | EPNL | NEL | PNLTM | dBAM | $\wedge 1(P)$ | $\wedge 1(A)$ | $\wedge 2(P)$ | $\wedge 2(A)$ | K(P) | K(A) | SR | CPA | SRR | CPAR |
| APPROACH | | | | | | | | | | | | | | |
| 34 | 94.2 | 91.1 | 96.2 | 81.9 | 0.72 | 0.69 | -0.24 | -0.23 | 7.0 | 6.8 | 132.9 | 122.8 | 128.0 | 118.2 |
| 36 | 95.2 | 91.7 | 98.5 | 85.2 | -0.15 | -0.14 | 0.03 | 0.03 | 6.4 | 6.3 | 122.3 | 123.8 | 116.8 | 118.2 |
| 40 | 96.4 | 93.2 | 99.2 | 86.5 | 0.13 | 0.13 | -0.05 | -0.04 | 6.1 | 5.7 | 152.4 | 149.7 | 120.4 | 118.2 |
| 42 | 96.0 | 92.8 | 98.3 | 85.8 | 0.35 | 0.34 | -0.12 | -0.11 | 6.6 | 6.1 | 141.7 | 136.1 | 123.1 | 118.2 |
| 44 | 94.6 | 91.6 | 97.1 | 84.6 | 0.19 | 0.19 | -0.06 | -0.06 | 6.2 | 5.9 | 121.2 | 118.4 | 121.0 | 118.2 |
| 54 | 95.2 | 91.9 | 99.8 | 86.8 | 0.03 | 0.02 | -0.01 | -0.01 | 5.0 | 5.1 | 142.1 | 141.5 | 118.7 | 118.2 |
| 56 | 96.1 | 93.1 | 100.0 | 86.9 | 0.06 | 0.06 | -0.02 | -0.02 | 5.9 | 6.1 | 143.3 | 142.3 | 119.1 | 118.2 |
| Avg. | 95.4 | 92.2 | 98.5 | 85.4 | 0.19 | 0.18 | -0.07 | -0.06 | 6.2 | 6.0 | 136.6 | 133.5 | 121.0 | 118.2 |
| Std Dv | 0.9 | 0.9 | 1.5 | 1.9 | 0.31 | 0.29 | 0.10 | 0.09 | 0.7 | 0.6 | 12.7 | 13.0 | 4.0 | 0.0 |
| TAKEOFF | | | | | | | | | | | | | | |
| 33 | 90.8 | 86.9 | 92.5 | 78.9 | 3.87 | 3.58 | -1.26 | -1.21 | 7.7 | 7.4 | 176.2 | 120.9 | 157.6 | 108.1 |
| 35 | 90.1 | 86.7 | 92.9 | 79.6 | 3.24 | 3.00 | -1.01 | -0.99 | 7.3 | 7.2 | 149.8 | 109.1 | 148.4 | 108.1 |
| 37 | 90.0 | 86.4 | 92.8 | 78.8 | 3.08 | 2.84 | -0.94 | -0.97 | 7.2 | 7.4 | 148.6 | 110.0 | 146.0 | 108.1 |
| 39 | - | 86.8 | 92.8 | 79.6 | 2.90 | 2.69 | - | -0.90 | - | 7.3 | 143.7 | 108.1 | 143.7 | 108.1 |
| 41 | 89.6 | 86.4 | 92.4 | 79.0 | 2.27 | 2.10 | -0.67 | -0.69 | 6.9 | 7.1 | 135.7 | 108.5 | 135.3 | 108.1 |
| 43 | 89.8 | 86.5 | 92.5 | 79.0 | 2.65 | 2.45 | -0.83 | -0.83 | 7.4 | 7.4 | 142.7 | 110.2 | 140.0 | 108.1 |
| 53 | 89.3 | 86.1 | 91.8 | 78.7 | 3.68 | 3.41 | -1.13 | -1.10 | 7.4 | 7.2 | 153.8 | 108.2 | 153.5 | 108.1 |
| 55 | 88.1 | 84.9 | 89.8 | 77.2 | 3.54 | 3.26 | -1.13 | -1.06 | 7.7 | 7.2 | 159.5 | 113.7 | 151.7 | 108.1 |
| Avg. | 89.7 | 86.4 | 92.2 | 78.8 | 3.15 | 2.92 | -1.00 | -0.97 | 7.4 | 7.3 | 151.3 | 111.1 | 147.0 | 108.1 |
| Std Dv | 0.9 | 0.7 | 1.1 | 0.8 | 0.58 | 0.54 | 0.22 | 0.18 | 0.3 | 0.1 | 13.4 | 4.7 | 7.9 | 0.0 |

SITE: 1

CENTERLINE - CENTER

JUNE 23, 1980

TABLE NO. B.2-2.1

SIKORSKY S-76 SPIRIT HELICOPTER

CORRECTION DATA

DOT/TSC
12/15/81

| SITE: 1 | | CENTERLINE - CENTER | | | | JUNE 23, 1980 | | | | | | | |
|---|------|---------------------|-------|------|---|---------------|-------|------------------------|-----|-------|-------|-------|-------|
| CORRECTED | | CORRECTIONS (dB) | | | | CONSTANTS | | TRACKING DATA (METERS) | | | | | |
| EV | EPNL | NEL | FNLTH | dBAM | $\wedge 1(P) \wedge 1(A) \wedge 2(P) \wedge 2(A)$ | K(P) | K(A) | SR | CPA | SRR | CPAR | | |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 93 KTS | | | | | | | | | | | | | |
| 21 | 87.9 | 85.4 | 89.5 | 76.5 | 0.46 | 0.46 | -0.20 | 7.0 | 7.1 | 179.5 | 168.2 | 161.3 | 151.2 |
| 22 | 89.8 | 87.4 | 94.1 | 82.0 | 0.10 | 0.11 | -0.07 | 6.2 | 5.7 | 251.2 | 245.0 | 155.0 | 151.2 |
| 23 | 88.1 | 85.3 | 89.5 | 76.5 | 0.38 | 0.36 | -0.17 | 7.5 | 7.4 | 223.1 | 211.8 | 159.3 | 151.2 |
| 24 | 89.9 | 87.0 | 93.2 | 81.0 | 0.08 | 0.10 | -0.07 | 6.5 | 6.0 | 292.9 | 286.1 | 154.8 | 151.2 |
| Avg. | 88.9 | 86.3 | 91.6 | 79.0 | 0.25 | 0.26 | -0.13 | 6.8 | 6.6 | 236.7 | 227.8 | 157.6 | 151.2 |
| Std Dv | 1.4 | 1.3 | 3.0 | 3.6 | 0.24 | 0.22 | 0.08 | 0.7 | 1.1 | 58.4 | 61.2 | 4.0 | 0.0 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 109 KTS | | | | | | | | | | | | | |
| 29 | 86.7 | 84.1 | 88.9 | 75.9 | -0.29 | -0.24 | 0.02 | 6.8 | 7.0 | 169.7 | 170.9 | 150.2 | 151.2 |
| 30 | 85.4 | 82.8 | 88.8 | 75.7 | 0.29 | 0.30 | -0.14 | 6.9 | 7.1 | 186.9 | 178.3 | 158.5 | 151.2 |
| 31 | 86.0 | 83.5 | 88.5 | 75.7 | 0.22 | 0.24 | -0.12 | 6.7 | 6.9 | 177.9 | 170.8 | 157.4 | 151.2 |
| 32 | 84.8 | 82.0 | 88.2 | 75.0 | 0.74 | 0.71 | -0.24 | 6.4 | 6.5 | 186.0 | 170.3 | 165.1 | 151.2 |
| Avg. | 85.7 | 83.1 | 88.6 | 75.6 | 0.24 | 0.25 | -0.12 | 6.7 | 6.9 | 180.2 | 172.6 | 157.8 | 151.2 |
| Std Dv | 1.0 | 1.1 | 0.4 | 0.5 | 0.52 | 0.48 | 0.13 | 0.3 | 0.3 | 9.8 | 4.7 | 7.5 | 0.0 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 124 KTS | | | | | | | | | | | | | |
| 49 | 87.1 | 84.5 | 91.4 | 78.8 | 0.16 | 0.16 | -0.06 | 6.2 | 6.2 | 184.3 | 180.5 | 154.3 | 151.2 |
| 50 | 86.9 | 84.4 | 90.0 | 77.0 | -0.80 | -0.73 | 0.19 | 6.4 | 6.7 | 165.2 | 176.8 | 141.3 | 151.2 |
| 51 | 86.5 | 83.7 | 89.5 | 76.8 | 0.60 | 0.54 | -0.16 | 6.6 | 6.5 | 253.6 | 239.3 | 160.2 | 151.2 |
| 52 | 87.0 | 84.4 | 90.2 | 77.7 | 1.09 | 0.98 | -0.30 | 6.9 | 6.8 | 232.1 | 210.0 | 167.2 | 151.2 |
| Avg. | 86.9 | 84.2 | 90.3 | 77.6 | 0.26 | 0.24 | -0.08 | 6.5 | 6.6 | 208.8 | 201.6 | 155.7 | 151.2 |
| Std Dv | 0.3 | 0.4 | 1.0 | 1.1 | 0.98 | 0.89 | 0.25 | 0.3 | 0.3 | 50.3 | 35.7 | 13.5 | 0.0 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | |
| 17 | 89.6 | 86.8 | 92.2 | 79.9 | 0.19 | 0.21 | -0.12 | 6.9 | 6.6 | 174.0 | 167.1 | 157.4 | 151.2 |
| 18 | 87.6 | 84.9 | 93.3 | 80.2 | -0.61 | -0.53 | 0.08 | 5.5 | 5.7 | 178.0 | 183.7 | 146.5 | 151.2 |
| 19 | 89.0 | 86.6 | 91.6 | 79.8 | 0.62 | 0.61 | -0.24 | 6.9 | 6.7 | 200.5 | 185.0 | 163.9 | 151.2 |
| 20 | 87.3 | 84.6 | 92.1 | 79.6 | 0.54 | 0.54 | -0.20 | 6.3 | 6.2 | 201.0 | 186.7 | 162.7 | 151.2 |
| Avg. | 88.4 | 85.7 | 92.3 | 79.9 | 0.19 | 0.21 | -0.12 | 6.4 | 6.3 | 188.4 | 180.6 | 157.6 | 151.2 |
| Std Dv | 1.3 | 1.4 | 0.9 | 0.3 | 0.69 | 0.64 | 0.17 | 0.8 | 0.6 | 17.6 | 11.2 | 9.7 | 0.0 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 155 KTS | | | | | | | | | | | | | |
| 25 | 89.7 | 87.1 | 93.4 | 80.5 | 0.56 | 0.55 | -0.21 | 6.6 | 7.0 | 179.4 | 166.6 | 162.7 | 151.2 |
| 26 | 90.5 | 87.4 | 94.9 | 81.2 | 0.85 | 0.81 | -0.28 | 6.6 | 7.2 | 177.0 | 160.2 | 167.0 | 151.2 |
| 27 | 91.9 | 88.7 | 96.5 | 83.4 | -0.48 | -0.44 | 0.07 | 6.1 | 6.0 | 151.5 | 155.4 | 147.3 | 151.2 |
| 28 | 91.1 | 88.2 | 95.7 | 82.7 | -0.09 | -0.06 | -0.04 | 6.7 | 6.8 | 173.5 | 171.4 | 153.0 | 151.2 |
| Avg. | 90.8 | 87.8 | 95.1 | 81.9 | 0.21 | 0.21 | -0.11 | 6.5 | 6.7 | 170.3 | 163.4 | 157.5 | 151.2 |
| Std Dv | 1.2 | 0.9 | 1.6 | 1.6 | 0.74 | 0.70 | 0.20 | 0.3 | 0.6 | 15.7 | 8.6 | 11.0 | 0.0 |

TABLE NO. B.2-3.1

SIKORSKY 5-76 SPIRIT HELICOPTER

DOT/TSC
12/15/81

CORRECTION DATA

| CORRECTED | | CORRECTIONS (dB) | | CONSTANTS | | TRACKING DATA (METERS) | | | | | | | | |
|--|------|------------------|-------|-----------------------------|-----------------------------|-----------------------------|----------|-------------|-----|-----|------------------|-------|-------|-------|
| EV | EPNL | NEL | PNLTM | dBAM | $\sqrt{1(P)} / \sqrt{1(A)}$ | $\sqrt{2(P)} / \sqrt{2(A)}$ | (ACTUAL) | (REFERENCE) | | | | | | |
| CORRECTED | | CORRECTIONS (dB) | | CONSTANTS | | TRACKING DATA (METERS) | | | | | | | | |
| EPNL | NEL | PNLTM | dBAM | $\sqrt{1(P)} / \sqrt{1(A)}$ | $\sqrt{2(P)} / \sqrt{2(A)}$ | K(P) | K(A) | SR | CPA | SRR | CPAR | | | |
| 300 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | | |
| 9 | 91.1 | 88.4 | 95.6 | 82.8 | -0.28 | -0.23 | 0.03 | 0.03 | 6.3 | 6.4 | 118.0 | 119.4 | 89.2 | 90.2 |
| 10 | 90.4 | 87.6 | 96.4 | 83.6 | 0.14 | -0.16 | -0.08 | -0.07 | 5.8 | 5.4 | 149.1 | 144.5 | 93.1 | 90.2 |
| 15 | 91.2 | 88.2 | 96.7 | 83.7 | -0.07 | -0.04 | -0.02 | -0.02 | 5.8 | 5.6 | 111.9 | 111.0 | 90.9 | 90.2 |
| 16 | 91.3 | 88.3 | 97.8 | 84.7 | 0.06 | 0.08 | -0.06 | -0.06 | 5.5 | 5.2 | 141.2 | 137.8 | 92.4 | 90.2 |
| Avg. | 91.0 | 88.1 | 96.6 | 83.7 | -0.04 | -0.01 | -0.03 | -0.03 | 5.8 | 5.7 | 130.0 | 128.2 | 91.4 | 90.2 |
| Std Dv | 0.5 | 0.4 | 1.1 | 1.0 | 0.22 | 0.21 | 0.06 | 0.06 | 0.4 | 0.6 | 22.0 | 19.1 | 2.1 | 0.0 |
| 700 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | | |
| 7 | 86.9 | 84.7 | 87.8 | 76.0 | 1.01 | 0.96 | -0.37 | -0.35 | 7.2 | 7.0 | 272.0 | 242.1 | 238.4 | 212.1 |
| 8 | 87.7 | 85.8 | 91.4 | 79.0 | 1.20 | 1.12 | -0.39 | -0.42 | 6.9 | 7.2 | 317.8 | 278.3 | 242.2 | 212.1 |
| 13 | 86.5 | 84.6 | 88.6 | 76.9 | 0.49 | 0.49 | -0.22 | -0.22 | 7.1 | 6.9 | 260.4 | 242.2 | 228.1 | 212.1 |
| 14 | 86.1 | 84.2 | 90.0 | 78.0 | -0.89 | -0.72 | 0.10 | 0.10 | 6.3 | 6.3 | 307.7 | 319.4 | 204.4 | 212.1 |
| Avg. | 86.8 | 84.8 | 89.4 | 77.5 | 0.45 | 0.46 | -0.22 | -0.22 | 6.9 | 6.9 | 289.5 | 270.5 | 228.3 | 212.1 |
| Std Dv | 0.9 | 0.8 | 1.9 | 1.6 | 1.16 | 1.02 | 0.28 | 0.28 | 0.5 | 0.5 | 33.8 | 45.1 | 20.8 | 0.0 |
| 1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | | |
| 45 | 82.9 | 81.2 | 84.8 | 73.0 | 0.12 | 0.13 | -0.07 | -0.07 | 7.2 | 7.4 | 340.3 | 333.0 | 310.2 | 303.6 |
| 46 | 83.4 | 81.6 | 84.6 | 72.8 | 0.39 | 0.36 | -0.12 | -0.13 | 6.7 | 6.9 | 357.1 | 342.1 | 316.8 | 303.6 |
| 47 | 83.3 | 81.5 | 84.8 | 73.7 | 0.25 | 0.23 | -0.10 | -0.09 | 7.3 | 7.0 | 426.6 | 413.5 | 313.2 | 303.6 |
| 48 | 84.3 | 82.5 | 85.5 | 74.2 | 0.10 | 0.10 | -0.05 | -0.05 | 7.0 | 7.0 | 349.7 | 343.5 | 309.0 | 303.6 |
| 1 | | | | | | | | | | | NO TRACKING DATA | | | |
| 2 | | | | | | | | | | | NO TRACKING DATA | | | |
| 3 | | | | | | | | | | | NO TRACKING DATA | | | |
| 4 | | | | | | | | | | | NO TRACKING DATA | | | |
| Avg. | 83.5 | 81.7 | 84.9 | 73.4 | 0.21 | 0.20 | -0.08 | -0.08 | 7.0 | 7.1 | 368.4 | 358.0 | 312.3 | 303.6 |
| Std Dv | 0.8 | 0.7 | 0.5 | 0.8 | 0.16 | 0.14 | 0.04 | 0.04 | 0.3 | 0.2 | 48.3 | 45.7 | 4.3 | 0.0 |
| 1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | | |
| 5 | 81.5 | 80.3 | 80.5 | 69.2 | 0.18 | 0.24 | -0.19 | -0.19 | 7.4 | 7.3 | 515.4 | 486.2 | 483.4 | 456.0 |
| 6 | 80.5 | 79.4 | 82.8 | 71.8 | -0.15 | -0.08 | -0.12 | -0.11 | 6.4 | 6.3 | 684.1 | 656.4 | 475.2 | 456.0 |
| 11 | | | | | | | | | | | NO TRACKING DATA | | | |
| 12 | 79.7 | 78.4 | 79.9 | 68.2 | -0.99 | -0.72 | 0.08 | 0.08 | 7.8 | 7.8 | 486.8 | 498.8 | 445.0 | 456.0 |
| Avg. | 80.6 | 79.3 | 81.1 | 69.7 | -0.32 | -0.19 | -0.08 | -0.07 | 7.2 | 7.2 | 562.1 | 547.1 | 467.9 | 456.0 |
| Std Dv | 1.3 | 1.4 | 2.2 | 2.6 | 0.85 | 0.69 | 0.20 | 0.20 | 1.0 | 1.1 | 150.8 | 134.1 | 28.6 | 0.0 |

JUNE 23, 1980

SITE: 1 CENTERLINE - CENTER

TABLE NO. B.2-4.1

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/15/81

CORRECTION DATA - MAIN ROTOR RPM 107%

| SITE: 1 | | CENTERLINE - CENTER | | | | | | | | | | JUNE 23, 1980 | | | |
|---|------|---------------------|-------|------|---------------|---------------|---------------|---------------|------|------|-------|------------------------|-------|-------|--|
| CORRECTED | | CORRECTIONS (dB) | | | | | CONSTANTS | | | | | TRACKING DATA (METERS) | | | |
| EV | EPNL | NEL | PNLTH | dBAM | $\wedge 1(P)$ | $\wedge 1(A)$ | $\wedge 2(P)$ | $\wedge 2(A)$ | K(P) | K(A) | SR | EPA | SRR | CPAR | |
| APPROACH | | | | | | | | | | | | | | | |
| 69 | 96.2 | 93.0 | 98.5 | 85.2 | -0.13 | -0.13 | 0.04 | 0.04 | 6.7 | 6.8 | 140.4 | 142.4 | 116.6 | 118.2 | |
| 70 | 95.7 | 92.7 | 97.2 | 84.4 | -0.04 | -0.05 | 0.02 | 0.02 | 7.4 | 7.3 | 133.7 | 134.3 | 117.6 | 118.2 | |
| Avg. | 96.0 | 92.9 | 97.9 | 84.8 | -0.08 | -0.09 | 0.03 | 0.03 | 7.0 | 7.0 | 137.0 | 138.4 | 117.1 | 118.2 | |
| Std Dv | 0.4 | 0.2 | 0.9 | 0.6 | 0.06 | 0.06 | 0.01 | 0.01 | 0.5 | 0.4 | 4.8 | 5.7 | 0.8 | 0.0 | |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 93 KTS | | | | | | | | | | | | | | | |
| 61 | 88.9 | 86.2 | 92.7 | 79.1 | 1.23 | 1.10 | -0.29 | -0.30 | 6.1 | 6.3 | 198.0 | 177.6 | 168.5 | 151.2 | |
| 62 | 89.9 | 87.0 | 92.4 | 79.2 | -0.14 | -0.14 | 0.04 | 0.04 | 7.0 | 7.1 | 166.2 | 168.6 | 149.0 | 151.2 | |
| 63 | 90.0 | 86.6 | 93.4 | 79.5 | 2.04 | 1.84 | -0.53 | -0.56 | 6.7 | 7.2 | 207.4 | 173.1 | 181.2 | 151.2 | |
| 64 | 89.8 | 87.2 | 92.4 | 79.3 | 0.55 | 0.51 | -0.15 | -0.14 | 6.5 | 6.1 | 182.8 | 173.5 | 159.3 | 151.2 | |
| Avg. | 89.7 | 86.8 | 92.7 | 79.3 | 0.92 | 0.83 | -0.23 | -0.24 | 6.6 | 6.6 | 188.6 | 173.2 | 164.5 | 151.2 | |
| Std Dv | 0.6 | 0.6 | 0.6 | 0.2 | 1.14 | 1.03 | 0.29 | 0.31 | 0.5 | 0.7 | 22.1 | 4.5 | 16.7 | 0.0 | |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | | | |
| 57 | 91.0 | 88.2 | 96.2 | 83.5 | 1.82 | 1.63 | -0.42 | -0.41 | 6.0 | 5.9 | 219.5 | 186.6 | 177.8 | 151.2 | |
| 58 | 92.5 | 89.8 | 96.9 | 83.8 | 0.80 | 0.72 | -0.19 | -0.20 | 6.2 | 6.5 | 210.6 | 196.1 | 162.4 | 151.2 | |
| 59 | 91.8 | 89.1 | 96.9 | 84.3 | 0.79 | 0.70 | -0.19 | -0.18 | 6.3 | 6.2 | 220.4 | 205.8 | 162.0 | 151.2 | |
| 60 | 91.9 | 89.3 | 95.9 | 83.7 | 1.20 | 1.06 | -0.29 | -0.28 | 6.4 | 6.2 | 237.1 | 213.7 | 167.7 | 151.2 | |
| Avg. | 91.8 | 89.1 | 96.5 | 83.6 | 1.15 | 1.03 | -0.27 | -0.27 | 6.2 | 6.2 | 221.9 | 200.5 | 167.5 | 151.2 | |
| Std Dv | 0.8 | 0.8 | 0.6 | 0.4 | 0.59 | 0.53 | 0.13 | 0.13 | 0.2 | 0.3 | 13.5 | 14.4 | 9.0 | 0.0 | |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 155 KTS | | | | | | | | | | | | | | | |
| 65 | 85.1 | 85.3 | 82.1 | 82.1 | 0.98 | 0.88 | - | -0.20 | - | 5.2 | 196.8 | 180.4 | 164.9 | 151.2 | |
| 66 | 93.4 | 89.8 | 97.8 | 84.1 | 0.44 | 0.39 | -0.09 | -0.10 | 5.8 | 5.9 | 226.7 | 218.4 | 157.0 | 151.2 | |
| 67 | 92.2 | 88.9 | 96.7 | 83.9 | 0.60 | 0.52 | -0.13 | -0.14 | 6.1 | 6.3 | 265.7 | 252.7 | 159.0 | 151.2 | |
| 68 | 92.4 | 89.0 | 96.9 | 83.5 | 0.74 | 0.66 | -0.18 | -0.19 | 6.2 | 6.4 | 281.6 | 263.1 | 161.8 | 151.2 | |
| Avg. | 92.7 | 88.2 | 96.6 | 83.4 | 0.69 | 0.61 | -0.13 | -0.16 | 6.0 | 5.9 | 242.7 | 228.6 | 160.7 | 151.2 | |
| Std Dv | 1.0 | 2.6 | 1.3 | 1.1 | 0.28 | 0.26 | 0.06 | 0.06 | 0.3 | 0.7 | 46.9 | 45.8 | 4.3 | 0.0 | |

TABLE NO. B.2-1.1B

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/15/81

CORRECTION DATA

JUNE 23, 1980

SITE: 16

CENTERLINE - CENTER (FLUSH)

| EV | CORRECTED | | | CORRECTIONS (dB) | | | | CONSTANTS | | | TRACKING DATA (METERS) (ACTUAL) | | | |
|----------|-----------|------|-------|------------------|---------------|---------------|---------------|---------------|------|------|------------------------------------|-------|-------|-------|
| | EPNL | NEL | FNLTM | dBAM | $\sqrt{1(P)}$ | $\sqrt{1(A)}$ | $\sqrt{2(P)}$ | $\sqrt{2(A)}$ | K(P) | K(A) | SR | CPA | SRR | CPAR |
| APPROACH | | | | | | | | | | | | | | |
| 34 | 97.1 | 94.0 | 98.9 | 85.8 | 0.71 | 0.68 | -0.24 | -0.24 | 7.1 | 7.1 | 130.7 | 120.8 | 129.2 | 119.4 |
| 36 | 98.4 | 95.4 | 101.5 | 88.4 | -0.14 | -0.14 | 0.04 | 0.04 | 6.6 | 6.6 | 129.0 | 130.6 | 118.0 | 119.4 |
| 40 | 99.1 | 96.5 | 101.6 | 89.4 | 0.14 | 0.13 | -0.05 | -0.05 | 6.5 | 6.2 | 143.2 | 140.7 | 121.5 | 119.4 |
| 42 | 98.9 | 96.3 | 101.1 | 89.1 | 0.35 | 0.34 | -0.12 | -0.11 | 6.9 | 6.3 | 142.8 | 137.2 | 124.3 | 119.4 |
| 44 | 97.6 | 95.0 | 100.5 | 88.6 | 0.19 | 0.19 | -0.06 | -0.06 | 6.5 | 6.1 | 122.2 | 119.4 | 122.2 | 119.4 |
| 54 | 99.6 | 97.3 | 102.8 | 90.9 | 0.03 | 0.02 | -0.01 | -0.01 | 5.8 | 5.6 | 143.2 | 142.6 | 119.9 | 119.4 |
| 56 | 98.8 | 96.7 | 101.7 | 90.4 | 0.06 | 0.06 | -0.02 | -0.02 | 6.6 | 6.2 | 144.4 | 143.4 | 120.3 | 119.4 |
| Avg. | 98.5 | 95.9 | 101.2 | 88.9 | 0.19 | 0.18 | -0.07 | -0.06 | 6.6 | 6.3 | 136.5 | 133.5 | 122.2 | 119.4 |
| Std Dv | 1.0 | 1.2 | 1.3 | 1.8 | 0.30 | 0.29 | 0.10 | 0.10 | 0.4 | 0.5 | 9.9 | 11.1 | 4.0 | 0.0 |
| TAKEOFF | | | | | | | | | | | | | | |
| 33 | 93.7 | 90.4 | 95.4 | 82.0 | 3.66 | 3.47 | -1.24 | -1.27 | 7.7 | 7.8 | 159.9 | 110.0 | 158.8 | 109.3 |
| 35 | 93.3 | 90.4 | 95.5 | 83.1 | 3.19 | 2.96 | -1.02 | -0.98 | 7.5 | 7.2 | 171.4 | 125.3 | 149.6 | 109.3 |
| 37 | 93.0 | 90.0 | 95.2 | 82.2 | 2.89 | 2.75 | -0.98 | -0.98 | 7.6 | 7.6 | 147.2 | 109.4 | 147.1 | 109.3 |
| 39 | - | 90.5 | 95.9 | 83.0 | 2.84 | 2.62 | - | -0.91 | - | 7.4 | 144.9 | 109.3 | 144.9 | 109.3 |
| 41 | 92.7 | 89.9 | 95.5 | 82.7 | 2.15 | 2.05 | -0.65 | -0.67 | 6.7 | 6.9 | 136.9 | 109.6 | 136.5 | 109.3 |
| 43 | 93.0 | 90.1 | 95.4 | 82.9 | 2.50 | 2.37 | -0.79 | -0.78 | 7.1 | 7.0 | 142.2 | 110.1 | 141.2 | 109.3 |
| 53 | 92.4 | 89.7 | 94.6 | 82.3 | 3.55 | 3.31 | -1.12 | -1.11 | 7.4 | 7.4 | 164.4 | 116.1 | 154.7 | 109.3 |
| 55 | 91.5 | 88.8 | 93.3 | 81.0 | 3.40 | 3.19 | -1.10 | -1.07 | 7.6 | 7.3 | 155.8 | 111.4 | 152.9 | 109.3 |
| Avg. | 92.8 | 90.0 | 95.1 | 82.4 | 3.02 | 2.84 | -0.99 | -0.97 | 7.4 | 7.3 | 152.8 | 112.7 | 148.2 | 109.3 |
| Std Dv | 0.8 | 0.6 | 0.9 | 0.8 | 0.57 | 0.53 | 0.22 | 0.20 | 0.4 | 0.3 | 12.9 | 6.0 | 7.9 | 0.0 |

TABLE NO. B.2-2.16

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/16/81

CORRECTION DATA

| SITE: 16 | | CENTERLINE - CENTER (FLUSH) | | | | JUNE 23, 1980 | | | | | |
|---|------|-----------------------------|-------|------|---|------------------------|------|-------|-------|-------|-------|
| CORRECTED | | CORRECTIONS (dB) | | | | TRACKING DATA (METERS) | | | | | |
| EV | EPNL | NEL | PNLTM | dBAM | $\wedge 1(P) \wedge 1(A) \wedge 2(P) \wedge 2(A)$ | K(P) | K(A) | CPA | SRR | CPAR | |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 93 KTS | | | | | | | | | | | |
| 21 | 91.7 | 89.5 | 92.9 | 80.2 | 0.45 | -0.20 | 7.4 | 214.1 | 200.8 | 162.5 | 152.4 |
| 22 | 92.9 | 90.4 | 97.1 | 85.0 | 0.10 | -0.07 | 6.0 | 251.9 | 245.7 | 156.2 | 152.4 |
| 23 | 91.5 | 89.1 | 93.1 | 80.2 | 0.31 | -0.16 | 7.2 | 184.4 | 175.1 | 160.4 | 152.4 |
| 24 | 93.4 | 90.8 | 97.4 | 84.9 | 0.10 | -0.06 | 6.0 | 221.3 | 216.3 | 155.9 | 152.4 |
| Avg. | 92.4 | 89.9 | 95.1 | 82.5 | 0.24 | -0.12 | 6.6 | 217.9 | 209.5 | 158.8 | 152.4 |
| Std Dv | 1.1 | 0.9 | 3.0 | 3.4 | 0.21 | 0.08 | 0.8 | 34.0 | 36.2 | 3.9 | 0.0 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 109 KTS | | | | | | | | | | | |
| 29 | 90.4 | 87.8 | 92.6 | 79.7 | -0.29 | 0.02 | 7.0 | 170.8 | 171.9 | 151.4 | 152.4 |
| 30 | 89.4 | 86.9 | 93.2 | 80.0 | 0.28 | -0.13 | 6.6 | 188.0 | 179.4 | 159.7 | 152.4 |
| 31 | 89.9 | 87.4 | 92.0 | 79.3 | 0.24 | -0.12 | 7.1 | 168.3 | 161.6 | 158.7 | 152.4 |
| 32 | 88.4 | 85.9 | 92.3 | 79.1 | 0.73 | -0.24 | 6.4 | 204.2 | 187.1 | 166.3 | 152.4 |
| Avg. | 89.5 | 87.0 | 92.5 | 79.5 | 0.24 | -0.12 | 6.8 | 182.8 | 175.0 | 159.0 | 152.4 |
| Std Dv | 1.0 | 1.0 | 0.6 | 0.5 | 0.51 | 0.13 | 0.4 | 20.5 | 13.3 | 7.5 | 0.0 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 124 KTS | | | | | | | | | | | |
| 49 | 90.5 | 88.1 | 95.0 | 82.5 | 0.16 | -0.05 | 6.0 | 185.3 | 181.5 | 155.6 | 152.4 |
| 50 | 90.4 | 88.0 | 93.5 | 81.1 | -0.79 | 0.19 | 6.4 | 184.6 | 197.5 | 142.5 | 152.4 |
| 51 | 90.0 | 87.5 | 93.5 | 81.4 | 0.58 | -0.16 | 6.3 | 254.9 | 240.6 | 161.4 | 152.4 |
| 52 | 90.3 | 87.8 | 93.6 | 81.1 | 1.05 | -0.29 | 6.7 | 233.0 | 210.9 | 168.4 | 152.4 |
| Avg. | 90.3 | 87.9 | 93.9 | 81.5 | 0.25 | -0.08 | 6.3 | 214.5 | 207.7 | 157.0 | 152.4 |
| Std Dv | 0.2 | 0.3 | 0.9 | 0.8 | 0.96 | 0.88 | 0.3 | 43.1 | 30.7 | 13.5 | 0.0 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | |
| 17 | 93.5 | 90.9 | 95.9 | 83.6 | 0.16 | -0.12 | 7.1 | 219.1 | 210.5 | 158.6 | 152.4 |
| 18 | 92.0 | 89.4 | 97.2 | 84.2 | -0.64 | 0.08 | 5.8 | 211.8 | 218.5 | 147.7 | 152.4 |
| 19 | 93.1 | 90.7 | 96.4 | 84.3 | 0.60 | -0.23 | 6.7 | 224.9 | 207.7 | 165.1 | 152.4 |
| 20 | 91.6 | 89.2 | 97.1 | 84.5 | 0.53 | -0.18 | 5.8 | 235.6 | 219.0 | 164.0 | 152.4 |
| Avg. | 92.6 | 90.0 | 96.7 | 84.1 | 0.16 | -0.11 | 6.3 | 222.8 | 213.9 | 158.8 | 152.4 |
| Std Dv | 1.1 | 1.1 | 0.8 | 0.4 | 0.70 | 0.17 | 0.8 | 12.3 | 7.0 | 9.7 | 0.0 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 155 KTS | | | | | | | | | | | |
| 25 | 93.8 | 91.0 | 97.3 | 84.6 | 0.55 | -0.22 | 6.9 | 180.5 | 167.7 | 163.9 | 152.4 |
| 26 | 94.9 | 92.0 | 99.3 | 85.9 | 0.83 | -0.28 | 6.5 | 200.6 | 181.8 | 168.1 | 152.4 |
| 27 | 95.9 | 92.8 | 100.1 | 86.9 | -0.47 | 0.07 | 6.2 | 152.7 | 156.6 | 148.5 | 152.4 |
| 28 | 95.5 | 92.6 | 100.1 | 87.0 | -0.12 | -0.07 | 6.4 | 204.9 | 202.5 | 154.2 | 152.4 |
| Avg. | 95.0 | 92.1 | 99.2 | 86.1 | 0.20 | -0.11 | 6.5 | 184.7 | 177.2 | 158.7 | 152.4 |
| Std Dv | 1.1 | 1.0 | 1.6 | 1.3 | 0.73 | 0.68 | 0.3 | 29.2 | 24.2 | 11.0 | 0.0 |

TABLE NO. B-2-3.16

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/16/81

CORRECTION DATA

| SITE: 16 | | CENTERLINE - CENTER (FLUSH) | | | | JUNE 23, 1980 | | | | | | | | |
|--|------|-----------------------------|-------|------|---------------|---------------|---------------|------------------------|------|---------------------------|------------------|-------|-------|-------|
| CORRECTED | | CORRECTIONS (dB) | | | | CONSTANTS | | TRACKING DATA (ACTUAL) | | TRACKING DATA (REFERENCE) | | | | |
| EV | EPNL | NEL | PNLTM | dBAM | $\sqrt{1(P)}$ | $\sqrt{1(A)}$ | $\sqrt{2(P)}$ | $\sqrt{2(A)}$ | K(P) | K(A) | SR | CPA | SRR | CPAR |
| 300 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | | |
| 9 | 95.7 | 92.8 | 100.4 | 87.3 | -0.28 | -0.24 | 0.03 | 0.03 | 6.0 | 6.1 | 118.9 | 120.3 | 90.4 | 91.4 |
| 10 | 94.6 | 91.7 | 100.6 | 87.9 | 0.17 | 0.17 | -0.07 | -0.07 | 5.5 | 5.5 | 117.0 | 113.4 | 94.3 | 91.4 |
| 15 | 95.5 | 92.6 | 101.2 | 88.0 | -0.08 | -0.05 | -0.02 | -0.02 | 5.6 | 5.4 | 112.9 | 112.0 | 92.2 | 91.4 |
| 16 | | | | | | | | | | | NO TRACKING DATA | | | |
| Avg. | 95.3 | 92.4 | 100.8 | 87.7 | -0.06 | -0.04 | -0.02 | -0.02 | 5.7 | 5.7 | 116.2 | 115.2 | 92.3 | 91.4 |
| Std Dv | 0.8 | 0.8 | 0.6 | 0.6 | 0.32 | 0.29 | 0.07 | 0.07 | 0.4 | 0.5 | 4.4 | 6.3 | 2.8 | 0.0 |
| 700 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | | |
| 7 | 90.8 | 88.6 | 92.8 | 80.7 | 0.99 | 0.94 | -0.36 | -0.34 | 7.2 | 6.8 | 308.6 | 274.8 | 239.6 | 213.4 |
| 8 | 92.4 | 90.4 | 96.7 | 83.9 | 1.17 | 1.10 | -0.36 | -0.42 | 6.3 | 7.3 | 356.0 | 312.1 | 243.4 | 213.4 |
| 13 | 90.8 | 88.8 | 93.1 | 81.1 | 0.45 | 0.45 | -0.22 | -0.22 | 7.0 | 6.9 | 325.4 | 302.8 | 229.4 | 213.4 |
| 14 | 89.9 | 88.1 | 93.7 | 81.6 | -0.89 | -0.75 | 0.10 | 0.11 | 6.4 | 6.8 | 352.8 | 366.1 | 203.6 | 213.4 |
| Avg. | 91.0 | 89.0 | 94.1 | 81.8 | 0.43 | 0.43 | -0.21 | -0.22 | 6.7 | 6.9 | 335.7 | 313.9 | 229.5 | 213.4 |
| Std Dv | 1.2 | 1.2 | 2.2 | 1.8 | 1.14 | 1.03 | 0.27 | 0.29 | 0.6 | 0.3 | 27.8 | 46.8 | 20.8 | 0.0 |
| 1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | | |
| 45 | 86.6 | 85.0 | 88.8 | 77.1 | 0.10 | 0.12 | -0.07 | -0.07 | 7.0 | 7.2 | 446.7 | 437.1 | 311.5 | 304.8 |
| 46 | 86.9 | 85.3 | 87.2 | 75.9 | 0.38 | 0.36 | -0.14 | -0.14 | 7.4 | 7.3 | 358.2 | 343.2 | 318.1 | 304.8 |
| 47 | 87.0 | 85.4 | 89.8 | 78.1 | 0.23 | 0.23 | -0.09 | -0.09 | 6.6 | 6.6 | 460.8 | 446.7 | 314.4 | 304.8 |
| 48 | 87.5 | 85.9 | 89.1 | 77.3 | 0.07 | 0.08 | -0.05 | -0.06 | 7.1 | 7.2 | 454.2 | 446.2 | 310.2 | 304.8 |
| 1 | | | | | | | | | | | NO TRACKING DATA | | | |
| 2 | | | | | | | | | | | NO TRACKING DATA | | | |
| 3 | | | | | | | | | | | NO TRACKING DATA | | | |
| 4 | | | | | | | | | | | NO TRACKING DATA | | | |
| Avg. | 87.0 | 85.4 | 88.7 | 77.1 | 0.19 | 0.20 | -0.09 | -0.09 | 7.0 | 7.1 | 430.0 | 418.3 | 313.5 | 304.8 |
| Std Dv | 0.5 | 0.5 | 1.3 | 1.1 | 0.17 | 0.15 | 0.05 | 0.04 | 0.4 | 0.4 | 59.0 | 61.6 | 4.3 | 0.0 |
| 1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | | |
| 5 | 85.3 | 83.9 | 84.7 | 73.4 | 0.20 | 0.23 | -0.19 | -0.19 | 7.7 | 7.6 | 548.3 | 517.2 | 484.6 | 457.2 |
| 6 | 84.9 | 83.7 | 87.7 | 75.9 | -0.23 | -0.10 | -0.11 | -0.11 | 6.0 | 6.4 | 722.0 | 692.9 | 476.4 | 457.2 |
| 11 | | | | | | | | | | | NO TRACKING DATA | | | |
| 12 | 84.0 | 82.8 | 85.0 | 73.3 | -0.98 | -0.82 | 0.08 | 0.08 | 7.4 | 7.7 | 621.9 | 637.2 | 446.2 | 457.2 |
| Avg. | 84.7 | 83.4 | 85.8 | 74.2 | -0.34 | -0.23 | -0.07 | -0.07 | 7.0 | 7.2 | 630.7 | 615.8 | 469.1 | 457.2 |
| Std Dv | 0.9 | 0.8 | 2.4 | 2.1 | 0.84 | 0.76 | 0.20 | 0.20 | 1.3 | 1.0 | 123.3 | 126.9 | 28.6 | 0.0 |

TABLE NO. B.2-4.10

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/16/81

CORRECTION DATA - MAIN ROTOR RPM 1072

JUNE 23, 1980

SITE: 16

CENTERLINE - CENTER (FLUSH)

| EV | CORRECTED | | | CORRECTIONS (dB) | | | CONSTANTS | | TRACKING DATA (METERS) | | | | | |
|---|-----------|------|-------|------------------|-----------------------------|-----------------------------|-----------|-------|------------------------|-----|-------|-------|-------|-------|
| | EPNL | NEL | PNLTH | dBAM | $\sqrt{1(P)} / \sqrt{1(A)}$ | $\sqrt{2(P)} / \sqrt{2(A)}$ | K(P) | K(A) | SR | CPA | SNR | CPAR | | |
| APPROACH | | | | | | | | | | | | | | |
| 69 | 99.2 | 96.4 | 101.7 | 89.0 | -0.13 | -0.13 | 0.04 | 0.04 | 6.7 | 6.6 | 131.7 | 133.6 | 117.8 | 119.4 |
| 70 | 99.1 | 96.4 | 101.3 | 88.6 | -0.04 | -0.04 | 0.01 | 0.01 | 6.9 | 6.9 | 134.8 | 135.4 | 118.9 | 119.4 |
| Avg. | 99.1 | 96.4 | 101.5 | 88.8 | -0.08 | -0.08 | 0.02 | 0.02 | 6.8 | 6.8 | 133.3 | 134.5 | 118.3 | 119.4 |
| Std Dev | 0.0 | 0.0 | 0.3 | 0.3 | 0.06 | 0.06 | 0.02 | 0.02 | 0.1 | 0.2 | 2.1 | 1.3 | 0.8 | 0.0 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 93 KTS | | | | | | | | | | | | | | |
| 61 | 91.8 | 89.5 | 95.3 | 82.4 | 1.17 | 1.07 | -0.29 | -0.30 | 6.2 | 6.4 | 199.1 | 178.7 | 169.8 | 152.4 |
| 62 | 92.6 | 90.0 | 94.0 | 81.8 | -0.14 | -0.14 | 0.05 | 0.04 | 7.5 | 7.1 | 179.8 | 182.3 | 150.2 | 152.4 |
| 63 | 92.4 | 90.0 | 95.6 | 82.8 | 1.99 | 1.78 | -0.53 | -0.55 | 6.9 | 7.1 | 223.3 | 186.6 | 182.4 | 152.4 |
| 64 | 92.7 | 90.1 | 94.9 | 82.6 | 0.57 | 0.51 | -0.15 | -0.15 | 6.8 | 6.5 | 197.0 | 187.1 | 160.5 | 152.4 |
| Avg. | 92.4 | 89.9 | 94.9 | 82.4 | 0.90 | 0.80 | -0.23 | -0.24 | 6.8 | 6.8 | 199.8 | 183.7 | 165.7 | 152.4 |
| Std Dev | 0.5 | 0.4 | 0.9 | 0.5 | 1.11 | 1.00 | 0.30 | 0.31 | 0.7 | 0.5 | 21.9 | 4.8 | 16.7 | 0.0 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | | |
| 57 | 93.9 | 91.6 | 99.1 | 86.8 | 1.77 | 1.60 | -0.40 | -0.41 | 5.7 | 5.9 | 220.5 | 187.7 | 179.0 | 152.4 |
| 58 | 95.6 | 93.0 | 99.6 | 87.3 | 0.79 | 0.71 | -0.20 | -0.20 | 6.4 | 6.4 | 239.3 | 223.0 | 163.6 | 152.4 |
| 59 | 94.7 | 92.6 | 99.4 | 87.7 | 0.76 | 0.68 | -0.19 | -0.19 | 6.4 | 6.3 | 221.9 | 207.2 | 163.2 | 152.4 |
| 60 | 94.0 | 91.9 | 97.7 | 86.0 | 1.16 | 1.04 | -0.29 | -0.28 | 6.5 | 6.2 | 237.9 | 214.6 | 168.9 | 152.4 |
| Avg. | 94.6 | 92.3 | 98.9 | 86.9 | 1.12 | 1.01 | -0.27 | -0.27 | 6.3 | 6.2 | 229.9 | 208.1 | 168.7 | 152.4 |
| Std Dev | 1.0 | 0.8 | 1.1 | 0.9 | 0.58 | 0.52 | 0.12 | 0.12 | 0.4 | 0.2 | 12.4 | 18.4 | 9.0 | 0.0 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 155 KTS | | | | | | | | | | | | | | |
| 65 | 95.4 | 92.9 | 99.7 | 87.5 | 0.95 | 0.85 | -0.25 | -0.23 | 6.6 | 6.2 | 197.8 | 181.4 | 166.2 | 152.4 |
| 66 | 97.0 | 93.9 | 101.5 | 88.5 | 0.42 | 0.38 | -0.09 | -0.09 | 5.7 | 5.6 | 228.2 | 219.9 | 158.2 | 152.4 |
| 67 | 95.9 | 93.1 | 100.9 | 88.6 | 0.55 | 0.53 | -0.13 | -0.13 | 5.9 | 6.0 | 311.7 | 296.5 | 160.2 | 152.4 |
| 68 | 95.7 | 92.6 | 100.1 | 87.4 | 0.76 | 0.69 | -0.18 | -0.17 | 6.0 | 6.0 | 244.6 | 228.6 | 163.0 | 152.4 |
| Avg. | 96.0 | 93.1 | 100.6 | 88.0 | 0.67 | 0.61 | -0.16 | -0.15 | 6.0 | 5.9 | 245.6 | 231.6 | 161.9 | 152.4 |
| Std Dev | 0.8 | 0.7 | 1.0 | 0.8 | 0.29 | 0.25 | 0.08 | 0.07 | 0.4 | 0.3 | 59.0 | 58.6 | 4.3 | 0.0 |

TABLE NO. B.2-1.1H

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/16/81

CORRECTION DATA

| EV | CORRECTED | | | dBAM | CORRECTIONS (dB) | | | CONSTANTS | | TRACKING DATA (METERS) | | | | |
|----------|-----------|------|-------|------|------------------|---------------|---------------|---------------|------|------------------------|----------|-------|-------|-------|
| | EPNL | NEL | PNLTM | | $\wedge 1(P)$ | $\wedge 1(A)$ | $\wedge 2(P)$ | $\wedge 2(A)$ | K(P) | K(A) | (ACTUAL) | CPA | SRR | CPAR |
| APPROACH | | | | | | | | | | | | | | |
| 34 | 94.3 | 91.0 | 96.3 | 81.9 | 0.78 | 0.76 | -0.27 | -0.27 | 7.2 | 7.1 | 125.3 | 114.9 | 119.5 | 109.5 |
| 36 | 95.7 | 91.9 | 99.4 | 85.5 | -0.15 | -0.14 | 0.03 | 0.03 | 6.4 | 6.3 | 119.3 | 120.8 | 108.2 | 109.5 |
| 40 | 90.1 | 87.5 | 93.0 | 80.5 | 0.14 | 0.14 | -0.05 | -0.05 | 6.4 | 6.2 | 125.5 | 123.1 | 111.7 | 109.5 |
| 42 | 96.5 | 93.2 | 99.3 | 86.2 | 0.39 | 0.38 | -0.12 | -0.12 | 6.5 | 6.1 | 133.3 | 127.6 | 114.4 | 109.5 |
| 44 | 94.9 | 91.8 | 97.5 | 85.2 | 0.21 | 0.20 | -0.07 | -0.06 | 6.5 | 5.9 | 112.3 | 109.6 | 112.2 | 109.5 |
| 54 | 94.2 | 91.7 | 98.3 | 86.1 | 0.02 | 0.02 | -0.01 | -0.01 | 5.4 | 5.2 | 143.9 | 143.4 | 109.9 | 109.5 |
| 56 | 96.0 | 93.4 | 99.4 | 87.4 | 0.06 | 0.06 | -0.02 | -0.02 | 6.2 | 6.0 | 135.3 | 134.4 | 110.3 | 109.5 |
| Avg. | 94.5 | 91.5 | 97.6 | 84.7 | 0.21 | 0.20 | -0.07 | -0.07 | 6.4 | 6.1 | 127.8 | 124.8 | 112.3 | 109.5 |
| Std Dv | 2.3 | 2.2 | 2.6 | 2.8 | 0.33 | 0.32 | 0.11 | 0.11 | 0.6 | 0.6 | 11.6 | 12.6 | 4.1 | 0.0 |
| TAKEOFF | | | | | | | | | | | | | | |
| 33 | 90.9 | 86.7 | 93.5 | 78.4 | 4.10 | 3.81 | -1.27 | -1.39 | 7.2 | 7.9 | 150.8 | 100.5 | 149.2 | 99.4 |
| 35 | 90.4 | 86.8 | 93.4 | 79.5 | 3.45 | 3.22 | -1.06 | -1.09 | 7.1 | 7.3 | 145.6 | 103.5 | 139.8 | 99.4 |
| 37 | 90.4 | 86.4 | 93.1 | 78.7 | 3.27 | 3.03 | -1.03 | -1.07 | 7.3 | 7.6 | 137.6 | 99.5 | 137.5 | 99.4 |
| 39 | - | 87.1 | 94.4 | 80.4 | 3.10 | 2.88 | - | -0.90 | - | 6.8 | 135.1 | 99.4 | 135.1 | 99.4 |
| 41 | 89.9 | 86.3 | 93.3 | 79.4 | 2.44 | 2.26 | -0.68 | -0.72 | 6.5 | 6.9 | 127.2 | 99.8 | 126.6 | 99.4 |
| 43 | 90.0 | 86.3 | 93.3 | 79.4 | 2.82 | 2.60 | -0.84 | -0.86 | 6.9 | 7.1 | 132.4 | 100.2 | 131.4 | 99.4 |
| 53 | 90.5 | 87.1 | 93.4 | 79.7 | 3.94 | 3.65 | -1.12 | -1.17 | 6.8 | 7.1 | 145.2 | 99.6 | 145.0 | 99.4 |
| 55 | 89.8 | 86.4 | 92.8 | 78.4 | 3.78 | 3.51 | -1.07 | -1.06 | 6.7 | 6.7 | 143.3 | 99.5 | 143.2 | 99.4 |
| Avg. | 90.2 | 86.6 | 93.4 | 79.3 | 3.36 | 3.12 | -1.01 | -1.03 | 7.0 | 7.2 | 139.7 | 100.3 | 138.5 | 99.4 |
| Std Dv | 0.4 | 0.4 | 0.5 | 0.7 | 0.62 | 0.58 | 0.21 | 0.22 | 0.3 | 0.5 | 8.5 | 1.5 | 8.0 | 0.0 |

JUNE 23, 1980

TABLE NO. B.2-2.1H

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/16/81

CORRECTION DATA

| EV | CORRECTED | | | dBAM | CORRECTIONS (dB) | | | CONSTANTS | | | TRACKING DATA (ACTUAL) | | | TRACKING DATA (REFERENCE) | | |
|---|-----------|------|-------|------|------------------|---------------|---------------|---------------|------|------|------------------------|-------|-------|---------------------------|-----|------|
| | EPNL | NEL | PNLTM | | $\wedge 1(P)$ | $\wedge 1(A)$ | $\wedge 2(P)$ | $\wedge 2(A)$ | K(P) | K(A) | SR | CFA | SRR | CFA | SRR | CPAR |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 93 KTS | | | | | | | | | | | | | | | | |
| 21 | 88.4 | 85.8 | 89.9 | 76.7 | 0.51 | 0.51 | -0.21 | -0.22 | 7.0 | 7.3 | 192.7 | 179.9 | 152.5 | 142.3 | | |
| 22 | 90.2 | 87.6 | 94.3 | 82.3 | 0.11 | 0.12 | -0.07 | -0.07 | 6.3 | 5.6 | 271.2 | 264.1 | 146.2 | 142.3 | | |
| 23 | 88.4 | 85.5 | 90.9 | 76.9 | 0.41 | 0.40 | -0.17 | -0.19 | 6.8 | 7.2 | 175.8 | 165.7 | 151.0 | 142.3 | | |
| 24 | 90.0 | 87.3 | 93.5 | 81.3 | 0.15 | 0.15 | -0.07 | -0.07 | 5.3 | 5.9 | 213.3 | 207.8 | 146.1 | 142.3 | | |
| Avg. | 89.2 | 86.5 | 92.1 | 79.3 | 0.29 | 0.29 | -0.13 | -0.14 | 6.6 | 6.5 | 213.3 | 204.4 | 149.0 | 142.3 | | |
| Std Dv | 1.2 | 1.3 | 2.5 | 3.6 | 0.24 | 0.23 | 0.09 | 0.10 | 0.4 | 1.1 | 50.9 | 53.2 | 4.0 | 0.0 | | |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 109 KTS | | | | | | | | | | | | | | | | |
| 29 | 86.9 | 83.9 | 89.3 | 75.6 | -0.30 | -0.25 | 0.02 | 0.02 | 6.9 | 7.3 | 175.6 | 176.8 | 141.4 | 142.3 | | |
| 30 | 86.3 | 83.2 | 90.1 | 76.3 | 0.34 | 0.34 | -0.15 | -0.15 | 6.7 | 6.9 | 178.9 | 170.0 | 149.8 | 142.3 | | |
| 31 | 86.9 | 84.1 | 89.4 | 76.1 | 0.26 | 0.27 | -0.13 | -0.13 | 6.8 | 7.0 | 169.6 | 162.4 | 148.6 | 142.3 | | |
| 32 | 85.3 | 81.9 | 89.2 | 75.3 | 0.81 | 0.76 | -0.26 | -0.26 | 6.4 | 6.4 | 195.1 | 177.7 | 156.3 | 142.3 | | |
| Avg. | 86.3 | 83.3 | 89.5 | 75.8 | 0.28 | 0.28 | -0.13 | -0.13 | 6.7 | 6.9 | 179.8 | 171.7 | 149.0 | 142.3 | | |
| Std Dv | 0.9 | 1.2 | 0.5 | 0.6 | 0.56 | 0.51 | 0.14 | 0.14 | 0.3 | 0.5 | 13.4 | 8.7 | 7.5 | 0.0 | | |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 124 KTS | | | | | | | | | | | | | | | | |
| 49 | 88.1 | 85.1 | 93.2 | 79.8 | 0.18 | 0.17 | -0.06 | -0.06 | 6.1 | 6.2 | 176.1 | 172.2 | 145.5 | 142.3 | | |
| 50 | 87.6 | 84.7 | 91.2 | 77.2 | -0.84 | -0.77 | 0.20 | 0.22 | 6.4 | 7.0 | 157.0 | 168.7 | 132.4 | 142.3 | | |
| 51 | 87.1 | 84.1 | 91.1 | 77.5 | 0.63 | 0.57 | -0.16 | -0.17 | 6.1 | 6.3 | 191.7 | 180.3 | 151.4 | 142.3 | | |
| 52 | 87.8 | 84.7 | 91.2 | 77.7 | 1.13 | 1.03 | -0.32 | -0.34 | 6.9 | 7.3 | 201.5 | 181.2 | 158.3 | 142.3 | | |
| Avg. | 87.7 | 84.7 | 91.7 | 78.0 | 0.27 | 0.25 | -0.08 | -0.09 | 6.4 | 6.7 | 181.6 | 175.6 | 146.9 | 142.3 | | |
| Std Dv | 0.5 | 0.5 | 1.3 | 1.4 | 1.03 | 0.94 | 0.27 | 0.29 | 0.5 | 0.6 | 23.8 | 7.5 | 13.4 | 0.0 | | |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | | | | |
| 17 | 90.4 | 87.1 | 93.2 | 80.2 | 0.23 | 0.25 | -0.13 | -0.13 | 6.7 | 6.8 | 183.8 | 175.8 | 148.8 | 142.3 | | |
| 18 | 88.1 | 85.2 | 93.6 | 80.5 | -0.67 | -0.57 | 0.08 | 0.08 | 5.7 | 5.6 | 203.5 | 210.4 | 137.7 | 142.3 | | |
| 19 | 89.6 | 87.1 | 92.8 | 80.3 | 0.69 | 0.67 | -0.26 | -0.25 | 6.9 | 6.7 | 171.2 | 157.1 | 155.1 | 142.3 | | |
| 20 | 88.1 | 85.2 | 93.6 | 80.4 | 0.61 | 0.59 | -0.20 | -0.20 | 5.8 | 6.0 | 193.0 | 178.4 | 153.9 | 142.3 | | |
| Avg. | 89.0 | 86.2 | 93.3 | 80.4 | 0.21 | 0.23 | -0.13 | -0.12 | 6.3 | 6.3 | 187.9 | 180.4 | 148.9 | 142.3 | | |
| Std Dv | 1.4 | 1.3 | 0.5 | 0.2 | 0.76 | 0.69 | 0.18 | 0.18 | 0.7 | 0.7 | 16.8 | 27.1 | 9.7 | 0.0 | | |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 155 KTS | | | | | | | | | | | | | | | | |
| 25 | | | | | | | | | | | | | | | | |
| 26 | 91.1 | 87.5 | 96.1 | 82.0 | 0.94 | 0.88 | -0.28 | -0.31 | 6.0 | 6.7 | 191.0 | 171.6 | 158.4 | 142.3 | | |
| 27 | 91.5 | 87.9 | 96.5 | 82.6 | -0.51 | -0.47 | 0.07 | 0.07 | 5.8 | 6.1 | 157.4 | 161.6 | 138.6 | 142.3 | | |
| 28 | 92.0 | 88.2 | 97.3 | 82.9 | -0.08 | -0.06 | -0.04 | -0.04 | 5.8 | 6.4 | 195.6 | 192.9 | 144.4 | 142.3 | | |
| Avg. | 91.5 | 87.9 | 96.6 | 82.5 | 0.12 | 0.12 | -0.08 | -0.09 | 5.9 | 6.4 | 181.3 | 175.4 | 147.1 | 142.3 | | |
| Std Dv | 0.6 | 0.5 | 0.9 | 0.6 | 1.05 | 0.98 | 0.25 | 0.28 | 0.2 | 0.5 | 29.5 | 22.6 | 14.4 | 0.0 | | |

NO TRACKING DATA

TABLE NO. B.2-3.1H

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/16/81

CORRECTION DATA

JUNE 23, 1980

SITE: 1H CENTERLINE - CENTER (10-METER)

| EV | CORRECTED | | | | CORRECTIONS (dB) | | | | CONSTANTS | | | TRACKING DATA (ACTUAL) | | | TRACKING DATA (METERS) (REFERENCE) | | |
|--|-----------|------|-------|------|------------------|---------------|---------------|---------------|------------------|------|-------|------------------------|-------|-------|------------------------------------|--|--|
| | EPNL | NEL | PNLTH | DBAM | $\sqrt{1(P)}$ | $\sqrt{1(A)}$ | $\sqrt{2(P)}$ | $\sqrt{2(A)}$ | K(P) | K(A) | SR | CFA | SRR | CFAR | | | |
| 300 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | | | | | |
| 9 | 91.4 | 88.2 | 96.3 | 82.8 | -0.24 | -0.22 | 0.03 | 0.03 | 6.1 | 6.3 | 90.1 | 91.2 | 80.4 | 81.4 | | | |
| 10 | 91.8 | 88.3 | 98.2 | 84.5 | 0.22 | -0.08 | -0.08 | -0.08 | 5.4 | 5.5 | 107.6 | 103.8 | 84.4 | 81.4 | | | |
| 15 | 92.2 | 88.7 | 98.0 | 83.9 | -0.05 | -0.03 | -0.02 | -0.02 | 5.7 | 5.9 | 103.9 | 103.0 | 82.1 | 81.4 | | | |
| 16 | | | | | | | | | NO TRACKING DATA | | | | | | | | |
| Avg. | 91.8 | 88.4 | 97.5 | 83.8 | -0.02 | -0.01 | -0.02 | -0.02 | 5.7 | 5.9 | 100.5 | 99.3 | 82.3 | 81.4 | | | |
| Std Dv | 0.5 | 0.4 | 1.5 | 1.2 | 0.33 | 0.31 | 0.08 | 0.08 | 0.5 | 0.6 | 13.0 | 10.0 | 2.8 | 0.0 | | | |
| 700 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | | | | | |
| 7 | 86.4 | 83.9 | 87.4 | 75.0 | 1.08 | 1.01 | -0.41 | -0.41 | 7.7 | 7.8 | 263.5 | 233.4 | 229.5 | 203.3 | | | |
| 8 | 87.1 | 84.6 | 90.2 | 78.4 | 1.28 | 1.19 | -0.42 | -0.39 | 7.0 | 6.5 | 389.2 | 338.6 | 233.7 | 203.3 | | | |
| 13 | 87.5 | 85.1 | 89.1 | 76.7 | 0.54 | 0.53 | -0.23 | -0.24 | 7.1 | 7.3 | 252.0 | 233.7 | 219.3 | 203.3 | | | |
| 14 | 86.9 | 84.5 | 90.8 | 78.5 | -0.82 | -0.69 | 0.10 | 0.11 | 6.3 | 6.4 | 261.8 | 272.0 | 195.7 | 203.3 | | | |
| Avg. | 87.0 | 84.5 | 89.4 | 77.1 | 0.52 | 0.51 | -0.24 | -0.23 | 7.0 | 7.0 | 291.7 | 269.4 | 219.6 | 203.3 | | | |
| Std Dv | 0.5 | 0.6 | 1.8 | 2.0 | 1.16 | 1.04 | 0.30 | 0.29 | 0.7 | 0.8 | 79.9 | 60.7 | 20.9 | 0.0 | | | |
| 1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | | | | | |
| 45 | 82.8 | 80.9 | 85.0 | 73.0 | 0.12 | 0.14 | -0.07 | -0.07 | 7.0 | 7.1 | 352.8 | 345.0 | 301.4 | 294.7 | | | |
| 46 | 83.7 | 81.8 | 85.1 | 72.5 | 0.41 | 0.38 | -0.14 | -0.14 | 7.1 | 7.4 | 367.1 | 351.3 | 308.0 | 294.7 | | | |
| 47 | 84.3 | 82.2 | 87.1 | 74.9 | 0.26 | 0.25 | -0.09 | -0.09 | 6.6 | 6.6 | 419.2 | 406.0 | 304.4 | 294.7 | | | |
| 48 | 84.6 | 82.9 | 86.4 | 74.3 | 0.10 | 0.11 | -0.06 | -0.06 | 7.1 | 7.3 | 340.8 | 334.6 | 300.2 | 294.7 | | | |
| 1 | | | | | | | | | NO TRACKING DATA | | | | | | | | |
| 2 | | | | | | | | | NO TRACKING DATA | | | | | | | | |
| 3 | | | | | | | | | NO TRACKING DATA | | | | | | | | |
| 4 | | | | | | | | | NO TRACKING DATA | | | | | | | | |
| Avg. | 83.9 | 82.0 | 85.9 | 73.7 | 0.22 | 0.22 | -0.09 | -0.09 | 6.9 | 7.1 | 370.0 | 359.2 | 303.5 | 294.7 | | | |
| Std Dv | 1.0 | 1.0 | 1.2 | 1.4 | 0.18 | 0.15 | 0.04 | 0.04 | 0.3 | 0.4 | 42.3 | 39.1 | 4.3 | 0.0 | | | |
| 1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | | | | | |
| 5 | 80.6 | 78.9 | 79.6 | 68.0 | 0.21 | 0.24 | -0.19 | -0.20 | 7.5 | 7.5 | 559.9 | 527.5 | 474.6 | 447.1 | | | |
| 6 | - | 78.0 | 81.6 | 69.8 | -0.07 | -0.02 | - | -0.12 | - | 6.7 | 608.6 | 583.5 | 466.4 | 447.1 | | | |
| 11 | | | | | | | | | NO TRACKING DATA | | | | | | | | |
| 12 | 80.4 | 79.0 | 80.9 | 68.9 | -0.88 | -0.74 | 0.08 | 0.09 | 7.5 | 8.0 | 521.9 | 535.1 | 436.2 | 447.1 | | | |
| Avg. | 80.5 | 78.6 | 80.7 | 68.9 | -0.25 | -0.17 | -0.06 | -0.08 | 7.5 | 7.4 | 563.5 | 548.7 | 459.1 | 447.1 | | | |
| Std Dv | 0.1 | 0.8 | 1.4 | 1.3 | 0.80 | 0.72 | 0.19 | 0.21 | 0.0 | 1.0 | 61.4 | 43.0 | 28.6 | 0.0 | | | |

TABLE NO. 8.2-4.1H

SIKORSKY S-76 SPIRIT HELICOPTER
CORRECTION DATA - MAIN ROTOR RPM 107%

DDT/TSC
12/16/81

JUNE 23, 1980

CENTERLINE - CENTER (10-METER)

SITE: 1H

| EV | CORRECTED | | | CORRECTIONS (dB) | | | | CONSTANTS | | | TRACKING DATA (METERS) | | | |
|---|-----------|------|-------|------------------|---------------|---------------|---------------|---------------|------|------|------------------------|-------|-------|-------|
| | EPNL | NEL | PNLTH | dBAM | $\wedge 1(P)$ | $\wedge 1(A)$ | $\wedge 2(P)$ | $\wedge 2(A)$ | K(P) | K(A) | SR | CPA | SRR | CPAR |
| APPROACH | | | | | | | | | | | | | | |
| 69 | 94.5 | 91.2 | 97.3 | 83.7 | -0.14 | -0.15 | 0.04 | 0.05 | 6.5 | 6.7 | 132.3 | 134.4 | 107.8 | 109.5 |
| 70 | 93.7 | 90.7 | 95.6 | 82.7 | -0.05 | -0.06 | 0.02 | 0.02 | 7.2 | 7.0 | 116.2 | 117.0 | 108.8 | 109.5 |
| Avg. | 94.1 | 90.9 | 96.4 | 83.2 | -0.09 | -0.10 | 0.03 | 0.03 | 6.9 | 6.9 | 124.3 | 125.7 | 108.3 | 109.5 |
| Std Dv | 0.6 | 0.3 | 1.2 | 0.7 | 0.06 | 0.06 | 0.01 | 0.02 | 0.5 | 0.2 | 11.4 | 12.3 | 0.7 | 0.0 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 93 KTS | | | | | | | | | | | | | | |
| 61 | 88.8 | 86.1 | 92.6 | 78.9 | 1.30 | 1.16 | -0.31 | -0.32 | 6.2 | 6.4 | 206.4 | 183.9 | 159.7 | 142.3 |
| 62 | 87.7 | 84.8 | 90.3 | 77.1 | -0.15 | -0.15 | 0.05 | 0.05 | 6.9 | 7.0 | 157.6 | 160.0 | 140.2 | 142.3 |
| 63 | 89.9 | 86.8 | 93.6 | 79.6 | 2.13 | 1.92 | -0.55 | -0.59 | 6.6 | 7.2 | 199.3 | 164.6 | 172.3 | 142.3 |
| 64 | 89.8 | 87.0 | 92.4 | 79.5 | 0.61 | 0.54 | -0.15 | -0.16 | 6.4 | 6.5 | 174.4 | 165.0 | 150.4 | 142.3 |
| Avg. | 89.1 | 86.2 | 92.2 | 78.8 | 0.97 | 0.87 | -0.24 | -0.25 | 6.5 | 6.8 | 184.4 | 168.4 | 155.7 | 142.3 |
| Std Dv | 1.3 | 1.2 | 1.7 | 1.4 | 1.19 | 1.08 | 0.31 | 0.33 | 0.4 | 0.5 | 27.6 | 13.0 | 16.7 | 0.0 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | | |
| 57 | 91.2 | 88.4 | 96.4 | 83.7 | 1.94 | 1.74 | -0.45 | -0.43 | 6.0 | 5.8 | 243.1 | 204.8 | 169.0 | 142.3 |
| 58 | 92.4 | 89.5 | 96.8 | 83.7 | 0.85 | 0.76 | -0.21 | -0.21 | 6.4 | 6.5 | 230.9 | 214.1 | 153.5 | 142.3 |
| 59 | 91.8 | 89.1 | 97.4 | 84.5 | 0.82 | 0.74 | -0.18 | -0.19 | 5.6 | 5.9 | 212.8 | 197.8 | 153.1 | 142.3 |
| 60 | 92.1 | 89.2 | 96.3 | 83.2 | 1.23 | 1.10 | -0.30 | -0.31 | 6.2 | 6.5 | 202.4 | 181.3 | 158.9 | 142.3 |
| Avg. | 91.9 | 89.0 | 96.7 | 83.8 | 1.21 | 1.08 | -0.28 | -0.28 | 6.1 | 6.2 | 222.3 | 199.5 | 158.6 | 142.3 |
| Std Dv | 0.6 | 0.6 | 0.6 | 0.7 | 0.64 | 0.57 | 0.15 | 0.13 | 0.5 | 0.5 | 22.3 | 17.0 | 9.0 | 0.0 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 155 KTS | | | | | | | | | | | | | | |
| 65 | | | | | | | | | | | | | | |
| 66 | 94.7 | 90.6 | 98.4 | 84.7 | 0.46 | 0.41 | -0.11 | -0.10 | 6.4 | 6.0 | 219.5 | 210.9 | 148.2 | 142.3 |
| 67 | 92.6 | 89.2 | 97.4 | 83.9 | 0.60 | 0.53 | -0.14 | -0.15 | 6.1 | 6.4 | 183.4 | 173.8 | 150.1 | 142.3 |
| 68 | 91.8 | 88.4 | 96.8 | 83.0 | 0.81 | 0.73 | -0.18 | -0.19 | 5.8 | 6.2 | 200.9 | 187.0 | 153.0 | 142.3 |
| Avg. | 93.0 | 89.4 | 97.5 | 83.9 | 0.62 | 0.56 | -0.14 | -0.15 | 6.1 | 6.2 | 201.3 | 190.6 | 150.4 | 142.3 |
| Std Dv | 2.1 | 1.6 | 1.1 | 1.3 | 0.25 | 0.23 | 0.05 | 0.06 | 0.4 | 0.3 | 25.6 | 26.6 | 3.4 | 0.0 |

NO TRACKING DATA

TABLE NO. B.2-1.2

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/16/81

CORRECTION DATA

JUNE 23, 1980

SITE: 2

CENTERLINE - 150 M. WEST

| EV | CORRECTED | | | CORRECTIONS (dB) | | | | CONSTANTS | | TRACKING DATA (METERS) (ACTUAL) | | | TRACKING DATA (METERS) (REFERENCE) | | |
|----------|-----------|------|-------|------------------|---------------|---------------|---------------|---------------|------|------------------------------------|-------|-------|---------------------------------------|-------|--|
| | EPNL | NEL | PNLTH | dBAM | $\wedge 1(P)$ | $\wedge 1(A)$ | $\wedge 2(P)$ | $\wedge 2(A)$ | K(P) | K(A) | SR | CPA | SRR | CPAR | |
| APPROACH | | | | | | | | | | | | | | | |
| 34 | 96.8 | 93.5 | 99.5 | 86.8 | 0.41 | 0.40 | -0.14 | -0.13 | 6.9 | 6.5 | 108.1 | 103.0 | 107.6 | 102.6 | |
| 36 | 98.8 | 95.4 | 103.5 | 90.0 | -0.03 | -0.03 | 0.00 | 0.00 | 5.5 | 5.6 | 126.7 | 126.7 | 102.6 | 102.6 | |
| 40 | 97.7 | 94.4 | 101.4 | 88.9 | 0.08 | 0.08 | -0.03 | -0.03 | 6.1 | 5.4 | 119.0 | 117.6 | 103.7 | 102.6 | |
| 42 | 97.6 | 94.3 | 102.1 | 89.2 | 0.36 | 0.35 | -0.11 | -0.10 | 5.9 | 5.5 | 128.5 | 123.3 | 106.9 | 102.6 | |
| 44 | 97.5 | 94.1 | 100.7 | 87.4 | 0.17 | 0.16 | -0.06 | -0.06 | 7.1 | 6.9 | 124.4 | 121.9 | 104.7 | 102.6 | |
| 54 | 98.0 | 95.1 | 101.8 | 88.9 | 0.32 | 0.31 | -0.09 | -0.09 | 5.9 | 5.9 | 121.5 | 117.3 | 106.3 | 102.6 | |
| 56 | 97.1 | 94.1 | 102.3 | 89.1 | 0.24 | 0.23 | -0.06 | -0.06 | 5.3 | 5.5 | 123.6 | 120.4 | 105.3 | 102.6 | |
| Avg. | 97.7 | 94.4 | 101.6 | 88.6 | 0.22 | 0.21 | -0.07 | -0.07 | 6.1 | 5.9 | 121.7 | 118.6 | 105.3 | 102.6 | |
| Std Dv | 0.7 | 0.7 | 1.4 | 1.2 | 0.17 | 0.17 | 0.05 | 0.05 | 0.7 | 0.6 | 7.4 | 8.3 | 1.9 | 0.0 | |
| TAKEDOFF | | | | | | | | | | | | | | | |
| 33 | - | 86.1 | 90.8 | 77.8 | -1.61 | -1.42 | - | 0.48 | - | 7.8 | 119.8 | 138.0 | 114.1 | 131.3 | |
| 35 | 88.4 | 85.3 | 91.0 | 78.3 | -1.82 | -1.67 | 0.47 | 0.45 | 6.7 | 6.3 | 128.8 | 151.6 | 111.5 | 131.3 | |
| 37 | 88.9 | 85.6 | 91.0 | 77.7 | -1.52 | -1.38 | 0.43 | 0.42 | 7.2 | 7.0 | 127.4 | 146.1 | 114.5 | 131.3 | |
| 39 | 88.4 | 85.4 | 90.6 | 77.8 | -1.99 | -1.85 | 0.55 | 0.53 | 6.8 | 6.6 | 118.8 | 142.9 | 109.1 | 131.3 | |
| 41 | 88.1 | 85.1 | 90.2 | 77.9 | -2.21 | -2.02 | 0.62 | 0.56 | 7.0 | 6.3 | 114.2 | 140.3 | 106.9 | 131.3 | |
| 43 | 88.2 | 85.3 | 89.8 | 77.6 | -1.83 | -1.63 | 0.52 | 0.48 | 7.2 | 6.7 | 118.8 | 140.4 | 111.1 | 131.3 | |
| 53 | 88.4 | 85.5 | 91.0 | 78.5 | -1.43 | -1.35 | 0.38 | 0.37 | 6.6 | 6.4 | 131.0 | 149.8 | 114.8 | 131.3 | |
| 55 | 87.6 | 84.7 | 88.6 | 75.6 | -1.80 | -1.65 | 0.54 | 0.54 | 7.4 | 7.5 | 119.0 | 140.7 | 111.0 | 131.3 | |
| Avg. | 88.3 | 85.4 | 90.4 | 77.7 | -1.78 | -1.62 | 0.50 | 0.48 | 7.0 | 6.8 | 122.2 | 143.7 | 111.6 | 131.3 | |
| Std Dv | 0.4 | 0.4 | 0.9 | 0.9 | 0.27 | 0.25 | 0.09 | 0.07 | 0.3 | 0.6 | 6.5 | 5.3 | 3.0 | 0.0 | |

TABLE NO. B.2-2.2

SIKORSKY S-76 SPIRIT HELICOPTER
CORRECTION DATADOT/TSC
12/16/81

JUNE 23, 1980

SITE: 2 CENTERLINE - 150 M. WEST

| EV | CORRECTED | | | CORRECTIONS (dB) | | | | CONSTANTS | | | TRACKING DATA (METERS) (ACTUAL) | | | TRACKING DATA (METERS) (REFERENCE) | | |
|---|-----------|------|-------|------------------|-----------------------------|-----------------------------|-------|-----------|-----|-------|------------------------------------|-------|-------|---------------------------------------|-------|-------|
| | EPNL | NEL | PNLTM | dBAM | $\sqrt{1(P)} / \sqrt{1(A)}$ | $\sqrt{2(P)} / \sqrt{2(A)}$ | K(P) | K(A) | SR | CPA | SRR | CPAR | SR | CPA | SRR | CPAR |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 93 KTS | | | | | | | | | | | | | | | | |
| 21 | 89.1 | 86.4 | 91.1 | 77.6 | 0.51 | 0.50 | -0.20 | 6.6 | 7.0 | 179.3 | 167.4 | 161.9 | 151.2 | 151.2 | 151.2 | 151.2 |
| 22 | 91.4 | 88.8 | 96.4 | 84.2 | 0.04 | 0.05 | -0.04 | 5.6 | 5.2 | 197.5 | 194.5 | 153.5 | 151.2 | 151.2 | 151.2 | 151.2 |
| 23 | 89.4 | 86.5 | 90.6 | 77.3 | 0.31 | 0.32 | -0.16 | 7.3 | 7.5 | 179.4 | 170.5 | 159.1 | 151.2 | 151.2 | 151.2 | 151.2 |
| 24 | 91.8 | 89.0 | 96.2 | 83.7 | 0.38 | 0.38 | -0.12 | 5.6 | 5.4 | 211.6 | 201.1 | 159.1 | 151.2 | 151.2 | 151.2 | 151.2 |
| Avg. | 90.4 | 87.6 | 93.6 | 80.7 | 0.31 | 0.31 | -0.13 | 6.3 | 6.3 | 191.9 | 183.4 | 158.4 | 151.2 | 151.2 | 151.2 | 151.2 |
| Std Dv | 1.7 | 1.7 | 3.9 | 4.6 | 0.24 | 0.23 | 0.08 | 1.0 | 1.4 | 19.2 | 20.7 | 4.3 | 0.0 | 0.0 | 0.0 | 0.0 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 109 KTS | | | | | | | | | | | | | | | | |
| 29 | 87.2 | 84.7 | 90.2 | 77.0 | -0.31 | -0.26 | 0.03 | 6.5 | 6.8 | 159.6 | 161.1 | 149.8 | 151.2 | 151.2 | 151.2 | 151.2 |
| 30 | 86.2 | 83.5 | 90.2 | 77.2 | 0.28 | 0.30 | -0.13 | 6.5 | 6.6 | 192.5 | 183.6 | 158.5 | 151.2 | 151.2 | 151.2 | 151.2 |
| 31 | 87.1 | 84.6 | 90.2 | 77.3 | -0.04 | 0.00 | -0.05 | 6.5 | 6.7 | 175.8 | 172.9 | 153.7 | 151.2 | 151.2 | 151.2 | 151.2 |
| 32 | 85.5 | 82.7 | 88.1 | 75.1 | 0.56 | 0.55 | -0.22 | 7.0 | 7.2 | 183.6 | 170.9 | 162.4 | 151.2 | 151.2 | 151.2 | 151.2 |
| Avg. | 86.5 | 83.9 | 89.7 | 76.6 | 0.12 | 0.15 | -0.09 | 6.6 | 6.8 | 177.9 | 172.1 | 156.1 | 151.2 | 151.2 | 151.2 | 151.2 |
| Std Dv | 1.0 | 1.2 | 1.3 | 1.2 | 0.46 | 0.43 | 0.13 | 0.3 | 0.3 | 17.1 | 11.3 | 6.7 | 0.0 | 0.0 | 0.0 | 0.0 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 124 KTS | | | | | | | | | | | | | | | | |
| 49 | - | 85.0 | 92.2 | 79.2 | 0.27 | 0.25 | - | - | 6.4 | 182.7 | 177.4 | 155.7 | 151.2 | 151.2 | 151.2 | 151.2 |
| 50 | 89.2 | 86.2 | 93.1 | 79.8 | -0.56 | -0.51 | 0.13 | 6.4 | 6.4 | 164.9 | 172.7 | 144.4 | 151.2 | 151.2 | 151.2 | 151.2 |
| 51 | 87.7 | 84.9 | 91.2 | 78.0 | 0.54 | 0.49 | -0.15 | 6.5 | 6.6 | 188.1 | 178.3 | 159.5 | 151.2 | 151.2 | 151.2 | 151.2 |
| 52 | 87.9 | 85.2 | 91.3 | 78.3 | 0.88 | 0.80 | -0.25 | 6.7 | 6.9 | 188.0 | 172.8 | 164.5 | 151.2 | 151.2 | 151.2 | 151.2 |
| Avg. | 88.3 | 85.3 | 92.0 | 78.8 | 0.28 | 0.26 | -0.09 | 6.5 | 6.6 | 180.9 | 175.3 | 156.0 | 151.2 | 151.2 | 151.2 | 151.2 |
| Std Dv | 1.1 | 0.7 | 1.1 | 1.0 | 0.75 | 0.68 | 0.28 | 0.2 | 0.2 | 13.4 | 3.6 | 10.5 | 0.0 | 0.0 | 0.0 | 0.0 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | | | | |
| 17 | 90.8 | 87.9 | 94.6 | 81.7 | 0.26 | 0.27 | -0.13 | 6.4 | 6.4 | 180.9 | 172.5 | 158.5 | 151.2 | 151.2 | 151.2 | 151.2 |
| 18 | 89.4 | 86.6 | 94.9 | 81.8 | -0.39 | -0.31 | 0.02 | 5.4 | 5.9 | 197.0 | 199.0 | 149.7 | 151.2 | 151.2 | 151.2 | 151.2 |
| 19 | - | 87.4 | 93.6 | 81.1 | 0.56 | 0.56 | - | - | 6.4 | 177.8 | 165.1 | 162.8 | 151.2 | 151.2 | 151.2 | 151.2 |
| 20 | - | 86.1 | 94.0 | 81.1 | 0.50 | 0.50 | - | - | 6.3 | 215.1 | 200.5 | 162.2 | 151.2 | 151.2 | 151.2 | 151.2 |
| Avg. | 90.1 | 87.0 | 94.3 | 81.4 | 0.23 | 0.25 | -0.05 | 5.9 | 6.2 | 192.7 | 184.3 | 158.3 | 151.2 | 151.2 | 151.2 | 151.2 |
| Std Dv | 1.0 | 1.0 | 0.7 | 0.5 | 0.53 | 0.49 | 0.11 | 0.7 | 0.3 | 21.0 | 22.2 | 7.4 | 0.0 | 0.0 | 0.0 | 0.0 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 155 KTS | | | | | | | | | | | | | | | | |
| 25 | 91.1 | 88.1 | 95.1 | 82.1 | 0.57 | 0.56 | -0.20 | 6.3 | 6.5 | 181.8 | 168.8 | 162.9 | 151.2 | 151.2 | 151.2 | 151.2 |
| 26 | 92.0 | 88.9 | 96.5 | 83.0 | 0.88 | 0.83 | -0.29 | 6.6 | 7.0 | 222.7 | 201.1 | 167.5 | 151.2 | 151.2 | 151.2 | 151.2 |
| 27 | 92.9 | 89.6 | 97.2 | 84.0 | -0.51 | -0.46 | 0.07 | 6.0 | 6.1 | 164.3 | 168.7 | 147.2 | 151.2 | 151.2 | 151.2 | 151.2 |
| 28 | 92.0 | 88.8 | 97.0 | 83.1 | 0.04 | 0.07 | -0.07 | 6.2 | 6.9 | 195.8 | 190.9 | 155.0 | 151.2 | 151.2 | 151.2 | 151.2 |
| Avg. | 92.0 | 88.8 | 96.4 | 83.0 | 0.24 | 0.25 | -0.12 | 6.3 | 6.6 | 191.1 | 182.4 | 158.1 | 151.2 | 151.2 | 151.2 | 151.2 |
| Std Dv | 0.9 | 0.8 | 1.2 | 1.0 | 0.75 | 0.70 | 0.19 | 0.3 | 0.5 | 30.2 | 19.9 | 10.9 | 0.0 | 0.0 | 0.0 | 0.0 |

TABLE NO. B.2-3.2

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/16/81

CORRECTION DATA

| SITE: 2 | | CENTERLINE - 150 M. WEST | | | | | | | | | | JUNE 23, 1980 | | | |
|--|------|--------------------------|-------|------|-----------------------------|-----------------------------|-----------|------|------------------------|------------------|-------|---------------------------|-------|--|--|
| CORRECTED | | CORRECTIONS (dB) | | | | | CONSTANTS | | TRACKING DATA (ACTUAL) | | | TRACKING DATA (REFERENCE) | | | |
| EV | EPNL | NEL | PNLTM | dBAM | $\sqrt{1(P)} / \sqrt{1(A)}$ | $\sqrt{2(P)} / \sqrt{2(A)}$ | K(P) | K(A) | SR | CPA | SRR | CPAR | | | |
| 300 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | | | |
| 9 | 92.8 | 89.6 | 98.1 | 84.7 | 0.05 | 0.07 | -0.05 | 6.4 | 6.4 | 113.0 | 110.8 | 92.0 | 90.2 | | |
| 10 | 91.4 | 88.0 | 97.4 | 84.0 | 0.14 | 0.14 | -0.07 | 5.7 | 5.5 | 99.8 | 97.2 | 92.7 | 90.2 | | |
| 15 | 92.4 | 89.3 | 98.0 | 84.9 | -0.28 | 0.03 | 0.03 | 5.6 | 5.4 | 104.1 | 105.5 | 89.0 | 90.2 | | |
| 16 | 92.8 | 89.5 | 99.4 | 85.7 | -0.15 | 0.00 | 0.00 | 5.1 | 5.3 | 118.6 | 118.4 | 90.4 | 90.2 | | |
| Avg. | 92.3 | 89.1 | 98.2 | 84.8 | -0.06 | -0.04 | -0.02 | 5.7 | 5.6 | 108.9 | 108.0 | 91.0 | 90.2 | | |
| Std Dev | 0.8 | 0.9 | 1.0 | 0.9 | 0.23 | 0.21 | 0.06 | 0.7 | 0.6 | 10.4 | 10.9 | 2.0 | 0.0 | | |
| 700 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | | | |
| 7 | 87.1 | 84.9 | 88.2 | 76.1 | 1.04 | 0.98 | -0.38 | 7.3 | 7.3 | 258.4 | 229.6 | 238.7 | 212.1 | | |
| 8 | 87.4 | 85.2 | 90.8 | 78.1 | 1.33 | 1.23 | -0.44 | 7.1 | 7.4 | 278.5 | 241.4 | 244.7 | 212.1 | | |
| 13 | 87.7 | 85.6 | 90.1 | 78.1 | 0.38 | 0.40 | -0.18 | 6.7 | 6.7 | 254.9 | 239.3 | 225.9 | 212.1 | | |
| 14 | 87.0 | 84.7 | 90.6 | 78.2 | -0.67 | -0.56 | 0.06 | 6.6 | 6.8 | 336.4 | 343.5 | 207.8 | 212.1 | | |
| Avg. | 87.3 | 85.1 | 89.9 | 77.6 | 0.52 | 0.51 | -0.23 | 6.9 | 7.1 | 282.1 | 263.5 | 229.3 | 212.1 | | |
| Std Dev | 0.4 | 0.5 | 1.5 | 1.2 | 1.09 | 0.97 | 0.28 | 0.4 | 0.4 | 46.2 | 65.7 | 20.0 | 0.0 | | |
| 1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | | | |
| 45 | 83.7 | 81.9 | 85.0 | 73.2 | 0.29 | 0.26 | -0.11 | 7.5 | 7.6 | 487.1 | 470.5 | 314.2 | 303.6 | | |
| 46 | 83.7 | 81.9 | 85.2 | 73.2 | 0.45 | 0.42 | -0.14 | 7.0 | 7.1 | 345.2 | 329.2 | 318.4 | 303.6 | | |
| 47 | 84.0 | 82.2 | 85.4 | 73.7 | 0.14 | 0.15 | -0.07 | 7.4 | 7.4 | 350.2 | 342.3 | 310.6 | 303.6 | | |
| 48 | 84.3 | 82.8 | 86.2 | 75.1 | 0.08 | 0.09 | -0.05 | 6.8 | 6.5 | 352.6 | 346.7 | 308.7 | 303.6 | | |
| 1 | | | | | | | | | | NO TRACKING DATA | | | | | |
| 2 | | | | | | | | | | NO TRACKING DATA | | | | | |
| 3 | | | | | | | | | | NO TRACKING DATA | | | | | |
| 4 | | | | | | | | | | NO TRACKING DATA | | | | | |
| Avg. | 83.9 | 82.2 | 85.4 | 73.8 | 0.24 | 0.23 | -0.09 | 7.2 | 7.2 | 383.8 | 372.2 | 313.0 | 303.6 | | |
| Std Dev | 0.3 | 0.5 | 0.6 | 1.1 | 0.20 | 0.18 | 0.05 | 0.4 | 0.6 | 84.4 | 80.8 | 5.2 | 0.0 | | |
| 1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | | | |
| 5 | 82.0 | 80.4 | 81.6 | 70.3 | 0.20 | 0.23 | -0.19 | 7.5 | 7.5 | 523.3 | 494.1 | 482.9 | 456.0 | | |
| 6 | 80.8 | 79.4 | 80.7 | 69.7 | 0.03 | 0.04 | -0.14 | 7.5 | 7.2 | 570.5 | 546.3 | 476.1 | 456.0 | | |
| 11 | | | | | | | | | | NO TRACKING DATA | | | | | |
| 12 | 80.1 | 78.9 | 80.5 | 69.5 | -1.08 | -0.87 | 0.08 | 7.6 | 7.5 | 668.2 | 684.9 | 444.9 | 456.0 | | |
| Avg. | 81.0 | 79.6 | 80.9 | 69.8 | -0.28 | -0.20 | -0.08 | 7.5 | 7.4 | 587.3 | 575.1 | 468.0 | 456.0 | | |
| Std Dev | 1.4 | 1.1 | 0.8 | 0.6 | 0.98 | 0.83 | 0.20 | 0.1 | 0.2 | 104.5 | 139.5 | 28.7 | 0.0 | | |

TABLE NO. B.2-4.2

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/16/81

CORRECTION DATA - MAIN ROTOR RPM 107%

JUNE 23, 1980

SITE: 2

CENTERLINE - 150 M. WEST

| EV | CORRECTED | | | CORRECTIONS (dB) | | | | CONSTANTS | | TRACKING DATA (METERS) (ACTUAL) | | | TRACKING DATA (METERS) (REFERENCE) | |
|---|-----------|------|-------|------------------|----------------|----------------|----------------|----------------|------|------------------------------------|-------|-------|---------------------------------------|-------|
| | EPNL | NEL | FNLTM | dBAM | $\wedge(1)(P)$ | $\wedge(1)(A)$ | $\wedge(2)(P)$ | $\wedge(2)(A)$ | K(P) | K(A) | SR | CPA | SRR | CPAR |
| APPROACH | | | | | | | | | | | | | | |
| 69 | 96.2 | 93.2 | 100.3 | 87.8 | -0.07 | -0.07 | 0.02 | 0.02 | 5.8 | 5.5 | 118.9 | 119.9 | 101.8 | 102.6 |
| 70 | 95.5 | 92.6 | 98.0 | 85.0 | 0.31 | 0.23 | -0.07 | -0.07 | 6.8 | 6.7 | 114.1 | 111.3 | 105.2 | 102.6 |
| Avg. | 95.9 | 92.9 | 99.2 | 86.4 | 0.12 | 0.08 | -0.02 | -0.02 | 6.3 | 6.1 | 116.5 | 115.6 | 103.5 | 102.6 |
| Std Dv | 0.5 | 0.4 | 1.7 | 2.0 | 0.27 | 0.21 | 0.06 | 0.06 | 0.7 | 0.8 | 3.4 | 6.1 | 2.4 | 0.0 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 93 KTS | | | | | | | | | | | | | | |
| 61 | 89.0 | 86.0 | 90.4 | 77.0 | 1.17 | 1.06 | -0.34 | -0.35 | 7.4 | 7.6 | 176.4 | 158.6 | 168.1 | 151.2 |
| 62 | 89.7 | 86.9 | 92.1 | 79.4 | -0.19 | -0.19 | 0.06 | 0.05 | 6.8 | 6.5 | 172.1 | 175.4 | 148.4 | 151.2 |
| 63 | 88.5 | 86.0 | 90.9 | 78.1 | 1.96 | 1.73 | -0.55 | -0.42 | 7.2 | 5.5 | 208.9 | 175.3 | 180.1 | 151.2 |
| 64 | 90.0 | 86.9 | 92.9 | 80.0 | 0.40 | 0.36 | -0.11 | -0.11 | 6.8 | 6.4 | 238.2 | 229.4 | 157.0 | 151.2 |
| Avg. | 89.3 | 86.4 | 91.6 | 78.7 | 0.83 | 0.74 | -0.23 | -0.21 | 7.0 | 6.5 | 198.9 | 184.7 | 163.4 | 151.2 |
| Std Dv | 0.8 | 0.6 | 1.4 | 1.7 | 1.14 | 1.02 | 0.33 | 0.27 | 0.4 | 1.1 | 37.9 | 37.8 | 16.9 | 0.0 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | | |
| 57 | 91.3 | 88.3 | 96.3 | 83.6 | 1.81 | 1.61 | -0.39 | -0.41 | 5.6 | 5.8 | 228.7 | 194.3 | 177.9 | 151.2 |
| 58 | 92.6 | 89.7 | 96.4 | 83.4 | 0.69 | 0.61 | -0.18 | -0.18 | 6.4 | 6.5 | 191.7 | 180.0 | 160.9 | 151.2 |
| 59 | 91.7 | 88.7 | 97.2 | 84.0 | 1.00 | 0.90 | -0.22 | -0.23 | 5.6 | 5.9 | 201.4 | 184.1 | 165.4 | 151.2 |
| 60 | 91.5 | 88.9 | 95.7 | 82.8 | 1.49 | 1.32 | -0.36 | -0.37 | 6.2 | 6.4 | 222.3 | 194.8 | 172.5 | 151.2 |
| Avg. | 91.8 | 88.9 | 96.4 | 83.5 | 1.25 | 1.11 | -0.29 | -0.30 | 6.0 | 6.1 | 211.0 | 188.3 | 169.2 | 151.2 |
| Std Dv | 0.7 | 0.7 | 0.8 | 0.6 | 0.61 | 0.54 | 0.13 | 0.13 | 0.5 | 0.4 | 21.3 | 9.1 | 9.2 | 0.0 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 155 KTS | | | | | | | | | | | | | | |
| 65 | 93.3 | 90.2 | 98.7 | 86.0 | 0.73 | 0.65 | -0.15 | -0.14 | 5.4 | 5.2 | 245.2 | 230.1 | 161.1 | 151.2 |
| 66 | 93.4 | 89.6 | 97.7 | 84.6 | 0.47 | 0.43 | -0.11 | -0.11 | 5.9 | 5.7 | 167.8 | 160.8 | 157.7 | 151.2 |
| 67 | 93.3 | 89.6 | 98.5 | 85.3 | 0.35 | 0.31 | -0.07 | -0.07 | 5.1 | 5.2 | 207.1 | 200.9 | 155.9 | 151.2 |
| 68 | - | 88.9 | 96.5 | 83.3 | 0.76 | 0.69 | - | -0.19 | - | 6.2 | 179.2 | 167.2 | 162.0 | 151.2 |
| Avg. | 93.3 | 89.6 | 97.9 | 84.8 | 0.58 | 0.52 | -0.11 | -0.13 | 5.4 | 5.6 | 199.8 | 189.8 | 159.2 | 151.2 |
| Std Dv | 0.0 | 0.7 | 1.2 | 1.4 | 0.24 | 0.22 | 0.06 | 0.06 | 0.6 | 0.6 | 42.2 | 39.4 | 3.5 | 0.0 |

TABLE NO. B.2-1.3

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/16/81

CORRECTION DATA

| EV | CORRECTED | | | CORRECTIONS (dB) | | | CONSTANTS | | TRACKING DATA (ACTUAL) | | | TRACKING DATA (REFERENCE) | | |
|----------|-----------|------|-------|------------------|---------------|---------------|---------------|---------------|------------------------|------|------------------|---------------------------|-------|-------|
| | EPNL | NEL | PNLTH | dBAM | $\sqrt{1(P)}$ | $\sqrt{1(A)}$ | $\sqrt{2(P)}$ | $\sqrt{2(A)}$ | K(P) | K(A) | SR | CFA | SRR | CPAR |
| APPROACH | | | | | | | | | | | | | | |
| 34 | 94.7 | 91.3 | 96.7 | 82.2 | 1.09 | 1.05 | -0.33 | -0.35 | 6.3 | 6.7 | 154.8 | 137.4 | 150.9 | 133.9 |
| 36 | 94.9 | 91.3 | 96.8 | 83.5 | -0.12 | -0.11 | 0.03 | 0.03 | 6.9 | 6.8 | 136.3 | 137.5 | 132.7 | 133.9 |
| 40 | 95.7 | 92.5 | 98.3 | 85.9 | 0.09 | 0.09 | -0.03 | -0.03 | 6.1 | 5.6 | 150.3 | 148.3 | 135.6 | 133.9 |
| 42 | 95.2 | 92.0 | 97.4 | 85.2 | 0.20 | 0.20 | -0.08 | -0.07 | 6.9 | 6.0 | 156.2 | 152.3 | 137.3 | 133.9 |
| 44 | | | | | | | | | | | ND TRACKING DATA | | | |
| 54 | 94.9 | 91.8 | 97.8 | 85.0 | 0.08 | 0.07 | -0.03 | -0.03 | 6.2 | 6.2 | 163.0 | 161.5 | 135.2 | 133.9 |
| 56 | 94.5 | 91.2 | 96.6 | 84.3 | -0.17 | -0.17 | 0.05 | 0.05 | 6.9 | 6.2 | 162.8 | 165.7 | 131.6 | 133.9 |
| Avg. | 95.0 | 91.7 | 97.3 | 84.3 | 0.19 | 0.19 | -0.06 | -0.07 | 6.6 | 6.3 | 153.9 | 150.5 | 137.2 | 133.9 |
| Std Dv | 0.5 | 0.6 | 0.8 | 1.5 | 0.51 | 0.50 | 0.15 | 0.16 | 0.4 | 0.5 | 11.1 | 13.2 | 7.8 | 0.0 |
| TAKEOFF | | | | | | | | | | | | | | |
| 33 | 93.0 | 88.9 | 96.7 | 82.4 | 8.38 | 7.74 | -2.66 | -2.65 | 7.4 | 7.4 | 187.1 | 82.2 | 186.8 | 82.1 |
| 35 | 92.1 | 88.6 | 95.6 | 82.3 | 8.42 | 7.78 | -2.70 | -2.55 | 7.7 | 7.2 | 212.5 | 94.7 | 184.4 | 82.1 |
| 37 | 91.6 | 88.1 | 95.0 | 81.2 | 7.86 | 7.30 | -2.51 | -2.54 | 7.5 | 7.6 | 177.0 | 82.2 | 176.9 | 82.1 |
| 39 | 92.6 | 89.2 | 97.1 | 83.1 | 7.69 | 7.17 | -2.17 | -2.33 | 6.7 | 7.2 | 173.5 | 82.1 | 173.6 | 82.1 |
| 41 | 92.2 | 88.9 | 96.6 | 82.9 | 7.07 | 6.57 | -2.03 | -2.15 | 6.8 | 7.2 | 163.9 | 82.1 | 163.9 | 82.1 |
| 43 | 91.8 | 88.4 | 96.1 | 82.2 | 7.25 | 6.72 | -2.12 | -2.24 | 6.9 | 7.3 | 166.7 | 82.2 | 166.5 | 82.1 |
| 53 | 92.0 | 88.7 | 96.0 | 82.4 | 8.59 | 7.95 | -2.50 | -2.55 | 7.0 | 7.2 | 201.4 | 88.8 | 186.2 | 82.1 |
| 55 | 90.8 | 87.6 | 94.4 | 81.5 | 8.34 | 7.75 | -2.63 | -2.47 | 7.6 | 7.1 | 182.8 | 82.2 | 182.6 | 82.1 |
| Avg. | 92.0 | 88.6 | 95.9 | 82.2 | 7.95 | 7.37 | -2.41 | -2.43 | 7.2 | 7.3 | 183.1 | 84.6 | 177.6 | 82.1 |
| Std Dv | 0.7 | 0.5 | 1.0 | 0.7 | 0.62 | 0.56 | 0.29 | 0.19 | 0.4 | 0.2 | 18.2 | 5.1 | 9.6 | 0.0 |

JUNE 23, 1980

SITE: 3 CENTERLINE - 150 M. EAST

TABLE NO. B.2-2.3

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/18/81

CORRECTION DATA

| EV | CORRECTED | | | | CORRECTIONS (dB) | | | | CONSTANTS | | | | TRACKING DATA (METERS) | | | |
|---|-----------|------|-------|------|------------------|---------------|---------------|---------------|-----------|------|-------|-------|------------------------|-------|----------|-------------|
| | EPNL | NEL | PNLTM | dBAM | $\wedge 1(P)$ | $\wedge 1(A)$ | $\wedge 2(P)$ | $\wedge 2(A)$ | K(P) | K(A) | SR | CFA | SRR | CPAR | (ACTUAL) | (REFERENCE) |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 93 KTS | | | | | | | | | | | | | | | | |
| 21 | 88.4 | 85.7 | 90.1 | 77.1 | 0.41 | 0.42 | -0.18 | -0.17 | 6.9 | 6.7 | 178.6 | 168.3 | 160.5 | 151.2 | | |
| 22 | 87.9 | 85.2 | 89.7 | 77.6 | 0.24 | 0.26 | -0.14 | -0.13 | 7.6 | 7.1 | 373.5 | 358.1 | 157.7 | 151.2 | | |
| 23 | 87.5 | 84.8 | 89.1 | 75.9 | 0.34 | 0.36 | -0.17 | -0.18 | 7.4 | 7.6 | 179.9 | 170.4 | 159.6 | 151.2 | | |
| 24 | 88.5 | 85.6 | 90.7 | 76.8 | -0.19 | -0.15 | 0.00 | 0.00 | 7.3 | 7.8 | 305.5 | 305.9 | 151.0 | 151.2 | | |
| Avg. | 88.1 | 85.3 | 89.9 | 76.8 | 0.20 | 0.22 | -0.12 | -0.12 | 7.3 | 7.3 | 259.4 | 250.7 | 157.2 | 151.2 | | |
| Std Dv | 0.6 | 0.5 | 0.8 | 0.9 | 0.33 | 0.31 | 0.10 | 0.10 | 0.4 | 0.6 | 118.3 | 117.9 | 5.3 | 0.0 | | |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 109 KTS | | | | | | | | | | | | | | | | |
| 29 | 87.0 | 84.4 | 89.6 | 77.0 | -0.22 | -0.16 | 0.00 | 0.00 | 6.6 | 6.5 | 167.8 | 167.8 | 151.2 | 151.2 | | |
| 30 | 85.8 | 83.1 | 89.2 | 75.5 | 0.41 | 0.41 | -0.17 | -0.18 | 6.6 | 7.3 | 167.1 | 157.8 | 160.1 | 151.2 | | |
| 31 | 86.0 | 83.5 | 88.2 | 75.6 | 0.44 | 0.44 | -0.18 | -0.18 | 6.8 | 6.7 | 181.1 | 170.3 | 160.8 | 151.2 | | |
| 32 | 84.4 | 81.8 | 87.8 | 74.4 | 0.92 | 0.87 | -0.30 | -0.29 | 6.6 | 6.4 | 186.1 | 167.6 | 167.8 | 151.2 | | |
| Avg. | 85.8 | 83.2 | 88.7 | 75.6 | 0.39 | 0.39 | -0.16 | -0.16 | 6.6 | 6.7 | 175.5 | 165.9 | 160.0 | 151.2 | | |
| Std Dv | 1.3 | 1.3 | 1.0 | 1.3 | 0.57 | 0.52 | 0.15 | 0.15 | 0.1 | 0.5 | 11.7 | 6.8 | 8.4 | 0.0 | | |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 124 KTS | | | | | | | | | | | | | | | | |
| 49 | 87.7 | 85.1 | 91.3 | 78.7 | 0.00 | 0.01 | -0.02 | -0.02 | 6.8 | 6.9 | 190.2 | 189.0 | 152.1 | 151.2 | | |
| 50 | 87.2 | 84.4 | 90.2 | 77.5 | -0.67 | -0.61 | 0.16 | 0.16 | 6.7 | 6.6 | 167.9 | 177.6 | 142.9 | 151.2 | | |
| 51 | 86.1 | 83.6 | 90.0 | 76.6 | 0.67 | 0.61 | -0.17 | -0.18 | 6.2 | 6.5 | 188.4 | 176.5 | 161.4 | 151.2 | | |
| 52 | 87.1 | 84.5 | 90.3 | 78.0 | 1.25 | 1.14 | -0.36 | -0.34 | 7.0 | 6.6 | 180.0 | 159.8 | 170.3 | 151.2 | | |
| Avg. | 87.0 | 84.4 | 90.5 | 77.7 | 0.31 | 0.29 | -0.10 | -0.09 | 6.7 | 6.7 | 181.6 | 175.7 | 156.7 | 151.2 | | |
| Std Dv | 0.8 | 0.8 | 0.7 | 1.1 | 1.02 | 0.93 | 0.27 | 0.26 | 0.4 | 0.2 | 12.5 | 14.7 | 14.4 | 0.0 | | |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | | | | |
| 17 | 89.4 | 86.8 | 91.9 | 79.3 | 0.23 | 0.23 | -0.13 | -0.13 | 7.1 | 7.1 | 158.2 | 151.7 | 157.6 | 151.2 | | |
| 18 | 88.1 | 85.3 | 93.0 | 79.6 | -0.81 | -0.71 | 0.15 | 0.15 | 6.4 | 6.6 | 162.1 | 171.0 | 143.3 | 151.2 | | |
| 19 | 89.4 | 87.0 | 92.9 | 80.9 | 0.64 | 0.63 | -0.23 | -0.22 | 6.5 | 6.2 | 183.8 | 169.3 | 164.1 | 151.2 | | |
| 20 | 87.6 | 84.9 | 92.5 | 79.6 | 0.72 | 0.69 | -0.23 | -0.24 | 6.0 | 6.1 | 191.5 | 175.2 | 165.2 | 151.2 | | |
| Avg. | 88.6 | 86.0 | 92.6 | 79.8 | 0.19 | 0.21 | -0.11 | -0.11 | 6.5 | 6.5 | 173.9 | 166.8 | 157.6 | 151.2 | | |
| Std Dv | 1.1 | 1.3 | 0.6 | 0.9 | 0.86 | 0.79 | 0.22 | 0.22 | 0.6 | 0.5 | 19.9 | 12.7 | 12.4 | 0.0 | | |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 155 KTS | | | | | | | | | | | | | | | | |
| 25 | 90.1 | 87.1 | 93.3 | 81.0 | 0.48 | 0.48 | -0.18 | -0.18 | 6.5 | 6.4 | 165.0 | 154.6 | 161.4 | 151.2 | | |
| 26 | 90.8 | 87.7 | 94.9 | 81.8 | 0.78 | 0.75 | -0.27 | -0.28 | 6.8 | 6.9 | 180.6 | 164.6 | 165.9 | 151.2 | | |
| 27 | 92.1 | 88.8 | 96.1 | 83.0 | -0.44 | -0.39 | 0.06 | 0.06 | 6.2 | 6.4 | 148.0 | 151.4 | 147.8 | 151.2 | | |
| 28 | 91.2 | 88.1 | 95.5 | 81.8 | 0.01 | 0.03 | -0.06 | -0.06 | 6.5 | 7.0 | 159.8 | 156.6 | 154.2 | 151.2 | | |
| Avg. | 91.0 | 87.9 | 95.0 | 81.9 | 0.21 | 0.22 | -0.11 | -0.11 | 6.5 | 6.7 | 163.4 | 156.8 | 157.3 | 151.2 | | |
| Std Dv | 1.0 | 0.9 | 1.5 | 1.0 | 0.66 | 0.62 | 0.18 | 0.18 | 0.3 | 0.4 | 16.6 | 6.9 | 9.8 | 0.0 | | |

JUNE 23, 1980

SITE: 3 CENTERLINE - 150 M. EAST

TABLE NO. B.2-3.3

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/18/81

CORRECTION DATA

| CORRECTED | | CORRECTIONS (dB) | | | | CONSTANTS | | TRACKING DATA (METERS) | | | | | | |
|--|------|------------------|-------|------|---------------|---------------|---------------|------------------------|------|------|------------------|-------|-------|-------|
| EV | EPNL | NEL | PNLTM | dBRM | $\wedge 1(P)$ | $\wedge 1(A)$ | $\wedge 2(P)$ | $\wedge 2(A)$ | K(P) | K(A) | SR | CPA | SRR | CPAR |
| 300 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | | |
| 9 | 93.1 | 90.2 | 97.9 | 84.8 | -0.41 | -0.38 | 0.07 | 0.07 | 5.9 | 6.1 | 89.4 | 91.9 | 87.7 | 90.2 |
| 10 | 92.1 | 89.2 | 98.4 | 85.3 | 0.33 | 0.32 | -0.11 | -0.11 | 5.1 | 5.4 | 110.7 | 105.6 | 94.6 | 90.2 |
| 15 | 90.9 | 88.1 | 95.6 | 83.3 | 0.12 | 0.13 | -0.07 | -0.06 | 6.1 | 5.6 | 100.5 | 98.0 | 92.5 | 90.2 |
| 16 | 91.1 | 87.9 | 97.0 | 83.6 | 0.22 | 0.23 | -0.09 | -0.09 | 5.6 | 5.9 | 103.5 | 99.8 | 93.6 | 90.2 |
| Avg. | 91.8 | 88.8 | 97.2 | 84.2 | 0.06 | 0.07 | -0.05 | -0.05 | 5.7 | 5.8 | 101.0 | 98.8 | 92.1 | 90.2 |
| Std Dv | 1.3 | 1.3 | 1.5 | 1.2 | 0.40 | 0.38 | 0.10 | 0.10 | 0.5 | 0.4 | 10.9 | 6.9 | 3.7 | 0.0 |
| 700 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | | |
| 7 | 89.4 | 87.2 | 92.0 | 80.3 | 0.87 | 0.83 | -0.30 | -0.29 | 6.6 | 6.3 | 285.9 | 257.2 | 235.8 | 212.1 |
| 8 | 87.7 | 85.9 | 91.2 | 78.7 | 1.10 | 1.03 | -0.38 | -0.40 | 7.0 | 7.4 | 251.0 | 221.9 | 240.0 | 212.1 |
| 13 | 86.7 | 84.7 | 88.9 | 77.5 | 0.55 | 0.55 | -0.24 | -0.22 | 6.8 | 6.5 | 282.9 | 261.3 | 229.6 | 212.1 |
| 14 | 86.6 | 84.4 | 89.9 | 77.3 | -0.83 | -0.74 | 0.13 | 0.14 | 6.9 | 7.0 | 221.6 | 231.8 | 202.9 | 212.1 |
| Avg. | 87.6 | 85.6 | 90.5 | 78.5 | 0.42 | 0.42 | -0.20 | -0.19 | 6.8 | 6.8 | 260.4 | 243.0 | 227.1 | 212.1 |
| Std Dv | 1.6 | 1.6 | 1.7 | 1.7 | 1.06 | 0.98 | 0.28 | 0.29 | 0.2 | 0.7 | 37.0 | 23.5 | 20.4 | 0.0 |
| 1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | | |
| 45 | 83.3 | 81.7 | 85.4 | 73.7 | 0.04 | 0.06 | -0.05 | -0.05 | 7.1 | 7.2 | 320.3 | 315.4 | 308.3 | 303.6 |
| 46 | 84.3 | 82.4 | 84.8 | 72.6 | 0.34 | 0.32 | -0.12 | -0.12 | 7.1 | 7.2 | 443.2 | 426.2 | 315.7 | 303.6 |
| 47 | 83.6 | 81.9 | 85.0 | 74.1 | 0.36 | 0.33 | -0.13 | -0.11 | 7.3 | 6.7 | 369.7 | 355.4 | 315.9 | 303.6 |
| 48 | 84.3 | 82.4 | 86.1 | 75.2 | 0.14 | 0.13 | -0.06 | -0.06 | 6.7 | 6.4 | 369.5 | 361.8 | 310.0 | 303.6 |
| 1 | | | | | | | | | | | NO TRACKING DATA | | | |
| 2 | | | | | | | | | | | NO TRACKING DATA | | | |
| 3 | | | | | | | | | | | NO TRACKING DATA | | | |
| 4 | | | | | | | | | | | NO TRACKING DATA | | | |
| Avg. | 83.9 | 82.1 | 85.3 | 73.9 | 0.22 | 0.21 | -0.09 | -0.08 | 7.0 | 6.9 | 375.7 | 364.7 | 312.5 | 303.6 |
| Std Dv | 0.6 | 0.4 | 0.7 | 1.3 | 0.19 | 0.17 | 0.05 | 0.04 | 0.3 | 0.5 | 62.0 | 56.2 | 4.7 | 0.0 |
| 1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | | |
| 5 | 83.1 | 81.9 | 83.0 | 72.8 | 0.22 | 0.19 | -0.18 | -0.17 | 7.2 | 6.9 | 561.4 | 529.9 | 483.0 | 456.0 |
| 6 | 81.9 | 80.9 | 82.3 | 71.1 | -0.33 | -0.22 | -0.13 | -0.13 | 7.6 | 7.7 | 745.0 | 716.4 | 474.2 | 456.0 |
| 11 | | | | | | | | | | | NO TRACKING DATA | | | |
| 12 | 80.6 | 79.7 | 80.4 | 69.0 | -1.24 | -0.99 | 0.08 | 0.08 | 7.8 | 8.1 | 680.8 | 696.5 | 445.7 | 456.0 |
| Avg. | 81.9 | 80.8 | 81.9 | 71.0 | -0.45 | -0.34 | -0.08 | -0.07 | 7.5 | 7.6 | 662.4 | 647.6 | 467.6 | 456.0 |
| Std Dv | 1.7 | 1.5 | 1.9 | 2.7 | 1.04 | 0.85 | 0.20 | 0.19 | 0.4 | 0.9 | 131.8 | 144.8 | 27.6 | 0.0 |

JUNE 23, 1980

CENTERLINE - 150 M. EAST

SITE: 3

TABLE NO. B-2-4.3

SIKORSKY S-76 SPIRIT HELICOPTER

BOT/TSC
12/17/81

CORRECTION DATA - MAIN ROTOR RPM 107%

JUNE 23, 1980

SITE: 3

CENTERLINE - 150 M. EAST

| EV | CORRECTED | | | CORRECTIONS (dB) | | | | CONSTANTS | | TRACKING DATA (METERS) (ACTUAL) | | | TRACKING DATA (METERS) (REFERENCE) | |
|---|-----------|------|-------|------------------|---------------|---------------|---------------|---------------|------|------------------------------------|-------|-------|---------------------------------------|-------|
| | EPNL | NEL | PNLTH | dBAM | $\wedge 1(P)$ | $\wedge 1(A)$ | $\wedge 2(P)$ | $\wedge 2(A)$ | K(P) | K(A) | SR | CPA | SRR | CPAR |
| APPROACH | | | | | | | | | | | | | | |
| 69 | 95.6 | 92.3 | 96.8 | 83.6 | -0.14 | -0.14 | 0.05 | 0.05 | 7.2 | 7.1 | 137.7 | 139.8 | 131.9 | 133.9 |
| 70 | 95.6 | 92.4 | 98.0 | 84.6 | -0.17 | -0.18 | 0.06 | 0.06 | 6.7 | 6.9 | 135.7 | 138.3 | 131.4 | 133.9 |
| Avs. | 95.6 | 92.4 | 97.4 | 84.1 | -0.15 | -0.16 | 0.05 | 0.05 | 7.0 | 7.0 | 136.7 | 139.1 | 131.6 | 133.9 |
| Std Dv | 0.0 | 0.1 | 0.8 | 0.7 | 0.02 | 0.03 | 0.01 | 0.01 | 0.4 | 0.1 | 1.4 | 1.0 | 0.4 | 0.0 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 93 KTS | | | | | | | | | | | | | | |
| 61 | 87.9 | 85.1 | 90.5 | 77.4 | 0.77 | 0.68 | -0.19 | -0.19 | 6.3 | 6.3 | 193.6 | 180.7 | 162.0 | 151.2 |
| 62 | 89.2 | 86.6 | 91.2 | 78.5 | 0.09 | 0.07 | -0.02 | -0.02 | 6.4 | 6.4 | 169.9 | 168.7 | 152.3 | 151.2 |
| 63 | 88.6 | 85.5 | 91.1 | 77.8 | 2.11 | 1.89 | -0.59 | -0.60 | 7.1 | 7.3 | 205.0 | 169.7 | 182.7 | 151.2 |
| 64 | 88.7 | 85.6 | 91.2 | 78.4 | 0.79 | 0.71 | -0.20 | -0.20 | 6.6 | 6.6 | 188.8 | 175.8 | 162.4 | 151.2 |
| Avs. | 88.6 | 85.7 | 91.0 | 78.0 | 0.94 | 0.84 | -0.25 | -0.25 | 6.6 | 6.6 | 189.3 | 173.7 | 164.8 | 151.2 |
| Std Dv | 0.7 | 0.8 | 0.4 | 0.6 | 1.04 | 0.93 | 0.30 | 0.30 | 0.5 | 0.6 | 17.9 | 6.9 | 15.6 | 0.0 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | | |
| 57 | 90.4 | 87.5 | 94.3 | 81.4 | 1.80 | 1.62 | -0.46 | -0.51 | 6.5 | 7.1 | 212.0 | 179.9 | 178.2 | 151.2 |
| 58 | 91.5 | 89.0 | 96.1 | 84.1 | 0.70 | 0.64 | -0.17 | -0.16 | 5.8 | 5.4 | 187.1 | 175.2 | 161.4 | 151.2 |
| 59 | 90.4 | 87.8 | 94.7 | 81.9 | 0.53 | 0.60 | -0.17 | -0.18 | 6.4 | 6.7 | 168.0 | 157.9 | 160.8 | 151.2 |
| 60 | 90.9 | 88.2 | 95.2 | 82.9 | 0.85 | 0.77 | -0.21 | -0.22 | 6.1 | 6.3 | 180.6 | 167.0 | 163.5 | 151.2 |
| Avs. | 90.8 | 88.1 | 95.1 | 82.6 | 0.97 | 0.91 | -0.25 | -0.27 | 6.2 | 6.4 | 186.9 | 170.0 | 166.0 | 151.2 |
| Std Dv | 0.6 | 0.8 | 1.0 | 1.5 | 0.70 | 0.59 | 0.17 | 0.20 | 0.4 | 0.9 | 22.7 | 11.9 | 10.0 | 0.0 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 155 KTS | | | | | | | | | | | | | | |
| 65 | 91.8 | 88.3 | 95.2 | 81.9 | 1.18 | 1.05 | -0.31 | -0.31 | 6.8 | 6.8 | 215.5 | 194.1 | 167.8 | 151.2 |
| 66 | - | 89.4 | 97.4 | 84.2 | 0.37 | 0.33 | - | -0.09 | - | 5.9 | 177.0 | 171.2 | 156.3 | 151.2 |
| 67 | 91.6 | 88.2 | 95.0 | 82.2 | 0.81 | 0.73 | -0.22 | -0.22 | 6.9 | 6.8 | 182.2 | 169.1 | 162.8 | 151.2 |
| 68 | 91.5 | 87.7 | 96.9 | 83.9 | 0.61 | 0.59 | -0.14 | -0.14 | 5.2 | 5.2 | 189.5 | 178.4 | 160.6 | 151.2 |
| Avs. | 91.6 | 88.4 | 96.1 | 83.0 | 0.74 | 0.67 | -0.22 | -0.19 | 6.3 | 6.2 | 191.0 | 178.2 | 161.9 | 151.2 |
| Std Dv | 0.2 | 0.9 | 1.5 | 1.4 | 0.42 | 0.37 | 0.12 | 0.12 | 1.4 | 1.0 | 21.0 | 13.9 | 5.9 | 0.0 |

TABLE NO. B.2-1.4

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/18/81

CORRECTION DATA

JUNE 23, 1980

SITE: 4 SIDELINE - 164 M. NORTH

| EV | CORRECTED | | | CORRECTIONS (dB) | | | | CONSTANTS | | TRACKING DATA (METERS) (ACTUAL) | | | | |
|----------|-----------|------|-------|------------------|---------------|---------------|---------------|---------------|------|------------------------------------|-------|-------|-------|-------|
| | EPNL | NEL | PNLTM | dBAM | $\sqrt{1(P)}$ | $\sqrt{1(A)}$ | $\sqrt{2(P)}$ | $\sqrt{2(A)}$ | K(P) | K(A) | SR | CPA | SRR | CPAR |
| APPROACH | | | | | | | | | | | | | | |
| 34 | 93.2 | 90.1 | 94.5 | 80.6 | -0.81 | -0.76 | 0.22 | 0.23 | 6.5 | 6.8 | 181.8 | 196.5 | 176.7 | 191.0 |
| 36 | 92.4 | 89.9 | 93.9 | 81.4 | -1.16 | -1.08 | 0.33 | 0.33 | 6.7 | 6.7 | 178.0 | 199.2 | 170.6 | 191.0 |
| 40 | 93.4 | 90.6 | 94.3 | 81.8 | -0.66 | -0.60 | 0.18 | 0.17 | 7.2 | 7.0 | 290.5 | 307.4 | 180.5 | 191.0 |
| 42 | 93.3 | 90.7 | 93.2 | 80.7 | -0.80 | -0.74 | 0.24 | 0.24 | 7.7 | 7.6 | 265.7 | 285.6 | 177.7 | 191.0 |
| 44 | 94.3 | 91.3 | 96.0 | 82.9 | 0.11 | 0.11 | -0.05 | -0.05 | 6.9 | 6.9 | 212.6 | 209.4 | 193.9 | 191.0 |
| 54 | 92.2 | 89.9 | 92.2 | 80.1 | -0.32 | -0.29 | 0.09 | 0.09 | 7.4 | 7.3 | 304.7 | 313.2 | 185.8 | 191.0 |
| 56 | 91.9 | 89.2 | 91.8 | 79.7 | 0.13 | 0.12 | -0.05 | -0.04 | 7.6 | 7.1 | 319.3 | 314.9 | 193.6 | 191.0 |
| Avg. | 92.9 | 90.3 | 93.7 | 81.0 | -0.50 | -0.46 | 0.14 | 0.14 | 7.2 | 7.1 | 250.4 | 260.9 | 182.7 | 191.0 |
| Std Dv | 0.9 | 0.7 | 1.6 | 1.2 | 0.54 | 0.50 | 0.16 | 0.16 | 0.5 | 0.3 | 64.7 | 61.7 | 9.7 | 0.0 |
| TAKEOFF | | | | | | | | | | | | | | |
| 33 | 92.3 | 88.7 | 93.3 | 79.5 | 0.47 | 0.46 | -0.19 | -0.19 | 7.5 | 7.7 | 199.9 | 188.8 | 195.8 | 184.9 |
| 35 | 91.9 | 88.9 | 92.8 | 80.4 | 0.67 | 0.64 | -0.24 | -0.23 | 7.5 | 7.2 | 207.4 | 192.7 | 198.9 | 184.9 |
| 37 | 91.7 | 88.7 | 92.6 | 80.2 | 0.19 | 0.17 | -0.08 | -0.08 | 7.3 | 7.0 | 190.4 | 185.6 | 189.6 | 184.9 |
| 39 | 92.1 | 89.0 | 92.6 | 80.2 | 0.63 | 0.59 | -0.23 | -0.21 | 7.7 | 7.2 | 207.0 | 193.4 | 197.8 | 184.9 |
| 41 | 91.5 | 88.7 | 92.7 | 80.1 | 0.20 | 0.18 | -0.08 | -0.08 | 7.3 | 7.3 | 200.6 | 195.6 | 189.6 | 184.9 |
| 43 | 91.2 | 88.3 | 92.1 | 79.6 | 0.22 | 0.20 | -0.08 | -0.08 | 7.2 | 6.9 | 191.0 | 186.0 | 189.9 | 184.9 |
| 53 | 91.4 | 88.0 | 92.4 | 79.4 | 1.29 | 1.14 | -0.40 | -0.39 | 7.8 | 7.5 | 209.0 | 185.7 | 208.1 | 184.9 |
| 55 | 91.1 | 87.6 | 92.1 | 78.6 | 1.11 | 1.05 | -0.35 | -0.35 | 7.4 | 7.5 | 214.5 | 192.3 | 206.2 | 184.9 |
| Avg. | 91.6 | 88.5 | 92.6 | 79.8 | 0.60 | 0.55 | -0.21 | -0.20 | 7.5 | 7.3 | 202.5 | 190.0 | 197.0 | 184.9 |
| Std Dv | 0.5 | 0.5 | 0.4 | 0.6 | 0.45 | 0.41 | 0.13 | 0.13 | 0.2 | 0.3 | 9.3 | 4.3 | 7.9 | 0.0 |

TABLE NO. B.2-2.4

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/18/81

CORRECTION DATA

SITE: 4

SIDELINE - 164 M. NORTH

JUNE 23, 1980

| EV | CORRECTED | | | CORRECTIONS (dB) | | | | CONSTANTS | | | TRACKING DATA (ACTUAL) | | | TRACKING DATA (REFERENCE) | | |
|---|-----------|------|-------|------------------|---------------|---------------|---------------|---------------|------|------|------------------------|-------|-------|---------------------------|--|--|
| | EPNL | NEL | PNLTH | dBAM | $\wedge 1(P)$ | $\wedge 1(A)$ | $\wedge 2(P)$ | $\wedge 2(A)$ | K(P) | K(A) | SR | GPA | SRR | CPAR | | |
| 500 FT. FLYBY - TARGET INDICATED AIRSPEED 93 KTS | | | | | | | | | | | | | | | | |
| 21 | 87.7 | 85.7 | 88.3 | 76.3 | 0.07 | 0.12 | -0.11 | -0.11 | 7.4 | 7.5 | 235.9 | 228.2 | 220.1 | 212.9 | | |
| 22 | 89.3 | 86.7 | 91.2 | 77.7 | 0.01 | 0.01 | -0.05 | -0.05 | 7.1 | 7.7 | 253.9 | 249.8 | 216.5 | 212.9 | | |
| 23 | 85.4 | 83.2 | 84.9 | 72.4 | -2.05 | -1.95 | 0.59 | 0.59 | 7.5 | 7.4 | 185.9 | 223.1 | 177.4 | 212.9 | | |
| 24 | 87.2 | 84.7 | 88.0 | 74.1 | -1.28 | -1.24 | 0.35 | 0.39 | 7.2 | 7.9 | 193.5 | 216.6 | 190.2 | 212.9 | | |
| Avg. | 87.4 | 85.1 | 88.1 | 75.1 | -0.81 | -0.76 | 0.19 | 0.20 | 7.3 | 7.6 | 217.3 | 229.4 | 201.1 | 212.9 | | |
| Std Dv | 1.9 | 1.9 | 3.2 | 2.8 | 1.27 | 1.23 | 0.41 | 0.42 | 0.2 | 0.3 | 40.3 | 17.6 | 25.3 | 0.0 | | |
| 500 FT. FLYBY - TARGET INDICATED AIRSPEED 109 KTS | | | | | | | | | | | | | | | | |
| 29 | 87.8 | 85.5 | 88.8 | 76.4 | -0.33 | -0.23 | 0.02 | 0.02 | 7.4 | 7.4 | 214.8 | 216.0 | 211.7 | 212.9 | | |
| 30 | 86.6 | 84.8 | 88.4 | 76.5 | -0.92 | -0.88 | 0.20 | 0.21 | 6.9 | 7.1 | 241.9 | 258.6 | 199.1 | 212.9 | | |
| 31 | 87.2 | 85.1 | 88.6 | 76.3 | -0.20 | -0.12 | -0.02 | -0.02 | 7.3 | 7.4 | 217.1 | 215.9 | 214.2 | 212.9 | | |
| 32 | 87.4 | 85.5 | 89.4 | 77.3 | 0.59 | 0.58 | -0.23 | -0.23 | 6.9 | 7.1 | 230.8 | 214.0 | 229.7 | 212.9 | | |
| Avg. | 87.2 | 85.2 | 88.8 | 76.7 | -0.21 | -0.16 | -0.01 | -0.01 | 7.1 | 7.2 | 226.2 | 226.1 | 213.7 | 212.9 | | |
| Std Dv | 0.6 | 0.4 | 0.6 | 0.5 | 0.76 | 0.73 | 0.22 | 0.22 | 0.3 | 0.2 | 15.5 | 26.6 | 15.3 | 0.0 | | |
| 500 FT. FLYBY - TARGET INDICATED AIRSPEED 124 KTS | | | | | | | | | | | | | | | | |
| 49 | 86.4 | 84.4 | 88.9 | 78.9 | -0.15 | -0.12 | - | 0.02 | - | 7.1 | 222.6 | 224.1 | 211.5 | 212.9 | | |
| 50 | 87.9 | 85.6 | 90.5 | 78.0 | -0.20 | -0.21 | 0.05 | 0.05 | 7.0 | 7.2 | 245.4 | 249.2 | 209.7 | 212.9 | | |
| 51 | 87.7 | 85.9 | 89.3 | 78.0 | -0.11 | -0.12 | 0.02 | 0.02 | 7.1 | 7.0 | 228.9 | 230.6 | 211.4 | 212.9 | | |
| 52 | 87.9 | 85.2 | 90.9 | 77.4 | 0.50 | 0.47 | -0.14 | -0.16 | 6.5 | 7.4 | 282.7 | 268.7 | 224.0 | 212.9 | | |
| Avg. | 87.8 | 85.8 | 90.3 | 78.1 | 0.01 | 0.01 | -0.02 | -0.02 | 6.9 | 7.2 | 244.9 | 243.2 | 214.2 | 212.9 | | |
| Std Dv | 0.2 | 0.6 | 0.8 | 0.8 | 0.40 | 0.38 | 0.14 | 0.12 | 0.5 | 0.3 | 33.0 | 24.6 | 8.1 | 0.0 | | |
| 500 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | | | | |
| 17 | 88.9 | 86.5 | 91.2 | 78.5 | -1.47 | -1.26 | 0.31 | 0.31 | 6.7 | 6.9 | 207.2 | 230.2 | 191.7 | 212.9 | | |
| 18 | 89.8 | 88.3 | 93.3 | 81.9 | -0.72 | -0.57 | 0.09 | 0.09 | 6.6 | 6.6 | 262.7 | 271.3 | 206.2 | 212.9 | | |
| 19 | 89.7 | 87.3 | 92.2 | 79.8 | -0.34 | -0.37 | 0.05 | 0.05 | 7.0 | 6.9 | 243.3 | 246.9 | 209.8 | 212.9 | | |
| 20 | 89.5 | 87.8 | 93.1 | 81.3 | -0.27 | -0.16 | -0.02 | -0.02 | 6.4 | 6.5 | 274.6 | 272.3 | 214.7 | 212.9 | | |
| Avg. | 89.5 | 87.5 | 92.5 | 80.4 | -0.70 | -0.59 | 0.11 | 0.11 | 6.7 | 6.7 | 246.9 | 255.2 | 205.6 | 212.9 | | |
| Std Dv | 0.5 | 1.0 | 1.2 | 1.9 | 0.67 | 0.58 | 0.17 | 0.17 | 0.3 | 0.2 | 36.1 | 25.0 | 12.1 | 0.0 | | |
| 500 FT. FLYBY - TARGET INDICATED AIRSPEED 155 KTS | | | | | | | | | | | | | | | | |
| 25 | 93.9 | 90.3 | 97.7 | 84.2 | 1.44 | 1.34 | -0.46 | -0.46 | 6.9 | 6.9 | 281.0 | 240.9 | 248.4 | 212.9 | | |
| 26 | 91.4 | 89.0 | 94.4 | 82.1 | -0.98 | -0.96 | 0.23 | 0.23 | 6.8 | 6.7 | 228.4 | 247.2 | 196.7 | 212.9 | | |
| 27 | 93.6 | 89.4 | 96.3 | 82.5 | -1.13 | -1.14 | 0.28 | 0.29 | 6.8 | 6.9 | 232.7 | 256.1 | 193.5 | 212.9 | | |
| 28 | 91.6 | 89.3 | 94.4 | 82.6 | -1.44 | -1.31 | 0.34 | 0.33 | 7.1 | 6.8 | 237.5 | 265.4 | 190.5 | 212.9 | | |
| Avg. | 92.6 | 89.5 | 95.7 | 82.9 | -0.53 | -0.52 | 0.10 | 0.10 | 6.9 | 6.9 | 244.9 | 252.4 | 207.3 | 212.9 | | |
| Std Dv | 1.6 | 0.7 | 1.9 | 1.1 | 1.62 | 1.53 | 0.46 | 0.46 | 0.2 | 0.1 | 29.8 | 13.1 | 33.7 | 0.0 | | |

TABLE NO. B.2-3.4

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/18/81

CORRECTION DATA

JUNE 23, 1980

SITE: 4 SIDELINE - 164 M. NORTH

| EV | CORRECTED | | | | CORRECTIONS (dB) | | | | CONSTANTS | | | TRACKING DATA (METERS) | | |
|--|-----------|------|-------|------|------------------|---------------|---------------|---------------|-----------|------|-------|------------------------|-------|-------|
| | EPNL | NEL | PNLTH | dBAM | $\wedge 1(P)$ | $\wedge 1(A)$ | $\wedge 2(P)$ | $\wedge 2(A)$ | K(P) | K(A) | SR | CPA | SRR | CPAR |
| 300 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | | |
| 9 | 92.1 | 89.2 | 95.8 | 82.9 | 0.22 | 0.24 | -0.13 | -0.13 | 6.9 | 7.1 | 204.6 | 196.0 | 182.7 | 175.0 |
| 10 | 92.1 | 89.7 | 96.4 | 84.0 | 0.47 | 0.42 | -0.17 | -0.17 | 6.5 | 6.6 | 207.7 | 195.5 | 185.8 | 175.0 |
| 15 | 91.2 | 88.3 | 95.3 | 82.6 | -0.22 | -0.19 | 0.01 | 0.01 | 6.2 | 6.4 | 175.4 | 175.9 | 174.6 | 175.0 |
| 16 | 92.3 | 90.2 | 95.6 | 83.4 | -0.55 | -0.55 | 0.11 | 0.12 | 7.1 | 7.5 | 208.3 | 216.0 | 168.8 | 175.0 |
| Avg. | 91.9 | 89.4 | 95.8 | 83.2 | -0.02 | -0.02 | -0.04 | -0.04 | 6.7 | 6.9 | 199.0 | 195.9 | 178.0 | 175.0 |
| Std Dv | 0.6 | 1.0 | 0.6 | 0.8 | 0.56 | 0.53 | 0.16 | 0.16 | 0.5 | 0.6 | 19.4 | 20.1 | 9.5 | 0.0 |
| 700 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | | |
| 7 | 88.7 | 86.2 | 89.8 | 77.5 | 0.62 | 0.55 | -0.26 | -0.25 | 7.6 | 7.5 | 344.4 | 318.5 | 280.9 | 259.8 |
| 8 | 87.2 | 85.4 | 89.9 | 77.4 | -0.81 | -0.83 | 0.14 | 0.14 | 6.9 | 7.3 | 399.0 | 417.6 | 248.2 | 259.8 |
| 13 | 88.9 | 86.6 | 90.5 | 78.0 | 0.03 | 0.10 | -0.11 | -0.11 | 7.3 | 7.4 | 276.8 | 267.7 | 268.6 | 259.8 |
| 14 | 87.7 | 85.9 | 89.1 | 77.5 | -1.38 | -1.33 | 0.37 | 0.36 | 7.6 | 7.5 | 245.9 | 274.9 | 232.4 | 259.8 |
| Avg. | 88.1 | 86.0 | 89.8 | 77.6 | -0.38 | -0.38 | 0.03 | 0.03 | 7.3 | 7.4 | 316.5 | 319.7 | 257.5 | 259.8 |
| Std Dv | 1.0 | 0.6 | 0.7 | 0.4 | 1.08 | 1.05 | 0.34 | 0.33 | 0.4 | 0.1 | 84.1 | 84.5 | 26.4 | 0.0 |
| 1000 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | | |
| 45 | 86.4 | 84.4 | 88.3 | 76.0 | 0.13 | 0.11 | -0.06 | -0.06 | 7.2 | 7.3 | 439.2 | 430.4 | 345.5 | 338.6 |
| 46 | 85.9 | 83.8 | 86.3 | 74.4 | 0.42 | 0.39 | -0.15 | -0.14 | 7.5 | 7.4 | 454.5 | 434.4 | 354.2 | 338.6 |
| 47 | 86.6 | 84.3 | 88.7 | 75.2 | 0.16 | 0.14 | -0.06 | -0.07 | 6.8 | 7.6 | 455.1 | 445.1 | 346.1 | 338.6 |
| 48 | 86.2 | 83.8 | 86.9 | 74.7 | -0.21 | -0.22 | 0.04 | 0.04 | 7.5 | 7.4 | 445.2 | 450.4 | 334.7 | 338.6 |
| 1 | | | | | | | | | | | | | | |
| 2 | | | | | | | | | | | | | | |
| 3 | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | |
| Avg. | 86.3 | 84.1 | 87.6 | 75.1 | 0.12 | 0.10 | -0.06 | -0.06 | 7.2 | 7.4 | 448.5 | 440.1 | 345.1 | 338.6 |
| Std Dv | 0.4 | 0.4 | 1.4 | 0.8 | 0.32 | 0.31 | 0.10 | 0.09 | 0.4 | 0.2 | 9.4 | 11.3 | 9.8 | 0.0 |
| 1500 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | | |
| 5 | 83.1 | 81.3 | 82.1 | 70.8 | -0.07 | 0.06 | -0.14 | -0.14 | 7.9 | 7.7 | 503.2 | 483.0 | 500.1 | 480.0 |
| 6 | 83.2 | 81.4 | 82.9 | 71.0 | 0.10 | 0.02 | -0.13 | -0.13 | 7.7 | 7.7 | 538.9 | 518.9 | 498.4 | 480.0 |
| 11 | | | | | | | | | | | | | | |
| 12 | 82.4 | 80.7 | 82.6 | 70.7 | -1.04 | -1.08 | 0.15 | 0.16 | 7.7 | 7.8 | 669.0 | 700.5 | 458.4 | 480.0 |
| Avg. | 82.9 | 81.1 | 82.6 | 70.8 | -0.34 | -0.33 | -0.04 | -0.04 | 7.8 | 7.7 | 570.4 | 567.5 | 485.6 | 480.0 |
| Std Dv | 0.7 | 0.6 | 0.6 | 0.2 | 0.87 | 0.91 | 0.23 | 0.24 | 0.2 | 0.1 | 123.4 | 164.9 | 33.4 | 0.0 |

NO TRACKING DATA
NO TRACKING DATA
NO TRACKING DATA

TABLE NO. B.2-4.4

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/18/81

CORRECTION DATA - MAIN ROTOR RPM 107%

JUNE 23, 1980

SIDELINE - 164 M. NORTH

SITE: 4

| EV | CORRECTED | | | | CORRECTIONS (dB) | | | | CONSTANTS | | | | TRACKING DATA (METERS) | | | |
|---|-----------|------|-------|------|------------------|---------------|---------------|---------------|-----------|------|-------|-------|------------------------|-------|--|--|
| | EPNL | NEL | PNLTM | dBAM | $\wedge 1(P)$ | $\wedge 1(A)$ | $\wedge 2(P)$ | $\wedge 2(A)$ | K(P) | K(A) | SR | CPA | SRR | CPAR | | |
| APPROACH | | | | | | | | | | | | | | | | |
| 69 | 91.8 | 89.1 | 93.2 | 79.8 | -0.43 | -0.41 | 0.14 | 0.14 | 7.1 | 7.5 | 194.7 | 203.4 | 182.8 | 191.0 | | |
| 70 | 92.3 | 89.8 | 94.5 | 81.0 | 0.24 | 0.22 | -0.06 | -0.07 | 6.3 | 7.0 | 234.4 | 229.1 | 195.4 | 191.0 | | |
| Avg. | 92.0 | 89.4 | 93.8 | 80.4 | -0.09 | -0.09 | 0.04 | 0.03 | 6.7 | 7.2 | 214.6 | 216.3 | 189.1 | 191.0 | | |
| Std Dev | 0.3 | 0.5 | 0.9 | 0.8 | 0.47 | 0.45 | 0.14 | 0.15 | 0.6 | 0.4 | 28.1 | 18.2 | 8.9 | 0.0 | | |
| 500 FT. FLYBY - TARGET INDICATED AIRSPEED 93 KTS | | | | | | | | | | | | | | | | |
| 61 | 88.4 | 85.9 | 89.0 | 76.6 | 0.89 | 0.78 | -0.24 | -0.24 | 7.3 | 7.3 | 236.5 | 219.1 | 229.9 | 212.9 | | |
| 62 | 87.4 | 84.9 | 88.7 | 75.7 | -0.36 | -0.36 | 0.11 | 0.11 | 7.2 | 7.6 | 256.1 | 265.1 | 205.7 | 212.9 | | |
| 63 | 87.7 | 85.4 | 88.4 | 75.9 | 0.84 | 0.74 | -0.24 | -0.24 | 7.4 | 7.6 | 301.6 | 279.9 | 229.4 | 212.9 | | |
| 64 | 87.3 | 84.8 | 88.9 | 75.3 | 0.18 | 0.16 | -0.05 | -0.05 | 7.3 | 7.7 | 257.4 | 253.3 | 216.4 | 212.9 | | |
| Avg. | 87.7 | 85.3 | 88.8 | 75.9 | 0.39 | 0.33 | -0.10 | -0.10 | 7.3 | 7.5 | 262.9 | 254.4 | 220.3 | 212.9 | | |
| Std Dev | 0.6 | 0.6 | 0.3 | 0.7 | 0.73 | 0.67 | 0.21 | 0.21 | 0.1 | 0.2 | 33.7 | 31.8 | 14.2 | 0.0 | | |
| 500 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | | | | |
| 57 | 91.7 | 89.5 | 95.2 | 82.6 | 0.88 | 0.77 | -0.21 | -0.22 | 6.4 | 6.8 | 294.4 | 273.1 | 229.5 | 212.9 | | |
| 58 | 91.3 | 88.2 | 95.4 | 81.4 | 0.55 | 0.52 | -0.13 | -0.15 | 5.9 | 6.7 | 267.2 | 253.6 | 224.3 | 212.9 | | |
| 59 | 91.7 | 89.5 | 94.7 | 82.2 | 0.38 | 0.35 | -0.11 | -0.11 | 7.0 | 7.2 | 299.2 | 289.0 | 220.5 | 212.9 | | |
| 60 | 90.6 | 87.3 | 94.3 | 80.3 | 0.29 | 0.27 | -0.07 | -0.08 | 6.2 | 6.9 | 259.1 | 252.0 | 218.9 | 212.9 | | |
| Avg. | 91.3 | 88.6 | 94.9 | 81.6 | 0.52 | 0.48 | -0.13 | -0.14 | 6.4 | 6.9 | 280.0 | 266.9 | 223.3 | 212.9 | | |
| Std Dev | 0.7 | 1.4 | 0.6 | 1.3 | 0.32 | 0.27 | 0.07 | 0.07 | 0.5 | 0.3 | 24.3 | 21.5 | 5.8 | 0.0 | | |
| 500 FT. FLYBY - TARGET INDICATED AIRSPEED 155 KTS | | | | | | | | | | | | | | | | |
| 65 | 92.6 | 90.3 | 95.3 | 82.9 | 0.22 | 0.20 | -0.06 | -0.06 | 7.1 | 7.2 | 244.7 | 240.0 | 217.2 | 212.9 | | |
| 66 | 92.0 | 88.2 | 95.1 | 81.6 | -0.30 | -0.30 | 0.08 | 0.08 | 6.4 | 6.6 | 242.1 | 249.4 | 206.8 | 212.9 | | |
| 67 | 92.8 | 90.2 | 95.4 | 83.0 | 0.10 | 0.08 | -0.02 | -0.03 | 6.9 | 7.1 | 244.1 | 242.1 | 214.7 | 212.9 | | |
| 68 | 92.3 | 88.9 | 96.1 | 82.4 | 0.46 | 0.43 | -0.12 | -0.13 | 6.5 | 6.9 | 264.7 | 253.7 | 222.1 | 212.9 | | |
| Avg. | 92.4 | 89.4 | 95.5 | 82.5 | 0.12 | 0.10 | -0.03 | -0.03 | 6.7 | 7.0 | 248.9 | 246.3 | 215.2 | 212.9 | | |
| Std Dev | 0.4 | 1.2 | 0.6 | 0.8 | 0.39 | 0.37 | 0.10 | 0.11 | 0.4 | 0.4 | 12.9 | 7.8 | 7.9 | 0.0 | | |

TABLE NO. B.2-1.5

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/ISC
12/18/81

CORRECTION DATA

JUNE 23, 1980

SIDELINE - 150 M. SOUTH

SITE: 5

| EV | CORRECTED | | | CORRECTIONS (dB) | | | CONSTANTS | | | TRACKING DATA (METERS) | | | | |
|----------|-----------|------|-------|------------------|---------------|---------------|---------------|-------|------|------------------------|-------|-------|-------|-------|
| | EPNL | NEL | PNLTH | $\wedge 1(P)$ | $\wedge 1(A)$ | $\wedge 2(P)$ | $\wedge 2(A)$ | K(P) | K(A) | SR | CPA | SRR | CPAR | |
| APPROACH | | | | | | | | | | | | | | |
| 34 | 91.4 | 88.3 | 92.9 | 79.2 | 1.13 | 1.08 | -0.35 | -0.34 | 6.6 | 6.6 | 216.4 | 191.9 | 215.4 | 191.0 |
| 36 | 91.8 | 88.1 | 92.9 | 79.1 | 0.75 | 0.71 | -0.25 | -0.25 | 7.1 | 7.1 | 211.1 | 194.8 | 206.9 | 191.0 |
| 40 | 91.1 | 87.5 | 91.2 | 77.1 | 0.58 | 0.54 | -0.21 | -0.21 | 7.8 | 7.7 | 210.4 | 197.7 | 203.2 | 191.0 |
| 42 | 91.4 | 88.2 | 92.0 | 78.1 | 0.87 | 0.82 | -0.30 | -0.27 | 7.6 | 7.0 | 213.8 | 195.3 | 209.1 | 191.0 |
| 44 | 91.3 | 87.8 | 91.9 | 78.1 | 0.52 | 0.49 | -0.18 | -0.18 | 7.3 | 7.3 | 202.8 | 191.8 | 202.0 | 191.0 |
| 54 | 89.8 | 86.6 | 89.9 | 76.3 | 0.28 | 0.25 | -0.09 | -0.09 | 7.4 | 7.6 | 210.1 | 204.1 | 196.5 | 191.0 |
| 56 | 89.3 | 86.1 | 88.9 | 75.5 | -0.10 | -0.10 | 0.03 | 0.03 | 7.7 | 7.8 | 190.6 | 192.4 | 189.2 | 191.0 |
| Avg. | 90.9 | 87.5 | 91.4 | 77.6 | 0.58 | 0.54 | -0.19 | -0.19 | 7.3 | 7.3 | 207.9 | 195.4 | 203.2 | 191.0 |
| Std Dv | 1.0 | 0.9 | 1.6 | 1.5 | 0.44 | 0.42 | 0.14 | 0.14 | 0.4 | 0.5 | 9.5 | 4.8 | 9.4 | 0.0 |
| TAKEOFF | | | | | | | | | | | | | | |
| 33 | 90.2 | 87.4 | 92.2 | 78.7 | 2.61 | 2.35 | -0.77 | -0.84 | 7.3 | 7.9 | 251.6 | 196.9 | 236.2 | 184.9 |
| 35 | 89.9 | 87.4 | 92.6 | 79.5 | 1.92 | 1.77 | -0.55 | -0.60 | 7.0 | 7.5 | 246.3 | 205.2 | 221.9 | 184.9 |
| 37 | 90.1 | 87.6 | 93.0 | 80.0 | 2.19 | 2.00 | -0.62 | -0.67 | 7.0 | 7.5 | 239.8 | 195.2 | 227.1 | 184.9 |
| 39 | 89.7 | 87.2 | 91.8 | 79.8 | 1.57 | 1.50 | -0.52 | -0.51 | 7.6 | 7.4 | 218.0 | 185.8 | 216.9 | 184.9 |
| 41 | 89.5 | 87.3 | 92.2 | 80.2 | 1.42 | 1.34 | -0.44 | -0.44 | 7.0 | 7.0 | 213.8 | 185.2 | 213.4 | 184.9 |
| 43 | 89.3 | 86.9 | 91.7 | 79.6 | 1.69 | 1.59 | -0.55 | -0.53 | 7.4 | 7.2 | 219.0 | 185.0 | 218.9 | 184.9 |
| 53 | 89.6 | 87.0 | 91.4 | 78.7 | 1.80 | 1.70 | -0.58 | -0.59 | 7.5 | 7.6 | 221.1 | 185.1 | 220.9 | 184.9 |
| 55 | 88.6 | 86.1 | 90.3 | 77.7 | 1.93 | 1.74 | -0.56 | -0.55 | 7.4 | 7.4 | 241.3 | 203.0 | 219.7 | 184.9 |
| Avg. | 89.6 | 87.1 | 91.9 | 79.3 | 1.89 | 1.75 | -0.57 | -0.59 | 7.3 | 7.4 | 231.4 | 192.7 | 221.9 | 184.9 |
| Std Dv | 0.5 | 0.5 | 0.9 | 0.9 | 0.40 | 0.34 | 0.10 | 0.13 | 0.3 | 0.3 | 16.1 | 9.2 | 7.6 | 0.0 |

TABLE NO. B.2-2.5

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/18/81

CORRECTION DATA

JUNE 23, 1980

SITE: 5 SIDELINE - 150 M. SOUTH

| EV | CORRECTED | | | | CORRECTIONS (dB) | | | | CONSTANTS | | | | TRACKING DATA (METERS) | | | |
|---|-----------|------|-------|------|-----------------------------|-----------------------------|-------|-------|-----------|-----|-------|-------|------------------------|-------------|--|--|
| | EPNL | NEL | PNLTH | dBAM | $\sqrt{1(P)} / \sqrt{1(A)}$ | $\sqrt{2(P)} / \sqrt{2(A)}$ | K(P) | K(A) | SR | CPA | SRR | CPAR | (ACTUAL) | (REFERENCE) | | |
| 500 FT. FLYBY - TARGET INDICATED AIRSPEED 93 KTS | | | | | | | | | | | | | | | | |
| 21 | 87.2 | 85.3 | 87.9 | 75.6 | 0.08 | 0.14 | -0.10 | -0.10 | 7.1 | 7.0 | 236.3 | 228.3 | 220.4 | 212.9 | | |
| 22 | 85.7 | 83.2 | 88.6 | 75.1 | -0.14 | -0.13 | -0.02 | -0.02 | 6.7 | 7.3 | 327.4 | 324.9 | 214.6 | 212.9 | | |
| 23 | 89.6 | 86.5 | 91.9 | 77.5 | 1.69 | 1.55 | -0.50 | -0.56 | 6.6 | 7.4 | 259.9 | 218.4 | 253.4 | 212.9 | | |
| 24 | 88.3 | 85.7 | 89.8 | 76.8 | 0.98 | 0.90 | -0.37 | -0.38 | 7.7 | 7.9 | 280.9 | 251.6 | 237.8 | 212.9 | | |
| Avg. | 87.7 | 85.2 | 89.6 | 76.2 | 0.65 | 0.61 | -0.25 | -0.26 | 7.0 | 7.4 | 276.1 | 255.8 | 231.5 | 212.9 | | |
| Std Dv | 2.0 | 1.7 | 2.2 | 1.4 | 1.03 | 0.93 | 0.28 | 0.31 | 0.6 | 0.4 | 47.4 | 58.9 | 21.6 | 0.0 | | |
| 500 FT. FLYBY - TARGET INDICATED AIRSPEED 109 KTS | | | | | | | | | | | | | | | | |
| 29 | 86.9 | 85.2 | 88.1 | 76.1 | -0.28 | -0.20 | 0.00 | 0.00 | 7.1 | 7.1 | 215.9 | 216.0 | 212.7 | 212.9 | | |
| 30 | 86.2 | 83.8 | 89.2 | 76.6 | 0.87 | 0.83 | -0.31 | -0.32 | 7.1 | 7.2 | 240.2 | 217.0 | 235.7 | 212.9 | | |
| 31 | 86.9 | 84.9 | 88.2 | 76.3 | 0.13 | 0.17 | -0.11 | -0.11 | 6.9 | 7.1 | 224.7 | 216.9 | 220.6 | 212.9 | | |
| 32 | 84.4 | 82.2 | 86.3 | 73.9 | -0.11 | -0.05 | -0.04 | -0.04 | 7.2 | 7.2 | 237.4 | 224.2 | 216.0 | 212.9 | | |
| Avg. | 86.1 | 84.0 | 88.0 | 75.7 | 0.15 | 0.19 | -0.11 | -0.12 | 7.1 | 7.2 | 227.0 | 218.5 | 221.3 | 212.9 | | |
| Std Dv | 1.4 | 1.7 | 1.5 | 1.5 | 0.62 | 0.56 | 0.17 | 0.17 | 0.2 | 0.1 | 12.3 | 4.6 | 12.4 | 0.0 | | |
| 500 FT. FLYBY - TARGET INDICATED AIRSPEED 124 KTS | | | | | | | | | | | | | | | | |
| 49 | 86.4 | 84.0 | 89.7 | 77.2 | 0.24 | 0.22 | -0.08 | -0.08 | 6.8 | 6.7 | 246.0 | 241.3 | 218.9 | 212.9 | | |
| 50 | 86.6 | 85.0 | 88.9 | 77.4 | -0.67 | -0.58 | 0.15 | 0.15 | 6.6 | 6.7 | 224.4 | 236.3 | 202.2 | 212.9 | | |
| 51 | 86.1 | 83.8 | 88.8 | 76.3 | 0.67 | 0.60 | -0.20 | -0.19 | 7.1 | 6.8 | 235.6 | 220.8 | 227.1 | 212.9 | | |
| 52 | 87.1 | 85.0 | 88.8 | 76.9 | 0.57 | 0.51 | -0.18 | -0.17 | 7.4 | 7.2 | 233.9 | 221.3 | 225.1 | 212.9 | | |
| Avg. | 86.6 | 84.5 | 89.0 | 77.0 | 0.20 | 0.19 | -0.08 | -0.07 | 7.0 | 6.9 | 235.5 | 229.9 | 218.3 | 212.9 | | |
| Std Dv | 0.5 | 0.8 | 0.6 | 0.6 | 0.75 | 0.66 | 0.20 | 0.19 | 0.4 | 0.3 | 11.9 | 12.8 | 13.8 | 0.0 | | |
| 500 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | | | | |
| 17 | 91.0 | 88.6 | 93.5 | 80.9 | 1.06 | 1.00 | -0.38 | -0.38 | 7.2 | 7.2 | 246.8 | 218.7 | 240.3 | 212.9 | | |
| 18 | 88.5 | 86.0 | 92.6 | 80.2 | -0.30 | -0.22 | 0.00 | 0.00 | 6.6 | 6.4 | 225.2 | 225.2 | 212.9 | 212.9 | | |
| 19 | 90.6 | 88.6 | 92.3 | 80.5 | 0.78 | 0.71 | -0.30 | -0.30 | 7.5 | 7.3 | 306.4 | 279.1 | 233.7 | 212.9 | | |
| 20 | 87.9 | 85.6 | 92.2 | 79.9 | 0.43 | 0.44 | -0.18 | -0.18 | 6.5 | 6.3 | 246.4 | 230.7 | 227.4 | 212.9 | | |
| Avg. | 89.5 | 87.2 | 92.7 | 80.4 | 0.49 | 0.48 | -0.21 | -0.21 | 6.9 | 6.8 | 256.2 | 238.4 | 228.6 | 212.9 | | |
| Std Dv | 1.9 | 2.0 | 0.7 | 0.5 | 0.72 | 0.64 | 0.20 | 0.20 | 0.6 | 0.6 | 42.8 | 33.8 | 14.3 | 0.0 | | |
| 500 FT. FLYBY - TARGET INDICATED AIRSPEED 155 KTS | | | | | | | | | | | | | | | | |
| 25 | 89.8 | 87.9 | 92.3 | 80.9 | -0.73 | -0.66 | 0.14 | 0.13 | 6.8 | 6.5 | 222.1 | 232.9 | 203.0 | 212.9 | | |
| 26 | 91.9 | 88.3 | 95.7 | 82.8 | 1.47 | 1.37 | -0.49 | -0.46 | 7.1 | 6.7 | 251.3 | 214.9 | 249.0 | 212.9 | | |
| 27 | 92.7 | 89.9 | 96.3 | 83.8 | 0.45 | 0.35 | -0.17 | -0.17 | 6.9 | 6.8 | 291.9 | 275.4 | 225.7 | 212.9 | | |
| 28 | 93.4 | 89.6 | 97.1 | 83.9 | 0.89 | 0.83 | -0.31 | -0.30 | 7.1 | 6.9 | 235.6 | 213.0 | 235.6 | 212.9 | | |
| Avg. | 91.9 | 88.9 | 95.3 | 82.9 | 0.52 | 0.47 | -0.21 | -0.20 | 7.0 | 6.7 | 250.3 | 234.1 | 228.3 | 212.9 | | |
| Std Dv | 1.9 | 1.2 | 2.6 | 1.7 | 1.14 | 1.06 | 0.33 | 0.31 | 0.2 | 0.2 | 37.0 | 35.5 | 23.7 | 0.0 | | |

TABLE NO. B-2-3.5

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/19/81

CORRECTION DATA

| EV | CORRECTED | | CORRECTIONS (dB) | CONSTANTS | | TRACKING DATA (METERS) | | | | | | | |
|---|-----------|------|------------------|-----------|-------|------------------------|-------------|------------------|-----|-------|-------|-------|-------|
| | EPNL | NEL | | K(P) | K(A) | (ACTUAL) | (REFERENCE) | | | | | | |
| SITE: 5 SIDELINE - 150 M. SOUTH JUNE 23, 1980 | | | | | | | | | | | | | |
| 300 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | |
| 9 | 91.0 | 89.0 | 93.6 | 81.9 | -0.84 | -0.71 | 0.16 | 7.1 | 6.7 | 189.4 | 199.9 | 165.9 | 175.0 |
| 10 | 88.1 | 85.5 | 92.4 | 79.5 | -0.75 | -0.64 | 0.14 | 6.4 | 6.5 | 171.0 | 179.6 | 166.6 | 175.0 |
| 15 | 91.4 | 89.6 | 94.6 | 82.9 | -0.17 | -0.10 | -0.02 | 6.9 | 6.5 | 181.7 | 180.6 | 176.1 | 175.0 |
| 16 | 90.1 | 87.0 | 95.3 | 81.8 | 0.25 | 0.26 | -0.13 | 6.1 | 6.3 | 200.3 | 191.3 | 183.2 | 175.0 |
| Avg. | 90.2 | 87.8 | 94.0 | 81.5 | -0.38 | -0.30 | 0.04 | 6.6 | 6.5 | 185.6 | 187.8 | 173.0 | 175.0 |
| Std Dv | 1.8 | 2.3 | 1.5 | 1.7 | 0.63 | 0.56 | 0.17 | 0.5 | 0.2 | 15.2 | 11.8 | 10.2 | 0.0 |
| 700 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | |
| 7 | 88.6 | 86.3 | 89.4 | 76.7 | 0.62 | 0.61 | -0.27 | 7.6 | 7.8 | 285.9 | 263.1 | 282.3 | 259.8 |
| 8 | 87.6 | 84.8 | 92.1 | 78.9 | 2.05 | 1.87 | -0.58 | 6.4 | 6.6 | 341.9 | 280.0 | 317.2 | 259.8 |
| 13 | 88.2 | 86.1 | 89.6 | 77.0 | 0.40 | 0.43 | -0.22 | 7.4 | 7.6 | 277.4 | 259.9 | 277.4 | 259.8 |
| 14 | 87.4 | 84.9 | 91.1 | 78.2 | 0.22 | 0.25 | -0.14 | 6.6 | 6.8 | 277.2 | 263.8 | 273.0 | 259.8 |
| Avg. | 88.0 | 85.5 | 90.6 | 77.7 | 0.82 | 0.79 | -0.29 | 7.0 | 7.2 | 295.6 | 266.7 | 287.5 | 259.8 |
| Std Dv | 0.7 | 1.0 | 1.6 | 1.3 | 1.02 | 0.90 | 0.23 | 0.7 | 0.7 | 38.1 | 11.1 | 24.7 | 0.0 |
| 1000 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | |
| 45 | 83.3 | 81.4 | 84.3 | 72.4 | 0.03 | 0.05 | -0.05 | 7.8 | 7.6 | 352.9 | 348.0 | 343.3 | 338.6 |
| 46 | 85.1 | 83.2 | 86.1 | 74.1 | 0.18 | 0.15 | -0.08 | 7.2 | 7.1 | 452.9 | 442.2 | 346.8 | 338.6 |
| 47 | 84.0 | 81.6 | 84.4 | 72.4 | 0.22 | 0.21 | -0.09 | 7.0 | 7.4 | 348.4 | 338.6 | 348.3 | 338.6 |
| 48 | 85.7 | 83.5 | 87.1 | 74.5 | 0.37 | 0.33 | -0.12 | 7.0 | 7.2 | 488.9 | 470.1 | 352.1 | 338.6 |
| 1 | | | | | | | | NO TRACKING DATA | | | | | |
| 2 | | | | | | | | NO TRACKING DATA | | | | | |
| 3 | | | | | | | | NO TRACKING DATA | | | | | |
| 4 | | | | | | | | NO TRACKING DATA | | | | | |
| Avg. | 84.6 | 82.4 | 85.5 | 73.3 | 0.20 | 0.18 | -0.08 | 7.3 | 7.3 | 410.8 | 399.8 | 347.6 | 338.6 |
| Std Dv | 1.3 | 1.4 | 1.7 | 1.4 | 0.17 | 0.14 | 0.04 | 0.5 | 0.2 | 87.0 | 81.2 | 4.5 | 0.0 |
| 1500 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | |
| 5 | 82.9 | 81.1 | 81.7 | 69.9 | 0.45 | 0.36 | -0.23 | 7.5 | 7.6 | 715.4 | 666.0 | 515.6 | 480.0 |
| 6 | 80.6 | 79.0 | 80.9 | 69.2 | -0.25 | -0.09 | -0.12 | 7.4 | 7.5 | 586.7 | 565.3 | 498.1 | 480.0 |
| 11 | | | | | | | | NO TRACKING DATA | | | | | |
| 12 | 80.9 | 79.1 | 81.2 | 69.0 | -0.70 | -0.50 | 0.00 | 7.2 | 7.8 | 541.3 | 540.7 | 480.5 | 480.0 |
| Avg. | 81.5 | 79.7 | 81.3 | 69.4 | -0.17 | -0.08 | -0.12 | 7.4 | 7.6 | 614.4 | 590.7 | 498.1 | 480.0 |
| Std Dv | 1.7 | 1.7 | 0.6 | 0.7 | 0.82 | 0.61 | 0.17 | 0.3 | 0.3 | 127.7 | 93.9 | 24.8 | 0.0 |

TABLE NO. B.2-4.5

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/18/81

CORRECTION DATA - MAIN ROTOR RPM 1072

JUNE 23, 1980

SITE: 5 SIDELINE - 150 M. SOUTH

| EV | CORRECTED | | | CORRECTIONS (dB) | | | CONSTANTS | | | TRACKING DATA (ACTUAL) | | | TRACKING DATA (REFERENCE) | | |
|---|-----------|------|-------|------------------|---------------|---------------|---------------|---------------|------|------------------------|-------|-------|---------------------------|-------|--|
| | EPNL | NEL | PNLTH | dBAM | $\wedge 1(P)$ | $\wedge 1(A)$ | $\wedge 2(P)$ | $\wedge 2(A)$ | K(P) | K(A) | SR | CPA | SRR | CPAR | |
| APPROACH | | | | | | | | | | | | | | | |
| 69 | 90.8 | 87.5 | 90.4 | 74.8 | 0.32 | 0.29 | -0.10 | -0.10 | 7.7 | 7.8 | 214.0 | 207.6 | 196.8 | 191.0 | |
| 70 | 89.6 | 86.7 | 89.7 | 75.6 | -0.28 | -0.28 | 0.09 | 0.10 | 7.3 | 8.0 | 229.6 | 236.1 | 185.7 | 191.0 | |
| Avg. | 90.2 | 87.1 | 90.1 | 76.2 | 0.02 | 0.01 | -0.01 | 0.00 | 7.5 | 7.9 | 221.8 | 221.9 | 191.3 | 191.0 | |
| Std Dv | 0.8 | 0.6 | 0.5 | 0.8 | 0.42 | 0.40 | 0.13 | 0.14 | 0.3 | 0.2 | 11.1 | 20.2 | 7.9 | 0.0 | |
| 500 FT. FLYBY - TARGET INDICATED AIRSPEED 93 KTS | | | | | | | | | | | | | | | |
| 61 | 86.0 | 83.7 | 88.4 | 75.6 | 0.45 | 0.39 | -0.11 | -0.11 | 6.4 | 6.7 | 237.9 | 229.0 | 221.1 | 212.9 | |
| 62 | 87.9 | 85.7 | 88.2 | 75.9 | 0.23 | 0.19 | -0.06 | -0.06 | 7.8 | 7.9 | 225.0 | 220.8 | 217.0 | 212.9 | |
| 63 | 86.6 | 84.1 | 88.4 | 75.5 | 1.46 | 1.29 | -0.40 | -0.41 | 7.5 | 7.7 | 253.3 | 224.1 | 240.7 | 212.9 | |
| 64 | 88.3 | 86.1 | 88.5 | 75.7 | 0.40 | 0.37 | -0.12 | -0.12 | 7.5 | 7.5 | 223.9 | 215.8 | 220.9 | 212.9 | |
| Avg. | 87.2 | 84.9 | 88.4 | 75.7 | 0.63 | 0.56 | -0.17 | -0.17 | 7.3 | 7.4 | 235.0 | 222.4 | 225.0 | 212.9 | |
| Std Dv | 1.4 | 1.4 | 0.2 | 0.2 | 0.68 | 0.61 | 0.19 | 0.19 | 0.8 | 0.6 | 16.9 | 6.8 | 13.1 | 0.0 | |
| 500 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | | | |
| 57 | 89.1 | 86.6 | 92.4 | 79.9 | 1.15 | 1.03 | -0.30 | -0.31 | 6.9 | 7.0 | 242.2 | 218.9 | 235.6 | 212.9 | |
| 58 | 90.8 | 88.8 | 93.0 | 80.2 | 0.24 | 0.21 | -0.07 | -0.08 | 7.3 | 7.8 | 228.1 | 223.2 | 217.7 | 212.9 | |
| 59 | 89.2 | 86.6 | 92.9 | 80.4 | 0.42 | 0.37 | -0.11 | -0.11 | 6.9 | 6.9 | 252.8 | 243.7 | 220.9 | 212.9 | |
| 60 | 91.6 | 89.5 | 93.6 | 81.4 | 0.93 | 0.82 | -0.25 | -0.26 | 7.2 | 7.3 | 238.5 | 219.9 | 230.9 | 212.9 | |
| Avg. | 90.2 | 87.9 | 93.0 | 80.5 | 0.68 | 0.61 | -0.18 | -0.19 | 7.1 | 7.3 | 240.4 | 226.4 | 226.3 | 212.9 | |
| Std Dv | 1.5 | 1.8 | 0.6 | 0.8 | 0.52 | 0.47 | 0.13 | 0.14 | 0.3 | 0.5 | 12.5 | 14.3 | 10.3 | 0.0 | |
| 500 FT. FLYBY - TARGET INDICATED AIRSPEED 155 KTS | | | | | | | | | | | | | | | |
| 65 | 90.6 | 87.6 | 94.4 | 81.9 | 0.84 | 0.74 | -0.20 | -0.20 | 6.4 | 6.6 | 262.5 | 244.6 | 228.5 | 212.9 | |
| 66 | 93.0 | 90.6 | 96.2 | 82.9 | 0.71 | 0.67 | -0.19 | -0.21 | 6.9 | 7.7 | 320.1 | 300.3 | 226.9 | 212.9 | |
| 67 | 90.6 | 87.6 | 94.1 | 81.5 | 0.51 | 0.44 | -0.12 | -0.12 | 6.6 | 6.6 | 256.5 | 245.7 | 222.3 | 212.9 | |
| 68 | 91.7 | 89.2 | 95.1 | 82.2 | 0.34 | 0.29 | -0.08 | -0.09 | 6.6 | 7.1 | 294.4 | 286.1 | 219.1 | 212.9 | |
| Avg. | 91.5 | 88.7 | 94.9 | 82.1 | 0.60 | 0.53 | -0.15 | -0.15 | 6.6 | 7.0 | 283.3 | 269.2 | 224.2 | 212.9 | |
| Std Dv | 1.4 | 1.7 | 1.1 | 0.7 | 0.27 | 0.25 | 0.07 | 0.07 | 0.3 | 0.7 | 36.2 | 34.7 | 5.3 | 0.0 | |

TABLE NO. 8.2-1.5G

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/19/81

CORRECTION DATA

| EV | CORRECTED | | | SITE: 5G | CORRECTIONS (dB) | | | CONSTANTS | | | TRACKING DATA (METERS) | | | |
|----------|-----------|------|-------|----------|------------------|---------------|---------------|---------------|---------------|------|------------------------|----------|-------------|-------|
| | EPNL | NEL | PNLTM | | dBAM | $\wedge 1(P)$ | $\wedge 1(A)$ | $\wedge 2(P)$ | $\wedge 2(A)$ | K(P) | K(A) | (ACTUAL) | (REFERENCE) | |
| APPROACH | | | | | | | | | | | | | | |
| 34 | 94.9 | 92.1 | 97.0 | 84.2 | 1.12 | 1.07 | -0.35 | -0.36 | 6.8 | 6.8 | 219.1 | 194.4 | 216.1 | 191.7 |
| 36 | 93.5 | 90.2 | 94.8 | 81.6 | 0.75 | 0.70 | -0.25 | -0.25 | 7.3 | 7.2 | 207.8 | 191.9 | 207.6 | 191.7 |
| 40 | 95.4 | 92.0 | 95.9 | 82.4 | 0.56 | 0.53 | -0.20 | -0.20 | 7.5 | 7.6 | 207.6 | 195.3 | 203.9 | 191.7 |
| 42 | 95.6 | 92.4 | 96.9 | 83.2 | 0.86 | 0.82 | -0.28 | -0.29 | 7.1 | 7.4 | 214.6 | 196.1 | 209.8 | 191.7 |
| 44 | 95.0 | 92.1 | 96.1 | 83.3 | 0.51 | 0.49 | -0.18 | -0.17 | 7.3 | 7.1 | 202.8 | 191.8 | 202.7 | 191.7 |
| 54 | 94.3 | 91.4 | 94.2 | 81.2 | 0.27 | 0.25 | -0.09 | -0.09 | 7.4 | 7.5 | 205.4 | 199.6 | 197.3 | 191.7 |
| 56 | 93.9 | 90.6 | 94.1 | 80.7 | -0.12 | -0.11 | 0.03 | 0.03 | 7.3 | 7.4 | 191.3 | 193.1 | 189.9 | 191.7 |
| Avg. | 94.7 | 91.5 | 95.6 | 82.4 | 0.56 | 0.54 | -0.19 | -0.19 | 7.2 | 7.3 | 206.9 | 194.6 | 203.9 | 191.7 |
| Std Dv | 0.9 | 0.9 | 1.3 | 1.4 | 0.44 | 0.42 | 0.14 | 0.14 | 0.3 | 0.3 | 9.7 | 3.0 | 9.3 | 0.0 |
| TAKEOFF | | | | | | | | | | | | | | |
| 33 | 95.5 | 92.6 | 97.4 | 84.0 | 2.56 | 2.37 | -0.79 | -0.84 | 7.5 | 7.9 | 260.0 | 203.6 | 236.9 | 185.6 |
| 35 | 95.7 | 92.9 | 98.0 | 85.7 | 1.88 | 1.77 | -0.58 | -0.58 | 7.4 | 7.3 | 247.1 | 206.0 | 222.6 | 185.6 |
| 37 | 95.9 | 93.2 | 98.2 | 85.8 | 2.15 | 2.01 | -0.66 | -0.65 | 7.4 | 7.3 | 240.5 | 195.9 | 227.9 | 185.6 |
| 39 | 95.6 | 93.2 | 97.6 | 86.4 | 1.64 | 1.53 | -0.53 | -0.48 | 7.6 | 6.9 | 231.2 | 197.1 | 217.7 | 185.6 |
| 41 | 95.4 | 93.1 | 98.0 | 86.6 | 1.47 | 1.38 | -0.46 | -0.43 | 7.4 | 6.9 | 227.7 | 197.3 | 214.2 | 185.6 |
| 43 | 95.3 | 92.7 | 97.6 | 86.0 | 1.77 | 1.64 | -0.56 | -0.52 | 7.6 | 7.1 | 233.1 | 196.9 | 219.7 | 185.6 |
| 53 | 95.6 | 92.5 | 97.8 | 84.3 | 1.93 | 1.77 | -0.57 | -0.61 | 7.4 | 7.9 | 228.7 | 191.4 | 221.7 | 185.6 |
| 55 | 94.2 | 91.5 | 96.7 | 83.7 | 1.91 | 1.77 | -0.53 | -0.55 | 7.0 | 7.4 | 241.9 | 203.6 | 220.6 | 185.6 |
| Avg. | 95.4 | 92.7 | 97.7 | 85.3 | 1.91 | 1.78 | -0.56 | -0.58 | 7.4 | 7.3 | 238.8 | 199.0 | 222.6 | 185.6 |
| Std Dv | 0.6 | 0.6 | 0.5 | 1.2 | 0.36 | 0.33 | 0.11 | 0.14 | 0.2 | 0.4 | 11.9 | 5.3 | 7.6 | 0.0 |

JUNE 23, 1980

TABLE NO. B-2-2.5G

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/19/81

CORRECTION DATA

| SITE: 5G | | SIDELINE - 150 M. SOUTH (FLUSH) | | JUNE 23, 1980 | | TRACKING DATA (METERS) | | | | | | | | |
|---|------|---------------------------------|-------|---------------|-----------------------------|-----------------------------|-------|-------------|-----|-----|-------|-------|-------|-------|
| CORRECTED | | CORRECTIONS (dB) | | CONSTANTS | | (ACTUAL) | | (REFERENCE) | | | | | | |
| EV | EPNL | NEL | PNLTM | dBAM | $\sqrt{1(P)} / \sqrt{1(A)}$ | $\sqrt{2(P)} / \sqrt{2(A)}$ | K(F) | K(R) | SR | CPA | SRR | CPAR | | |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 93 KTS | | | | | | | | | | | | | | |
| 21 | 91.9 | 89.4 | 92.3 | 80.0 | 0.12 | 0.12 | -0.12 | -0.11 | 7.8 | 7.6 | 237.1 | 329.1 | 221.2 | 213.8 |
| 22 | 90.1 | 88.0 | 92.0 | 79.8 | -0.17 | -0.17 | -0.02 | -0.03 | 7.4 | 7.5 | 328.0 | 325.4 | 215.5 | 213.8 |
| 23 | 93.8 | 90.8 | 95.9 | 82.3 | 1.65 | 1.54 | -0.54 | -0.58 | 7.3 | 7.7 | 265.7 | 223.5 | 254.2 | 213.8 |
| 24 | 92.5 | 90.2 | 94.2 | 81.9 | 0.94 | 0.89 | -0.36 | -0.36 | 7.7 | 7.7 | 281.6 | 252.4 | 238.5 | 213.8 |
| Avg. | 92.1 | 89.6 | 93.6 | 81.0 | 0.63 | 0.59 | -0.26 | -0.27 | 7.5 | 7.6 | 278.1 | 257.6 | 232.4 | 213.8 |
| Std Dv | 1.9 | 1.5 | 2.2 | 1.6 | 1.01 | 0.95 | 0.29 | 0.31 | 0.3 | 0.1 | 46.5 | 57.4 | 21.5 | 0.0 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 109 KTS | | | | | | | | | | | | | | |
| 29 | 91.7 | 89.3 | 93.5 | 81.0 | -0.29 | -0.21 | 0.00 | 0.00 | 7.3 | 7.4 | 216.7 | 216.9 | 213.6 | 213.8 |
| 30 | 91.0 | 88.8 | 94.3 | 82.0 | 0.84 | 0.82 | -0.30 | -0.31 | 6.9 | 7.1 | 241.0 | 217.9 | 236.5 | 213.8 |
| 31 | 91.7 | 89.3 | 93.7 | 81.0 | 0.12 | 0.16 | -0.11 | -0.11 | 7.0 | 7.3 | 225.6 | 217.7 | 221.5 | 213.8 |
| 32 | 89.2 | 87.4 | 91.2 | 79.5 | -0.15 | -0.07 | -0.05 | -0.05 | 7.2 | 7.2 | 256.2 | 252.6 | 216.9 | 213.8 |
| Avg. | 90.9 | 88.7 | 93.2 | 80.9 | 0.13 | 0.18 | -0.11 | -0.12 | 7.1 | 7.2 | 234.9 | 226.3 | 222.1 | 213.8 |
| Std Dv | 1.4 | 1.1 | 1.7 | 1.3 | 0.62 | 0.56 | 0.16 | 0.17 | 0.2 | 0.2 | 21.3 | 21.5 | 12.4 | 0.0 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 124 KTS | | | | | | | | | | | | | | |
| 49 | 91.9 | 89.9 | 95.7 | 83.4 | 0.23 | 0.22 | -0.08 | -0.08 | 6.4 | 6.6 | 248.8 | 242.1 | 219.7 | 213.8 |
| 50 | 92.9 | 90.4 | 95.6 | 82.9 | -0.63 | -0.59 | 0.15 | 0.15 | 6.9 | 6.8 | 225.2 | 237.1 | 203.1 | 213.8 |
| 51 | 91.6 | 89.4 | 95.0 | 82.8 | 0.65 | 0.60 | -0.18 | -0.19 | 6.5 | 6.6 | 228.0 | 213.9 | 228.0 | 213.8 |
| 52 | 93.0 | 90.2 | 95.3 | 82.3 | 0.57 | 0.52 | -0.17 | -0.18 | 7.2 | 7.4 | 261.8 | 247.7 | 226.0 | 213.8 |
| Avg. | 92.3 | 90.0 | 95.4 | 82.8 | 0.20 | 0.19 | -0.07 | -0.07 | 6.8 | 6.9 | 241.0 | 235.2 | 219.2 | 213.8 |
| Std Dv | 0.9 | 0.6 | 0.4 | 0.6 | 0.72 | 0.67 | 0.19 | 0.19 | 0.5 | 0.4 | 21.4 | 18.2 | 13.8 | 0.0 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | | |
| 17 | 95.7 | 92.9 | 98.2 | 85.5 | 1.03 | 0.99 | -0.38 | -0.38 | 7.3 | 7.2 | 241.6 | 214.3 | 241.1 | 213.8 |
| 18 | 93.4 | 91.0 | 97.6 | 85.4 | -0.33 | -0.24 | 0.00 | 0.00 | 6.5 | 6.4 | 245.4 | 245.4 | 213.8 | 213.8 |
| 19 | 95.2 | 92.7 | 97.4 | 85.2 | 0.74 | 0.71 | -0.30 | -0.28 | 7.3 | 7.0 | 250.9 | 228.7 | 234.6 | 213.8 |
| 20 | 92.9 | 90.6 | 97.2 | 85.0 | 0.44 | 0.44 | -0.18 | -0.18 | 6.3 | 6.4 | 247.2 | 231.5 | 228.3 | 213.8 |
| Avg. | 94.3 | 91.8 | 97.6 | 85.3 | 0.47 | 0.47 | -0.21 | -0.21 | 6.9 | 6.8 | 246.3 | 230.0 | 229.4 | 213.8 |
| Std Dv | 1.7 | 1.5 | 0.5 | 0.3 | 0.72 | 0.65 | 0.20 | 0.20 | 0.6 | 0.5 | 4.8 | 15.7 | 14.3 | 0.0 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 155 KTS | | | | | | | | | | | | | | |
| 25 | 94.8 | 92.4 | 97.4 | 85.8 | -0.78 | -0.73 | 0.14 | 0.13 | 7.1 | 6.5 | 242.5 | 254.1 | 204.0 | 213.8 |
| 26 | 96.1 | 92.9 | 100.3 | 88.1 | 1.45 | 1.36 | -0.45 | -0.44 | 6.7 | 6.5 | 262.8 | 224.9 | 249.8 | 213.8 |
| 27 | 97.3 | 94.5 | 100.9 | 88.5 | 0.34 | 0.36 | -0.18 | -0.17 | 7.1 | 6.9 | 245.6 | 231.9 | 226.5 | 213.8 |
| 28 | 97.3 | 94.3 | 101.6 | 89.1 | 0.82 | 0.80 | -0.30 | -0.28 | 6.9 | 6.5 | 258.8 | 234.1 | 236.4 | 213.8 |
| Avg. | 96.4 | 93.5 | 100.1 | 87.9 | 0.46 | 0.45 | -0.20 | -0.19 | 6.9 | 6.6 | 252.4 | 236.3 | 229.2 | 213.8 |
| Std Dv | 1.5 | 1.2 | 2.3 | 1.8 | 1.15 | 1.08 | 0.31 | 0.29 | 0.2 | 0.2 | 12.1 | 15.4 | 23.6 | 0.0 |

TABLE NO. B.2-3.56

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/19/81

CORRECTION DATA

| EV | CORRECTED | | | | CORRECTIONS (dB) | | | | CONSTANTS | | | | TRACKING DATA (METERS) | | | |
|--|-----------|------|-------|------|------------------|---------------|---------------|---------------|-----------|------|------|------|------------------------|-------|-------|-------|
| | EPNL | NEL | PNLTH | qBRM | $\wedge 1(P)$ | $\wedge 1(A)$ | $\wedge 2(P)$ | $\wedge 2(A)$ | K(P) | K(A) | K(P) | K(A) | SR | CPA | SRR | CPAR |
| 300 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | |
| 15 | 96.2 | 93.5 | 99.8 | 87.2 | -0.14 | -0.12 | -0.02 | -0.02 | 6.9 | 6.7 | 6.9 | 6.7 | 177.0 | 175.9 | 176.8 | 175.6 |
| 16 | 95.0 | 92.1 | 99.7 | 87.3 | 0.23 | 0.25 | -0.13 | -0.13 | 6.6 | 6.4 | 6.6 | 6.4 | 200.9 | 191.9 | 183.9 | 175.6 |
| Avg. | 95.6 | 92.8 | 99.8 | 87.3 | 0.05 | 0.06 | -0.07 | -0.07 | 6.8 | 6.6 | 6.8 | 6.6 | 188.9 | 183.9 | 180.3 | 175.6 |
| Std Dv | 0.8 | 1.0 | 0.1 | 0.0 | 0.26 | 0.26 | 0.08 | 0.08 | 0.2 | 0.2 | 0.2 | 0.2 | 16.9 | 11.3 | 5.0 | 0.0 |
| 700 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | | | | |
| 7 | 92.4 | 90.1 | 93.7 | 81.3 | 0.61 | 0.58 | -0.28 | -0.27 | 7.6 | 7.5 | 7.6 | 7.5 | 330.6 | 304.3 | 283.3 | 260.8 |
| 8 | 91.8 | 89.4 | 95.6 | 83.3 | 2.00 | 1.84 | -0.60 | -0.59 | 6.9 | 6.9 | 6.9 | 6.9 | 363.6 | 298.1 | 318.1 | 260.8 |
| 13 | 92.6 | 90.3 | 94.1 | 81.9 | 0.39 | 0.42 | -0.21 | -0.21 | 7.4 | 7.3 | 7.4 | 7.3 | 286.4 | 268.3 | 278.4 | 260.8 |
| 14 | 92.2 | 89.8 | 95.9 | 83.5 | 0.17 | 0.21 | -0.14 | -0.14 | 6.8 | 6.8 | 6.8 | 6.8 | 335.4 | 319.4 | 273.9 | 260.8 |
| Avg. | 92.3 | 89.9 | 94.8 | 82.5 | 0.79 | 0.76 | -0.31 | -0.30 | 7.2 | 7.1 | 7.2 | 7.1 | 329.0 | 297.5 | 288.4 | 260.8 |
| Std Dv | 0.4 | 0.5 | 1.3 | 1.3 | 1.01 | 0.90 | 0.25 | 0.24 | 0.5 | 0.4 | 0.5 | 0.4 | 39.1 | 26.2 | 24.7 | 0.0 |
| 1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | | | | |
| 45 | 88.4 | 86.6 | 89.9 | 78.5 | 0.01 | 0.04 | -0.04 | -0.04 | 7.4 | 7.4 | 7.4 | 7.4 | 366.0 | 361.0 | 344.4 | 339.7 |
| 46 | 90.0 | 88.1 | 91.4 | 79.3 | 0.15 | 0.15 | -0.08 | -0.07 | 7.2 | 7.2 | 7.2 | 7.2 | 406.8 | 397.2 | 347.9 | 339.7 |
| 47 | 88.6 | 86.8 | 89.5 | 77.9 | 0.21 | 0.21 | -0.09 | -0.09 | 7.4 | 7.5 | 7.4 | 7.5 | 385.5 | 374.8 | 349.4 | 339.7 |
| 48 | 90.4 | 88.4 | 92.3 | 79.9 | 0.35 | 0.33 | -0.12 | -0.12 | 6.9 | 7.0 | 6.9 | 7.0 | 435.9 | 419.2 | 353.2 | 339.7 |
| 1 | | | | | | | | | | | | | | | | |
| 2 | | | | | | | | | | | | | | | | |
| 3 | | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | |
| Avg. | 89.3 | 87.5 | 90.8 | 78.9 | 0.18 | 0.18 | -0.08 | -0.08 | 7.2 | 7.2 | 7.2 | 7.2 | 398.6 | 388.0 | 348.7 | 339.7 |
| Std Dv | 1.2 | 1.1 | 1.6 | 1.1 | 0.17 | 0.15 | 0.04 | 0.04 | 0.3 | 0.3 | 0.3 | 0.3 | 36.7 | 31.3 | 4.5 | 0.0 |
| 1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | | | | |
| 5 | 86.4 | 84.9 | 85.8 | 74.5 | 0.31 | 0.38 | -0.24 | -0.24 | 7.7 | 7.7 | 7.7 | 7.7 | 545.1 | 507.6 | 516.7 | 481.2 |
| 6 | 84.9 | 83.7 | 85.4 | 74.5 | -0.18 | -0.05 | -0.12 | -0.12 | 7.6 | 7.3 | 7.6 | 7.3 | 515.6 | 496.8 | 499.3 | 481.2 |
| 11 | | | | | | | | | | | | | | | | |
| 12 | 84.7 | 83.3 | 84.9 | 73.7 | -0.81 | -0.56 | 0.00 | 0.00 | 7.7 | 7.7 | 7.7 | 7.7 | 620.1 | 619.5 | 481.6 | 481.2 |
| Avg. | 85.4 | 84.0 | 85.4 | 74.2 | -0.23 | -0.08 | -0.12 | -0.12 | 7.7 | 7.6 | 7.7 | 7.6 | 560.2 | 541.3 | 499.2 | 481.2 |
| Std Dv | 1.3 | 1.2 | 0.6 | 0.6 | 0.79 | 0.67 | 0.17 | 0.17 | 0.1 | 0.3 | 0.1 | 0.3 | 76.2 | 96.0 | 24.8 | 0.0 |

JUNE 23, 1980

TABLE NO. B.2-4.5G

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/19/81

CORRECTION DATA - MAIN ROTOR RPM 107%

| EV | CORRECTED | | CORRECTIONS (dB) | | | | CONSTANTS | | TRACKING DATA (METERS) | | | | | |
|---|-----------|------|------------------|------|---------------|---------------|---------------|---------------|------------------------|------|-------|-------|-------|-------|
| | EPNL | NEL | PNLTH | dBAN | $\sqrt{1(P)}$ | $\sqrt{1(A)}$ | $\sqrt{2(P)}$ | $\sqrt{2(A)}$ | K(F) | K(A) | SR | CPA | SRR | CPAR |
| APPROACH | | | | | | | | | | | | | | |
| 69 | 94.5 | 91.2 | 95.0 | 81.6 | 0.34 | 0.30 | -0.09 | -0.09 | 7.1 | 7.1 | 189.3 | 193.4 | 197.5 | 191.7 |
| 70 | 93.9 | 90.7 | 93.3 | 79.8 | -0.30 | -0.28 | 0.09 | 0.10 | 7.7 | 7.9 | 186.8 | 192.1 | 186.5 | 191.7 |
| Avg. | 94.2 | 91.0 | 94.2 | 80.7 | 0.02 | 0.01 | 0.00 | 0.01 | 7.4 | 7.5 | 193.1 | 192.7 | 192.0 | 191.7 |
| Std Dev | 0.4 | 0.4 | 1.2 | 1.3 | 0.45 | 0.41 | 0.13 | 0.13 | 0.4 | 0.6 | 8.8 | 1.0 | 7.8 | 0.0 |
| 500 FT. FLYOVER - TARGET INDICATED 93 KTS | | | | | | | | | | | | | | |
| 61 | 92.0 | 89.3 | 94.6 | 81.7 | 0.45 | 0.40 | -0.11 | -0.11 | 6.4 | 6.4 | 238.9 | 230.0 | 222.1 | 213.8 |
| 62 | 93.6 | 90.5 | 94.5 | 81.2 | 0.22 | 0.19 | -0.06 | -0.06 | 7.6 | 7.6 | 225.8 | 221.6 | 217.9 | 213.8 |
| 63 | 92.1 | 89.4 | 93.7 | 80.8 | 1.45 | 1.29 | -0.41 | -0.42 | 7.7 | 7.8 | 254.2 | 224.9 | 241.6 | 213.8 |
| 64 | 93.4 | 90.3 | 94.2 | 80.8 | 0.45 | 0.39 | -0.12 | -0.12 | 7.5 | 7.5 | 269.6 | 259.8 | 221.8 | 213.8 |
| Avg. | 92.8 | 89.9 | 94.3 | 81.1 | 0.64 | 0.57 | -0.17 | -0.18 | 7.3 | 7.4 | 247.1 | 234.1 | 225.8 | 213.8 |
| Std Dev | 1.0 | 0.8 | 0.5 | 0.5 | 0.67 | 0.60 | 0.19 | 0.20 | 0.7 | 0.7 | 23.2 | 21.4 | 13.1 | 0.0 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | | |
| 57 | 95.1 | 92.2 | 98.7 | 85.8 | 1.16 | 1.04 | -0.30 | -0.30 | 6.8 | 6.9 | 256.6 | 231.9 | 236.6 | 213.8 |
| 58 | - | 93.0 | 98.7 | 85.1 | 0.25 | 0.22 | - | -0.07 | - | 7.3 | 261.9 | 256.1 | 218.6 | 213.8 |
| 59 | 94.6 | 91.8 | 98.1 | 85.4 | 0.42 | 0.37 | -0.11 | -0.11 | 6.9 | 7.0 | 253.6 | 244.5 | 221.8 | 213.8 |
| 60 | 96.9 | 93.7 | 99.8 | 86.4 | 0.93 | 0.84 | -0.25 | -0.24 | 7.0 | 6.9 | 251.9 | 232.3 | 231.8 | 213.8 |
| Avg. | 95.5 | 92.7 | 98.8 | 85.7 | 0.69 | 0.62 | -0.22 | -0.18 | 6.9 | 7.0 | 256.0 | 241.2 | 227.2 | 213.8 |
| Std Dev | 1.8 | 1.0 | 0.8 | 0.7 | 0.52 | 0.47 | 0.14 | 0.13 | 0.1 | 0.2 | 5.4 | 14.1 | 10.3 | 0.0 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 155 KTS | | | | | | | | | | | | | | |
| 65 | 95.7 | 92.6 | 100.0 | 87.4 | 0.82 | 0.73 | -0.19 | -0.20 | 6.4 | 6.4 | 243.3 | 226.8 | 229.4 | 213.8 |
| 66 | - | 95.3 | 102.2 | 88.6 | 0.77 | 0.71 | - | -0.19 | - | 6.9 | 321.2 | 301.5 | 227.8 | 213.8 |
| 67 | - | 93.0 | 100.4 | 87.5 | 0.50 | 0.45 | - | -0.12 | - | 6.6 | 257.6 | 246.9 | 223.1 | 213.8 |
| 68 | 97.6 | 93.9 | 100.5 | 87.1 | 0.33 | 0.31 | -0.09 | -0.09 | 7.4 | 6.9 | 295.0 | 286.8 | 220.0 | 213.8 |
| Avg. | 96.6 | 93.7 | 100.8 | 87.6 | 0.60 | 0.55 | -0.14 | -0.15 | 6.9 | 6.7 | 279.3 | 265.5 | 225.0 | 213.8 |
| Std Dev | 1.3 | 1.5 | 1.2 | 0.8 | 0.28 | 0.25 | 0.07 | 0.07 | 0.7 | 0.3 | 43.4 | 42.4 | 5.3 | 0.0 |

JUNE 23, 1980

SITE: 56 SIDELINE - 150 M. SOUTH (FLUSH)

TABLE NO. B.2-1.6

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/19/81

CORRECTION DATA

JUNE 23, 1980

SITE: 6 SIDELINE - 284 M. NORTH

| EV | CORRECTED | | | CORRECTIONS (dB) | | | | CONSTANTS | | TRACKING DATA (METERS) | | | | |
|----------|-----------|------|-------|------------------|---------------|---------------|---------------|---------------|------|------------------------|-------|-------|-------|-------|
| | EPNL | NEL | PNLTM | dBAM | $\sqrt{1(P)}$ | $\sqrt{1(A)}$ | $\sqrt{2(P)}$ | $\sqrt{2(A)}$ | K(P) | K(A) | SR | CPA | SRR | CPAR |
| APPROACH | | | | | | | | | | | | | | |
| 34 | 86.6 | 84.7 | 86.0 | 73.8 | -0.84 | -0.76 | 0.22 | 0.22 | 7.3 | 7.4 | 310.2 | 332.7 | 286.7 | 307.4 |
| 36 | 87.1 | 85.0 | 88.5 | 75.7 | -0.94 | -0.86 | 0.21 | 0.21 | 4.0 | 6.2 | 311.6 | 337.6 | 283.8 | 307.4 |
| 40 | 87.1 | 84.8 | 87.6 | 76.1 | -0.60 | -0.54 | 0.12 | 0.11 | 6.5 | 6.1 | 459.3 | 479.6 | 294.4 | 307.4 |
| 42 | 82.6 | 80.7 | 82.9 | 71.6 | -0.77 | -0.68 | 0.18 | 0.17 | 7.0 | 6.6 | 438.4 | 464.6 | 290.1 | 307.4 |
| 44 | 88.6 | 86.4 | 88.3 | 76.8 | -0.45 | -0.41 | 0.11 | 0.11 | 7.6 | 7.1 | 323.7 | 335.1 | 297.0 | 307.4 |
| 54 | 86.4 | 84.3 | 86.9 | 75.0 | -0.26 | -0.24 | 0.06 | 0.06 | 6.9 | 6.7 | 349.4 | 356.8 | 301.0 | 307.4 |
| 56 | 87.1 | 85.1 | 86.6 | 75.0 | 0.23 | 0.22 | -0.07 | -0.07 | 7.1 | 6.9 | 515.6 | 503.8 | 314.6 | 307.4 |
| Avg. | 86.5 | 84.4 | 86.7 | 74.9 | -0.52 | -0.47 | 0.12 | 0.12 | 6.9 | 6.7 | 386.9 | 401.4 | 295.4 | 307.4 |
| Std Dv | 2.0 | 1.9 | 2.1 | 1.9 | 0.44 | 0.40 | 0.11 | 0.11 | 0.6 | 0.5 | 91.0 | 84.6 | 11.3 | 0.0 |
| TAKEOFF | | | | | | | | | | | | | | |
| 33 | - | 84.0 | 86.5 | 73.7 | -0.51 | -0.43 | - | 0.08 | - | 7.9 | 309.1 | 316.4 | 296.7 | 303.7 |
| 35 | 88.0 | 85.5 | 87.4 | 75.6 | -0.10 | -0.08 | -0.01 | -0.01 | 7.8 | 7.3 | 322.2 | 320.8 | 305.0 | 303.7 |
| 37 | - | 84.6 | 87.0 | 74.8 | -0.50 | -0.47 | - | 0.09 | - | 7.2 | 371.4 | 382.8 | 294.7 | 303.7 |
| 39 | 87.8 | 85.1 | 86.7 | 74.4 | -0.08 | -0.05 | -0.02 | -0.02 | 8.1 | 7.7 | 305.9 | 303.8 | 305.8 | 303.7 |
| 41 | 87.6 | 84.9 | 87.4 | 73.8 | -0.34 | -0.27 | 0.05 | 0.05 | 7.6 | 8.2 | 303.0 | 307.2 | 299.4 | 303.7 |
| 43 | 87.2 | 84.5 | 87.0 | 73.9 | -0.32 | -0.33 | 0.07 | 0.07 | 7.6 | 7.6 | 303.9 | 310.3 | 297.4 | 303.7 |
| 53 | 87.9 | 85.2 | 88.2 | 73.9 | 0.33 | 0.30 | -0.11 | -0.11 | 7.4 | 7.7 | 336.1 | 324.9 | 314.1 | 303.7 |
| 55 | 87.3 | 84.4 | 87.1 | 73.0 | 0.28 | 0.25 | -0.09 | -0.10 | 7.4 | 8.2 | 322.7 | 313.7 | 312.3 | 303.7 |
| Avg. | 87.6 | 84.8 | 87.2 | 74.1 | -0.15 | -0.13 | -0.02 | 0.01 | 7.7 | 7.7 | 321.8 | 322.5 | 303.2 | 303.7 |
| Std Dv | 0.4 | 0.5 | 0.5 | 0.9 | 0.35 | 0.32 | 0.08 | 0.09 | 0.3 | 0.4 | 25.0 | 27.3 | 7.9 | 0.0 |

TABLE NO. B.2-2.6

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/ISC
12/19/81

CORRECTION DATA

| SITE: 6 | | SIDELINE - 284 M. NORTH | | JUNE 23, 1980 | | | | | | | | | |
|---|------|-------------------------|-------|---------------|---|------------------------|-------|-----|-----|-------|-------|-------|-------|
| CORRECTED | | CORRECTIONS (dB) | | CONSTANTS | | TRACKING DATA (METERS) | | | | | | | |
| EV | EPNL | NEL | PNLTM | dBAM | $\wedge 1(P) \wedge 1(A) \wedge 2(P) \wedge 2(A)$ | K(P) | K(A) | SR | CPA | SRR | CPAR | | |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 93 KTS | | | | | | | | | | | | | |
| 21 | 83.6 | 82.1 | 82.2 | 70.5 | -0.29 | -0.15 | -0.05 | 7.9 | 8.0 | 353.8 | 348.7 | 326.3 | 321.5 |
| 22 | 84.1 | 82.1 | 84.0 | 71.6 | -0.15 | -0.17 | -0.03 | 7.7 | 7.6 | 329.3 | 326.6 | 324.1 | 321.5 |
| 23 | 80.7 | 79.4 | 79.6 | 68.3 | -2.20 | -1.92 | 0.51 | 7.4 | 7.3 | 279.3 | 328.1 | 273.7 | 321.5 |
| 24 | 82.0 | 79.9 | 81.1 | 68.8 | -1.36 | -1.29 | 0.33 | 7.7 | 7.8 | 329.7 | 364.0 | 291.3 | 321.5 |
| Avg. | 82.6 | 80.9 | 81.7 | 69.8 | -1.00 | -0.88 | 0.19 | 7.7 | 7.7 | 323.0 | 341.8 | 303.8 | 321.5 |
| Std Dv | 1.9 | 1.8 | 2.3 | 1.9 | 1.18 | 1.07 | 0.34 | 0.3 | 0.3 | 38.4 | 21.9 | 31.5 | 0.0 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 109 KTS | | | | | | | | | | | | | |
| 29 | 83.3 | 81.3 | 83.3 | 71.3 | -0.29 | -0.29 | 0.01 | 7.6 | 7.6 | 320.5 | 321.6 | 320.4 | 321.5 |
| 30 | 83.4 | 81.6 | 83.8 | 71.8 | -0.96 | -0.91 | 0.21 | 7.4 | 7.5 | 301.7 | 322.3 | 301.0 | 321.5 |
| 31 | 82.8 | 81.0 | 82.9 | 71.2 | -0.30 | -0.29 | 0.01 | 7.3 | 7.4 | 324.0 | 325.1 | 320.4 | 321.5 |
| 32 | 84.6 | 82.6 | 84.5 | 73.2 | 0.24 | 0.22 | -0.15 | 7.7 | 7.4 | 359.5 | 343.4 | 336.7 | 321.5 |
| Avg. | 83.5 | 81.6 | 83.6 | 71.9 | -0.33 | -0.32 | 0.02 | 7.5 | 7.5 | 326.4 | 328.1 | 319.6 | 321.5 |
| Std Dv | 0.9 | 0.9 | 0.8 | 1.1 | 0.60 | 0.57 | 0.19 | 0.2 | 0.1 | 29.6 | 12.6 | 17.9 | 0.0 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 124 KTS | | | | | | | | | | | | | |
| 49 | 86.1 | 84.5 | 88.1 | 76.2 | -0.24 | -0.19 | 0.03 | 7.1 | 7.2 | 330.7 | 334.0 | 318.4 | 321.5 |
| 50 | 84.7 | 82.6 | 86.3 | 74.0 | -0.10 | -0.07 | 0.00 | 7.1 | 7.1 | 322.1 | 322.0 | 321.6 | 321.5 |
| 51 | 86.7 | 84.9 | 87.5 | 75.6 | -0.27 | -0.26 | 0.06 | 7.3 | 7.3 | 323.0 | 329.1 | 315.6 | 321.5 |
| 52 | 84.5 | 82.6 | 85.3 | 73.7 | 0.17 | 0.17 | -0.07 | 7.4 | 7.3 | 365.7 | 357.7 | 328.7 | 321.5 |
| Avg. | 85.5 | 83.7 | 86.8 | 74.9 | -0.11 | -0.09 | 0.00 | 7.2 | 7.2 | 335.4 | 335.7 | 321.0 | 321.5 |
| Std Dv | 1.3 | 1.5 | 1.5 | 1.5 | 0.25 | 0.23 | 0.07 | 0.2 | 0.1 | 25.2 | 19.0 | 6.9 | 0.0 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | |
| 17 | 84.6 | 82.4 | 84.8 | 72.9 | -1.31 | -1.24 | 0.32 | 7.6 | 7.4 | 293.7 | 323.3 | 292.1 | 321.5 |
| 18 | 87.4 | 85.7 | 89.4 | 78.4 | -0.54 | -0.56 | 0.06 | 6.9 | 6.6 | 395.3 | 403.4 | 315.0 | 321.5 |
| 19 | 85.6 | 83.7 | 86.9 | 75.0 | -0.81 | -0.62 | 0.09 | 7.1 | 7.2 | 328.9 | 339.1 | 311.9 | 321.5 |
| 20 | 86.6 | 85.2 | 89.3 | 78.0 | -0.50 | -0.43 | 0.03 | 6.5 | 6.5 | 370.0 | 373.5 | 318.5 | 321.5 |
| Avg. | 86.0 | 84.2 | 87.6 | 76.1 | -0.79 | -0.71 | 0.12 | 7.0 | 6.9 | 347.0 | 359.8 | 309.4 | 321.5 |
| Std Dv | 1.5 | 1.8 | 2.7 | 3.2 | 0.46 | 0.44 | 0.16 | 0.5 | 0.6 | 54.9 | 43.9 | 14.5 | 0.0 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 155 KTS | | | | | | | | | | | | | |
| 25 | 88.7 | 85.9 | 90.7 | 78.1 | 0.56 | 0.55 | -0.24 | 7.1 | 7.3 | 348.6 | 322.3 | 347.8 | 321.5 |
| 26 | 87.8 | 85.6 | 90.0 | 77.7 | -1.20 | -1.14 | 0.28 | 7.1 | 6.9 | 297.0 | 325.0 | 293.9 | 321.5 |
| 27 | 89.1 | 85.6 | 90.9 | 77.5 | -1.06 | -1.04 | 0.23 | 7.2 | 7.1 | 335.8 | 361.0 | 299.1 | 321.5 |
| 28 | 88.3 | 86.3 | 90.6 | 78.8 | -1.26 | -1.19 | 0.30 | 7.3 | 6.9 | 300.7 | 330.2 | 292.9 | 321.5 |
| Avg. | 88.5 | 85.8 | 90.6 | 78.0 | -0.74 | -0.70 | 0.14 | 7.2 | 7.0 | 320.5 | 334.6 | 308.4 | 321.5 |
| Std Dv | 0.7 | 0.4 | 0.5 | 0.7 | 1.07 | 1.03 | 0.31 | 0.1 | 0.2 | 31.4 | 21.9 | 32.3 | 0.0 |

TABLE NO. B.2-3.6

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/19/81

CORRECTION DATA

| EV | CORRECTED | | | CORRECTIONS (dB) | | | CONSTANTS | | | TRACKING DATA (ACTUAL) | | | TRACKING DATA (METERS) (REFERENCE) | | |
|--|-----------|------|-------|------------------|-----------------------------|-----------------------------|-----------|-------|-----|------------------------|------------------|-------|------------------------------------|-------|--|
| | EPNL | NEL | PNLTH | dBAM | $\sqrt{1(P)} / \sqrt{1(A)}$ | $\sqrt{2(P)} / \sqrt{2(A)}$ | K(P) | K(A) | SR | CFA | SRR | CPAR | SRR | CPAR | |
| 300 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | | | |
| 9 | 87.2 | 85.3 | 88.8 | 76.8 | 0.09 | 0.05 | -0.10 | -0.09 | 7.6 | 7.4 | 310.2 | 301.3 | 306.6 | 297.8 | |
| 10 | 88.0 | 86.4 | 90.5 | 80.0 | 0.04 | 0.03 | -0.11 | -0.10 | 6.9 | 6.3 | 438.1 | 421.9 | 309.1 | 297.8 | |
| 15 | 86.3 | 84.1 | 87.9 | 76.2 | -0.27 | -0.28 | 0.01 | 0.01 | 7.1 | 6.9 | 297.3 | 298.0 | 297.0 | 297.8 | |
| 16 | 87.2 | 85.5 | 90.5 | 78.7 | -0.59 | -0.56 | 0.07 | 0.07 | 6.4 | 6.4 | 327.5 | 336.0 | 290.2 | 297.8 | |
| Avg. | 87.2 | 85.3 | 89.4 | 77.9 | -0.18 | -0.19 | -0.03 | -0.03 | 7.0 | 6.7 | 343.3 | 339.3 | 300.8 | 297.8 | |
| Std Dv | 0.9 | 1.1 | 1.6 | 2.1 | 0.39 | 0.35 | 0.11 | 0.10 | 0.6 | 0.6 | 78.9 | 70.7 | 10.7 | 0.0 | |
| 700 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | | | |
| 7 | 84.0 | 83.9 | 86.5 | 74.1 | 0.03 | 0.11 | -0.14 | -0.14 | 7.6 | 7.8 | 410.5 | 393.6 | 369.6 | 354.3 | |
| 8 | 84.2 | 82.8 | 85.3 | 73.6 | -1.53 | -1.48 | 0.33 | 0.33 | 7.3 | 7.3 | 420.1 | 465.6 | 319.7 | 354.3 | |
| 13 | 86.2 | 84.0 | 87.0 | 74.8 | -0.18 | -0.22 | -0.03 | -0.03 | 7.6 | 7.5 | 401.6 | 397.7 | 357.8 | 354.3 | |
| 14 | - | 83.6 | 85.5 | 74.9 | -1.38 | -1.29 | - | 0.33 | - | 7.6 | 325.3 | 359.4 | 320.7 | 354.3 | |
| Avg. | 85.5 | 83.6 | 84.1 | 74.4 | -0.76 | -0.72 | 0.05 | 0.12 | 7.5 | 7.6 | 389.4 | 404.0 | 342.0 | 354.3 | |
| Std Dv | 1.6 | 0.7 | 1.0 | 0.7 | 0.98 | 0.96 | 0.35 | 0.30 | 0.2 | 0.2 | 53.1 | 54.5 | 31.3 | 0.0 | |
| 1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | | | |
| 45 | 84.5 | 82.8 | 85.2 | 74.0 | 0.04 | 0.04 | -0.05 | -0.04 | 7.5 | 7.2 | 505.9 | 498.8 | 421.4 | 415.6 | |
| 46 | 84.9 | 82.7 | 86.2 | 73.0 | 0.32 | 0.29 | -0.11 | -0.12 | 7.0 | 7.4 | 482.5 | 465.1 | 431.1 | 415.6 | |
| 47 | 85.4 | 83.8 | 86.1 | 74.3 | 0.03 | 0.02 | -0.04 | -0.04 | 7.5 | 7.6 | 582.6 | 575.1 | 420.9 | 415.6 | |
| 48 | 84.7 | 82.2 | 86.4 | 72.4 | -0.37 | -0.37 | 0.07 | 0.08 | 6.8 | 7.5 | 485.0 | 496.6 | 405.9 | 415.6 | |
| 1 | | | | | | | | | | | NO TRACKING DATA | | | | |
| 2 | | | | | | | | | | | NO TRACKING DATA | | | | |
| 3 | | | | | | | | | | | NO TRACKING DATA | | | | |
| 4 | | | | | | | | | | | NO TRACKING DATA | | | | |
| Avg. | 84.9 | 82.9 | 86.0 | 73.4 | 0.00 | -0.01 | -0.03 | -0.03 | 7.2 | 7.4 | 514.0 | 508.9 | 419.8 | 415.6 | |
| Std Dv | 0.5 | 0.9 | 0.7 | 1.1 | 0.35 | 0.33 | 0.09 | 0.10 | 0.4 | 0.2 | 57.4 | 57.3 | 12.8 | 0.0 | |
| 1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | | | |
| 5 | 81.9 | 80.1 | 80.9 | 69.2 | -0.25 | -0.27 | -0.04 | -0.04 | 7.9 | 7.5 | 674.1 | 665.4 | 544.0 | 537.1 | |
| 6 | 82.3 | 80.8 | 82.9 | 71.6 | -0.25 | -0.16 | -0.10 | -0.09 | 7.2 | 7.1 | 655.7 | 636.0 | 553.7 | 537.1 | |
| 11 | | | | | | | | | | | NO TRACKING DATA | | | | |
| 12 | 81.3 | 79.8 | 81.5 | 68.9 | -1.34 | -1.29 | 0.18 | 0.19 | 7.6 | 8.3 | 864.9 | 913.0 | 508.8 | 537.1 | |
| Avg. | 81.9 | 80.2 | 81.8 | 69.9 | -0.61 | -0.57 | 0.01 | 0.02 | 7.6 | 7.6 | 731.5 | 738.1 | 535.5 | 537.1 | |
| Std Dv | 0.7 | 0.7 | 1.4 | 2.1 | 0.89 | 0.88 | 0.21 | 0.21 | 0.4 | 0.8 | 163.9 | 215.2 | 33.4 | 0.0 | |

JUNE 23, 1980

SITE: 6 SIDELINE - 284 M. NORTH

TABLE NO. B.2-4.6

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/19/81CORRECTION DATA - MAIN ROTOR RPM 107%
JUNE 23, 1980

| EV | CORRECTED | | CORRECTIONS (dB) | | | | CONSTANTS | | TRACKING DATA (METERS) | | | | | |
|---|-----------|------|------------------|------|-----------------------------|-----------------------------|-----------|-------|------------------------|-----|-------|-------|-------|-------|
| | EPNL | NEL | PNLTM | dBAM | $\sqrt{1(P)} / \sqrt{1(A)}$ | $\sqrt{2(P)} / \sqrt{2(A)}$ | K(P) | K(A) | SR | CFA | SRR | CPAR | | |
| APPROACH | | | | | | | | | | | | | | |
| 69 | 87.5 | 85.4 | 88.1 | 76.7 | -0.34 | -0.31 | 0.09 | 0.08 | 7.0 | 6.5 | 467.2 | 481.3 | 298.4 | 307.4 |
| 70 | 87.1 | 85.3 | 89.6 | 77.2 | 0.19 | 0.17 | -0.04 | -0.04 | 5.4 | 5.8 | 334.4 | 328.7 | 312.7 | 307.4 |
| Avg. | 87.3 | 85.3 | 88.9 | 77.0 | -0.07 | -0.07 | 0.02 | 0.02 | 6.2 | 6.1 | 400.8 | 405.0 | 305.6 | 307.4 |
| Std Dev | 0.3 | 0.1 | 1.1 | 0.3 | 0.37 | 0.34 | 0.09 | 0.08 | 1.1 | 0.5 | 93.9 | 107.9 | 10.1 | 0.0 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 93 KTS | | | | | | | | | | | | | | |
| 61 | 85.7 | 83.9 | 85.0 | 73.6 | 0.51 | 0.49 | -0.14 | -0.14 | 7.7 | 7.3 | 616.3 | 590.4 | 335.6 | 321.5 |
| 62 | 83.6 | 81.7 | 82.8 | 70.9 | -0.30 | -0.28 | 0.08 | 0.08 | 7.1 | 7.0 | 316.0 | 324.2 | 313.4 | 321.5 |
| 63 | 84.6 | 82.9 | 84.4 | 72.2 | 0.27 | 0.26 | -0.08 | -0.08 | 7.7 | 7.9 | 532.5 | 540.0 | 329.0 | 321.5 |
| 64 | 83.2 | 81.2 | 82.0 | 70.2 | 0.03 | 0.02 | -0.01 | -0.01 | 7.9 | 7.7 | 354.1 | 353.3 | 322.3 | 321.5 |
| Avg. | 84.3 | 82.4 | 83.5 | 71.7 | 0.13 | 0.12 | -0.04 | -0.04 | 7.6 | 7.5 | 459.7 | 452.0 | 325.1 | 321.5 |
| Std Dev | 1.4 | 1.5 | 1.7 | 1.8 | 0.42 | 0.40 | 0.12 | 0.12 | 0.4 | 0.5 | 180.2 | 162.7 | 11.7 | 0.0 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | | |
| 57 | 88.4 | 86.6 | 89.5 | 77.3 | 0.30 | 0.28 | -0.09 | -0.10 | 7.4 | 7.8 | 366.9 | 356.6 | 330.8 | 321.5 |
| 58 | 87.4 | 84.8 | 89.1 | 76.7 | 0.36 | 0.31 | -0.09 | -0.09 | 7.1 | 7.0 | 343.6 | 333.7 | 331.1 | 321.5 |
| 59 | 88.9 | 87.0 | 90.6 | 78.8 | 0.16 | 0.14 | -0.04 | -0.05 | 6.9 | 7.4 | 370.2 | 364.8 | 326.3 | 321.5 |
| 60 | 86.8 | 84.1 | 87.7 | 75.4 | 0.00 | 0.00 | 0.00 | 0.00 | 7.7 | 7.2 | 343.6 | 343.4 | 321.7 | 321.5 |
| Avg. | 87.9 | 85.6 | 89.2 | 77.0 | 0.20 | 0.18 | -0.05 | -0.06 | 7.3 | 7.4 | 356.1 | 349.6 | 327.5 | 321.5 |
| Std Dev | 1.2 | 1.7 | 1.5 | 1.8 | 0.20 | 0.17 | 0.05 | 0.06 | 0.4 | 0.4 | 17.7 | 16.9 | 5.4 | 0.0 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 155 KTS | | | | | | | | | | | | | | |
| 65 | 90.8 | 88.5 | 93.5 | 80.8 | -0.02 | -0.03 | 0.01 | 0.01 | 6.6 | 7.1 | 332.3 | 333.1 | 320.7 | 321.5 |
| 66 | 89.1 | 85.6 | 90.5 | 78.3 | -0.35 | -0.35 | 0.10 | 0.09 | 6.9 | 6.6 | 366.9 | 379.0 | 311.3 | 321.5 |
| 67 | 90.7 | 88.1 | 92.4 | 79.9 | -0.04 | -0.04 | 0.01 | 0.01 | 6.9 | 7.3 | 333.0 | 334.3 | 320.3 | 321.5 |
| 68 | - | 86.2 | 91.4 | 78.6 | 0.27 | 0.23 | - | -0.07 | - | 7.1 | 349.3 | 341.8 | 328.6 | 321.5 |
| Avg. | 90.2 | 87.1 | 91.9 | 79.4 | -0.03 | -0.05 | 0.04 | 0.01 | 6.8 | 7.0 | 345.4 | 347.0 | 320.2 | 321.5 |
| Std Dev | 1.4 | 1.7 | 1.6 | 1.4 | 0.31 | 0.29 | 0.07 | 0.08 | 0.2 | 0.4 | 20.1 | 26.5 | 8.7 | 0.0 |

TABLE NO. B.3-1.1

AUGUSTA A-109 HELICOPTER (ITALIAN)

DOT/TSC
12/19/81

CORRECTION DATA

CENTERLINE - CENTER

JUNE 24, 1980

SITE: 1

| EV | CORRECTED | | | CORRECTIONS (dB) | | | | CONSTANTS | | TRACKING DATA (METERS) | | | | |
|-----------------|-----------|------|-------|------------------|---------------|---------------|---------------|---------------|------|------------------------|-------|-------|-------|-------|
| | EPNL | NEL | PNLTH | dBAM | $\wedge 1(P)$ | $\wedge 1(A)$ | $\wedge 2(P)$ | $\wedge 2(A)$ | K(P) | K(A) | SR | CPA | SRR | CPAR |
| APPROACH | | | | | | | | | | | | | | |
| 24 | 99.4 | 97.5 | 102.0 | 89.8 | 0.45 | 0.44 | -0.14 | -0.14 | 6.1 | 6.4 | 145.4 | 138.1 | 124.5 | 118.2 |
| 26 | 100.1 | 98.1 | 101.3 | 88.8 | 2.05 | 1.97 | -0.67 | -0.66 | 7.1 | 7.0 | 171.0 | 137.8 | 146.8 | 118.2 |
| 28 | 99.1 | 97.1 | 101.1 | 88.8 | 0.08 | 0.08 | -0.04 | -0.04 | 7.0 | 7.1 | 139.3 | 137.5 | 119.7 | 118.2 |
| 32 | 98.8 | 96.4 | 99.2 | 87.0 | -0.09 | -0.08 | 0.02 | 0.02 | 7.8 | 7.1 | 148.1 | 148.9 | 117.6 | 118.2 |
| 34 | 99.2 | 96.8 | 100.9 | 87.7 | 0.09 | 0.09 | -0.03 | -0.04 | 6.6 | 7.2 | 123.6 | 122.1 | 119.7 | 118.2 |
| 36 | 98.4 | 96.2 | 99.5 | 87.6 | 0.82 | 0.78 | -0.28 | -0.27 | 7.5 | 7.2 | 198.3 | 181.9 | 128.9 | 118.2 |
| 38 | 98.4 | 95.8 | 100.8 | 88.3 | -0.05 | -0.03 | 0.00 | 0.00 | 6.5 | 6.4 | 194.5 | 194.4 | 118.2 | 118.2 |
| 40 | 98.5 | 96.2 | 101.1 | 88.5 | -0.08 | -0.06 | 0.01 | 0.01 | 6.9 | 7.1 | 144.8 | 145.5 | 117.7 | 118.2 |
| 64 | 96.7 | 94.0 | 100.1 | 87.2 | -0.32 | -0.30 | 0.09 | 0.09 | 6.3 | 6.5 | 124.9 | 129.0 | 114.4 | 118.2 |
| Avg. | 98.8 | 96.4 | 100.7 | 88.2 | 0.33 | 0.32 | -0.12 | -0.11 | 6.9 | 6.9 | 154.4 | 148.4 | 123.1 | 118.2 |
| Std Dv | 1.0 | 1.2 | 1.0 | 1.0 | 0.78 | 0.74 | 0.25 | 0.25 | 0.6 | 0.4 | 29.5 | 25.8 | 10.5 | 0.0 |
| TAKEOFF | | | | | | | | | | | | | | |
| 23 | | | | | | | | | | | | | | |
| 25 | 91.6 | 88.1 | 94.9 | 81.4 | -5.92 | -5.54 | 1.47 | 1.49 | 5.9 | 6.0 | 83.9 | 148.9 | 77.1 | 136.9 |
| 27 | 91.4 | 88.3 | 94.9 | 82.1 | -6.43 | -5.97 | 1.57 | 1.50 | 5.8 | 5.6 | 82.9 | 154.8 | 73.4 | 136.9 |
| 29 | 90.8 | 87.7 | 93.6 | 80.2 | -5.46 | -5.08 | 1.45 | 1.46 | 6.4 | 6.5 | 94.4 | 158.8 | 81.4 | 136.9 |
| 31 | 89.7 | 86.9 | 92.9 | 80.0 | -4.79 | -4.43 | 1.27 | 1.25 | 6.3 | 6.2 | 99.5 | 158.1 | 86.2 | 136.9 |
| 33 | 91.1 | 87.8 | 95.0 | 81.3 | -4.49 | -4.17 | 1.11 | 1.12 | 5.9 | 6.0 | 98.6 | 152.0 | 88.8 | 136.9 |
| 35 | 90.7 | 87.6 | 94.5 | 81.2 | -5.21 | -4.81 | 1.36 | 1.32 | 6.2 | 6.1 | 101.1 | 166.9 | 82.9 | 136.9 |
| 37 | 90.4 | 87.2 | 93.1 | 79.9 | -4.91 | -4.56 | 1.36 | 1.33 | 6.6 | 6.4 | 93.2 | 150.2 | 85.0 | 136.9 |
| 39 | | | | | | | | | | | | | | |
| 41 | 90.1 | 86.8 | 93.6 | 80.2 | -4.82 | -4.45 | 1.24 | 1.19 | 6.2 | 6.0 | 107.1 | 169.1 | 86.7 | 136.9 |
| Avg. | 90.7 | 87.6 | 94.1 | 80.8 | -5.25 | -4.88 | 1.35 | 1.33 | 6.2 | 6.1 | 95.1 | 157.3 | 82.7 | 136.9 |
| Std Dv | 0.7 | 0.6 | 0.9 | 0.9 | 0.70 | 0.67 | 0.16 | 0.15 | 0.3 | 0.3 | 9.0 | 8.1 | 5.6 | 0.0 |

NO TRACKING DATA

NO TRACKING DATA

TABLE NO. B.3-2.1

AUGUSTA A-109 HELICOPTER (ITALIAN)

DOT/TSC
12/19/81

CORRECTION DATA

JUNE 24, 1980

SITE: 1

CENTERLINE - CENTER

| EV | CORRECTED | | | CORRECTIONS (dB) | | | | CONSTANTS | | | TRACKING DATA (ACTUAL) | | | TRACKING DATA (REFERENCE) | | |
|---|-----------|------|-------|------------------|---------------|---------------|---------------|---------------|------|------|------------------------|-------|-------|---------------------------|--|--|
| | EPNL | NEL | PRMTH | dBAM | $\Delta 1(P)$ | $\Delta 1(A)$ | $\Delta 2(P)$ | $\Delta 2(A)$ | K(P) | K(A) | SR | CFA | SRR | CPAR | | |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 87 KTS | | | | | | | | | | | | | | | | |
| 21 | 89.7 | 86.3 | 92.7 | 77.8 | 0.50 | 0.48 | -0.16 | -0.19 | 6.2 | 7.1 | 583.6 | 548.9 | 160.7 | 151.2 | | |
| 22 | 89.5 | 86.4 | 92.9 | 78.2 | 0.57 | 0.56 | -0.16 | -0.18 | 5.6 | 6.3 | 181.7 | 170.2 | 161.4 | 151.2 | | |
| 46 | 89.3 | 85.9 | 92.8 | 78.5 | 0.41 | 0.39 | -0.11 | -0.12 | 5.9 | 6.5 | 175.8 | 168.3 | 157.9 | 151.2 | | |
| 47 | 89.6 | 86.6 | 92.6 | 77.5 | 1.24 | 1.18 | -0.35 | -0.40 | 6.5 | 7.4 | 185.5 | 163.7 | 171.3 | 151.2 | | |
| Avg. | 89.5 | 86.3 | 92.8 | 78.0 | 0.68 | 0.65 | -0.19 | -0.22 | 6.0 | 6.8 | 281.6 | 262.8 | 162.8 | 151.2 | | |
| Std Dv | 0.2 | 0.3 | 0.2 | 0.5 | 0.46 | 0.44 | 0.13 | 0.15 | 0.5 | 0.6 | 246.6 | 233.7 | 7.2 | 0.0 | | |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 102 KTS | | | | | | | | | | | | | | | | |
| 51 | 90.4 | 87.1 | 93.4 | 79.3 | 1.60 | 1.49 | -0.47 | -0.49 | 6.7 | 7.0 | 198.1 | 168.7 | 177.5 | 151.2 | | |
| 52 | 90.3 | 87.1 | 92.6 | 78.6 | 0.33 | 0.31 | -0.10 | -0.10 | 7.0 | 6.9 | 170.9 | 165.1 | 156.5 | 151.2 | | |
| 53 | 90.2 | 86.9 | 93.1 | 79.0 | 1.45 | 1.35 | -0.42 | -0.45 | 6.6 | 7.2 | 197.5 | 170.8 | 174.9 | 151.2 | | |
| 56 | 90.7 | 87.6 | 93.2 | 78.7 | 0.35 | 0.33 | -0.10 | -0.10 | 6.5 | 6.6 | 182.4 | 175.9 | 156.8 | 151.2 | | |
| Avg. | 90.4 | 87.2 | 93.1 | 78.9 | 0.93 | 0.87 | -0.27 | -0.28 | 6.7 | 6.9 | 187.2 | 170.1 | 166.4 | 151.2 | | |
| Std Dv | 0.3 | 0.4 | 0.4 | 0.4 | 0.84 | 0.78 | 0.25 | 0.26 | 0.2 | 0.3 | 16.0 | 5.5 | 13.9 | 0.0 | | |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 116 KTS | | | | | | | | | | | | | | | | |
| 54 | 91.7 | 88.3 | 93.9 | 79.7 | 0.36 | 0.34 | -0.11 | -0.12 | 6.9 | 7.5 | 177.7 | 171.3 | 156.9 | 151.2 | | |
| 55 | 91.7 | 88.6 | 93.4 | 79.7 | 0.73 | 0.69 | -0.22 | -0.23 | 6.7 | 7.0 | 189.4 | 175.8 | 162.9 | 151.2 | | |
| 57 | 91.1 | 87.9 | 92.6 | 79.0 | 1.23 | 1.16 | -0.40 | -0.40 | 7.5 | 7.5 | 200.6 | 177.4 | 170.9 | 151.2 | | |
| 58 | 90.7 | 87.4 | 92.9 | 78.5 | 0.35 | 0.33 | -0.11 | -0.12 | 6.8 | 7.4 | 187.2 | 180.6 | 156.7 | 151.2 | | |
| Avg. | 91.3 | 88.0 | 93.2 | 79.2 | 0.67 | 0.63 | -0.21 | -0.22 | 7.0 | 7.3 | 188.7 | 176.3 | 161.8 | 151.2 | | |
| Std Dv | 0.6 | 0.6 | 0.7 | 0.8 | 0.51 | 0.48 | 0.17 | 0.16 | 0.5 | 0.3 | 11.5 | 4.7 | 8.2 | 0.0 | | |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS | | | | | | | | | | | | | | | | |
| 17 | 92.8 | 89.3 | 95.5 | 81.8 | 1.37 | 1.29 | -0.41 | -0.41 | 6.8 | 6.7 | 523.8 | 455.4 | 173.9 | 151.2 | | |
| 18 | 92.8 | 89.5 | 94.3 | 81.0 | 0.96 | 0.92 | -0.33 | -0.33 | 7.3 | 7.2 | 330.2 | 297.5 | 167.8 | 151.2 | | |
| 19 | 92.8 | 89.3 | 95.7 | 82.4 | 0.72 | 0.70 | -0.26 | -0.24 | 7.3 | 6.9 | 256.8 | 236.7 | 164.0 | 151.2 | | |
| 20 | | | | | | | | | | | NO TRACKING DATA | | | | | |
| 62 | 92.4 | 89.1 | 94.4 | 81.0 | 0.00 | 0.00 | -0.01 | -0.01 | 7.3 | 7.3 | 275.3 | 274.7 | 151.5 | 151.2 | | |
| 63 | 92.8 | 89.5 | 95.2 | 81.9 | 1.28 | 1.20 | -0.40 | -0.40 | 7.5 | 7.5 | 305.9 | 270.7 | 170.8 | 151.2 | | |
| Avg. | 92.7 | 89.3 | 95.0 | 81.6 | 0.87 | 0.82 | -0.28 | -0.28 | 7.2 | 7.1 | 338.4 | 307.0 | 165.6 | 151.2 | | |
| Std Dv | 0.2 | 0.2 | 0.7 | 0.7 | 0.63 | 0.60 | 0.19 | 0.19 | 0.3 | 0.4 | 124.0 | 99.0 | 10.0 | 0.0 | | |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 145 KTS | | | | | | | | | | | | | | | | |
| 48 | | | | | | | | | | | NO TRACKING DATA | | | | | |
| 49 | 95.5 | 91.7 | 98.0 | 83.7 | 1.09 | 1.01 | -0.32 | -0.33 | 7.3 | 7.6 | 453.8 | 410.8 | 167.0 | 151.2 | | |
| 50 | 95.3 | 91.7 | 98.4 | 84.7 | -0.72 | -0.68 | 0.20 | 0.20 | 6.9 | 6.7 | 285.1 | 304.9 | 141.4 | 151.2 | | |
| 59 | 95.1 | 91.6 | 98.5 | 84.6 | -0.24 | -0.22 | 0.06 | 0.06 | 6.7 | 7.1 | 437.1 | 445.5 | 148.3 | 151.2 | | |
| 60 | 94.8 | 91.1 | 96.7 | 83.1 | 0.44 | 0.42 | -0.14 | -0.14 | 7.3 | 7.2 | 324.6 | 310.8 | 157.9 | 151.2 | | |
| 61 | 93.9 | 90.5 | 96.5 | 82.6 | -0.04 | -0.04 | 0.00 | 0.00 | 7.2 | 7.3 | 444.6 | 445.1 | 151.0 | 151.2 | | |
| Avg. | 94.9 | 91.3 | 97.6 | 83.7 | 0.11 | 0.10 | -0.04 | -0.04 | 7.1 | 7.2 | 389.0 | 383.4 | 153.1 | 151.2 | | |
| Std Dv | 0.7 | 0.6 | 1.1 | 1.1 | 0.80 | 0.74 | 0.23 | 0.23 | 0.3 | 0.3 | 90.5 | 81.4 | 11.3 | 0.0 | | |

TABLE NO. B.3-3.1

AUGUSTA A-109 HELICOPTER (ITALIAN)

DDT/TSC
12/19/81

CORRECTION DATA

SITE: 1

CENTERLINE - CENTER

JUNE 24, 1980

| EV | CORRECTED | | CORRECTIONS (dB) | | | | CONSTANTS | | TRACKING DATA (METERS) | | | | | |
|--|-----------|------|------------------|------|---------------|---------------|---------------|---------------|------------------------|------|-------|-------|-------|-------|
| | EPNL | NEL | PNLTH | dBAM | $\wedge 1(P)$ | $\wedge 1(A)$ | $\wedge 2(P)$ | $\wedge 2(A)$ | K(P) | K(A) | SR | CPA | SRR | CPAR |
| 300 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS | | | | | | | | | | | | | | |
| 9 | 95.0 | 91.7 | 98.8 | 85.7 | 1.19 | 1.16 | -0.39 | -0.37 | 6.8 | 6.5 | 160.9 | 141.2 | 102.9 | 90.2 |
| 10 | 95.5 | 92.1 | 98.3 | 84.8 | 1.04 | 1.01 | -0.38 | -0.37 | 7.7 | 7.5 | 153.1 | 136.5 | 101.2 | 90.2 |
| 15 | 96.9 | 93.7 | 99.9 | 86.6 | 0.85 | 0.82 | -0.27 | -0.27 | 6.6 | 6.6 | 336.7 | 306.4 | 99.1 | 90.2 |
| 16 | 97.1 | 94.1 | 99.8 | 86.4 | 0.36 | 0.36 | -0.15 | -0.14 | 7.6 | 7.1 | 109.2 | 104.4 | 94.4 | 90.2 |
| Avg. | 96.1 | 92.9 | 99.2 | 85.9 | 0.86 | 0.84 | -0.30 | -0.29 | 7.1 | 6.9 | 190.0 | 172.1 | 99.4 | 90.2 |
| Std Dv | 1.2 | 1.4 | 1.0 | 1.0 | 0.44 | 0.43 | 0.14 | 0.13 | 0.7 | 0.6 | 123.0 | 111.5 | 4.5 | 0.0 |
| 700 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | |
| 8 | 89.9 | 87.1 | 90.3 | 76.9 | 0.24 | 0.25 | -0.11 | -0.12 | 7.2 | 7.7 | 244.4 | 239.6 | 220.0 | 212.1 |
| 13 | 91.6 | 88.8 | 92.9 | 80.4 | 0.04 | 0.06 | -0.09 | -0.09 | 7.6 | 7.2 | 686.9 | 667.6 | 218.3 | 212.1 |
| 14 | 91.6 | 88.7 | 92.1 | 79.2 | 0.23 | 0.23 | -0.13 | -0.12 | 7.5 | 7.3 | 386.2 | 371.6 | 220.5 | 212.1 |
| Avg. | 91.0 | 88.2 | 91.8 | 78.8 | 0.17 | 0.18 | -0.11 | -0.11 | 7.4 | 7.4 | 439.1 | 424.9 | 219.6 | 212.1 |
| Std Dv | 1.4 | 1.4 | 1.8 | 2.6 | 0.16 | 0.15 | 0.03 | 0.02 | 0.3 | 0.3 | 319.6 | 312.4 | 1.6 | 0.0 |
| 1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS | | | | | | | | | | | | | | |
| 2 | 88.2 | 85.3 | 88.3 | 75.2 | 0.15 | 0.18 | -0.13 | -0.12 | 7.3 | 7.1 | 554.1 | 532.6 | 315.9 | 303.6 |
| 3 | 88.3 | 85.0 | 88.6 | 75.2 | 0.67 | 0.66 | -0.29 | -0.29 | 7.8 | 7.8 | 563.2 | 517.7 | 330.2 | 303.6 |
| 4 | 87.9 | 85.1 | 88.1 | 74.2 | -0.18 | -0.14 | 0.00 | 0.00 | 7.0 | 7.6 | 330.1 | 329.9 | 303.8 | 303.6 |
| 42 | 88.0 | 85.0 | 88.7 | 76.1 | 0.08 | 0.09 | -0.04 | -0.04 | 6.9 | 6.6 | 501.2 | 493.9 | 308.1 | 303.6 |
| 43 | 88.4 | 85.4 | 89.0 | 76.2 | 0.44 | 0.42 | -0.14 | -0.13 | 7.1 | 6.8 | 816.7 | 781.5 | 317.2 | 303.6 |
| 44 | 87.1 | 84.2 | 86.7 | 73.6 | 0.09 | 0.10 | -0.05 | -0.05 | 7.6 | 7.6 | 483.6 | 476.5 | 308.1 | 303.6 |
| 45 | 88.4 | 85.2 | 89.2 | 75.9 | 0.47 | 0.45 | -0.14 | -0.14 | 6.9 | 7.0 | 764.6 | 730.4 | 317.8 | 303.6 |
| Avg. | 88.0 | 85.0 | 88.4 | 75.2 | 0.25 | 0.25 | -0.11 | -0.11 | 7.2 | 7.2 | 573.3 | 551.8 | 314.4 | 303.6 |
| Std Dv | 0.5 | 0.4 | 0.9 | 1.1 | 0.32 | 0.30 | 0.11 | 0.10 | 0.4 | 0.5 | 183.7 | 170.0 | 9.6 | 0.0 |
| 1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS | | | | | | | | | | | | | | |
| 5 | 84.3 | 81.4 | 84.4 | 70.3 | 0.76 | 0.74 | -0.28 | -0.30 | 7.1 | 7.6 | 563.3 | 514.6 | 499.1 | 456.0 |
| 6 | 85.8 | 82.9 | 84.6 | 71.6 | 0.31 | 0.32 | -0.18 | -0.17 | 7.9 | 7.7 | 527.8 | 501.5 | 479.8 | 456.0 |
| 11 | 85.5 | 82.9 | 84.7 | 72.0 | 0.70 | 0.68 | -0.28 | -0.28 | 7.5 | 7.4 | 998.4 | 916.3 | 496.8 | 456.0 |
| 12 | | | | | | | | | | | | | | |
| Avg. | 85.2 | 82.4 | 84.6 | 71.3 | 0.59 | 0.58 | -0.25 | -0.25 | 7.5 | 7.6 | 696.5 | 644.1 | 491.9 | 456.0 |
| Std Dv | 1.1 | 1.2 | 0.2 | 1.3 | 0.35 | 0.32 | 0.08 | 0.10 | 0.6 | 0.2 | 214.9 | 333.4 | 14.9 | 0.0 |

TABLE NO. B.3-1.16

AUGUSTA A-109 HELICOPTER (ITALIAN)

DOT/TSC
12/21/81

CORRECTION DATA

JUNE 24, 1980

SITE: 16 CENTERLINE - CENTER (FLUSH)

| EV | CORRECTED | | | | CORRECTIONS (dB) | | | | CONSTANTS | | | TRACKING DATA (METERS) | | | |
|----------|-----------|-------|-------|------|------------------|---------------|---------------|---------------|-----------|------|-------|------------------------|-------|-------|--|
| | EPNL | NEL | PNLTH | JBAM | $\wedge 1(P)$ | $\wedge 1(A)$ | $\wedge 2(P)$ | $\wedge 2(A)$ | K(P) | K(A) | SR | CFA | SRR | CPAR | |
| APPROACH | | | | | | | | | | | | | | | |
| 24 | 103.3 | 101.6 | 105.7 | 93.9 | 0.44 | 0.44 | -0.14 | -0.14 | 6.3 | 6.4 | 146.5 | 139.2 | 125.7 | 119.4 | |
| 26 | 103.6 | 101.7 | 104.1 | 92.9 | 2.05 | 1.98 | -0.66 | -0.68 | 7.1 | 7.3 | 211.2 | 170.5 | 148.0 | 119.4 | |
| 28 | 102.4 | 100.8 | 104.3 | 92.7 | 0.08 | 0.08 | -0.04 | -0.04 | 7.2 | 7.3 | 140.5 | 138.8 | 120.9 | 119.4 | |
| 32 | 101.8 | 100.0 | 102.4 | 90.9 | -0.13 | -0.12 | 0.02 | 0.02 | 7.2 | 7.1 | 222.0 | 223.2 | 118.8 | 119.4 | |
| 34 | 102.2 | 100.6 | 103.4 | 91.7 | 0.09 | 0.09 | -0.04 | -0.04 | 7.0 | 7.1 | 129.7 | 128.1 | 120.9 | 119.4 | |
| 36 | 101.7 | 100.0 | 103.4 | 91.2 | 0.80 | 0.78 | -0.26 | -0.27 | 6.9 | 7.4 | 186.6 | 171.2 | 130.1 | 119.4 | |
| 38 | 101.2 | 99.4 | 102.4 | 91.3 | -0.05 | -0.04 | 0.00 | 0.00 | 7.5 | 6.9 | 195.3 | 195.2 | 119.5 | 119.4 | |
| 40 | 102.3 | 100.5 | 104.8 | 92.6 | -0.07 | -0.06 | 0.01 | 0.01 | 7.2 | 7.5 | 145.9 | 146.5 | 118.9 | 119.4 | |
| 64 | 99.9 | 97.8 | 103.0 | 91.5 | -0.31 | -0.30 | 0.09 | 0.09 | 6.5 | 6.4 | 120.4 | 124.4 | 115.7 | 119.4 | |
| Avg. | 102.1 | 100.3 | 103.7 | 92.1 | 0.32 | 0.32 | -0.11 | -0.12 | 7.0 | 7.0 | 166.5 | 159.7 | 124.3 | 119.4 | |
| Std Dv | 1.2 | 1.3 | 1.2 | 1.1 | 0.78 | 0.75 | 0.24 | 0.25 | 0.4 | 0.4 | 40.2 | 35.5 | 10.5 | 0.0 | |
| TAKEOFF | | | | | | | | | | | | | | | |
| 23 | 95.2 | 92.1 | 98.7 | 85.3 | -5.86 | -5.45 | 1.49 | 1.50 | 6.1 | 6.1 | 96.4 | 170.0 | 78.3 | 138.1 | |
| 25 | 95.6 | 92.5 | 99.4 | 86.2 | -6.27 | -5.83 | 1.55 | 1.56 | 5.8 | 5.8 | 83.9 | 155.5 | 74.6 | 138.1 | |
| 27 | 94.8 | 91.7 | 97.1 | 83.9 | -5.42 | -4.99 | 1.48 | 1.51 | 6.6 | 6.7 | 109.8 | 183.6 | 82.6 | 138.1 | |
| 29 | 94.4 | 91.4 | 98.2 | 84.8 | -4.74 | -4.38 | 1.19 | 1.21 | 6.0 | 6.1 | 100.4 | 158.7 | 87.4 | 138.1 | |
| 31 | 94.8 | 91.9 | 98.7 | 85.0 | -4.41 | -4.08 | 1.11 | 1.15 | 6.0 | 6.2 | 99.8 | 153.1 | 90.0 | 138.1 | |
| 33 | 94.9 | 91.9 | 98.5 | 85.6 | -4.96 | -4.66 | 1.35 | 1.30 | 6.2 | 6.0 | 91.3 | 149.9 | 84.1 | 138.1 | |
| 35 | 94.4 | 91.3 | 97.7 | 84.3 | -4.83 | -4.54 | 1.31 | 1.30 | 6.4 | 6.3 | 105.0 | 168.2 | 86.2 | 138.1 | |
| 37 | 94.0 | 90.9 | 97.8 | 84.2 | -4.72 | -4.38 | 1.20 | 1.19 | 6.1 | 6.1 | 108.0 | 169.6 | 87.9 | 138.1 | |
| 39 | 94.8 | 91.7 | 98.3 | 84.9 | -5.15 | -4.79 | 1.33 | 1.34 | 6.2 | 6.2 | 99.3 | 163.6 | 83.9 | 138.1 | |
| Avg. | 94.8 | 91.7 | 98.3 | 84.9 | -5.15 | -4.79 | 1.33 | 1.34 | 6.2 | 6.2 | 99.3 | 163.6 | 83.9 | 138.1 | |
| Std Dv | 0.5 | 0.6 | 0.8 | 0.8 | 0.69 | 0.64 | 0.17 | 0.17 | 0.3 | 0.3 | 9.4 | 12.2 | 5.6 | 0.0 | |

NO TRACKING DATA

NO TRACKING DATA

CORRECTION DATA

SITE: 16

CENTERLINE - CENTER (FLUSH)

JUNE 24, 1980

| EV | CORRECTED | | | | CORRECTIONS (dB) | | | | CONSTANTS | | | TRACKING DATA (ACTUAL) | | | TRACKING DATA (METERS) (REFERENCE) | | | |
|---|-----------|------|-------|------|---------------------------|---------------|---------------|------------------|-----------|------|------------------|------------------------|-------|-------|------------------------------------|-----|-----|------|
| | EPNL | NEL | PNLTM | dBAM | $\wedge 1(P) \wedge 1(A)$ | $\wedge 2(P)$ | $\wedge 2(A)$ | K(P) | K(A) | K(A) | SR | CPA | SRR | CPAR | SR | CPA | SRR | CPAR |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 87 KTS | | | | | | | | | | | | | | | | | | |
| 21 | 93.1 | 89.7 | 95.5 | 82.0 | 0.48 | 0.47 | -0.17 | 6.6 | 6.6 | 6.6 | 614.8 | 578.6 | 161.9 | 152.4 | | | | |
| 22 | 93.0 | 89.7 | 95.2 | 81.1 | 0.57 | 0.55 | -0.18 | 6.4 | 6.6 | 6.6 | 182.8 | 171.3 | 162.6 | 152.4 | | | | |
| 46 | 92.8 | 89.6 | 95.1 | 81.8 | 0.40 | 0.39 | -0.13 | 6.7 | 6.7 | 6.7 | 203.5 | 194.9 | 159.1 | 152.4 | | | | |
| 47 | 92.8 | 89.9 | 94.7 | 80.8 | 1.22 | 1.15 | -0.36 | 6.8 | 7.4 | 7.4 | 197.1 | 174.1 | 172.5 | 152.4 | | | | |
| Avg. | 92.9 | 89.7 | 95.1 | 81.4 | 0.67 | 0.64 | -0.21 | 6.6 | 6.8 | 6.8 | 299.5 | 279.7 | 164.0 | 152.4 | | | | |
| Std Dv | 0.2 | 0.2 | 0.4 | 0.7 | 0.46 | 0.42 | 0.13 | 0.2 | 0.4 | 0.4 | 257.6 | 244.3 | 7.2 | 0.0 | | | | |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 102 KTS | | | | | | | | | | | | | | | | | | |
| 51 | 94.0 | 90.9 | 96.8 | 83.6 | 1.58 | 1.49 | -0.47 | 6.8 | 6.9 | 6.9 | 199.1 | 169.8 | 178.7 | 152.4 | | | | |
| 52 | 93.5 | 90.4 | 95.9 | 82.3 | 0.32 | 0.31 | -0.10 | 6.9 | 6.7 | 6.7 | 202.7 | 195.9 | 157.7 | 152.4 | | | | |
| 53 | 93.3 | 90.0 | 96.2 | 82.8 | 1.43 | 1.36 | -0.41 | 6.5 | 6.6 | 6.6 | 233.9 | 202.4 | 176.1 | 152.4 | | | | |
| 56 | 93.7 | 90.4 | 96.2 | 82.7 | 0.34 | 0.33 | -0.10 | 6.2 | 6.3 | 6.3 | 201.5 | 194.4 | 158.0 | 152.4 | | | | |
| Avg. | 93.6 | 90.4 | 96.3 | 82.8 | 0.92 | 0.87 | -0.27 | 6.6 | 6.6 | 6.6 | 209.3 | 190.6 | 167.6 | 152.4 | | | | |
| Std Dv | 0.4 | 0.5 | 0.4 | 0.7 | 0.83 | 0.78 | 0.24 | 0.4 | 0.3 | 0.3 | 20.1 | 17.5 | 13.9 | 0.0 | | | | |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 116 KTS | | | | | | | | | | | | | | | | | | |
| 54 | | | | | | | | | | | NO TRACKING DATA | | | | | | | |
| 55 | 94.1 | 91.0 | 96.2 | 82.9 | 0.72 | 0.69 | -0.23 | 7.2 | 7.2 | 7.2 | 210.5 | 195.5 | 164.1 | 152.4 | | | | |
| 57 | 93.9 | 90.6 | 96.3 | 82.9 | 1.24 | 1.17 | -0.36 | 6.8 | 6.9 | 6.9 | 275.2 | 243.6 | 172.1 | 152.4 | | | | |
| 58 | 93.7 | 90.5 | 95.8 | 81.4 | 0.35 | 0.33 | -0.11 | 6.9 | 7.4 | 7.4 | 255.3 | 246.4 | 157.9 | 152.4 | | | | |
| Avg. | 93.9 | 90.7 | 96.1 | 82.4 | 0.77 | 0.73 | -0.23 | 7.0 | 7.2 | 7.2 | 247.0 | 228.5 | 164.7 | 152.4 | | | | |
| Std Dv | 0.3 | 0.4 | 0.4 | 1.2 | 0.63 | 0.60 | 0.18 | 0.3 | 0.4 | 0.4 | 46.9 | 40.5 | 10.1 | 0.0 | | | | |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS | | | | | | | | | | | | | | | | | | |
| 17 | 96.6 | 93.2 | 99.1 | 86.0 | 1.33 | 1.26 | -0.42 | 7.0 | 6.7 | 6.7 | 275.0 | 239.3 | 175.1 | 152.4 | | | | |
| 18 | 96.2 | 93.0 | 98.7 | 84.4 | 0.96 | 0.91 | -0.30 | 6.6 | 7.1 | 7.1 | 268.1 | 241.8 | 169.0 | 152.4 | | | | |
| 19 | 96.7 | 93.4 | 99.7 | 86.7 | 0.72 | 0.69 | -0.25 | 7.2 | 6.8 | 6.8 | 257.5 | 237.5 | 165.2 | 152.4 | | | | |
| 20 | | | | | | | | NO TRACKING DATA | | | | | | | | | | |
| 62 | 95.3 | 92.1 | 98.2 | 84.2 | 0.00 | 0.00 | -0.01 | 6.6 | 7.1 | 7.1 | 242.3 | 241.8 | 152.7 | 152.4 | | | | |
| 63 | 95.6 | 92.6 | 98.3 | 85.6 | 1.25 | 1.19 | -0.38 | 7.3 | 7.0 | 7.0 | 271.8 | 240.8 | 172.0 | 152.4 | | | | |
| Avg. | 96.1 | 92.9 | 98.8 | 85.4 | 0.85 | 0.81 | -0.27 | 6.9 | 6.9 | 6.9 | 262.9 | 240.2 | 166.8 | 152.4 | | | | |
| Std Dv | 0.7 | 0.6 | 0.7 | 1.2 | 0.62 | 0.59 | 0.19 | 0.4 | 0.2 | 0.2 | 15.3 | 2.1 | 10.0 | 0.0 | | | | |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 145 KTS | | | | | | | | | | | | | | | | | | |
| 48 | 98.9 | 95.4 | 101.8 | 87.7 | -0.41 | -0.34 | 0.09 | 7.1 | 7.5 | 7.5 | 305.2 | 314.4 | 147.9 | 152.4 | | | | |
| 49 | 98.7 | 95.2 | 101.2 | 87.6 | 1.04 | 1.02 | -0.32 | 7.4 | 7.3 | 7.3 | 408.1 | 369.7 | 168.2 | 152.4 | | | | |
| 50 | 98.6 | 95.1 | 102.1 | 88.3 | -0.73 | -0.69 | 0.19 | 6.6 | 6.9 | 6.9 | 286.3 | 306.0 | 142.6 | 152.4 | | | | |
| 59 | 98.1 | 94.7 | 101.4 | 87.6 | -0.27 | -0.23 | 0.06 | 6.9 | 7.2 | 7.2 | 345.9 | 352.5 | 149.6 | 152.4 | | | | |
| 60 | 97.6 | 94.0 | 100.4 | 86.6 | 0.43 | 0.42 | -0.14 | 7.4 | 7.2 | 7.2 | 285.7 | 273.6 | 159.1 | 152.4 | | | | |
| 61 | 97.5 | 94.2 | 99.8 | 86.9 | -0.04 | -0.04 | 0.00 | 7.3 | 6.8 | 6.8 | 354.8 | 355.2 | 152.2 | 152.4 | | | | |
| Avg. | 98.2 | 94.8 | 101.1 | 87.5 | 0.00 | 0.02 | -0.02 | 7.1 | 7.2 | 7.2 | 331.0 | 328.6 | 153.3 | 152.4 | | | | |
| Std Dv | 0.6 | 0.6 | 1.0 | 0.7 | 0.71 | 0.68 | 0.20 | 0.3 | 0.3 | 0.3 | 53.5 | 41.0 | 10.2 | 0.0 | | | | |

TABLE NO. B.3-3.1G

AUGUSTA A-109 HELICOPTER (ITALIAN)

DOT/TSC
12/21/81

CORRECTION DATA

SITE: 16

CENTERLINE - CENTER (FLUSH)

JUNE 24, 1980

| EV | CORRECTED | | | CORRECTIONS (dB) | | | CONSTANTS | | | TRACKING DATA (METERS) | | | |
|--|-----------|------|-------|------------------|-----------------------------|-----------------------------|-----------|------|-----|------------------------|-------|-------|-------|
| | EPNL | NEL | PNLTH | dBAM | $\wedge 1(P) / \wedge 1(A)$ | $\wedge 2(P) / \wedge 2(A)$ | K(P) | K(A) | SR | CPA | SRR | CPAR | |
| 300 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS | | | | | | | | | | | | | |
| 9 | 98.9 | 95.5 | 103.0 | 90.1 | 1.18 | 1.14 | -0.36 | 6.4 | 5.9 | 162.3 | 142.5 | 104.1 | 91.4 |
| 10 | 99.2 | 95.6 | 103.2 | 89.3 | 1.02 | 1.00 | -0.33 | 6.7 | 6.8 | 154.4 | 137.8 | 102.4 | 91.4 |
| 15 | 99.3 | 95.8 | 103.3 | 90.1 | 0.83 | 0.81 | -0.28 | 7.0 | 6.7 | 141.7 | 129.1 | 100.4 | 91.4 |
| 16 | 99.3 | 95.8 | 103.1 | 89.6 | 0.35 | 0.34 | -0.13 | 6.8 | 6.6 | 161.6 | 154.6 | 95.6 | 91.4 |
| Avg. | 99.2 | 95.7 | 103.1 | 89.7 | 0.85 | 0.82 | -0.27 | 6.7 | 6.5 | 155.0 | 141.0 | 100.6 | 91.4 |
| Std Dv | 0.2 | 0.2 | 0.2 | 0.5 | 0.44 | 0.43 | 0.13 | 0.3 | 0.5 | 11.7 | 13.0 | 4.5 | 0.0 |
| 700 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | |
| 8 | 93.4 | 90.4 | 94.4 | 81.1 | 0.22 | 0.22 | -0.11 | 7.1 | 7.3 | 351.8 | 339.2 | 221.2 | 213.4 |
| 13 | 94.3 | 91.2 | 96.1 | 83.2 | 0.13 | 0.13 | -0.09 | 7.3 | 7.1 | 348.1 | 338.4 | 219.5 | 213.4 |
| 14 | 93.8 | 90.7 | 95.6 | 81.8 | 0.25 | 0.24 | -0.11 | 6.9 | 7.3 | 330.4 | 318.0 | 221.7 | 213.4 |
| Avg. | 93.8 | 90.8 | 95.4 | 82.0 | 0.20 | 0.20 | -0.10 | 7.1 | 7.2 | 343.4 | 331.9 | 220.8 | 213.4 |
| Std Dv | 0.6 | 0.6 | 1.2 | 1.5 | 0.09 | 0.08 | 0.02 | 0.3 | 0.2 | 16.1 | 17.0 | 1.6 | 0.0 |
| 1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS | | | | | | | | | | | | | |
| 1 | | | | | | | | | | | | | |
| 2 | 91.8 | 88.7 | 92.3 | 78.9 | 0.24 | 0.25 | -0.12 | 6.9 | 7.1 | 321.0 | 308.5 | 317.1 | 304.8 |
| 3 | 91.8 | 88.7 | 92.3 | 79.3 | 0.69 | 0.66 | -0.29 | 7.9 | 7.6 | 425.6 | 391.5 | 331.4 | 304.8 |
| 4 | 91.5 | 88.6 | 91.2 | 77.9 | -0.25 | -0.21 | 0.00 | 7.3 | 7.4 | 503.4 | 503.1 | 305.0 | 304.8 |
| 42 | 91.1 | 88.3 | 92.5 | 79.8 | 0.09 | 0.09 | -0.04 | 6.6 | 6.4 | 472.1 | 465.3 | 309.3 | 304.8 |
| 43 | 91.9 | 88.8 | 92.8 | 79.4 | 0.44 | 0.42 | -0.13 | 6.9 | 7.6 | 817.1 | 782.1 | 318.5 | 304.8 |
| 44 | 90.6 | 87.8 | 91.6 | 78.1 | 0.10 | 0.10 | -0.04 | 6.8 | 7.1 | 484.3 | 477.2 | 309.3 | 304.8 |
| 45 | 91.6 | 88.6 | 92.8 | 80.0 | 0.45 | 0.43 | -0.13 | 6.7 | 6.9 | 498.2 | 476.0 | 319.0 | 304.8 |
| Avg. | 91.5 | 88.5 | 92.2 | 79.0 | 0.25 | 0.25 | -0.11 | 7.0 | 7.2 | 503.1 | 486.2 | 315.7 | 304.8 |
| Std Dv | 0.5 | 0.4 | 0.7 | 0.9 | 0.34 | 0.31 | 0.11 | 0.5 | 0.5 | 166.8 | 160.6 | 9.6 | 0.0 |
| 1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS | | | | | | | | | | | | | |
| 5 | 88.2 | 85.4 | 87.5 | 74.1 | 0.76 | 0.73 | -0.30 | 7.6 | 7.8 | 633.3 | 578.7 | 500.3 | 457.2 |
| 6 | 89.2 | 86.3 | 88.7 | 75.5 | 0.20 | 0.22 | -0.16 | 7.4 | 7.6 | 997.7 | 948.2 | 481.0 | 457.2 |
| 11 | 88.5 | 85.9 | 87.4 | 74.8 | 0.71 | 0.69 | -0.29 | 7.7 | 7.5 | 885.7 | 813.1 | 498.0 | 457.2 |
| 12 | | | | | | | | | | | | | |
| Avg. | 88.6 | 85.9 | 87.9 | 74.8 | 0.56 | 0.55 | -0.25 | 7.6 | 7.6 | 838.9 | 780.0 | 493.1 | 457.2 |
| Std Dv | 0.7 | 0.6 | 1.1 | 1.0 | 0.44 | 0.40 | 0.11 | 0.2 | 0.2 | 210.9 | 264.4 | 14.9 | 0.0 |

TABLE NO. B.3-1.1H

AUGUSTA A-109 HELICOPTER (ITALIAN)

DOT/TSC
12/21/81

CORRECTION DATA

JUNE 24, 1980

SITE: 1H CENTERLINE - CENTER (10-METER)

| EV | CORRECTED | | | CORRECTIONS (dB) | | | | CONSTANTS | | TRACKING DATA (METERS) | | | | |
|----------|-----------|------|-------|------------------|---------------|---------------|---------------|---------------|------|------------------------|-------|-------|-------|-------|
| | EPNL | NEL | PNLTH | dBAM | $\wedge 1(P)$ | $\wedge 1(A)$ | $\wedge 2(P)$ | $\wedge 2(A)$ | K(P) | K(A) | SR | CPA | SRR | CFAR |
| APPROACH | | | | | | | | | | | | | | |
| 24 | 97.6 | 95.8 | 100.5 | 88.5 | 0.48 | 0.47 | -0.16 | -0.15 | 6.6 | 6.2 | 137.0 | 129.7 | 115.7 | 109.5 |
| 26 | 97.9 | 95.9 | 99.0 | 87.3 | 2.28 | 2.17 | -0.71 | -0.70 | 7.1 | 6.9 | 203.0 | 161.0 | 138.1 | 109.5 |
| 28 | 96.1 | 94.2 | 98.4 | 86.4 | 0.09 | 0.09 | -0.04 | -0.04 | 7.0 | 7.1 | 130.9 | 129.1 | 111.0 | 109.5 |
| 32 | 96.6 | 94.6 | 97.4 | 85.1 | -0.10 | -0.09 | 0.02 | 0.02 | 7.2 | 7.3 | 116.2 | 117.0 | 108.8 | 109.5 |
| 34 | 96.5 | 94.7 | 97.9 | 85.5 | 0.09 | 0.09 | -0.04 | -0.04 | 7.2 | 7.2 | 119.6 | 118.1 | 110.9 | 109.5 |
| 36 | 96.4 | 94.2 | 97.8 | 85.4 | 0.89 | 0.85 | -0.28 | -0.29 | 7.0 | 7.3 | 178.1 | 162.3 | 120.2 | 109.5 |
| 38 | 96.2 | 94.0 | 98.2 | 86.3 | -0.06 | -0.05 | 0.00 | 0.00 | 6.9 | 6.6 | 188.2 | 188.3 | 109.4 | 109.5 |
| 40 | 96.6 | 94.4 | 99.3 | 86.8 | -0.09 | -0.08 | 0.02 | 0.02 | 7.1 | 7.3 | 136.5 | 137.2 | 108.9 | 109.5 |
| 64 | 93.7 | 91.2 | 97.0 | 84.4 | -0.36 | -0.34 | 0.10 | 0.10 | 6.5 | 6.7 | 116.0 | 120.2 | 105.7 | 109.5 |
| Avg. | 96.4 | 94.3 | 98.4 | 86.2 | 0.36 | 0.35 | -0.12 | -0.12 | 7.0 | 7.0 | 147.3 | 140.3 | 114.3 | 109.5 |
| Std Dv | 1.3 | 1.5 | 1.1 | 1.3 | 0.86 | 0.82 | 0.26 | 0.26 | 0.3 | 0.4 | 35.7 | 26.5 | 10.6 | 0.0 |
| TAKEDOFF | | | | | | | | | | | | | | |
| 23 | 89.4 | 85.2 | 93.1 | 78.7 | -6.45 | -6.03 | 1.63 | 1.65 | 5.9 | 6.0 | 76.0 | 142.7 | 68.3 | 128.3 |
| 25 | 90.7 | 86.7 | 94.3 | 80.4 | -7.05 | -6.61 | 1.77 | 1.70 | 5.9 | 5.7 | 75.5 | 149.9 | 64.6 | 128.3 |
| 27 | 90.0 | 85.9 | 93.7 | 79.2 | -5.95 | -5.59 | 1.45 | 1.49 | 5.9 | 6.0 | 87.1 | 153.9 | 72.6 | 128.3 |
| 31 | 89.9 | 85.7 | 93.7 | 79.2 | -5.30 | -4.96 | 1.32 | 1.27 | 6.0 | 5.8 | 91.9 | 152.3 | 77.4 | 128.3 |
| 33 | 90.6 | 86.4 | 94.0 | 79.9 | -4.83 | -4.54 | 1.33 | 1.25 | 6.5 | 6.1 | 83.0 | 132.9 | 80.2 | 128.3 |
| 35 | 90.3 | 86.1 | 93.8 | 79.8 | -5.57 | -5.26 | 1.52 | 1.45 | 6.4 | 6.1 | 82.5 | 142.6 | 74.2 | 128.3 |
| 37 | 90.1 | 85.9 | 93.1 | 78.7 | -5.41 | -5.08 | 1.51 | 1.43 | 6.7 | 6.3 | 85.5 | 143.9 | 76.2 | 128.3 |
| 39 | | | | | | | | | | | | | | |
| 41 | 89.6 | 85.4 | 93.7 | 79.1 | -5.29 | -4.95 | 1.29 | 1.29 | 5.9 | 6.0 | 100.4 | 165.3 | 78.0 | 128.3 |
| Avg. | 90.1 | 85.9 | 93.7 | 79.4 | -5.73 | -5.38 | 1.48 | 1.44 | 6.2 | 6.0 | 85.2 | 147.9 | 73.9 | 128.3 |
| Std Dv | 0.5 | 0.5 | 0.4 | 0.6 | 0.78 | 0.72 | 0.18 | 0.18 | 0.3 | 0.2 | 8.9 | 10.5 | 5.7 | 0.0 |

NO TRACKING DATA

NO TRACKING DATA

TABLE NO. B.3-2.1H

AUGUSTA A-109 HELICOPTER (ITALIAN)

DOT/TSC
12/21/81

CORRECTION DATA

SITE: 1H CENTERLINE - CENTER (10-METER) JUNE 24, 1980

| EV | CORRECTED | | CORRECTIONS (dB) | | CONSTANTS | | TRACKING DATA (METERS) | | | | | | | |
|---|-----------|------|------------------|------|-----------------------------|-----------------------------|------------------------|-------|------------------|-----|-------|-------|-------|-------|
| | EPNL | NEL | PNLTM | dBAM | $\sqrt{1(P)} / \sqrt{1(A)}$ | $\sqrt{2(P)} / \sqrt{2(A)}$ | K(P) | K(A) | SR | CPA | SRR | CPAR | | |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 87 KTS | | | | | | | | | | | | | | |
| 21 | 87.0 | 83.7 | 89.8 | 75.6 | 0.56 | 0.52 | -0.18 | -0.19 | 6.3 | 6.7 | 611.7 | 572.9 | 152.0 | 142.3 |
| 22 | 87.3 | 84.1 | 89.4 | 75.0 | 0.62 | 0.59 | -0.19 | -0.21 | 6.3 | 6.9 | 173.0 | 161.4 | 152.5 | 142.3 |
| 46 | 87.5 | 84.2 | 90.0 | 76.1 | 0.44 | 0.42 | -0.13 | -0.14 | 6.3 | 6.8 | 194.9 | 186.1 | 149.0 | 142.3 |
| 47 | 86.9 | 83.8 | 89.6 | 75.0 | 1.31 | 1.26 | -0.38 | -0.41 | 6.6 | 7.1 | 176.9 | 154.9 | 162.5 | 142.3 |
| Avg. | 87.2 | 83.9 | 89.7 | 75.4 | 0.73 | 0.70 | -0.22 | -0.24 | 6.4 | 6.9 | 289.1 | 268.8 | 154.0 | 142.3 |
| Std Dv | 0.3 | 0.3 | 0.3 | 0.7 | 0.48 | 0.47 | 0.13 | 0.15 | 0.2 | 0.2 | 263.7 | 248.8 | 7.2 | 0.0 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 102 KTS | | | | | | | | | | | | | | |
| 51 | 87.5 | 84.4 | 90.6 | 76.7 | 1.70 | 1.59 | -0.49 | -0.51 | 6.6 | 6.9 | 226.1 | 190.8 | 168.7 | 142.3 |
| 52 | 87.6 | 84.5 | 90.1 | 76.1 | 0.35 | 0.33 | -0.10 | -0.11 | 6.4 | 6.7 | 194.3 | 187.4 | 147.6 | 142.3 |
| 53 | 87.6 | 84.2 | 90.5 | 76.2 | 1.54 | 1.45 | -0.43 | -0.48 | 6.5 | 7.2 | 225.7 | 193.5 | 166.0 | 142.3 |
| 54 | 87.7 | 84.4 | 89.8 | 76.1 | 0.37 | 0.36 | -0.11 | -0.12 | 6.6 | 7.0 | 192.5 | 185.2 | 147.9 | 142.3 |
| Avg. | 87.6 | 84.4 | 90.2 | 76.3 | 0.99 | 0.93 | -0.28 | -0.30 | 6.5 | 7.0 | 209.7 | 189.2 | 157.6 | 142.3 |
| Std Dv | 0.1 | 0.1 | 0.5 | 0.4 | 0.89 | 0.83 | 0.25 | 0.27 | 0.1 | 0.2 | 23.0 | 4.5 | 13.9 | 0.0 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 116 KTS | | | | | | | | | | | | | | |
| 54 | 88.6 | 85.6 | 90.6 | 76.9 | 0.38 | 0.36 | -0.12 | -0.13 | 7.0 | 7.5 | 189.1 | 181.8 | 148.0 | 142.3 |
| 55 | 88.0 | 84.9 | 90.9 | 76.9 | 0.78 | 0.74 | -0.23 | -0.25 | 6.6 | 7.2 | 201.9 | 186.6 | 154.0 | 142.3 |
| 57 | 87.9 | 84.6 | 90.7 | 76.8 | 1.30 | 1.22 | -0.38 | -0.40 | 6.7 | 7.1 | 213.6 | 187.6 | 162.1 | 142.3 |
| 58 | 87.5 | 84.4 | 89.9 | 75.6 | 0.37 | 0.35 | -0.11 | -0.12 | 6.7 | 7.2 | 179.1 | 172.4 | 147.9 | 142.3 |
| Avg. | 88.0 | 84.9 | 90.5 | 76.6 | 0.71 | 0.67 | -0.21 | -0.22 | 6.7 | 7.2 | 195.9 | 182.1 | 153.0 | 142.3 |
| Std Dv | 0.5 | 0.6 | 0.5 | 0.8 | 0.54 | 0.50 | 0.15 | 0.16 | 0.2 | 0.2 | 18.4 | 8.5 | 8.2 | 0.0 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS | | | | | | | | | | | | | | |
| 17 | 90.4 | 87.1 | 94.0 | 81.0 | 1.50 | 1.42 | -0.45 | -0.45 | 7.0 | 6.9 | 565.3 | 487.4 | 165.1 | 142.3 |
| 18 | 89.9 | 86.9 | 91.5 | 78.4 | 1.04 | 0.98 | -0.34 | -0.35 | 7.2 | 7.3 | 261.0 | 233.7 | 159.0 | 142.3 |
| 19 | 90.2 | 87.1 | 92.8 | 79.2 | 0.78 | 0.75 | -0.27 | -0.28 | 7.3 | 7.5 | 217.1 | 199.1 | 155.2 | 142.3 |
| 20 | | | | | | | | | NO TRACKING DATA | | | | | |
| 62 | 88.6 | 85.7 | 90.4 | 77.2 | 0.00 | 0.01 | -0.01 | -0.01 | 7.5 | 7.6 | 234.9 | 234.4 | 142.7 | 142.3 |
| 63 | 89.6 | 86.6 | 91.9 | 78.7 | 1.32 | 1.26 | -0.41 | -0.43 | 7.4 | 7.6 | 231.5 | 203.4 | 162.0 | 142.3 |
| Avg. | 89.7 | 86.7 | 92.1 | 78.9 | 0.93 | 0.88 | -0.30 | -0.30 | 7.3 | 7.4 | 302.0 | 271.6 | 156.8 | 142.3 |
| Std Dv | 0.8 | 0.7 | 1.6 | 1.6 | 0.68 | 0.64 | 0.20 | 0.21 | 0.2 | 0.3 | 171.0 | 140.6 | 10.0 | 0.0 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 145 KTS | | | | | | | | | | | | | | |
| 48 | | | | | | | | | NO TRACKING DATA | | | | | |
| 49 | 93.1 | 89.7 | 94.9 | 81.5 | 1.13 | 1.02 | -0.36 | -0.36 | 7.9 | 7.8 | 201.8 | 181.6 | 158.2 | 142.3 |
| 50 | 92.5 | 89.2 | 95.9 | 82.3 | -0.79 | -0.74 | 0.20 | 0.21 | 6.6 | 6.9 | 280.2 | 301.0 | 132.5 | 142.3 |
| 59 | 92.2 | 88.9 | 95.1 | 81.9 | -0.27 | -0.25 | 0.06 | 0.06 | 7.1 | 6.9 | 433.5 | 442.4 | 139.5 | 142.3 |
| 60 | 92.2 | 88.7 | 94.8 | 81.4 | 0.48 | 0.46 | -0.15 | -0.14 | 7.3 | 7.1 | 363.6 | 347.2 | 149.1 | 142.3 |
| 61 | 91.6 | 88.4 | 94.3 | 81.1 | -0.05 | -0.05 | 0.00 | 0.00 | 7.5 | 7.6 | 489.1 | 489.7 | 142.2 | 142.3 |
| Avg. | 92.3 | 89.0 | 95.0 | 81.6 | 0.10 | 0.09 | -0.05 | -0.05 | 7.3 | 7.3 | 353.7 | 352.4 | 144.3 | 142.3 |
| Std Dv | 0.6 | 0.6 | 0.7 | 0.5 | 0.65 | 0.78 | 0.25 | 0.25 | 0.6 | 0.5 | 133.3 | 140.0 | 11.3 | 0.0 |

TABLE NO. B.3-3.1H

AUGUSTA A-109 HELICOPTER (ITALIAN)

DOT/TSC
12/21/81

CORRECTION DATA

| EV | CORRECTED | | | CORRECTIONS (dB) | | | CONSTANTS | | | TRACKING DATA (METERS) (ACTUAL) | | | | |
|--|-----------|------|-------|------------------|---------------|---------------|---------------|---------------|------|------------------------------------|------------------|-------|-------|-------|
| | EPNL | NEL | PNLTM | dBAM | $\sqrt{1(P)}$ | $\sqrt{1(A)}$ | $\sqrt{2(P)}$ | $\sqrt{2(A)}$ | K(P) | K(A) | SR | CPA | SRR | CFAR |
| 300 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS | | | | | | | | | | | | | | |
| 9 | 92.7 | 89.4 | 96.9 | 83.7 | 1.33 | 1.28 | -0.41 | -0.40 | 6.6 | 6.4 | 124.8 | 108.0 | 94.1 | 81.4 |
| 10 | | | | | | | | | | | NO TRACKING DATA | | | |
| 15 | 92.5 | 89.3 | 96.9 | 83.3 | 0.95 | 0.91 | -0.30 | -0.29 | 6.6 | 6.4 | 133.7 | 120.5 | 90.3 | 81.4 |
| 16 | 93.4 | 90.2 | 96.6 | 83.1 | 0.38 | 0.38 | -0.16 | -0.16 | 7.3 | 7.4 | 343.5 | 326.6 | 85.6 | 81.4 |
| Avg. | 92.9 | 89.6 | 96.8 | 83.4 | 0.89 | 0.86 | -0.29 | -0.28 | 6.8 | 6.7 | 200.7 | 185.0 | 90.0 | 81.4 |
| Std Dv | 0.7 | 0.7 | 0.2 | 0.4 | 0.68 | 0.64 | 0.18 | 0.17 | 0.6 | 0.8 | 175.0 | 173.6 | 6.0 | 0.0 |
| 700 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | NO TRACKING DATA | | | |
| 8 | 87.6 | 85.1 | 88.2 | 74.8 | 0.24 | 0.25 | -0.12 | -0.12 | 7.3 | 7.5 | 272.1 | 261.9 | 211.2 | 203.3 |
| 13 | 87.5 | 84.6 | 89.2 | 75.7 | 0.17 | 0.17 | -0.09 | -0.10 | 7.2 | 7.5 | 274.5 | 266.4 | 209.5 | 203.3 |
| 14 | 87.7 | 85.0 | 88.5 | 75.0 | 0.27 | 0.27 | -0.13 | -0.13 | 7.5 | 7.7 | 350.8 | 337.0 | 211.6 | 203.3 |
| Avg. | 87.6 | 84.9 | 88.6 | 75.2 | 0.23 | 0.23 | -0.11 | -0.12 | 7.3 | 7.6 | 299.1 | 288.4 | 210.8 | 203.3 |
| Std Dv | 0.1 | 0.4 | 0.7 | 0.7 | 0.07 | 0.07 | 0.03 | 0.02 | 0.2 | 0.2 | 63.3 | 59.5 | 1.6 | 0.0 |
| 1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS | | | | | | | | | | | | | | |
| 1 | | | | | | | | | | | NO TRACKING DATA | | | |
| 2 | 86.0 | 83.5 | 85.7 | 72.7 | 0.20 | 0.21 | -0.13 | -0.13 | 7.3 | 7.5 | 489.3 | 469.7 | 307.1 | 294.7 |
| 3 | 85.0 | 82.3 | 85.8 | 72.3 | 0.74 | 0.70 | -0.28 | -0.30 | 7.5 | 7.9 | 447.8 | 410.4 | 321.6 | 294.7 |
| 4 | 85.4 | 82.9 | 84.9 | 72.1 | -0.25 | -0.19 | 0.00 | 0.00 | 7.6 | 7.5 | 496.4 | 496.1 | 294.9 | 294.7 |
| 42 | 85.4 | 82.7 | 85.9 | 73.4 | 0.09 | 0.09 | -0.05 | -0.05 | 7.1 | 6.9 | 525.1 | 517.2 | 299.2 | 294.7 |
| 43 | 85.7 | 82.8 | 86.7 | 73.4 | 0.45 | 0.42 | -0.14 | -0.14 | 6.8 | 6.9 | 399.4 | 381.6 | 308.5 | 294.7 |
| 44 | 85.2 | 82.5 | 85.5 | 72.3 | 0.11 | 0.11 | -0.05 | -0.05 | 7.2 | 7.4 | 386.4 | 380.5 | 299.3 | 294.7 |
| 45 | 85.6 | 82.7 | 85.9 | 73.2 | 0.46 | 0.44 | -0.15 | -0.14 | 7.2 | 7.1 | 323.5 | 308.6 | 309.0 | 294.7 |
| Avg. | 85.5 | 82.8 | 85.8 | 72.8 | 0.26 | 0.25 | -0.11 | -0.12 | 7.3 | 7.3 | 438.3 | 423.4 | 305.7 | 294.7 |
| Std Dv | 0.3 | 0.4 | 0.6 | 0.6 | 0.35 | 0.32 | 0.10 | 0.11 | 0.3 | 0.4 | 78.7 | 81.4 | 9.7 | 0.0 |
| 1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS | | | | | | | | | | | | | | |
| 5 | 82.0 | 79.3 | 81.0 | 67.8 | 0.75 | 0.73 | -0.31 | -0.32 | 7.8 | 7.9 | 1006.6 | 917.3 | 490.6 | 447.1 |
| 6 | 83.6 | 80.8 | 82.1 | 69.3 | 0.22 | 0.26 | -0.17 | -0.18 | 7.5 | 8.0 | 917.4 | 870.9 | 471.0 | 447.1 |
| 11 | 81.7 | 79.0 | 81.7 | 68.5 | 0.74 | 0.71 | -0.27 | -0.27 | 7.0 | 7.1 | 953.9 | 873.6 | 488.3 | 447.1 |
| 12 | | | | | | | | | | | NO TRACKING DATA | | | |
| Avg. | 82.5 | 79.7 | 81.6 | 68.5 | 0.57 | 0.57 | -0.25 | -0.26 | 7.4 | 7.6 | 959.3 | 887.3 | 483.3 | 447.1 |
| Std Dv | 1.5 | 1.4 | 0.8 | 1.1 | 0.43 | 0.38 | 0.10 | 0.10 | 0.6 | 0.7 | 41.9 | 36.8 | 15.2 | 0.0 |

JUNE 24, 1980

TABLE NO. B.3-1.2

AUGUSTA A-109 HELICOPTER (ITALIAN)

CORRECTION DATA

DOT/TSC
12/19/81

JUNE 24, 1980

SITE: 2 CENTERLINE - 150 M. WEST

| EV | CORRECTED | | | CORRECTIONS (JB) | | | CONSTANTS | | TRACKING DATA (METERS) (ACTUAL) | | | TRACKING DATA (METERS) (REFERENCE) | | |
|----------|-----------|------|-------|------------------|---------------------------|---------------|---------------|-------|------------------------------------|-----|-------|---------------------------------------|-------|-------|
| | EPNL | NEL | PNLTM | dBAM | $\wedge 1(P) \wedge 1(A)$ | $\wedge 2(P)$ | $\wedge 2(A)$ | K(P) | K(A) | SR | CPA | SRR | CPAR | |
| APPROACH | | | | | | | | | | | | | | |
| 24 | 101.1 | 98.8 | 103.1 | 91.0 | 0.13 | 0.13 | -0.05 | 0.05 | 6.9 | 6.7 | 131.9 | 129.6 | 104.4 | 102.6 |
| 26 | 101.7 | 99.4 | 105.0 | 92.0 | 1.83 | 1.77 | -0.52 | -0.56 | 6.1 | 6.6 | 140.1 | 115.1 | 124.8 | 102.6 |
| 28 | 101.2 | 99.0 | 104.1 | 91.1 | -0.29 | -0.27 | 0.07 | 0.08 | 6.4 | 6.9 | 112.7 | 115.8 | 99.9 | 102.6 |
| 32 | 101.2 | 98.6 | 101.7 | 89.8 | 0.01 | 0.02 | -0.02 | 0.00 | 7.8 | 7.2 | 198.0 | 196.9 | 103.2 | 102.6 |
| 34 | 101.4 | 99.1 | 103.6 | 91.2 | -0.03 | -0.02 | 0.00 | 0.00 | 6.9 | 7.0 | 131.9 | 131.8 | 102.6 | 102.6 |
| 36 | 99.7 | 97.3 | 103.0 | 90.0 | 0.39 | 0.38 | -0.12 | -0.12 | 6.1 | 6.5 | 115.5 | 110.5 | 107.2 | 102.6 |
| 38 | 100.9 | 98.2 | 103.0 | 90.2 | -0.04 | -0.03 | 0.00 | 0.00 | 6.9 | 6.9 | 122.9 | 123.0 | 102.5 | 102.6 |
| 40 | 100.4 | 98.1 | 103.5 | 91.0 | -0.46 | -0.44 | 0.12 | 0.13 | 6.2 | 6.3 | 116.3 | 121.8 | 98.0 | 102.6 |
| 64 | 98.4 | 95.8 | 101.0 | 88.9 | -0.30 | -0.28 | 0.09 | 0.08 | 6.7 | 6.3 | 129.3 | 133.2 | 99.5 | 102.6 |
| Avg. | 100.7 | 98.3 | 103.1 | 90.6 | 0.14 | 0.14 | -0.05 | -0.05 | 6.7 | 6.7 | 133.2 | 130.9 | 104.7 | 102.6 |
| Std Dev | 1.1 | 1.2 | 1.3 | 1.0 | 0.73 | 0.70 | 0.21 | 0.22 | 0.6 | 0.3 | 27.7 | 27.8 | 8.6 | 0.0 |
| TAKEDOFF | | | | | | | | | | | | | | |
| 23 | 93.6 | 89.7 | 97.3 | 83.2 | -5.32 | -5.05 | 1.45 | 1.41 | 6.2 | 6.0 | 65.4 | 112.1 | 59.2 | 101.4 |
| 27 | 94.1 | 90.5 | 98.6 | 84.7 | -6.20 | -5.86 | 1.47 | 1.50 | 5.4 | 5.6 | 64.6 | 120.6 | 54.4 | 101.4 |
| 29 | 93.2 | 89.6 | 97.4 | 83.6 | -4.87 | -4.60 | 1.21 | 1.21 | 5.7 | 5.7 | 66.1 | 108.0 | 62.1 | 101.4 |
| 31 | 93.1 | 89.5 | 97.7 | 83.6 | -4.36 | -4.14 | 1.05 | 1.05 | 5.5 | 5.5 | 69.9 | 108.6 | 65.3 | 101.4 |
| 33 | 93.1 | 89.7 | 97.3 | 83.7 | -4.16 | -3.90 | 1.10 | 1.03 | 6.0 | 5.6 | 69.3 | 105.3 | 66.7 | 101.4 |
| 35 | 93.0 | 89.5 | 97.2 | 83.4 | -4.61 | -4.40 | 1.16 | 1.15 | 5.6 | 5.6 | 63.7 | 102.2 | 63.2 | 101.4 |
| 37 | 93.4 | 89.8 | 97.7 | 83.5 | -4.61 | -4.36 | 1.13 | 1.17 | 5.6 | 5.8 | 71.8 | 114.1 | 63.8 | 101.4 |
| 39 | | | | | | | | | | | | | | |
| 41 | 92.9 | 89.3 | 97.1 | 82.9 | -4.28 | -4.05 | 1.12 | 1.11 | 6.1 | 6.0 | 76.8 | 117.7 | 66.2 | 101.4 |
| Avg. | 93.3 | 89.7 | 97.5 | 83.6 | -4.80 | -4.54 | 1.21 | 1.20 | 5.8 | 5.7 | 68.5 | 111.1 | 62.6 | 101.4 |
| Std Dev | 0.4 | 0.4 | 0.5 | 0.5 | 0.73 | 0.69 | 0.17 | 0.18 | 0.3 | 0.2 | 4.8 | 6.7 | 4.4 | 0.0 |

NO TRACKING DATA

NO TRACKING DATA

TABLE NO. B.3-2.2

AUGUSTA A-109 HELICOPTER (ITALIAN)

DOT/TSC
12/21/81

CORRECTION DATA

| SITE: 2 | | CENTERLINE - 150 M. WEST | | | | | | | | | | JUNE 24, 1980 | | | |
|---|------|--------------------------|-------|------|---------------|---------------|---------------|---------------|------|------|------------------|------------------------|-------|-------|--|
| CORRECTED | | CORRECTIONS (dB) | | | | | CONSTANTS | | | | | TRACKING DATA (METERS) | | | |
| EV | EPNL | NEL | PNLTM | dBAM | $\wedge 1(P)$ | $\wedge 1(A)$ | $\wedge 2(P)$ | $\wedge 2(A)$ | K(P) | K(A) | SR | CPA | SRR | CPAR | |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 87 KTS | | | | | | | | | | | | | | | |
| 21 | 90.5 | 87.3 | 93.8 | 79.1 | 0.32 | 0.32 | -0.12 | -0.13 | 5.9 | 6.4 | 597.1 | 569.2 | 158.6 | 151.2 | |
| 22 | 90.8 | 88.0 | 94.0 | 79.0 | 0.53 | 0.52 | -0.16 | -0.17 | 6.1 | 6.6 | 179.4 | 168.8 | 160.7 | 151.2 | |
| 46 | 91.1 | 87.9 | 93.9 | 79.2 | 0.52 | 0.50 | -0.15 | -0.16 | 6.2 | 6.8 | 171.9 | 162.8 | 159.7 | 151.2 | |
| 47 | 91.0 | 88.4 | 93.3 | 80.0 | 1.29 | 1.22 | -0.39 | -0.37 | 7.0 | 6.6 | 228.0 | 200.3 | 172.1 | 151.2 | |
| Avg. | 90.9 | 87.9 | 93.8 | 79.3 | 0.66 | 0.64 | -0.20 | -0.21 | 6.3 | 6.6 | 294.1 | 275.2 | 162.8 | 151.2 | |
| Std Dv | 0.3 | 0.5 | 0.4 | 0.6 | 0.52 | 0.49 | 0.15 | 0.13 | 0.6 | 0.2 | 249.2 | 240.8 | 7.7 | 0.0 | |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 102 KTS | | | | | | | | | | | | | | | |
| 51 | 91.2 | 88.1 | 93.2 | 79.2 | 1.39 | 1.31 | -0.43 | -0.43 | 7.1 | 7.1 | 181.6 | 157.9 | 173.9 | 151.2 | |
| 52 | 90.9 | 87.5 | 92.2 | 81.3 | 0.48 | 0.45 | -0.13 | -0.13 | 5.9 | 6.2 | 178.6 | 170.0 | 158.8 | 151.2 | |
| 53 | 90.7 | 87.6 | 92.7 | 78.9 | 1.34 | 1.25 | -0.41 | -0.42 | 7.1 | 7.1 | 191.5 | 167.4 | 173.0 | 151.2 | |
| 56 | 90.9 | 87.7 | 94.5 | 79.5 | 0.33 | 0.31 | -0.09 | -0.10 | 6.0 | 6.6 | 174.7 | 168.9 | 156.4 | 151.2 | |
| Avg. | 90.9 | 87.7 | 93.9 | 79.7 | 0.88 | 0.83 | -0.26 | -0.27 | 6.5 | 6.7 | 181.6 | 166.0 | 165.5 | 151.2 | |
| Std Dv | 0.2 | 0.4 | 1.4 | 1.3 | 0.68 | 0.64 | 0.22 | 0.22 | 0.8 | 0.6 | 8.8 | 6.8 | 11.3 | 0.0 | |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 116 KTS | | | | | | | | | | | | | | | |
| 54 | 92.6 | 89.2 | 95.0 | 80.1 | 0.29 | 0.28 | -0.08 | -0.10 | 6.2 | 7.4 | 173.6 | 168.4 | 155.8 | 151.2 | |
| 55 | 91.8 | 88.5 | 93.4 | 79.4 | 0.72 | 0.68 | -0.24 | -0.26 | 7.6 | 8.1 | 192.5 | 178.9 | 162.7 | 151.2 | |
| 57 | 91.4 | 88.0 | 93.4 | 79.7 | 1.14 | 1.07 | -0.34 | -0.35 | 7.1 | 7.2 | 280.3 | 250.8 | 168.9 | 151.2 | |
| 58 | 91.4 | 88.0 | 94.5 | 79.8 | 0.29 | 0.28 | -0.08 | -0.09 | 5.9 | 6.8 | 172.9 | 167.6 | 155.9 | 151.2 | |
| Avg. | 91.8 | 88.4 | 94.1 | 79.7 | 0.61 | 0.58 | -0.18 | -0.20 | 6.7 | 7.4 | 204.8 | 191.4 | 160.8 | 151.2 | |
| Std Dv | 0.7 | 0.7 | 1.0 | 0.4 | 0.50 | 0.46 | 0.16 | 0.16 | 1.0 | 0.7 | 62.6 | 48.9 | 7.7 | 0.0 | |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS | | | | | | | | | | | | | | | |
| 17 | 94.9 | 91.7 | 96.5 | 83.0 | 1.31 | 1.24 | -0.49 | -0.50 | 8.2 | 8.4 | 310.7 | 271.0 | 173.3 | 151.2 | |
| 18 | 93.6 | 90.2 | 95.5 | 81.2 | 0.93 | 0.89 | -0.30 | -0.32 | 6.8 | 7.2 | 178.8 | 161.5 | 167.4 | 151.2 | |
| 19 | 93.9 | 90.4 | 95.9 | 82.7 | 0.77 | 0.74 | -0.29 | -0.28 | 7.6 | 7.4 | 505.7 | 463.9 | 164.8 | 151.2 | |
| 20 | | | | | | | | | | | NO TRACKING DATA | | | | |
| 62 | 93.6 | 90.4 | 95.6 | 82.2 | 0.08 | 0.08 | -0.03 | -0.03 | 7.2 | 7.0 | 254.5 | 252.1 | 152.6 | 151.2 | |
| 63 | 93.3 | 90.1 | 95.0 | 81.7 | 1.20 | 1.12 | -0.37 | -0.37 | 7.6 | 7.6 | 297.5 | 265.8 | 169.2 | 151.2 | |
| Avg. | 93.9 | 90.6 | 95.7 | 82.2 | 0.86 | 0.81 | -0.30 | -0.30 | 7.5 | 7.5 | 309.4 | 282.8 | 165.5 | 151.2 | |
| Std Dv | 0.7 | 0.8 | 0.6 | 0.8 | 0.56 | 0.52 | 0.19 | 0.20 | 0.6 | 0.6 | 140.0 | 127.7 | 9.0 | 0.0 | |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 145 KTS | | | | | | | | | | | | | | | |
| 48 | 95.5 | 92.0 | 97.8 | 84.1 | -0.12 | -0.10 | 0.02 | 0.02 | 7.5 | 7.5 | 475.7 | 478.8 | 150.2 | 151.2 | |
| 49 | 96.3 | 92.9 | 98.0 | 84.5 | 1.34 | 1.24 | -0.35 | -0.35 | 7.4 | 7.3 | 651.8 | 583.4 | 168.9 | 151.2 | |
| 50 | 95.4 | 91.9 | 97.1 | 83.5 | -0.60 | -0.56 | 0.16 | 0.16 | 7.7 | 7.4 | 507.8 | 533.1 | 144.0 | 151.2 | |
| 59 | 94.4 | 90.9 | 97.9 | 84.1 | -0.46 | -0.42 | 0.11 | 0.12 | 6.9 | 7.1 | 397.9 | 413.4 | 145.5 | 151.2 | |
| 60 | 95.5 | 91.8 | 97.7 | 84.0 | 0.40 | 0.38 | -0.12 | -0.12 | 7.2 | 7.1 | 363.7 | 349.9 | 157.2 | 151.2 | |
| 61 | 94.7 | 91.4 | 96.8 | 83.2 | -0.31 | -0.28 | 0.08 | 0.08 | 7.5 | 7.5 | 316.3 | 324.6 | 147.3 | 151.2 | |
| Avg. | 95.3 | 91.8 | 97.5 | 83.9 | 0.04 | 0.04 | -0.02 | -0.01 | 7.4 | 7.3 | 452.2 | 447.2 | 152.3 | 151.2 | |
| Std Dv | 0.8 | 0.7 | 0.6 | 0.5 | 0.81 | 0.75 | 0.21 | 0.21 | 0.3 | 0.2 | 134.8 | 114.6 | 10.5 | 0.0 | |

TABLE NO. B.3-3.2

AUGUSTA A-109 HELICOPTER (ITALIAN)

BOT/ISC
12/21/81

CORRECTION DATA

SITE: 2

CENTERLINE - 150 M. WEST

JUNE 24*1980

| EV | CORRECTED | | CORRECTIONS (dB) | | | | CONSTANTS | | TRACKING DATA (METERS) | | | | | |
|--|-----------|-------|------------------|-------|-------|-------|-----------|-------|------------------------|-----|-------|-------|-------|-------|
| | EPNL | PNLTM | Δ1(P) | Δ1(A) | Δ2(P) | Δ2(A) | K(P) | K(A) | SR | CPA | SRR | CPAR | | |
| 300 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS | | | | | | | | | | | | | | |
| 9 | 96.3 | 92.9 | 99.9 | 86.4 | 1.28 | 1.22 | -0.42 | -0.40 | 7.0 | 6.7 | 229.0 | 199.5 | 103.6 | 90.2 |
| 10 | 97.1 | 93.5 | 99.8 | 85.6 | 1.25 | 1.20 | -0.44 | -0.47 | 7.5 | 8.0 | 123.6 | 107.9 | 103.4 | 90.2 |
| 15 | 96.4 | 92.9 | 99.6 | 85.9 | 0.75 | 0.73 | -0.27 | -0.27 | 7.4 | 7.3 | 287.1 | 263.7 | 98.2 | 90.2 |
| 16 | 96.7 | 93.1 | 100.0 | 86.4 | 0.75 | 0.72 | -0.26 | -0.25 | 7.0 | 6.8 | 182.8 | 168.0 | 98.1 | 90.2 |
| Avg. | 96.6 | 93.1 | 99.8 | 86.1 | 1.01 | 0.97 | -0.35 | -0.35 | 7.2 | 7.2 | 205.6 | 184.7 | 100.8 | 90.2 |
| Std Dv | 0.4 | 0.4 | 0.2 | 0.5 | 0.36 | 0.34 | 0.12 | 0.13 | 0.3 | 0.8 | 84.9 | 79.5 | 3.7 | 0.0 |
| 700 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS | | | | | | | | | | | | | | |
| 7 | 91.5 | 88.5 | 92.3 | 78.9 | 0.36 | 0.36 | -0.16 | -0.16 | 7.3 | 7.3 | 352.7 | 335.2 | 223.2 | 212.1 |
| 13 | 91.6 | 88.4 | 92.3 | 79.6 | 0.14 | 0.17 | -0.14 | -0.13 | 8.1 | 7.7 | 828.4 | 795.8 | 220.8 | 212.1 |
| 14 | 91.5 | 88.4 | 92.6 | 78.4 | 0.31 | 0.31 | -0.13 | -0.14 | 6.9 | 7.6 | 244.6 | 234.4 | 221.3 | 212.1 |
| Avg. | 91.5 | 88.4 | 92.4 | 79.0 | 0.27 | 0.28 | -0.14 | -0.14 | 7.4 | 7.5 | 475.2 | 455.2 | 221.8 | 212.1 |
| Std Dv | 0.1 | 0.1 | 0.2 | 0.9 | 0.16 | 0.14 | 0.02 | 0.02 | 0.8 | 0.3 | 439.3 | 423.3 | 1.8 | 0.0 |
| 1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS | | | | | | | | | | | | | | |
| 1 | 89.3 | 86.4 | 88.9 | 75.0 | 0.23 | 0.25 | -0.13 | -0.14 | 7.3 | 7.7 | 347.4 | 333.4 | 316.3 | 303.6 |
| 2 | 89.0 | 86.1 | 88.8 | 75.7 | 0.57 | 0.56 | -0.27 | -0.25 | 8.1 | 7.6 | 655.6 | 607.6 | 327.6 | 303.6 |
| 3 | 88.9 | 86.1 | 89.0 | 75.7 | -0.17 | -0.13 | -0.01 | -0.01 | 7.2 | 7.3 | 330.2 | 329.6 | 304.1 | 303.6 |
| 4 | 89.4 | 86.3 | 89.8 | 76.9 | 0.42 | 0.43 | -0.03 | -0.03 | 7.1 | 6.9 | 514.6 | 510.0 | 306.4 | 303.6 |
| 42 | 87.6 | 87.6 | 90.1 | 76.8 | 0.32 | 0.30 | - | -0.11 | - | 7.3 | 856.0 | 826.9 | 314.2 | 303.6 |
| 43 | 89.0 | 85.8 | 89.9 | 76.5 | 0.24 | 0.23 | -0.08 | -0.08 | 7.0 | 7.1 | 490.5 | 477.3 | 312.0 | 303.6 |
| 44 | 89.1 | 85.9 | 89.6 | 76.8 | 0.43 | 0.41 | -0.14 | -0.13 | 7.3 | 6.9 | 602.3 | 576.8 | 317.0 | 303.6 |
| Avg. | 89.1 | 86.3 | 89.4 | 76.2 | 0.23 | 0.24 | -0.11 | -0.11 | 7.3 | 7.3 | 542.4 | 523.1 | 313.9 | 303.6 |
| Std Dv | 0.2 | 0.7 | 0.6 | 0.8 | 0.27 | 0.25 | 0.11 | 0.09 | 0.4 | 0.4 | 200.6 | 188.7 | 8.5 | 0.0 |
| 1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS | | | | | | | | | | | | | | |
| 5 | 85.7 | 82.7 | 84.2 | 70.6 | 0.68 | 0.66 | -0.28 | -0.29 | 7.8 | 8.0 | 542.4 | 499.3 | 495.4 | 456.0 |
| 6 | 87.0 | 84.2 | 85.8 | 72.6 | 0.32 | 0.34 | -0.19 | -0.19 | 7.8 | 7.9 | 761.9 | 720.8 | 482.0 | 456.0 |
| 11 | 85.5 | 82.6 | 84.8 | 72.4 | 0.69 | 0.67 | -0.27 | -0.26 | 7.5 | 7.2 | 880.7 | 809.6 | 496.1 | 456.0 |
| 12 | | | | | | | | | | | | | | |
| Avg. | 86.1 | 83.2 | 85.0 | 71.9 | 0.56 | 0.56 | -0.25 | -0.25 | 7.7 | 7.7 | 728.3 | 676.5 | 491.1 | 456.0 |
| Std Dv | 1.2 | 1.2 | 1.2 | 1.5 | 0.30 | 0.27 | 0.07 | 0.07 | 0.2 | 0.6 | 242.7 | 226.0 | 11.2 | 0.0 |

TABLE NO. B.3-1.3

AUGUSTA A-109 HELICOPTER (ITALIAN)

DOT/TSC
12/21/81

CORRECTION DATA

JUNE 24, 1980

CENTERLINE - 150 M. EAST

SITE: 3

| EV | CORRECTED | | | CORRECTIONS (dB) | | | | CONSTANTS | | TRACKING DATA (METERS) | | | | |
|----------|-----------|-------|-------|------------------|-----------------------------|-----------------------------|-------|-----------|-----|------------------------|-------|-------|-------|-------|
| | EPNL | NEL | PNLTM | dBAM | $\sqrt{1(P)} / \sqrt{1(A)}$ | $\sqrt{2(P)} / \sqrt{2(A)}$ | K(P) | K(A) | SR | CPA | SRR | CPAR | | |
| APPROACH | | | | | | | | | | | | | | |
| 24 | 98.9 | 96.7 | 99.0 | 86.6 | 0.70 | 0.69 | -0.26 | -0.27 | 7.7 | 7.8 | 145.5 | 134.5 | 144.9 | 133.9 |
| 26 | 103.4 | 100.8 | 103.2 | 90.3 | 2.04 | 1.97 | -0.71 | -0.73 | 7.4 | 7.6 | 167.4 | 134.5 | 166.6 | 133.9 |
| 28 | 97.9 | 95.5 | 98.9 | 86.4 | 0.37 | 0.37 | -0.13 | -0.13 | 6.9 | 6.6 | 142.7 | 136.6 | 139.9 | 133.9 |
| 32 | 97.8 | 95.3 | 98.9 | 85.2 | -0.27 | -0.25 | 0.07 | 0.08 | 6.9 | 7.5 | 144.6 | 148.1 | 130.7 | 133.9 |
| 34 | 99.0 | 96.5 | 99.3 | 87.0 | 0.14 | 0.14 | -0.06 | -0.06 | 7.5 | 7.4 | 159.2 | 156.3 | 136.4 | 133.9 |
| 36 | 99.3 | 96.8 | 101.3 | 87.9 | 0.93 | 0.90 | -0.29 | -0.32 | 6.7 | 7.3 | 148.9 | 134.6 | 148.1 | 133.9 |
| 38 | 97.6 | 95.3 | 99.1 | 87.1 | -0.33 | -0.31 | 0.09 | 0.09 | 6.5 | 6.6 | 156.7 | 161.4 | 129.9 | 133.9 |
| 40 | 97.7 | 95.5 | 98.5 | 86.1 | 0.25 | 0.24 | -0.09 | -0.09 | 6.8 | 7.0 | 140.2 | 136.2 | 137.8 | 133.9 |
| Avg. | 98.9 | 96.5 | 99.8 | 87.1 | 0.48 | 0.47 | -0.17 | -0.18 | 7.1 | 7.2 | 150.6 | 142.8 | 141.8 | 133.9 |
| Std Dev | 2.1 | 2.0 | 1.8 | 1.6 | 0.82 | 0.79 | 0.28 | 0.29 | 0.5 | 0.5 | 10.2 | 11.8 | 12.8 | 0.0 |
| TAKEOFF | | | | | | | | | | | | | | |
| 23 | 90.3 | 87.3 | 92.7 | 79.4 | -6.31 | -5.90 | 1.65 | 1.69 | 6.4 | 6.5 | 110.3 | 199.9 | 95.2 | 172.4 |
| 25 | 90.4 | 87.6 | 92.6 | 79.1 | -6.32 | -5.77 | 1.67 | 1.72 | 6.7 | 6.9 | 125.8 | 223.2 | 97.2 | 172.4 |
| 29 | 89.7 | 86.7 | 92.2 | 78.7 | -5.75 | -5.27 | 1.48 | 1.53 | 6.5 | 6.7 | 121.9 | 206.5 | 101.8 | 172.4 |
| 31 | 89.8 | 86.7 | 92.1 | 78.8 | -4.94 | -4.55 | 1.35 | 1.32 | 6.8 | 6.6 | 116.2 | 184.0 | 108.9 | 172.4 |
| 33 | 90.2 | 87.0 | 92.6 | 79.3 | -4.55 | -4.19 | 1.27 | 1.22 | 6.8 | 6.5 | 112.4 | 172.5 | 112.3 | 172.4 |
| 35 | 90.1 | 87.2 | 92.8 | 79.4 | -5.48 | -5.03 | 1.45 | 1.42 | 6.5 | 6.4 | 118.8 | 197.6 | 103.7 | 172.4 |
| 37 | 89.8 | 86.5 | 91.9 | 78.1 | -5.02 | -4.65 | 1.39 | 1.39 | 6.7 | 6.7 | 107.3 | 172.6 | 107.2 | 172.4 |
| 39 | 89.6 | 86.6 | 91.9 | 78.3 | -4.96 | -4.52 | 1.31 | 1.33 | 6.7 | 6.8 | 135.5 | 212.7 | 109.8 | 172.4 |
| 41 | 90.0 | 87.0 | 92.4 | 78.9 | -5.42 | -4.98 | 1.45 | 1.45 | 6.6 | 6.7 | 118.5 | 196.1 | 104.5 | 172.4 |
| Avg. | 90.3 | 87.0 | 92.4 | 78.9 | 0.72 | 0.67 | 0.16 | 0.19 | 0.2 | 0.2 | 9.9 | 19.9 | 6.6 | 0.0 |
| Std Dev | 0.3 | 0.4 | 0.4 | 0.5 | | | | | | | | | | |

NO TRACKING DATA

NO TRACKING DATA

TABLE NO. B.3-2.3
AUGUSTA A-109 HELICOPTER (ITALIAN)

DOT/TSC
12/21/81

CORRECTION DATA

JUNE 24, 1980

CENTERLINE - 150 M. EAST

SITE: 3

| EV | CORRECTED | | | CORRECTIONS (dB) | | | CONSTANTS | | TRACKING DATA (METERS) | | | | | |
|---|-----------|------|-------|------------------|---------------|---------------|---------------|---------------|------------------------|------|-------|-------|-------|-------|
| | EPNL | NEL | PNLTH | dBAH | $\wedge 1(P)$ | $\wedge 1(A)$ | $\wedge 2(P)$ | $\wedge 2(A)$ | K(P) | K(A) | SR | CPA | SRR | CPAR |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 87 KTS | | | | | | | | | | | | | | |
| 21 | 90.6 | 87.2 | 92.6 | 77.5 | 0.37 | 0.35 | -0.14 | -0.16 | 6.3 | 7.4 | 540.4 | 513.8 | 159.0 | 151.2 |
| 22 | 90.1 | 87.0 | 91.8 | 77.2 | 0.71 | 0.68 | -0.22 | -0.25 | 6.3 | 7.2 | 165.8 | 153.2 | 163.6 | 151.2 |
| 46 | 89.2 | 86.0 | 91.2 | 77.2 | 0.39 | 0.38 | -0.12 | -0.13 | 6.5 | 7.1 | 162.9 | 156.3 | 157.6 | 151.2 |
| 47 | 89.2 | 86.0 | 92.1 | 77.0 | 1.36 | 1.29 | -0.37 | -0.44 | 6.1 | 7.3 | 177.2 | 154.4 | 173.5 | 151.2 |
| Avg. | 89.8 | 86.6 | 91.9 | 77.2 | 0.71 | 0.67 | -0.21 | -0.25 | 6.3 | 7.2 | 261.6 | 244.4 | 163.4 | 151.2 |
| Std Dv | 0.8 | 0.8 | 0.7 | 0.2 | 0.57 | 0.53 | 0.14 | 0.17 | 0.2 | 0.2 | 227.8 | 220.0 | 8.8 | 0.0 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 102 KTS | | | | | | | | | | | | | | |
| 51 | 91.3 | 88.2 | 94.3 | 79.6 | 1.66 | 1.56 | -0.48 | -0.52 | 6.6 | 7.2 | 191.4 | 162.0 | 178.6 | 151.2 |
| 52 | 90.5 | 87.5 | 92.2 | 78.3 | 0.30 | 0.29 | -0.09 | -0.10 | 6.8 | 7.3 | 166.1 | 161.0 | 156.0 | 151.2 |
| 53 | 90.8 | 87.6 | 93.1 | 78.7 | 1.40 | 1.32 | -0.41 | -0.45 | 6.7 | 7.3 | 178.6 | 155.2 | 174.0 | 151.2 |
| 56 | 90.8 | 88.0 | 92.8 | 78.7 | 0.53 | 0.51 | -0.16 | -0.17 | 6.9 | 7.2 | 168.1 | 159.1 | 159.7 | 151.2 |
| Avg. | 90.9 | 87.8 | 93.1 | 78.8 | 0.97 | 0.92 | -0.28 | -0.31 | 6.7 | 7.3 | 176.0 | 159.3 | 167.1 | 151.2 |
| Std Dv | 0.4 | 0.4 | 1.1 | 0.7 | 0.81 | 0.75 | 0.23 | 0.25 | 0.2 | 0.1 | 14.2 | 3.7 | 13.4 | 0.0 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 116 KTS | | | | | | | | | | | | | | |
| 54 | 92.1 | 89.0 | 93.1 | 80.1 | 0.80 | 0.76 | -0.26 | -0.26 | 7.4 | 7.3 | 172.5 | 159.0 | 164.0 | 151.2 |
| 57 | 92.0 | 88.9 | 93.6 | 80.2 | 1.41 | 1.33 | -0.44 | -0.44 | 7.4 | 7.4 | 295.9 | 258.4 | 173.1 | 151.2 |
| 58 | 90.6 | 87.4 | 92.3 | 78.3 | 0.49 | 0.47 | -0.16 | -0.17 | 7.3 | 7.5 | 171.5 | 162.9 | 159.1 | 151.2 |
| Avg. | 91.6 | 88.4 | 93.0 | 79.6 | 0.90 | 0.85 | -0.29 | -0.29 | 7.4 | 7.4 | 213.3 | 193.4 | 165.4 | 151.2 |
| Std Dv | 1.2 | 1.2 | 1.0 | 1.5 | 0.66 | 0.62 | 0.20 | 0.19 | 0.1 | 0.1 | 101.2 | 79.6 | 10.1 | 0.0 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS | | | | | | | | | | | | | | |
| 17 | 93.5 | 90.4 | 96.2 | 83.2 | 1.38 | 1.32 | -0.48 | -0.46 | 7.7 | 7.4 | 310.5 | 268.8 | 174.6 | 151.2 |
| 18 | 93.2 | 90.1 | 94.4 | 81.2 | 0.75 | 0.73 | -0.27 | -0.27 | 7.5 | 7.5 | 247.4 | 227.4 | 164.5 | 151.2 |
| 19 | 93.4 | 90.3 | 96.0 | 82.9 | 0.71 | 0.68 | -0.25 | -0.25 | 7.2 | 7.3 | 458.9 | 423.6 | 163.8 | 151.2 |
| 20 | 92.3 | 89.4 | 94.6 | 81.7 | -0.05 | -0.04 | 0.01 | 0.01 | 7.3 | 6.7 | 228.8 | 229.5 | 150.7 | 151.2 |
| 63 | 93.5 | 90.4 | 95.4 | 82.3 | 1.58 | 1.49 | -0.49 | -0.49 | 7.4 | 7.3 | 276.9 | 237.7 | 176.1 | 151.2 |
| Avg. | 93.2 | 90.1 | 95.3 | 82.3 | 0.87 | 0.84 | -0.30 | -0.29 | 7.4 | 7.2 | 304.5 | 277.4 | 165.9 | 151.2 |
| Std Dv | 0.6 | 0.5 | 0.9 | 0.9 | 0.74 | 0.70 | 0.24 | 0.23 | 0.2 | 0.3 | 105.9 | 96.3 | 11.8 | 0.0 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 145 KTS | | | | | | | | | | | | | | |
| 48 | 95.3 | 92.2 | 97.4 | 84.1 | 1.00 | 0.95 | -0.32 | -0.28 | 7.6 | 6.5 | 273.6 | 248.2 | 166.7 | 151.2 |
| 49 | 95.9 | 92.7 | 98.5 | 85.1 | -0.82 | -0.78 | 0.23 | 0.23 | 6.9 | 7.1 | 325.8 | 351.5 | 140.1 | 151.2 |
| 50 | 95.5 | 92.1 | 97.7 | 84.4 | 0.08 | 0.08 | -0.03 | -0.03 | 7.4 | 7.3 | 386.3 | 382.4 | 152.7 | 151.2 |
| 60 | 95.7 | 92.4 | 98.4 | 85.2 | 0.48 | 0.46 | -0.13 | -0.12 | 6.4 | 6.3 | 507.1 | 484.6 | 158.2 | 151.2 |
| 61 | 94.8 | 91.6 | 97.7 | 84.5 | 0.39 | 0.37 | -0.12 | -0.12 | 7.2 | 7.0 | 307.2 | 295.6 | 157.1 | 151.2 |
| Avg. | 95.4 | 92.2 | 97.9 | 84.7 | 0.23 | 0.22 | -0.07 | -0.06 | 7.1 | 6.8 | 360.0 | 352.4 | 155.0 | 151.2 |
| Std Dv | 0.5 | 0.5 | 0.6 | 0.5 | 0.78 | 0.74 | 0.23 | 0.22 | 0.5 | 0.5 | 106.1 | 104.0 | 11.2 | 0.0 |

NO TRACKING DATA

NO TRACKING DATA

NO TRACKING DATA

TABLE NO. B.3-3.3

AUGUSTA A-109 HELICOPTER (ITALIAN)

DOT/TSC
12/21/81

CORRECTION DATA

SITE: 3

CENTERLINE - 150 M. EAST

JUNE 24, 1980

| EV | CORRECTED | | CORRECTIONS (dB) | | CONSTANTS | | TRACKING DATA (ACTUAL) | | | TRACKING DATA (METERS) (REFERENCE) | | | | |
|--|-----------|------|------------------|------|-----------------------------|-----------------------------|------------------------|-------|-----|------------------------------------|--------|-------|-------|-------|
| | EPNL | NEL | PNLTH | dBAM | $\sqrt{1(P)} / \sqrt{1(A)}$ | $\sqrt{2(P)} / \sqrt{2(A)}$ | K(P) | K(A) | SR | CPA | SRR | CPAR | | |
| 300 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS | | | | | | | | | | | | | | |
| 9 | 94.9 | 91.6 | 98.7 | 85.7 | 1.11 | 1.08 | -0.36 | -0.34 | 6.7 | 6.4 | 167.0 | 147.7 | 102.0 | 90.2 |
| 10 | 95.4 | 92.5 | 98.0 | 84.8 | 0.70 | 0.68 | -0.26 | -0.25 | 7.5 | 7.0 | 265.4 | 244.7 | 97.8 | 90.2 |
| 15 | 96.1 | 93.0 | 99.0 | 86.1 | 0.91 | 0.88 | -0.31 | -0.29 | 7.0 | 6.7 | 146.8 | 132.6 | 99.9 | 90.2 |
| 16 | 95.6 | 92.5 | 98.1 | 84.9 | -0.22 | -0.20 | 0.04 | 0.04 | 6.9 | 7.1 | 175.6 | 177.9 | 89.0 | 90.2 |
| Avg. | 95.5 | 92.4 | 98.4 | 85.4 | 0.62 | 0.61 | -0.22 | -0.21 | 7.0 | 6.8 | 188.7 | 175.8 | 97.2 | 90.2 |
| Std Dv | 0.6 | 0.7 | 0.6 | 0.8 | 0.72 | 0.69 | 0.22 | 0.21 | 0.4 | 0.4 | 64.4 | 60.9 | 7.0 | 0.0 |
| 700 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | |
| 8 | 90.2 | 87.6 | 90.0 | 77.4 | 0.09 | 0.12 | -0.11 | -0.11 | 7.6 | 7.5 | 640.2 | 619.7 | 219.2 | 212.1 |
| 13 | 90.9 | 88.0 | 92.2 | 79.4 | 0.03 | 0.05 | -0.07 | -0.07 | 8.0 | 7.7 | 419.6 | 411.3 | 216.5 | 212.1 |
| 14 | 90.0 | 87.4 | 89.7 | 77.1 | 0.11 | 0.13 | -0.09 | -0.09 | 7.7 | 7.6 | 360.1 | 350.6 | 217.9 | 212.1 |
| Avg. | 90.4 | 87.7 | 90.6 | 78.0 | 0.08 | 0.10 | -0.09 | -0.09 | 7.7 | 7.6 | 473.3 | 460.5 | 217.8 | 212.1 |
| Std Dv | 0.6 | 0.4 | 1.9 | 1.7 | 0.06 | 0.06 | 0.03 | 0.03 | 0.3 | 0.2 | 208.7 | 199.6 | 1.9 | 0.0 |
| 1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS | | | | | | | | | | | | | | |
| 1 | | | | | | | | | | | | | | |
| 2 | 88.9 | 86.1 | 87.7 | 74.9 | 0.07 | 0.12 | -0.11 | -0.11 | 7.8 | 7.7 | 530.0 | 513.1 | 313.6 | 303.6 |
| 3 | 88.2 | 85.2 | 89.4 | 76.8 | 0.73 | 0.73 | -0.29 | -0.28 | 7.2 | 6.8 | 908.8 | 827.7 | 333.3 | 303.6 |
| 4 | 88.3 | 85.6 | 87.7 | 74.8 | -0.24 | -0.20 | 0.00 | 0.00 | 7.4 | 7.6 | 448.8 | 448.7 | 303.6 | 303.6 |
| 42 | 88.9 | 86.1 | 88.3 | 76.0 | 0.19 | 0.19 | -0.08 | -0.08 | 7.9 | 7.6 | 552.8 | 539.5 | 311.1 | 303.6 |
| 43 | 88.9 | 86.2 | 89.7 | 77.6 | 0.53 | 0.50 | -0.17 | -0.16 | 7.5 | 7.0 | 863.0 | 819.7 | 319.6 | 303.6 |
| 44 | | | | | | | | | | | | | | |
| 45 | 87.8 | 84.7 | 88.1 | 74.9 | 0.49 | 0.46 | -0.14 | -0.14 | 7.0 | 6.9 | 687.1 | 655.3 | 319.3 | 303.6 |
| Avg. | 88.5 | 85.7 | 88.5 | 75.8 | 0.29 | 0.30 | -0.13 | -0.13 | 7.5 | 7.3 | 665.1 | 634.0 | 316.6 | 303.6 |
| Std Dv | 0.5 | 0.7 | 1.0 | 1.3 | 0.40 | 0.37 | 0.11 | 0.10 | 0.4 | 0.5 | 210.2 | 180.5 | 11.2 | 0.0 |
| 1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS | | | | | | | | | | | | | | |
| 5 | 81.5 | 79.5 | 81.9 | 69.9 | 0.83 | 0.81 | -0.30 | -0.30 | 6.9 | 6.8 | 1053.7 | 953.0 | 504.2 | 456.0 |
| 6 | 85.4 | 82.9 | 83.3 | 71.2 | 0.19 | 0.20 | -0.16 | -0.15 | 7.9 | 7.7 | 681.1 | 651.0 | 477.1 | 456.0 |
| 11 | 85.1 | 82.3 | 83.1 | 70.7 | 0.71 | 0.66 | -0.29 | -0.28 | 8.1 | 7.8 | 1042.6 | 958.6 | 495.9 | 456.0 |
| 12 | | | | | | | | | | | | | | |
| Avg. | 84.0 | 81.6 | 82.8 | 70.6 | 0.58 | 0.56 | -0.25 | -0.24 | 7.6 | 7.4 | 925.8 | 854.2 | 492.4 | 456.0 |
| Std Dv | 3.0 | 2.5 | 1.1 | 0.9 | 0.48 | 0.45 | 0.11 | 0.12 | 0.9 | 0.7 | 244.7 | 203.2 | 19.7 | 0.0 |

TABLE NO. B.3-1.4

AUGUSTA A-109 HELICOPTER (ITALIAN)

DOT/TSC
12/21/81

CORRECTION DATA

SITE: 4

SIDELINE - 164 M. NORTH

JUNE 24, 1980

| EV | CORRECTED | | | CORRECTIONS (dB) | | | | CONSTANTS | | TRACKING DATA (METERS) | | | | |
|----------|-----------|------|-------|------------------|---------------|---------------|---------------|---------------|------|------------------------|----------|-------|-------|-------|
| | EPNL | NEL | PNLTM | dBAM | $\wedge 1(P)$ | $\wedge 1(A)$ | $\wedge 2(P)$ | $\wedge 2(A)$ | K(P) | K(A) | (ACTUAL) | CFA | SRR | CFAR |
| APPROACH | | | | | | | | | | | | | | |
| 24 | 97.8 | 94.9 | 98.4 | 85.8 | 1.03 | 0.99 | -0.35 | -0.35 | 7.5 | 7.4 | 262.3 | 235.2 | 213.0 | 191.0 |
| 26 | - | 94.2 | 98.5 | 85.6 | 1.38 | 1.32 | - | -0.47 | - | 7.4 | 234.6 | 203.1 | 220.6 | 191.0 |
| 28 | 94.9 | 92.0 | 96.1 | 81.9 | -0.29 | -0.26 | 0.07 | 0.08 | 6.6 | 7.4 | 189.6 | 194.3 | 186.4 | 191.0 |
| 32 | 93.7 | 90.8 | 93.8 | 80.3 | -0.13 | -0.11 | 0.02 | 0.02 | 7.2 | 7.2 | 190.1 | 191.6 | 189.5 | 191.0 |
| 34 | 94.4 | 91.4 | 95.9 | 81.6 | -0.04 | -0.03 | 0.00 | 0.00 | 6.4 | 7.2 | 193.4 | 193.4 | 191.0 | 191.0 |
| 36 | 94.2 | 93.6 | 96.1 | 83.7 | 0.16 | 0.16 | -0.07 | -0.06 | 7.1 | 6.9 | 244.7 | 239.6 | 195.1 | 191.0 |
| 38 | 93.2 | 90.4 | 93.0 | 80.0 | -0.16 | -0.14 | 0.03 | 0.03 | 7.1 | 7.1 | 268.3 | 271.0 | 189.1 | 191.0 |
| 40 | 93.9 | 93.2 | 97.2 | 84.1 | 0.12 | 0.12 | -0.05 | -0.05 | 7.5 | 7.3 | 235.8 | 232.0 | 194.1 | 191.0 |
| 64 | 94.9 | 91.7 | 97.6 | 84.2 | -0.21 | -0.19 | 0.06 | 0.06 | 7.1 | 7.2 | 200.1 | 203.9 | 187.4 | 191.0 |
| Avg. | 95.1 | 92.5 | 96.3 | 83.0 | 0.21 | 0.21 | -0.04 | -0.08 | 7.0 | 7.2 | 224.4 | 218.2 | 196.2 | 191.0 |
| Std Dv | 1.6 | 1.7 | 2.1 | 2.3 | 0.63 | 0.60 | 0.15 | 0.21 | 0.4 | 0.2 | 33.7 | 29.4 | 13.0 | 0.0 |
| TAKEOFF | | | | | | | | | | | | | | |
| 23 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 25 | 91.8 | 88.4 | 93.6 | 79.5 | -2.12 | -1.99 | 0.60 | 0.62 | 7.0 | 7.2 | 188.5 | 230.0 | 166.4 | 203.1 |
| 27 | 91.4 | 87.9 | 93.6 | 79.2 | -2.20 | -2.07 | 0.60 | 0.66 | 6.6 | 7.2 | 179.5 | 221.1 | 164.9 | 203.1 |
| 29 | - | 88.1 | 93.2 | 79.4 | -1.93 | -1.81 | - | 0.57 | - | 7.3 | 190.7 | 228.0 | 169.8 | 203.1 |
| 31 | 91.4 | 88.4 | 92.8 | 78.9 | -1.85 | -1.74 | 0.52 | 0.56 | 7.1 | 7.6 | 213.7 | 253.4 | 171.2 | 203.1 |
| 33 | 91.3 | 88.2 | 92.9 | 78.7 | -1.92 | -1.80 | 0.54 | 0.58 | 6.9 | 7.5 | 197.5 | 236.1 | 169.9 | 203.1 |
| 35 | 91.1 | 87.9 | 92.1 | 78.7 | -2.25 | -2.12 | 0.67 | 0.67 | 7.4 | 7.4 | 199.3 | 245.6 | 164.7 | 203.1 |
| 37 | 91.8 | 88.7 | 93.3 | 79.2 | -1.76 | -1.66 | 0.50 | 0.54 | 7.0 | 7.5 | 193.3 | 227.9 | 172.2 | 203.1 |
| 39 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 41 | 91.5 | 88.2 | 93.6 | 79.1 | -1.71 | -1.61 | 0.46 | 0.51 | 6.7 | 7.4 | 197.7 | 231.7 | 173.2 | 203.1 |
| Avg. | 91.5 | 88.2 | 93.1 | 79.1 | -1.97 | -1.85 | 0.56 | 0.59 | 7.0 | 7.4 | 195.0 | 234.3 | 169.0 | 203.1 |
| Std Dv | 0.3 | 0.3 | 0.6 | 0.3 | 0.22 | 0.20 | 0.08 | 0.06 | 0.3 | 0.2 | 10.7 | 11.4 | 3.6 | 0.0 |

NO TRACKING DATA

NO TRACKING DATA

AUGUSTA A-109 HELICOPTER (ITALIAN)

DOT/TSC
12/21/81

JUNE 24, 1980

SITE: 4 SIDELINE - 164 M. NORTH

CORRECTION DATA

| EV | CORRECTED | | | CORRECTIONS (dB) | | | | CONSTANTS | | | TRACKING DATA (METERS) (ACTUAL) | | | TRACKING DATA (REFERENCE) | | |
|---|-----------|------|-------|------------------|---------------|---------------|---------------|---------------|------|------|------------------------------------|-------|-------|---------------------------|--|--|
| | EFNL | NEL | PNLTM | dBAM | $\wedge 1(P)$ | $\wedge 1(A)$ | $\wedge 2(P)$ | $\wedge 2(A)$ | K(P) | K(A) | SR | CPA | SRR | CPAR | | |
| 500 FT. FLYBY - TARGET INDICATED AIRSPEED 87 KTS | | | | | | | | | | | | | | | | |
| 21 | 87.0 | 84.2 | 86.4 | 73.6 | -0.83 | -0.77 | 0.15 | 0.15 | 7.3 | 7.4 | 509.5 | 533.6 | 203.3 | 212.9 | | |
| 22 | 87.5 | 84.4 | 87.2 | 74.1 | 0.33 | 0.32 | -0.13 | -0.13 | 7.1 | 7.3 | 257.9 | 247.3 | 222.1 | 212.9 | | |
| 46 | 86.4 | 83.7 | 87.1 | 75.1 | 0.04 | 0.04 | -0.02 | -0.02 | 6.8 | 6.4 | 251.7 | 250.0 | 214.4 | 212.9 | | |
| 47 | 87.5 | 85.0 | 87.1 | 75.1 | -0.13 | -0.12 | 0.02 | 0.02 | 7.2 | 6.5 | 414.3 | 417.1 | 211.5 | 212.9 | | |
| Avg. | 87.1 | 84.3 | 87.0 | 74.5 | -0.15 | -0.13 | 0.00 | 0.00 | 7.1 | 6.9 | 358.3 | 362.0 | 212.8 | 212.9 | | |
| Std Dv | 0.6 | 0.7 | 0.5 | 0.9 | 0.60 | 0.57 | 0.14 | 0.14 | 0.3 | 0.6 | 154.0 | 170.6 | 9.5 | 0.0 | | |
| 500 FT. FLYBY - TARGET INDICATED AIRSPEED 102 KTS | | | | | | | | | | | | | | | | |
| 51 | 89.2 | 86.0 | 89.6 | 75.9 | 0.73 | 0.68 | -0.22 | -0.22 | 7.4 | 7.5 | 370.6 | 346.0 | 228.1 | 212.9 | | |
| 52 | 88.5 | 85.3 | 88.9 | 75.4 | 0.59 | 0.57 | -0.18 | -0.19 | 7.1 | 7.3 | 277.0 | 261.3 | 225.8 | 212.9 | | |
| 56 | 87.2 | 84.0 | 88.3 | 75.2 | -0.01 | -0.01 | 0.00 | 0.00 | 6.5 | 6.4 | 250.3 | 250.1 | 213.1 | 212.9 | | |
| Avg. | 88.3 | 85.1 | 88.9 | 75.5 | 0.44 | 0.41 | -0.13 | -0.14 | 7.0 | 7.1 | 299.3 | 285.8 | 222.3 | 212.9 | | |
| Std Dv | 1.5 | 1.4 | 0.9 | 0.6 | 0.56 | 0.52 | 0.17 | 0.17 | 0.6 | 0.8 | 89.4 | 74.2 | 11.4 | 0.0 | | |
| 500 FT. FLYBY - TARGET INDICATED AIRSPEED 116 KTS | | | | | | | | | | | | | | | | |
| 54 | 89.6 | 86.5 | 90.1 | 77.0 | 0.36 | 0.35 | -0.11 | -0.11 | 6.8 | 6.7 | 281.1 | 271.1 | 220.8 | 212.9 | | |
| 57 | 90.4 | 87.2 | 90.2 | 76.9 | 0.93 | 0.89 | -0.31 | -0.31 | 7.9 | 7.8 | 297.5 | 271.8 | 233.1 | 212.9 | | |
| 58 | 87.9 | 84.7 | 88.6 | 75.2 | -0.13 | -0.12 | 0.03 | 0.03 | 7.1 | 7.3 | 253.0 | 255.5 | 210.8 | 212.9 | | |
| Avg. | 89.3 | 86.1 | 89.6 | 76.4 | 0.39 | 0.37 | -0.13 | -0.13 | 7.3 | 7.3 | 277.2 | 266.1 | 221.6 | 212.9 | | |
| Std Dv | 1.8 | 1.9 | 1.2 | 1.4 | 0.75 | 0.71 | 0.24 | 0.24 | 0.8 | 0.7 | 31.8 | 13.0 | 15.8 | 0.0 | | |
| 500 FT. FLYBY - TARGET INDICATED AIRSPEED 130 KTS | | | | | | | | | | | | | | | | |
| 17 | 90.2 | 87.6 | 92.4 | 79.2 | -0.11 | -0.09 | -0.04 | -0.04 | 6.4 | 6.8 | 633.0 | 624.6 | 215.8 | 212.9 | | |
| 18 | 91.5 | 88.4 | 92.0 | 78.3 | 0.70 | 0.67 | -0.26 | -0.26 | 7.4 | 7.5 | 600.8 | 554.6 | 230.7 | 212.9 | | |
| 19 | 90.2 | 87.5 | 90.0 | 78.2 | -0.19 | -0.16 | 0.01 | 0.01 | 7.8 | 7.1 | 266.8 | 267.8 | 212.2 | 212.9 | | |
| 20 | | | | | | | | | | | | | | | | |
| 62 | | | | | | | | | | | | | | | | |
| 63 | 90.3 | 87.5 | 90.8 | 78.2 | 0.28 | 0.27 | -0.09 | -0.09 | 7.5 | 7.3 | 225.7 | 219.4 | 219.1 | 212.9 | | |
| Avg. | 90.6 | 87.7 | 91.3 | 78.5 | 0.17 | 0.17 | -0.09 | -0.09 | 7.3 | 7.2 | 431.6 | 416.6 | 219.4 | 212.9 | | |
| Std Dv | 0.8 | 0.5 | 1.3 | 0.6 | 0.50 | 0.47 | 0.14 | 0.14 | 0.8 | 0.4 | 263.4 | 248.3 | 9.8 | 0.0 | | |
| 500 FT. FLYBY - TARGET INDICATED AIRSPEED 145 KTS | | | | | | | | | | | | | | | | |
| 48 | | | | | | | | | | | | | | | | |
| 49 | 93.5 | 90.2 | 94.1 | 81.0 | 0.80 | 0.75 | -0.23 | -0.22 | 7.7 | 7.5 | 760.8 | 710.2 | 228.1 | 212.9 | | |
| 50 | 94.1 | 90.1 | 95.9 | 80.9 | -0.29 | -0.26 | 0.07 | 0.07 | 6.5 | 7.1 | 406.0 | 415.6 | 208.0 | 212.9 | | |
| 59 | 92.7 | 89.5 | 92.8 | 79.8 | -0.23 | -0.21 | 0.07 | 0.07 | 7.8 | 7.7 | 248.1 | 253.0 | 208.8 | 212.9 | | |
| 60 | 93.6 | 89.6 | 95.7 | 82.1 | 0.23 | 0.22 | -0.07 | -0.06 | 7.0 | 6.5 | 662.2 | 647.3 | 217.9 | 212.9 | | |
| 61 | 92.4 | 89.4 | 92.7 | 79.6 | -0.35 | -0.32 | 0.10 | 0.10 | 7.6 | 7.5 | 248.8 | 256.5 | 206.6 | 212.9 | | |
| Avg. | 93.3 | 89.8 | 94.2 | 80.7 | 0.03 | 0.04 | -0.01 | -0.01 | 7.3 | 7.3 | 465.2 | 456.5 | 213.9 | 212.9 | | |
| Std Dv | 0.8 | 0.4 | 1.6 | 1.2 | 0.56 | 0.52 | 0.16 | 0.15 | 0.6 | 0.6 | 273.0 | 247.6 | 10.5 | 0.0 | | |

TABLE NO. B.3-3.4

AUGUSTA A-109 HELICOPTER (ITALIAN)

DOT/TSC
12/21/81

CORRECTION DATA

SITE: 4 SIDELINE - 164 M. NORTH

JUNE 24, 1980

| EV | CORRECTED | | | CORRECTIONS (dB) | | | CONSTANTS | | TRACKING DATA (ACTUAL) | | | TRACKING DATA (REFERENCE) | | |
|--|-----------|------|-------|------------------|----------------|----------------|----------------|----------------|------------------------|------|--------|---------------------------|-------|-------|
| | EPNL | NEL | PNLTH | dBAM | $\wedge(1)(P)$ | $\wedge(1)(A)$ | $\wedge(2)(P)$ | $\wedge(2)(A)$ | K(P) | K(A) | SR | CPA | SRR | CPAR |
| 300 FT. FLYBY - TARGET INDICATED AIRSPEED 130 KTS | | | | | | | | | | | | | | |
| 9 | 91.2 | 88.5 | 91.5 | 79.8 | -0.03 | -0.02 | -0.03 | -0.03 | 7.7 | 7.0 | 177.5 | 176.0 | 176.5 | 175.0 |
| 10 | 92.4 | 88.9 | 93.2 | 79.9 | 0.67 | 0.64 | -0.26 | -0.25 | 7.6 | 7.4 | 190.9 | 176.7 | 189.1 | 175.0 |
| 15 | 90.5 | 87.6 | 91.4 | 78.8 | -0.25 | -0.21 | 0.00 | 0.00 | 7.7 | 7.5 | 668.1 | 667.3 | 175.2 | 175.0 |
| 16 | 90.1 | 87.1 | 92.1 | 78.2 | 0.32 | 0.35 | -0.15 | -0.17 | 6.7 | 7.4 | 422.2 | 400.6 | 184.4 | 175.0 |
| Avg. | 91.0 | 88.0 | 92.0 | 79.2 | 0.18 | 0.19 | -0.11 | -0.11 | 7.4 | 7.3 | 364.7 | 355.2 | 181.3 | 175.0 |
| Std Dv | 1.3 | 1.0 | 1.0 | 1.0 | 0.49 | 0.46 | 0.15 | 0.14 | 0.6 | 0.2 | 283.4 | 285.9 | 8.1 | 0.0 |
| 700 FT. FLYBY - TARGET INDICATED AIRSPEED 130 KTS | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | |
| 8 | 90.5 | 87.5 | 89.7 | 76.8 | 0.22 | 0.22 | -0.14 | -0.13 | 8.0 | 7.8 | 475.6 | 457.3 | 270.2 | 259.8 |
| 13 | 89.3 | 86.6 | 88.9 | 76.2 | -0.49 | -0.47 | 0.10 | 0.10 | 7.6 | 7.6 | 313.5 | 322.7 | 252.4 | 259.8 |
| 14 | 90.1 | 87.1 | 89.5 | 77.6 | 0.33 | 0.33 | -0.18 | -0.17 | 7.7 | 6.9 | 989.1 | 936.1 | 274.5 | 259.8 |
| Avg. | 90.0 | 87.1 | 89.4 | 76.9 | 0.02 | 0.03 | -0.07 | -0.07 | 7.8 | 7.4 | 592.7 | 572.1 | 265.7 | 259.8 |
| Std Dv | 0.9 | 0.6 | 0.6 | 1.0 | 0.63 | 0.61 | 0.21 | 0.21 | 0.3 | 0.7 | 302.8 | 456.0 | 16.6 | 0.0 |
| 1000 FT. FLYBY - TARGET INDICATED AIRSPEED 130 KTS | | | | | | | | | | | | | | |
| 2 | 89.7 | 86.9 | 88.4 | 75.1 | 0.26 | 0.29 | -0.17 | -0.18 | 7.7 | 7.8 | 867.1 | 823.1 | 356.7 | 338.6 |
| 3 | 87.7 | 84.9 | 88.6 | 74.7 | -0.45 | -0.42 | 0.06 | 0.06 | 6.9 | 7.2 | 429.8 | 438.2 | 332.1 | 338.6 |
| 4 | 88.5 | 85.9 | 86.7 | 73.7 | -0.33 | -0.23 | -0.01 | -0.01 | 8.0 | 7.8 | 799.8 | 796.5 | 340.0 | 338.6 |
| 42 | | | | | | | | | | | | | | |
| 43 | 87.4 | 84.4 | 89.1 | 74.9 | -0.28 | -0.27 | 0.05 | 0.06 | 6.4 | 7.0 | 422.7 | 430.9 | 332.1 | 338.6 |
| 44 | | | | | | | | | | | | | | |
| 45 | 87.2 | 84.1 | 89.1 | 74.7 | -0.10 | -0.09 | 0.01 | 0.01 | 6.5 | 7.3 | 453.7 | 455.1 | 337.6 | 338.6 |
| Avg. | 88.1 | 85.2 | 88.4 | 74.6 | -0.18 | -0.14 | -0.01 | -0.01 | 7.1 | 7.4 | 594.6 | 588.8 | 339.7 | 338.6 |
| Std Dv | 1.2 | 1.3 | 1.1 | 0.6 | 0.32 | 0.31 | 0.11 | 0.11 | 0.8 | 0.5 | 253.6 | 233.5 | 11.7 | 0.0 |
| 1500 FT. FLYBY - TARGET INDICATED AIRSPEED 130 KTS | | | | | | | | | | | | | | |
| 5 | 84.6 | 82.1 | 85.4 | 71.2 | -0.30 | -0.23 | 0.00 | 0.00 | 6.6 | 7.0 | 651.2 | 650.4 | 480.6 | 480.0 |
| 6 | 88.0 | 85.0 | 84.9 | 73.0 | 0.42 | 0.43 | -0.21 | -0.21 | 7.4 | 7.6 | 1050.7 | 984.5 | 512.3 | 480.0 |
| 11 | 84.6 | 82.1 | 85.6 | 70.7 | -0.18 | -0.12 | -0.02 | -0.03 | 6.5 | 7.1 | 681.2 | 675.6 | 484.0 | 480.0 |
| 12 | | | | | | | | | | | | | | |
| Avg. | 85.7 | 83.0 | 85.9 | 71.7 | -0.02 | 0.03 | -0.08 | -0.08 | 6.8 | 7.2 | 794.4 | 770.2 | 492.3 | 480.0 |
| Std Dv | 2.8 | 2.4 | 1.2 | 1.7 | 0.55 | 0.50 | 0.16 | 0.16 | 0.7 | 0.4 | 182.5 | 152.6 | 24.6 | 0.0 |

TABLE NO. E.3-1.5

AUGUSTA A-109 HELICOPTER (ITALIAN)

DOT/TSC
12/21/81

CORRECTION DATA

JUNE 24, 1980

SIDELINE - 150 M. SOUTH

SITE: 5

| EV | CORRECTED | | | CORRECTIONS (dB) | | | CONSTANTS | | TRACKING DATA (METERS) | | | | |
|----------|-----------|------|-------|------------------|---------------------------|---------------|---------------|------|------------------------|-------|-------|-------|-------|
| | EPNL | NEL | PMLTH | dBAM | $\sqrt{1(P)} \sqrt{1(A)}$ | $\sqrt{2(P)}$ | $\sqrt{2(A)}$ | K(P) | K(A) | SR | DPA | SRR | CPAR |
| APPROACH | | | | | | | | | | | | | |
| 24 | 93.4 | 90.6 | 92.6 | 79.1 | -0.21 | -0.19 | 0.05 | 7.0 | 7.5 | 189.7 | 192.6 | 188.1 | 191.0 |
| 26 | 95.1 | 92.7 | 95.9 | 84.6 | 0.30 | 0.30 | -0.11 | 6.6 | 6.0 | 355.4 | 341.9 | 198.5 | 191.0 |
| 28 | 95.4 | 93.1 | 94.8 | 82.4 | 0.25 | 0.25 | -0.11 | 8.0 | 7.4 | 243.1 | 235.4 | 197.2 | 191.0 |
| 32 | 95.3 | 92.9 | 95.0 | 82.5 | -0.05 | -0.04 | -0.01 | 7.2 | 7.3 | 251.0 | 250.3 | 191.5 | 191.0 |
| 34 | 94.7 | 92.3 | 94.6 | 82.5 | 0.01 | 0.02 | -0.03 | 7.5 | 7.4 | 277.6 | 275.1 | 192.7 | 191.0 |
| 36 | 93.4 | 90.8 | 92.4 | 79.7 | 0.42 | 0.40 | -0.15 | 7.6 | 7.4 | 238.9 | 228.0 | 200.0 | 191.0 |
| 38 | 93.6 | 91.1 | 95.0 | 82.1 | 0.04 | 0.04 | -0.03 | 6.4 | 6.4 | 242.3 | 240.1 | 192.8 | 191.0 |
| 40 | 92.6 | 89.8 | 91.5 | 78.6 | -0.24 | -0.22 | 0.06 | 7.0 | 6.9 | 187.8 | 191.7 | 187.1 | 191.0 |
| 64 | 90.1 | 86.8 | 91.1 | 77.9 | -0.07 | -0.06 | 0.02 | 6.9 | 6.7 | 190.3 | 191.4 | 189.9 | 191.0 |
| Avg. | 93.7 | 91.1 | 93.7 | 81.0 | 0.05 | 0.06 | -0.03 | 7.2 | 7.0 | 241.8 | 238.5 | 193.1 | 191.0 |
| Std Dev | 1.8 | 2.1 | 1.9 | 2.5 | 0.24 | 0.23 | 0.08 | 0.5 | 0.6 | 56.8 | 51.8 | 4.9 | 0.0 |
| TAKEDOFF | | | | | | | | | | | | | |
| 23 | | | | | | | | | | | | | |
| 25 | 91.7 | 88.5 | 91.7 | 78.3 | -1.81 | -1.70 | 0.61 | 8.1 | 8.0 | 172.2 | 204.8 | 170.8 | 203.1 |
| 27 | 90.9 | 87.9 | 92.0 | 78.4 | -1.99 | -1.86 | 0.59 | 7.4 | 7.5 | 194.7 | 234.0 | 169.0 | 203.1 |
| 29 | 90.6 | 87.3 | 91.2 | 77.9 | -1.88 | -1.76 | 0.57 | 7.7 | 7.7 | 213.3 | 252.6 | 171.4 | 203.1 |
| 31 | 91.6 | 88.4 | 92.5 | 78.5 | -1.57 | -1.48 | 0.49 | 7.5 | 7.8 | 175.0 | 203.4 | 174.7 | 203.1 |
| 33 | 91.4 | 88.2 | 92.5 | 78.5 | -1.34 | -1.27 | 0.40 | 7.2 | 7.7 | 178.8 | 203.3 | 178.6 | 203.1 |
| 35 | 91.9 | 88.7 | 93.6 | 79.7 | -1.39 | -1.32 | 0.40 | 6.9 | 7.3 | 179.4 | 204.9 | 177.8 | 203.1 |
| 37 | 91.3 | 88.1 | 91.6 | 78.1 | -1.69 | -1.60 | 0.54 | 7.6 | 7.8 | 175.2 | 206.2 | 172.5 | 203.1 |
| 39 | | | | | | | | | | | | | |
| 41 | 90.6 | 87.4 | 91.1 | 77.6 | -1.64 | -1.55 | 0.53 | 7.7 | 7.9 | 173.3 | 203.1 | 173.2 | 203.1 |
| Avg. | 91.2 | 88.1 | 92.0 | 78.4 | -1.66 | -1.57 | 0.52 | 7.5 | 7.7 | 182.7 | 214.0 | 173.5 | 203.1 |
| Std Dev | 0.5 | 0.5 | 0.9 | 0.7 | 0.25 | 0.22 | 0.09 | 0.4 | 0.2 | 15.4 | 20.3 | 3.6 | 0.0 |

NO TRACKING DATA

NO TRACKING DATA

TABLE NO. B.3-2.5

AUGUSTA A-109 HELICOPTER (ITALIAN)

DOT/TSC
12/31/81

CORRECTION DATA

JUNE 24, 1980

SIDELINE - 150 M. SOUTH

SITE: 5

| EV | CORRECTED | | | | CORRECTIONS (dB) | | | | CONSTANTS | | | | TRACKING DATA (METERS) | | | |
|---|-----------|------|-------|------|------------------|---------------|---------------|---------------|-----------|------|-------|-------|------------------------|-------|----------|-------------|
| | EPNL | NEL | PNLTH | dBAM | $\wedge 1(P)$ | $\wedge 1(A)$ | $\wedge 2(F)$ | $\wedge 2(A)$ | K(P) | K(A) | SR | CPA | SRR | CPAR | (ACTUAL) | (REFERENCE) |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 87 KTS | | | | | | | | | | | | | | | | |
| 21 | 88.2 | 84.9 | 88.3 | 74.8 | 1.00 | 0.91 | -0.32 | -0.32 | 7.4 | 7.5 | 614.5 | 556.4 | 235.2 | 212.9 | | |
| 22 | 88.5 | 86.0 | 86.8 | 74.1 | 0.16 | 0.16 | -0.08 | -0.09 | 7.6 | 7.7 | 218.5 | 212.9 | 218.5 | 212.9 | | |
| 46 | - | 85.4 | 90.5 | 77.6 | 0.35 | 0.34 | - | -0.11 | - | 6.8 | 247.8 | 238.7 | 221.0 | 212.9 | | |
| 47 | 88.1 | 85.1 | 88.3 | 75.4 | 1.36 | 1.27 | -0.42 | -0.41 | 7.4 | 7.5 | 254.3 | 223.1 | 242.7 | 212.9 | | |
| Avg. | 88.3 | 85.4 | 88.5 | 75.5 | 0.72 | 0.67 | -0.27 | -0.23 | 7.5 | 7.3 | 333.8 | 307.8 | 229.3 | 212.9 | | |
| Std Dv | 0.3 | 0.6 | 1.6 | 1.9 | 0.69 | 0.63 | 0.25 | 0.19 | 0.2 | 0.5 | 230.0 | 203.4 | 14.1 | 0.0 | | |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 102 KTS | | | | | | | | | | | | | | | | |
| 51 | 88.7 | 85.8 | 88.5 | 75.8 | 1.09 | 1.02 | -0.33 | -0.32 | 7.2 | 7.1 | 255.7 | 230.2 | 236.5 | 212.9 | | |
| 52 | 88.6 | 85.9 | 90.4 | 76.8 | 0.58 | 0.51 | -0.11 | -0.11 | 6.4 | 6.8 | 299.5 | 288.2 | 221.2 | 212.9 | | |
| 53 | 87.6 | 84.5 | 87.5 | 74.9 | 1.02 | 0.96 | -0.31 | -0.30 | 7.3 | 7.0 | 256.1 | 232.2 | 234.8 | 212.9 | | |
| 56 | 87.9 | 85.4 | 89.4 | 75.6 | 0.55 | 0.54 | -0.11 | -0.11 | 6.8 | 6.9 | 294.7 | 284.4 | 220.7 | 212.9 | | |
| Avg. | 88.2 | 85.4 | 89.0 | 75.8 | 0.71 | 0.67 | -0.21 | -0.21 | 6.9 | 6.9 | 276.5 | 258.7 | 228.3 | 212.9 | | |
| Std Dv | 0.7 | 0.8 | 1.5 | 1.0 | 0.49 | 0.45 | 0.15 | 0.14 | 0.5 | 0.2 | 29.2 | 39.0 | 10.5 | 0.0 | | |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 116 KTS | | | | | | | | | | | | | | | | |
| 54 | 90.0 | 87.6 | 90.8 | 77.1 | 0.49 | 0.47 | -0.15 | -0.16 | 6.9 | 7.6 | 278.5 | 265.3 | 223.5 | 212.9 | | |
| 55 | 87.9 | 84.8 | 87.2 | 74.8 | 0.43 | 0.40 | -0.14 | -0.13 | 7.0 | 7.3 | 284.1 | 272.6 | 222.0 | 212.9 | | |
| 57 | 87.2 | 84.1 | 87.3 | 74.2 | 0.43 | 0.39 | -0.13 | -0.13 | 7.4 | 7.3 | 534.3 | 513.6 | 221.5 | 212.9 | | |
| 58 | 88.7 | 86.4 | 89.4 | 76.4 | 0.46 | 0.44 | -0.14 | -0.14 | 7.3 | 7.1 | 286.1 | 273.4 | 222.8 | 212.9 | | |
| Avg. | 88.5 | 85.7 | 88.7 | 75.6 | 0.45 | 0.42 | -0.14 | -0.14 | 7.4 | 7.3 | 345.8 | 331.2 | 222.5 | 212.9 | | |
| Std Dv | 1.5 | 1.9 | 2.1 | 1.7 | 0.04 | 0.05 | 0.01 | 0.02 | 0.4 | 0.3 | 154.0 | 149.0 | 1.1 | 0.0 | | |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS | | | | | | | | | | | | | | | | |
| 17 | 91.7 | 88.3 | 93.8 | 79.2 | 1.26 | 1.20 | -0.40 | -0.43 | 7.0 | 7.6 | 433.8 | 380.7 | 242.6 | 212.9 | | |
| 18 | 90.7 | 88.4 | 91.7 | 79.4 | 0.88 | 0.10 | -0.09 | -0.09 | 7.3 | 7.2 | 697.8 | 677.7 | 219.2 | 212.9 | | |
| 19 | 91.4 | 87.9 | 95.3 | 80.7 | 0.77 | 0.73 | -0.22 | -0.24 | 5.9 | 6.6 | 416.0 | 382.0 | 231.9 | 212.9 | | |
| 20 | 90.3 | 87.8 | 90.9 | 78.0 | 0.15 | 0.14 | -0.05 | -0.05 | 7.4 | 7.5 | 293.4 | 288.8 | 216.3 | 212.9 | | |
| 63 | 90.5 | 87.2 | 92.4 | 77.9 | 1.09 | 1.03 | -0.31 | -0.34 | 7.2 | 7.8 | 420.4 | 380.6 | 235.2 | 212.9 | | |
| Avg. | 90.9 | 87.9 | 92.8 | 79.0 | 0.67 | 0.64 | -0.21 | -0.23 | 6.9 | 7.3 | 452.3 | 422.0 | 229.1 | 212.9 | | |
| Std Dv | 0.7 | 0.5 | 2.0 | 1.3 | 0.62 | 0.58 | 0.17 | 0.19 | 0.7 | 0.6 | 171.5 | 171.4 | 12.7 | 0.0 | | |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 145 KTS | | | | | | | | | | | | | | | | |
| 48 | 93.7 | 90.1 | 95.8 | 81.1 | 0.88 | 0.82 | -0.22 | -0.25 | 6.6 | 7.3 | 528.1 | 488.6 | 230.2 | 212.9 | | |
| 49 | 90.8 | 87.8 | 91.2 | 78.4 | -0.51 | -0.46 | 0.14 | 0.14 | 7.6 | 7.4 | 532.6 | 555.7 | 204.1 | 212.9 | | |
| 59 | 91.2 | 87.7 | 93.1 | 77.9 | -0.03 | -0.02 | 0.00 | 0.00 | 7.0 | 7.9 | 387.1 | 386.9 | 213.0 | 212.9 | | |
| 60 | 92.8 | 89.9 | 94.0 | 80.4 | 0.22 | 0.21 | -0.07 | -0.07 | 7.0 | 7.5 | 577.4 | 565.0 | 217.6 | 212.9 | | |
| 61 | 92.2 | 88.6 | 95.7 | 81.6 | 0.28 | 0.27 | -0.08 | -0.08 | 6.3 | 6.5 | 524.0 | 509.8 | 218.9 | 212.9 | | |
| Avg. | 92.2 | 88.8 | 94.0 | 79.9 | 0.17 | 0.16 | -0.05 | -0.05 | 6.9 | 7.3 | 509.8 | 501.2 | 216.7 | 212.9 | | |
| Std Dv | 1.4 | 1.3 | 2.2 | 1.9 | 0.58 | 0.54 | 0.15 | 0.16 | 0.6 | 0.6 | 83.0 | 82.3 | 10.9 | 0.0 | | |

NO TRACKING DATA

NO TRACKING DATA

TABLE NO. B.3-3.5

AUGUSTA A-109 HELICOPTER (ITALIAN)

DOT/TSC
12/21/81

CORRECTION DATA

JUNE 24, 1980

SITE: 5 SIDELINE - 150 M. SOUTH

| EV | CORRECTED | | CORRECTIONS (dB) | | | | CONSTANTS | | TRACKING DATA (ACTUAL) | | | TRACKING DATA (METERS) (REFERENCE) | | |
|--|-----------|------|------------------|------|---------------|---------------|---------------|---------------|------------------------|------|------------------|------------------------------------|-------|-------|
| | EPNL | NEL | PNLTH | dBAN | $\wedge 1(P)$ | $\wedge 1(A)$ | $\wedge 2(P)$ | $\wedge 2(A)$ | K(P) | K(A) | SR | CPA | SRR | CPAR |
| 300 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS | | | | | | | | | | | | | | |
| 9 | 91.1 | 87.5 | 92.5 | 78.9 | 0.66 | 0.54 | -0.22 | -0.23 | 7.7 | 7.8 | 401.8 | 375.8 | 187.1 | 175.0 |
| 10 | 92.4 | 90.0 | 92.3 | 79.9 | -0.22 | -0.24 | 0.05 | 0.05 | 8.1 | 8.0 | 182.0 | 184.7 | 172.4 | 175.0 |
| 15 | 90.9 | 87.5 | 94.0 | 79.5 | 0.39 | 0.39 | -0.14 | -0.15 | 6.1 | 6.7 | 378.5 | 359.6 | 184.2 | 175.0 |
| 16 | 91.1 | 88.8 | 91.2 | 79.4 | -0.56 | -0.44 | 0.11 | 0.10 | 8.1 | 7.6 | 221.2 | 228.2 | 169.6 | 175.0 |
| Avg. | 91.4 | 88.4 | 92.5 | 79.4 | 0.07 | 0.06 | -0.05 | -0.06 | 7.5 | 7.5 | 295.9 | 287.1 | 178.3 | 175.0 |
| Std Dv | 0.9 | 1.5 | 1.4 | 0.5 | 0.68 | 0.58 | 0.19 | 0.19 | 1.2 | 0.7 | 135.3 | 116.3 | 10.6 | 0.0 |
| 700 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | NO TRACKING DATA | | | |
| 8 | 90.2 | 87.7 | 90.4 | 77.8 | 0.11 | -0.05 | -0.03 | -0.03 | 7.1 | 7.2 | 336.1 | 332.9 | 262.3 | 259.8 |
| 13 | 90.4 | 86.9 | 92.2 | 79.4 | 0.44 | 0.44 | -0.19 | -0.18 | 6.8 | 6.5 | 801.6 | 752.5 | 276.7 | 259.8 |
| 14 | 89.4 | 87.1 | 89.0 | 76.7 | -0.22 | -0.21 | 0.02 | 0.02 | 7.4 | 7.3 | 336.9 | 338.5 | 258.5 | 259.8 |
| Avg. | 90.0 | 87.2 | 90.5 | 78.0 | 0.11 | 0.06 | -0.07 | -0.06 | 7.1 | 7.0 | 491.5 | 474.6 | 265.8 | 259.8 |
| Std Dv | 0.8 | 0.6 | 2.3 | 1.9 | 0.47 | 0.48 | 0.16 | 0.15 | 0.4 | 0.6 | 379.8 | 340.3 | 13.6 | 0.0 |
| 1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS | | | | | | | | | | | | | | |
| 2 | 89.5 | 86.7 | 88.7 | 74.6 | 0.19 | 0.13 | -0.10 | -0.10 | 7.3 | 7.9 | 450.0 | 436.5 | 349.1 | 338.6 |
| 3 | 89.6 | 86.0 | 91.1 | 76.8 | 1.54 | 1.34 | -0.44 | -0.46 | 7.0 | 7.4 | 767.4 | 664.8 | 390.8 | 338.6 |
| 4 | 88.6 | 85.9 | 88.1 | 74.1 | -0.10 | -0.20 | 0.01 | 0.01 | 7.2 | 7.8 | 450.6 | 452.1 | 337.5 | 338.6 |
| 42 | 89.8 | 86.9 | 89.6 | 76.5 | 0.29 | 0.28 | -0.09 | -0.10 | 6.7 | 6.9 | 562.0 | 544.1 | 349.8 | 338.6 |
| 43 | 90.3 | 86.9 | 90.6 | 77.6 | 1.05 | 0.97 | -0.29 | -0.27 | 7.6 | 7.3 | 1453.3 | 1333.2 | 369.1 | 338.6 |
| 44 | 88.4 | 85.4 | 89.1 | 75.4 | 0.20 | 0.19 | -0.07 | -0.07 | 6.9 | 7.2 | 389.3 | 380.2 | 346.7 | 338.6 |
| 45 | 89.4 | 86.0 | 89.5 | 76.4 | 0.89 | 0.78 | -0.23 | -0.22 | 7.2 | 7.0 | 992.0 | 921.2 | 364.6 | 338.6 |
| Avg. | 89.4 | 86.3 | 89.5 | 75.9 | 0.58 | 0.50 | -0.17 | -0.17 | 7.1 | 7.3 | 723.5 | 676.0 | 358.2 | 338.6 |
| Std Dv | 0.7 | 0.6 | 1.2 | 1.4 | 0.65 | 0.60 | 0.17 | 0.17 | 0.3 | 0.4 | 240.4 | 233.5 | 19.7 | 0.0 |
| 1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS | | | | | | | | | | | | | | |
| 5 | 87.1 | 83.6 | 86.6 | 72.9 | 1.92 | 1.49 | -0.51 | -0.50 | 7.7 | 7.6 | 1282.9 | 1102.4 | 558.6 | 480.0 |
| 6 | 87.4 | 84.4 | 85.9 | 71.9 | 0.40 | 0.12 | -0.09 | -0.09 | 8.0 | 8.0 | 538.8 | 524.7 | 492.9 | 480.0 |
| 11 | 86.0 | 82.7 | 85.4 | 71.6 | 1.39 | 1.32 | -0.46 | -0.48 | 7.7 | 7.9 | 848.3 | 738.3 | 551.5 | 480.0 |
| 12 | | | | | | | | | | | NO TRACKING DATA | | | |
| Avg. | 86.8 | 83.6 | 86.0 | 72.1 | 1.24 | 0.98 | -0.35 | -0.36 | 7.8 | 7.8 | 890.0 | 788.5 | 534.3 | 480.0 |
| Std Dv | 1.1 | 1.2 | 0.8 | 1.0 | 1.09 | 1.06 | 0.32 | 0.33 | 0.2 | 0.3 | 353.7 | 268.5 | 51.0 | 0.0 |
| NO TRACKING DATA | | | | | | | | | | | | | | |

TABLE NO. B.3-1.56

AUGUSTA A-109 HELICOPTER (ITALIAN)

DOT/TSC
12/21/81

CORRECTION DATA

| EV | CORRECTED | | | CORRECTIONS (dB) | | | CONSTANTS | | | TRACKING DATA (METERS) | | | |
|----------|-----------|------|-------|------------------|---------------------------|---------------|---------------|------|------|------------------------|-------|-------|-------|
| | EPNL | NEL | PNLTM | dBAM | $\wedge 1(P) \wedge 1(A)$ | $\wedge 2(P)$ | $\wedge 2(A)$ | K(P) | K(A) | SR | CFA | SRR | CPAR |
| APPROACH | | | | | | | | | | | | | |
| 24 | 95.9 | 93.4 | 95.2 | 82.6 | -0.23 | 0.05 | 0.05 | 7.1 | 7.1 | 206.2 | 209.2 | 188.9 | 191.7 |
| 26 | 96.9 | 95.1 | 97.0 | 85.2 | 0.30 | -0.12 | -0.12 | 7.2 | 7.1 | 356.0 | 342.3 | 199.4 | 191.7 |
| 28 | 97.6 | 95.5 | 97.3 | 85.2 | 0.25 | 0.24 | -0.11 | 7.7 | 7.8 | 243.8 | 236.2 | 197.9 | 191.7 |
| 32 | 97.7 | 95.5 | 98.6 | 85.6 | -0.09 | -0.06 | -0.01 | 6.9 | 7.2 | 241.6 | 240.9 | 192.2 | 191.7 |
| 34 | 97.9 | 95.7 | 99.1 | 86.2 | -0.05 | -0.01 | -0.03 | 6.9 | 7.3 | 316.0 | 313.1 | 193.5 | 191.7 |
| 36 | 95.8 | 93.7 | 95.5 | 83.2 | 0.42 | 0.40 | -0.15 | 7.5 | 7.5 | 259.4 | 247.6 | 200.8 | 191.7 |
| 38 | 96.5 | 94.0 | 97.5 | 84.8 | 0.01 | 0.03 | -0.03 | 6.6 | 6.6 | 243.0 | 240.7 | 193.5 | 191.7 |
| 40 | 95.4 | 92.9 | 94.2 | 82.2 | -0.25 | -0.23 | 0.06 | 7.0 | 6.7 | 187.9 | 191.8 | 187.9 | 191.7 |
| 64 | 93.4 | 90.4 | 93.9 | 81.5 | -0.08 | -0.07 | 0.02 | 7.2 | 7.2 | 191.0 | 192.1 | 190.6 | 191.7 |
| Avg. | 96.4 | 94.0 | 96.5 | 84.1 | 0.03 | 0.04 | -0.04 | 7.1 | 7.2 | 249.4 | 246.0 | 193.9 | 191.7 |
| Std Dv | 1.5 | 1.8 | 2.0 | 1.8 | 0.25 | 0.24 | 0.08 | 0.4 | 0.4 | 59.9 | 54.9 | 4.9 | 0.0 |

TAKEDOFF

| EV | CORRECTED | | | CORRECTIONS (dB) | | | CONSTANTS | | | TRACKING DATA (METERS) | | | |
|------------------|-----------|------|-------|------------------|---------------------------|---------------|---------------|------|------|------------------------|-------|-------|-------|
| | EPNL | NEL | PNLTM | dBAM | $\wedge 1(P) \wedge 1(A)$ | $\wedge 2(P)$ | $\wedge 2(A)$ | K(P) | K(A) | SR | CFA | SRR | CPAR |
| NO TRACKING DATA | | | | | | | | | | | | | |
| 23 | 94.3 | 90.9 | 95.3 | 81.6 | -2.10 | -1.86 | 0.58 | 7.6 | 7.7 | 192.6 | 229.1 | 171.4 | 203.9 |
| 25 | 93.3 | 90.1 | 95.2 | 81.7 | -2.23 | -1.97 | 0.55 | 6.9 | 7.1 | 195.1 | 234.6 | 169.5 | 203.9 |
| 29 | 94.6 | 88.5 | 93.9 | 80.7 | -1.97 | -1.76 | 0.55 | - | 7.4 | 188.8 | 223.8 | 172.0 | 203.9 |
| 31 | 94.6 | 91.5 | 95.7 | 82.6 | -1.82 | -1.61 | 0.49 | 7.5 | 7.5 | 193.9 | 225.5 | 175.3 | 203.9 |
| 33 | 94.6 | 91.7 | 96.3 | 83.0 | -1.54 | -1.38 | 0.40 | 7.2 | 7.2 | 203.9 | 232.0 | 179.2 | 203.9 |
| 35 | 95.0 | 91.7 | 96.6 | 83.3 | -1.62 | -1.43 | 0.42 | 7.2 | 7.2 | 199.1 | 227.6 | 178.3 | 203.9 |
| 37 | 94.2 | 91.1 | 95.6 | 82.2 | -1.92 | -1.71 | 0.51 | 7.2 | 7.4 | 188.0 | 221.3 | 173.1 | 203.9 |
| 39 | 94.3 | 91.2 | 95.0 | 81.8 | -1.82 | -1.65 | 0.53 | 7.7 | 7.8 | 187.7 | 220.1 | 173.9 | 203.9 |
| Avg. | 94.3 | 90.8 | 95.5 | 82.1 | -1.88 | -1.67 | 0.50 | 7.3 | 7.4 | 193.6 | 226.8 | 174.1 | 203.9 |
| Std Dv | 0.6 | 1.2 | 0.9 | 0.9 | 0.25 | 0.22 | 0.07 | 0.3 | 0.3 | 6.2 | 5.5 | 3.6 | 0.0 |

NO TRACKING DATA

NO TRACKING DATA

TABLE NO. 8.3-2.5G

AUGUSTA A-109 HELICOPTER (ITALIAN)

DOT/TSC
12/21/81

JUNE 24, 1980

SITE: 5G SIDELINE - 150 M. SOUTH (FLUSH)

| EV | CORRECTED | | CORRECTIONS (dB) | | | | CONSTANTS | | TRACKING DATA (METERS) | | | | | |
|---|-----------|------|------------------|------|---------------|---------------|---------------|---------------|------------------------|------|------------------|-------|-------|-------|
| | EPNL | NEL | PNLTM | dBAM | $\wedge 1(P)$ | $\wedge 1(A)$ | $\wedge 2(P)$ | $\wedge 2(A)$ | K(P) | K(A) | SR | CPA | SRR | CPAR |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 87 KTS | | | | | | | | | | | | | | |
| 21 | 91.1 | 87.9 | 91.5 | 79.5 | 1.00 | 0.91 | -0.31 | -0.29 | 7.3 | 6.7 | 585.9 | 530.8 | 236.0 | 213.8 |
| 22 | 91.5 | 88.7 | 90.9 | 78.1 | 0.11 | 0.14 | -0.08 | -0.08 | 7.5 | 7.5 | 229.5 | 223.6 | 219.4 | 213.8 |
| 46 | 92.4 | 89.4 | 94.4 | 81.1 | 0.36 | 0.34 | -0.11 | -0.10 | 6.6 | 6.5 | 248.6 | 239.5 | 221.9 | 213.8 |
| 47 | 91.5 | 88.5 | 92.5 | 79.9 | 1.44 | 1.29 | -0.42 | -0.40 | 7.4 | 7.0 | 255.1 | 224.0 | 243.6 | 213.8 |
| Avs. | 91.6 | 88.6 | 92.3 | 79.6 | 0.73 | 0.67 | -0.23 | -0.22 | 7.2 | 6.9 | 329.6 | 304.5 | 230.2 | 213.8 |
| Std Dv | 0.7 | 0.8 | 1.8 | 1.5 | 0.74 | 0.64 | 0.20 | 0.19 | 0.5 | 0.5 | 209.5 | 185.0 | 14.1 | 0.0 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 102 KTS | | | | | | | | | | | | | | |
| 51 | 91.3 | 88.5 | 92.3 | 79.8 | 1.10 | 1.04 | -0.33 | -0.32 | 7.2 | 7.0 | 256.5 | 231.0 | 237.4 | 213.8 |
| 52 | 92.2 | 89.4 | 93.9 | 80.3 | 0.42 | 0.38 | -0.11 | -0.12 | 6.8 | 7.2 | 300.1 | 288.9 | 222.1 | 213.8 |
| 53 | | | | | | | | | | | NO TRACKING DATA | | | |
| 56 | 91.5 | 88.7 | 92.5 | 79.4 | 0.38 | 0.35 | -0.11 | -0.11 | 7.4 | 7.4 | 276.6 | 267.0 | 221.5 | 213.8 |
| Avs. | 91.7 | 88.8 | 92.9 | 79.9 | 0.63 | 0.59 | -0.18 | -0.18 | 7.1 | 7.2 | 277.8 | 262.3 | 227.0 | 213.8 |
| Std Dv | 0.7 | 0.7 | 1.2 | 0.6 | 0.57 | 0.55 | 0.18 | 0.17 | 0.4 | 0.3 | 30.8 | 41.3 | 12.8 | 0.0 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 116 KTS | | | | | | | | | | | | | | |
| 54 | | | | | | | | | | | NO TRACKING DATA | | | |
| 55 | 91.0 | 88.0 | 91.2 | 79.4 | 0.42 | 0.40 | -0.13 | -0.13 | 7.5 | 7.2 | 234.0 | 224.5 | 222.9 | 213.8 |
| 57 | 90.5 | 87.7 | 91.1 | 79.2 | 0.41 | 0.38 | -0.13 | -0.12 | 7.3 | 6.7 | 226.8 | 218.0 | 222.5 | 213.8 |
| 58 | 92.1 | 89.4 | 93.5 | 80.8 | 0.48 | 0.44 | -0.14 | -0.13 | 6.9 | 6.9 | 251.6 | 240.5 | 223.7 | 213.8 |
| Avs. | 91.2 | 88.4 | 91.9 | 79.8 | 0.44 | 0.41 | -0.13 | -0.13 | 7.2 | 6.9 | 237.5 | 227.7 | 223.0 | 213.8 |
| Std Dv | 1.2 | 1.3 | 1.9 | 1.2 | 0.05 | 0.04 | 0.01 | 0.01 | 0.4 | 0.3 | 18.1 | 16.4 | 0.9 | 0.0 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS | | | | | | | | | | | | | | |
| 17 | 95.0 | 91.7 | 97.3 | 84.1 | 1.31 | 1.21 | -0.39 | -0.39 | 6.9 | 6.8 | 361.9 | 317.8 | 243.5 | 213.8 |
| 18 | 93.7 | 91.1 | 94.4 | 82.4 | 0.13 | 0.15 | -0.10 | -0.09 | 7.8 | 7.2 | 247.7 | 240.5 | 220.2 | 213.8 |
| 19 | 95.0 | 91.9 | 98.0 | 84.2 | 0.76 | 0.73 | -0.24 | -0.26 | 6.5 | 7.1 | 455.5 | 418.5 | 232.7 | 213.8 |
| 20 | | | | | | | | | | | NO TRACKING DATA | | | |
| 62 | 93.4 | 90.6 | 94.3 | 81.9 | 0.15 | 0.14 | -0.05 | -0.05 | 7.6 | 7.4 | 269.0 | 264.8 | 217.2 | 213.8 |
| 63 | 94.3 | 91.1 | 96.2 | 82.7 | 1.23 | 1.11 | -0.32 | -0.32 | 7.4 | 7.6 | 458.1 | 414.8 | 236.1 | 213.8 |
| Avs. | 94.3 | 91.3 | 96.0 | 83.1 | 0.72 | 0.67 | -0.22 | -0.22 | 7.2 | 7.2 | 358.5 | 331.3 | 229.9 | 213.8 |
| Std Dv | 0.8 | 0.6 | 1.9 | 1.2 | 0.65 | 0.59 | 0.17 | 0.17 | 0.6 | 0.3 | 114.9 | 95.6 | 12.7 | 0.0 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 145 KTS | | | | | | | | | | | | | | |
| 48 | 96.1 | 93.1 | 97.8 | 84.9 | 0.07 | 0.08 | -0.04 | -0.03 | 7.6 | 7.3 | 288.7 | 285.6 | 216.1 | 213.8 |
| 49 | 96.5 | 93.1 | 99.1 | 84.4 | 0.98 | 0.86 | -0.23 | -0.24 | 6.7 | 7.2 | 484.7 | 450.4 | 231.0 | 213.8 |
| 50 | 95.3 | 92.4 | 96.5 | 84.5 | -0.52 | -0.47 | 0.14 | 0.13 | 7.6 | 6.8 | 235.4 | 245.6 | 204.9 | 213.8 |
| 59 | 94.6 | 91.2 | 97.3 | 83.2 | -0.05 | -0.03 | 0.00 | 0.00 | 6.7 | 7.1 | 349.5 | 349.4 | 213.9 | 213.8 |
| 60 | 95.6 | 92.5 | 98.0 | 84.1 | 0.22 | 0.21 | -0.07 | -0.07 | 7.0 | 7.5 | 331.5 | 324.4 | 218.5 | 213.8 |
| 61 | 95.4 | 91.9 | 98.3 | 84.1 | 0.28 | 0.27 | -0.08 | -0.09 | 7.0 | 7.6 | 524.3 | 510.2 | 219.7 | 213.8 |
| Avs. | 95.6 | 92.4 | 97.8 | 84.2 | 0.16 | 0.15 | -0.05 | -0.05 | 7.1 | 7.3 | 369.4 | 360.9 | 217.4 | 213.8 |
| Std Dv | 0.7 | 0.8 | 1.0 | 0.6 | 0.55 | 0.49 | 0.13 | 0.14 | 0.5 | 0.3 | 126.5 | 112.6 | 9.5 | 0.0 |

TABLE NO. B.3-3.56

AUGUSTA A-109 HELICOPTER (ITALIAN)

DOT/TSC
12/22/81

CORRECTION DATA

| EV | CORRECTED | | | | CORRECTIONS (dB) | | | | CONSTANTS | | | | TRACKING DATA (METERS) (ACTUAL) | | | |
|--|-----------|------|-------|------|------------------|----------------|----------------|----------------|-----------|------|------------------|--------|------------------------------------|-------|--|--|
| | ERML | NEL | FMLYM | dBAM | $\wedge(1(P))$ | $\wedge(1(A))$ | $\wedge(2(P))$ | $\wedge(2(A))$ | K(P) | K(A) | SR | CPA | SRR | CPAR | | |
| 300 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS | | | | | | | | | | | | | | | | |
| 9 | 94.3 | 90.8 | 96.6 | 83.3 | 0.51 | 0.50 | -0.21 | -0.21 | 7.2 | 7.2 | 293.7 | 274.7 | 187.8 | 175.6 | | |
| 10 | 94.9 | 91.8 | 97.3 | 84.8 | -0.33 | -0.29 | 0.04 | 0.04 | 6.6 | 6.1 | 182.6 | 185.3 | 173.1 | 175.6 | | |
| 15 | 94.1 | 90.7 | 97.8 | 82.8 | 0.32 | 0.35 | -0.14 | -0.16 | 6.3 | 7.0 | 341.4 | 324.3 | 184.9 | 175.6 | | |
| 16 | 94.4 | 91.2 | 96.8 | 83.6 | -0.55 | -0.46 | 0.09 | 0.09 | 6.7 | 6.8 | 200.1 | 206.4 | 170.3 | 175.6 | | |
| Avg. | 94.4 | 91.1 | 97.1 | 83.6 | -0.01 | 0.03 | -0.05 | -0.06 | 6.7 | 6.8 | 254.4 | 247.7 | 179.0 | 175.6 | | |
| Std Dv | 0.4 | 0.6 | 0.7 | 1.0 | 0.62 | 0.58 | 0.18 | 0.18 | 0.5 | 0.6 | 92.7 | 78.1 | 10.5 | 0.0 | | |
| 700 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS | | | | | | | | | | | | | | | | |
| 7 | 92.6 | 90.0 | 92.9 | 80.3 | -0.18 | -0.11 | -0.03 | -0.03 | 7.1 | 7.0 | NO TRACKING DATA | | | | | |
| 13 | 93.8 | 90.8 | 95.9 | 82.3 | 0.42 | 0.44 | -0.19 | -0.21 | 7.0 | 7.5 | 464.9 | 436.6 | 277.7 | 260.8 | | |
| 14 | 91.7 | 89.3 | 92.1 | 79.8 | -0.44 | -0.32 | 0.02 | 0.01 | 7.4 | 7.2 | 414.3 | 416.2 | 259.6 | 260.8 | | |
| Avg. | 92.7 | 90.0 | 93.7 | 80.8 | -0.07 | 0.00 | -0.07 | -0.08 | 7.2 | 7.3 | 399.3 | 389.5 | 266.8 | 260.8 | | |
| Std Dv | 1.5 | 1.1 | 2.9 | 1.9 | 0.62 | 0.56 | 0.16 | 0.17 | 0.3 | 0.4 | 105.0 | 91.5 | 13.5 | 0.0 | | |
| 1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS | | | | | | | | | | | | | | | | |
| 1 | 91.5 | 88.9 | 90.7 | 77.8 | 0.07 | 0.05 | -0.10 | -0.10 | 7.7 | 7.6 | 451.2 | 437.8 | 350.1 | 339.7 | | |
| 2 | 92.6 | 89.6 | 93.3 | 80.0 | 1.39 | 1.31 | -0.47 | -0.48 | 7.6 | 7.7 | 811.9 | 703.8 | 391.8 | 339.7 | | |
| 3 | 91.1 | 88.5 | 90.6 | 77.8 | -0.33 | -0.29 | 0.01 | 0.01 | 7.5 | 7.5 | 528.2 | 529.9 | 338.6 | 339.7 | | |
| 4 | 92.2 | 89.3 | 92.9 | 79.7 | 0.29 | 0.27 | -0.10 | -0.10 | 7.1 | 7.2 | 562.7 | 544.8 | 350.8 | 339.7 | | |
| 42 | 93.4 | 90.4 | 93.3 | 80.3 | 1.04 | 0.98 | -0.29 | -0.29 | 7.9 | 7.8 | 1097.0 | 1007.7 | 369.8 | 339.7 | | |
| 43 | 91.0 | 88.3 | 91.7 | 78.6 | 0.20 | 0.19 | -0.07 | -0.08 | 7.3 | 7.4 | 411.0 | 401.4 | 347.8 | 339.7 | | |
| 44 | 92.8 | 89.7 | 92.9 | 79.8 | 0.89 | 0.84 | -0.23 | -0.23 | 7.2 | 7.2 | 992.4 | 921.9 | 365.6 | 339.7 | | |
| Avg. | 92.1 | 89.2 | 92.2 | 79.2 | 0.51 | 0.48 | -0.18 | -0.18 | 7.5 | 7.5 | 693.5 | 649.6 | 359.2 | 339.7 | | |
| Std Dv | 1.0 | 0.8 | 1.3 | 1.2 | 0.67 | 0.63 | 0.18 | 0.18 | 0.3 | 0.3 | 198.5 | 204.4 | 19.6 | 0.0 | | |
| 1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 130 KTS | | | | | | | | | | | | | | | | |
| 5 | 89.8 | 87.1 | 89.8 | 77.2 | 1.48 | 1.40 | -0.50 | -0.49 | 7.6 | 7.4 | 681.1 | 585.6 | 559.6 | 481.2 | | |
| 6 | 89.6 | 86.9 | 88.0 | 74.7 | 0.01 | 0.00 | -0.09 | -0.09 | 7.9 | 8.2 | 620.0 | 603.7 | 494.1 | 481.2 | | |
| 11 | 89.0 | 86.4 | 89.1 | 76.9 | 1.39 | 1.32 | -0.44 | -0.42 | 7.4 | 7.0 | 849.6 | 739.8 | 552.6 | 481.2 | | |
| 12 | | | | | | | | | | | NO TRACKING DATA | | | | | |
| Avg. | 89.4 | 86.8 | 88.9 | 76.3 | 0.96 | 0.91 | -0.34 | -0.33 | 7.6 | 7.5 | 716.9 | 643.0 | 535.4 | 481.2 | | |
| Std Dv | 0.6 | 0.6 | 1.2 | 2.0 | 1.17 | 1.11 | 0.31 | 0.30 | 0.4 | 0.9 | 168.2 | 119.2 | 50.9 | 0.0 | | |

JUNE 24, 1980

SITE: 50 SIMULINE - 150 N. SOUTH (FLIGHT)

TABLE NO. B.3-1.6

AUGUSTA A-109 HELICOPTER (ITALIAN)

DOT/TSC
12/22/81

CORRECTION DATA

JUNE 24, 1980

SITE: 6 SIDELINE - 284 M. NORTH

| EV | CORRECTED | | CORRECTIONS (dB) | | | CONSTANTS | | TRACKING DATA (METERS) | | | | | | |
|----------|-----------|------|------------------|------|-----------------------------|---------------|---------------|------------------------|------|----------|-------------|-------|-------|-------|
| | EPNL | MEL | FNLTM | dBAM | $\sqrt{1(P)} / \sqrt{1(A)}$ | $\sqrt{2(P)}$ | $\sqrt{2(A)}$ | K(P) | K(A) | (ACTUAL) | (REFERENCE) | | | |
| APPROACH | | | | | | | | | | | | | | |
| 24 | 91.5 | 89.2 | 92.5 | 78.9 | 0.25 | 0.25 | -0.09 | -0.10 | 6.4 | 7.1 | 323.0 | 312.6 | 317.7 | 307.4 |
| 26 | 92.1 | 89.1 | 93.4 | 79.5 | 0.76 | 0.71 | -0.22 | -0.24 | 6.4 | 6.8 | 334.3 | 308.6 | 332.9 | 307.4 |
| 28 | 89.1 | 86.9 | 87.4 | 74.9 | -0.30 | -0.26 | 0.06 | 0.06 | 7.3 | 7.4 | 308.8 | 314.8 | 301.5 | 307.4 |
| 32 | 88.4 | 85.9 | 85.9 | 73.3 | -0.17 | -0.14 | 0.02 | 0.02 | 7.7 | 7.8 | 363.6 | 365.4 | 305.9 | 307.4 |
| 34 | 88.5 | 86.2 | 87.3 | 74.7 | -0.10 | -0.08 | 0.00 | 0.00 | 7.1 | 7.1 | 310.0 | 310.5 | 306.9 | 307.4 |
| 36 | 90.0 | 87.9 | 89.3 | 76.8 | -0.05 | -0.03 | -0.01 | -0.01 | 7.1 | 7.3 | 308.6 | 307.8 | 308.2 | 307.4 |
| 38 | 88.8 | 86.1 | 87.1 | 74.8 | -0.23 | -0.21 | 0.03 | 0.02 | 7.5 | 7.2 | 500.8 | 504.7 | 305.0 | 307.4 |
| 40 | 90.1 | 88.1 | 89.1 | 78.0 | 0.06 | 0.07 | -0.04 | -0.04 | 7.6 | 7.3 | 347.9 | 343.6 | 311.3 | 307.4 |
| 64 | 87.7 | 86.0 | 90.1 | 77.7 | -0.13 | -0.11 | 0.03 | 0.03 | 6.5 | 6.1 | 307.7 | 310.7 | 304.4 | 307.4 |
| Avg. | 89.6 | 87.3 | 89.1 | 76.5 | 0.01 | 0.02 | -0.02 | -0.03 | 7.1 | 7.1 | 345.0 | 342.1 | 310.4 | 307.4 |
| Std Dv | 1.6 | 1.4 | 2.7 | 2.3 | 0.35 | 0.32 | 0.09 | 0.10 | 0.6 | 0.5 | 66.0 | 68.5 | 10.3 | 0.0 |
| TAKEOFF | | | | | | | | | | | | | | |
| 23 | | | | | | | | | | | | | | |
| 25 | 88.1 | 85.6 | 89.3 | 76.9 | -1.16 | -0.99 | 0.23 | 0.22 | 6.8 | 6.7 | 374.6 | 404.6 | 291.7 | 315.1 |
| 27 | 87.7 | 85.2 | 88.3 | 75.6 | -1.00 | -0.94 | 0.24 | 0.23 | 7.0 | 6.7 | 318.2 | 344.7 | 290.9 | 315.1 |
| 29 | | 84.6 | 88.3 | 75.4 | -0.85 | -0.78 | - | 0.21 | - | 7.1 | 294.4 | 315.2 | 294.3 | 315.1 |
| 31 | 88.3 | 85.7 | 88.8 | 75.9 | -0.86 | -0.80 | 0.22 | 0.21 | 7.5 | 7.3 | 309.4 | 330.9 | 294.6 | 315.1 |
| 33 | 88.1 | 85.6 | 87.4 | 74.6 | -0.92 | -0.85 | 0.25 | 0.25 | 7.7 | 7.8 | 314.9 | 339.2 | 292.5 | 315.1 |
| 35 | 87.6 | 85.1 | 87.9 | 74.9 | -1.09 | -1.00 | 0.29 | 0.28 | 7.5 | 7.4 | 314.9 | 344.0 | 288.4 | 315.1 |
| 37 | 88.9 | 86.6 | 89.3 | 76.7 | -0.80 | -0.75 | 0.20 | 0.19 | 7.3 | 7.2 | 329.6 | 350.8 | 296.0 | 315.1 |
| 39 | | | | | | | | | | | | | | |
| 41 | 88.1 | 85.5 | 88.5 | 75.7 | -0.74 | -0.69 | 0.20 | 0.20 | 7.5 | 7.6 | 309.7 | 328.9 | 296.7 | 315.1 |
| Avg. | 88.1 | 85.5 | 88.5 | 75.7 | -0.93 | -0.85 | 0.23 | 0.22 | 7.3 | 7.2 | 320.7 | 344.8 | 293.1 | 315.1 |
| Std Dv | 0.4 | 0.6 | 0.7 | 0.8 | 0.16 | 0.12 | 0.03 | 0.03 | 0.3 | 0.4 | 25.8 | 28.8 | 3.0 | 0.0 |

NO TRACKING DATA

NO TRACKING DATA

AUGUSTA A-109 HELICOPTER (ITALIAN)

DOT/TSC
12/22/81

CORRECTION DATA

JUNE 24, 1980

SITE: 6 SIDELINE - 284 M. NORTH

| EV | CORRECTED | | | | CORRECTIONS (dB) | | | | CONSTANTS | | | TRACKING DATA (ACTUAL) | | | TRACKING DATA (REFERENCE) | | | |
|---|-----------|------|-------|------|------------------|---------------|---------------|---------------|-----------|------|------------------|------------------------|-----|--------|---------------------------|-------|-------|------|
| | EPNL | NEL | PNLTH | dBAN | $\wedge 1(P)$ | $\wedge 1(A)$ | $\wedge 2(P)$ | $\wedge 2(A)$ | K(P) | K(A) | SR | CPA | SRR | CFAR | SR | CPA | SRR | CFAR |
| 500 FT. FLYBY - TARGET INDICATED AIRSPEED 87 KTS | | | | | | | | | | | | | | | | | | |
| 21 | 83.7 | 81.0 | 82.6 | 70.0 | 0.08 | 0.08 | -0.07 | -0.07 | 7.1 | 6.9 | NO TRACKING DATA | | | 342.8 | 335.3 | 328.7 | 321.5 | |
| 22 | 83.4 | 80.6 | 83.2 | 70.2 | -0.09 | -0.08 | 0.01 | 0.01 | 7.0 | 6.8 | | | | 334.5 | 335.6 | 320.5 | 321.5 | |
| 46 | 85.3 | 83.1 | 85.1 | 73.1 | -0.47 | -0.42 | 0.10 | 0.09 | 6.5 | 6.2 | | | | 482.6 | 499.7 | 310.5 | 321.5 | |
| 47 | | | | | | | | | | | | | | | | | | |
| Avg. | 84.1 | 81.6 | 83.7 | 71.1 | -0.16 | -0.14 | 0.01 | 0.01 | 6.9 | 6.7 | | | | 386.6 | 390.2 | 319.9 | 321.5 | |
| Std Dv | 1.4 | 1.9 | 1.9 | 2.4 | 0.40 | 0.36 | 0.12 | 0.11 | 0.4 | 0.5 | | | | 117.7 | 134.1 | 12.8 | 0.0 | |
| 500 FT. FLYBY - TARGET INDICATED AIRSPEED 102 KTS | | | | | | | | | | | | | | | | | | |
| 51 | 84.9 | 82.4 | 83.6 | 71.4 | 0.23 | 0.22 | -0.08 | -0.07 | 7.6 | 7.3 | | | | 359.6 | 351.3 | 329.1 | 321.5 | |
| 52 | 83.3 | 80.4 | 82.0 | 69.1 | -0.15 | -0.14 | 0.03 | 0.03 | 7.1 | 7.2 | | | | 319.6 | 323.1 | 318.0 | 321.5 | |
| 53 | 85.3 | 82.8 | 83.8 | 70.6 | 0.18 | 0.17 | -0.06 | -0.06 | 7.4 | 7.7 | | | | 541.5 | 531.8 | 327.4 | 321.5 | |
| 54 | | | | | | | | | - | 7.4 | | | | 324.4 | 326.7 | 319.3 | 321.5 | |
| Avg. | 84.5 | 81.5 | 83.0 | 70.0 | 0.04 | 0.04 | -0.04 | -0.02 | 7.4 | 7.4 | | | | 386.2 | 383.2 | 323.4 | 321.5 | |
| Std Dv | 1.5 | 1.6 | 1.1 | 1.5 | 0.24 | 0.23 | 0.08 | 0.06 | 0.3 | 0.2 | | | | 128.6 | 122.3 | 6.9 | 0.0 | |
| 500 FT. FLYBY - TARGET INDICATED AIRSPEED 116 KTS | | | | | | | | | | | | | | | | | | |
| 54 | | | | | | | | | - | 7.2 | | | | 396.8 | 390.8 | 326.4 | 321.5 | |
| 55 | | 83.3 | 84.8 | 72.8 | 0.14 | 0.13 | - | -0.05 | - | 7.6 | | | | 376.8 | 357.7 | 338.7 | 321.5 | |
| 57 | 85.7 | 83.2 | 84.2 | 71.9 | 0.56 | 0.52 | -0.17 | -0.17 | 7.7 | 7.6 | | | | 322.6 | 327.7 | 316.4 | 321.5 | |
| 58 | 84.0 | 81.0 | 82.7 | 69.0 | -0.21 | -0.19 | 0.05 | 0.06 | 7.6 | 8.0 | | | | | | | | |
| Avg. | 84.8 | 82.5 | 83.9 | 71.2 | 0.16 | 0.15 | -0.06 | -0.05 | 7.7 | 7.6 | | | | 365.4 | 358.8 | 327.2 | 321.5 | |
| Std Dv | 1.2 | 1.8 | 1.6 | 2.8 | 0.55 | 0.50 | 0.16 | 0.16 | 0.1 | 0.6 | | | | 54.3 | 44.6 | 15.8 | 0.0 | |
| 500 FT. FLYBY - TARGET INDICATED AIRSPEED 130 KTS | | | | | | | | | | | | | | | | | | |
| 17 | 87.3 | 85.0 | 88.3 | 75.5 | -0.67 | -0.61 | 0.06 | 0.06 | 6.6 | 6.8 | | | | 948.6 | 968.7 | 314.8 | 321.5 | |
| 18 | 86.7 | 84.0 | 85.5 | 73.0 | 0.23 | 0.27 | -0.16 | -0.15 | 7.9 | 7.6 | | | | 598.9 | 571.6 | 336.9 | 321.5 | |
| 19 | 88.1 | 85.6 | 86.6 | 74.5 | -0.41 | -0.38 | 0.07 | 0.07 | 8.0 | 7.8 | | | | 345.2 | 352.6 | 314.8 | 321.5 | |
| 20 | | | | | | | | | - | 7.6 | | | | | | | | |
| 62 | | | | | | | | | 7.8 | 7.6 | | | | 356.4 | 357.4 | 320.6 | 321.5 | |
| 63 | 88.8 | 86.3 | 88.0 | 75.7 | -0.06 | -0.05 | 0.01 | 0.01 | 7.8 | 7.6 | | | | | | | | |
| Avg. | 87.7 | 85.2 | 87.1 | 74.7 | -0.23 | -0.19 | -0.01 | -0.00 | 7.6 | 7.5 | | | | 562.3 | 562.6 | 321.8 | 321.5 | |
| Std Dv | 1.1 | 1.2 | 1.5 | 1.5 | 0.48 | 0.47 | 0.13 | 0.12 | 0.8 | 0.5 | | | | 346.5 | 207.7 | 12.8 | 0.0 | |
| 500 FT. FLYBY - TARGET INDICATED AIRSPEED 145 KTS | | | | | | | | | | | | | | | | | | |
| 48 | | | | | | | | | 5.6 | 5.5 | | | | | | | | |
| 49 | 91.1 | 88.7 | 94.3 | 81.7 | -0.08 | -0.06 | 0.00 | 0.00 | 6.7 | 6.2 | | | | 1035.5 | 1034.7 | 321.8 | 321.5 | |
| 50 | 88.8 | 84.7 | 90.2 | 76.6 | -0.14 | -0.12 | 0.02 | 0.02 | 6.7 | 6.2 | | | | 810.9 | 816.3 | 319.4 | 321.5 | |
| 59 | 89.3 | 86.8 | 89.2 | 76.6 | -0.16 | -0.15 | 0.04 | 0.04 | 7.5 | 7.2 | | | | 337.6 | 341.8 | 317.6 | 321.5 | |
| 60 | 88.7 | 84.8 | 88.7 | 73.5 | 0.09 | 0.08 | -0.03 | -0.04 | 7.9 | 8.1 | | | | 629.2 | 622.9 | 324.8 | 321.5 | |
| 61 | 88.9 | 86.4 | 88.6 | 76.6 | -0.32 | -0.30 | 0.08 | 0.07 | 7.6 | 6.8 | | | | 400.7 | 410.8 | 313.6 | 321.5 | |
| Avg. | 89.4 | 86.3 | 90.2 | 77.0 | -0.12 | -0.11 | 0.02 | 0.02 | 7.1 | 6.8 | | | | 642.8 | 645.3 | 319.4 | 321.5 | |
| Std Dv | 1.2 | 1.9 | 2.7 | 3.4 | 0.17 | 0.16 | 0.05 | 0.05 | 1.1 | 1.1 | | | | 245.0 | 242.8 | 4.9 | 0.0 | |

TABLE NO. B-3-3.6

AUGUSTA A-109 HELICOPTER (ITALIAN)

DOT/TSC
12/22/81

CORRECTION DATA

SITE: 6

SIDELINE - 284 M. NORTH

JUNE 24, 1980

| EV | CORRECTED | | CORRECTIONS (dB) | | | | CONSTANTS | | TRACKING DATA (METERS) | | | | | | | | |
|--|-----------|------|------------------|---------------|---------------|---------------|-----------|-------|------------------------|-----|--------|--------|-------|-------|-------|-------|--|
| | EPNL | NEL | $\wedge 1(P)$ | $\wedge 1(A)$ | $\wedge 2(P)$ | $\wedge 2(A)$ | K(P) | K(A) | SR | CPA | SRR | CPAR | | | | | |
| 300 FT. FLYBY - TARGET INDICATED AIRSPEED 130 KTS | | | | | | | | | | | | | | | | | |
| 9 | 87.9 | 85.3 | 87.9 | 75.1 | -0.27 | -0.25 | 0.02 | 0.02 | 7.4 | 7.6 | 295.7 | 297.8 | 295.7 | 297.8 | 295.7 | 297.8 | |
| 10 | 87.0 | 83.9 | 86.8 | 73.9 | 0.18 | 0.24 | -0.14 | -0.14 | 7.7 | 7.4 | 314.4 | 301.4 | 310.6 | 310.6 | 297.8 | 297.8 | |
| 15 | 88.0 | 85.5 | 88.3 | 75.2 | -0.25 | -0.22 | 0.03 | 0.02 | 7.4 | 7.3 | 301.2 | 303.6 | 295.4 | 295.4 | 297.8 | 297.8 | |
| 16 | 87.3 | 84.2 | 88.3 | 74.5 | 0.07 | 0.09 | -0.10 | -0.10 | 7.1 | 7.2 | 632.8 | 613.2 | 307.2 | 307.2 | 297.8 | 297.8 | |
| Avg. | 87.6 | 84.7 | 87.8 | 74.7 | -0.07 | -0.04 | -0.05 | -0.05 | 7.4 | 7.4 | 386.0 | 379.0 | 302.2 | 302.2 | 297.8 | 297.8 | |
| Std Dv | 0.6 | 1.0 | 0.9 | 0.7 | 0.28 | 0.29 | 0.10 | 0.10 | 0.3 | 0.2 | 201.7 | 191.3 | 9.6 | 9.6 | 0.0 | 0.0 | |
| 700 FT. FLYBY - TARGET INDICATED AIRSPEED 130 KTS | | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | |
| 8 | 86.5 | 83.6 | 85.6 | 72.8 | 0.10 | 0.10 | -0.09 | -0.09 | 7.3 | 7.2 | 399.2 | 387.9 | 364.6 | 364.6 | 354.3 | 354.3 | |
| 13 | 86.4 | 83.7 | 86.9 | 74.0 | -0.69 | -0.63 | 0.12 | 0.12 | 6.9 | 7.0 | 397.4 | 413.5 | 340.5 | 340.5 | 354.3 | 354.3 | |
| 14 | 86.9 | 84.0 | 86.1 | 72.7 | 0.21 | 0.23 | -0.14 | -0.14 | 7.1 | 7.4 | 823.9 | 788.1 | 370.4 | 370.4 | 354.3 | 354.3 | |
| Avg. | 86.6 | 83.8 | 86.2 | 73.1 | -0.13 | -0.10 | -0.04 | -0.04 | 7.1 | 7.2 | 540.2 | 529.9 | 358.5 | 358.5 | 354.3 | 354.3 | |
| Std Dv | 0.3 | 0.2 | 1.0 | 1.1 | 0.69 | 0.66 | 0.20 | 0.20 | 0.3 | 0.3 | 347.5 | 316.8 | 22.4 | 22.4 | 0.0 | 0.0 | |
| 1000 FT. FLYBY - TARGET INDICATED AIRSPEED 130 KTS | | | | | | | | | | | | | | | | | |
| 1 | | | | | | | | | | | | | | | | | |
| 2 | 85.8 | 83.1 | 83.1 | 70.0 | -0.15 | -0.09 | -0.08 | -0.08 | 7.9 | 8.1 | 870.0 | 849.6 | 425.5 | 425.5 | 415.6 | 415.6 | |
| 3 | 84.3 | 81.8 | 82.8 | 70.0 | -1.55 | -1.34 | 0.24 | 0.25 | 7.6 | 7.7 | 1379.5 | 1483.7 | 386.4 | 386.4 | 415.6 | 415.6 | |
| 4 | 85.4 | 82.7 | 82.9 | 70.4 | -0.21 | -0.18 | -0.02 | -0.02 | 8.1 | 8.0 | 420.6 | 418.5 | 417.6 | 417.6 | 415.6 | 415.6 | |
| 42 | | | | | | | | | | | | | | | | | |
| 43 | 86.1 | 83.8 | 86.1 | 72.7 | -0.69 | -0.65 | 0.15 | 0.15 | 7.0 | 7.1 | 508.8 | 533.8 | 396.0 | 396.0 | 415.6 | 415.6 | |
| 44 | | | | | | | | | | | | | | | | | |
| 45 | 86.6 | 83.9 | 89.1 | 76.4 | -0.54 | -0.48 | 0.07 | 0.07 | 5.5 | 5.5 | 1312.1 | 1348.3 | 404.4 | 404.4 | 415.6 | 415.6 | |
| Avg. | 85.7 | 83.1 | 84.8 | 71.9 | -0.63 | -0.55 | 0.07 | 0.07 | 7.2 | 7.3 | 898.2 | 926.8 | 406.0 | 406.0 | 415.6 | 415.6 | |
| Std Dv | 1.0 | 1.0 | 3.2 | 3.2 | 0.65 | 0.57 | 0.15 | 0.15 | 1.2 | 1.2 | 356.2 | 373.6 | 18.3 | 18.3 | 0.0 | 0.0 | |
| 1500 FT. FLYBY - TARGET INDICATED AIRSPEED 130 KTS | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | |
| 6 | 85.6 | 82.7 | 85.9 | 72.2 | 0.37 | 0.40 | -0.20 | -0.20 | 6.9 | 7.1 | 1346.8 | 1260.7 | 573.8 | 573.8 | 537.1 | 537.1 | |
| 11 | 82.5 | 80.0 | 80.8 | 67.8 | -1.29 | -1.04 | 0.16 | 0.16 | 7.2 | 7.4 | 1137.0 | 1195.5 | 510.8 | 510.8 | 537.1 | 537.1 | |
| 12 | | | | | | | | | | | | | | | | | |
| Avg. | 84.0 | 80.7 | 82.0 | 68.8 | -0.71 | -0.58 | -0.02 | 0.07 | 7.0 | 7.6 | 1053.6 | 1059.8 | 529.0 | 529.0 | 537.1 | 537.1 | |
| Std Dv | 2.2 | 2.4 | 4.9 | 4.2 | 1.32 | 1.20 | 0.25 | 0.33 | 0.2 | 0.8 | 376.7 | 336.5 | 55.1 | 55.1 | 0.0 | 0.0 | |

TABLE NO. B.4-1.1

SIKORSKY S-76 SPIRIT HELICOPTER
CORRECTION DATA - MAIN ROTOR RPM 107%

DOT/TSC
12/22/81

| SITE: 1 | | CENTERLINE - CENTER | | | | | | | | | | JUNE 25, 1980 | | | | |
|---|-----------|---------------------|-------|------|------|------------------|---------------|---------------|---------------|------------------|-----------|------------------|------------------------|-------|-------|--|
| EV | CORRECTED | | | | | CORRECTIONS (dB) | | | | | CONSTANTS | | TRACKING DATA (METERS) | | | |
| | EFNL | NEL | PLTH | JBSM | DBM | $\Delta 1(F)$ | $\Delta 1(A)$ | $\Delta 2(F)$ | $\Delta 2(A)$ | K(F) | K(A) | SR | CPA | SRR | CPAR | |
| APPROACH | | | | | | | | | | | | | | | | |
| 40 | 96.2 | 93.3 | 97.7 | 84.7 | 84.7 | 0.47 | 0.47 | -0.18 | -0.18 | 7.6 | 7.5 | 125.1 | 118.4 | 125.0 | 118.2 | |
| 42 | 97.3 | 94.5 | 100.1 | 88.0 | 88.0 | -0.61 | -0.56 | 0.16 | 0.16 | 6.6 | 6.4 | 177.0 | 187.3 | 111.8 | 118.2 | |
| 44 | 97.2 | 94.4 | 98.4 | 86.2 | 86.2 | 0.18 | 0.18 | -0.07 | -0.07 | 7.2 | 6.8 | 134.2 | 131.1 | 121.0 | 118.2 | |
| 46 | 97.7 | 94.8 | 98.9 | 85.0 | 85.0 | 0.30 | 0.30 | -0.10 | -0.10 | 6.7 | 6.7 | 122.8 | 118.5 | 122.6 | 118.2 | |
| 48 | 96.5 | 94.1 | 98.1 | 85.8 | 85.8 | 0.13 | 0.13 | -0.05 | -0.05 | 6.6 | 6.2 | 142.5 | 140.1 | 120.3 | 118.2 | |
| 50 | | | | | | | | | | | | NO TRACKING DATA | | | | |
| Avg. | 97.0 | 94.2 | 98.6 | 86.2 | 86.2 | 0.09 | 0.10 | -0.05 | -0.05 | 6.9 | 6.7 | 140.3 | 139.1 | 120.1 | 118.2 | |
| Std Dv | 0.7 | 0.7 | 1.1 | 1.4 | 1.4 | 0.48 | 0.45 | 0.15 | 0.15 | 0.5 | 0.6 | 25.4 | 32.9 | 5.8 | 0.0 | |
| TAKEOFF | | | | | | | | | | | | | | | | |
| 41 | 91.4 | 87.7 | 94.7 | 80.9 | 80.9 | 2.03 | 1.94 | -0.64 | -0.67 | 6.8 | 7.2 | 166.8 | 134.5 | 124.5 | 100.4 | |
| 43 | 91.3 | 87.6 | 94.1 | 80.6 | 80.6 | 3.31 | 3.15 | -1.09 | -1.05 | 7.6 | 7.3 | 154.0 | 110.6 | 139.8 | 100.4 | |
| 45 | 90.8 | 87.3 | 94.4 | 80.3 | 80.3 | 2.73 | 2.60 | -0.81 | -0.87 | 6.6 | 7.1 | 178.0 | 134.1 | 133.3 | 100.4 | |
| 47 | 91.2 | 87.8 | 94.9 | 81.1 | 81.1 | 3.02 | 2.86 | -0.93 | -0.97 | 6.9 | 7.2 | 181.0 | 132.8 | 136.8 | 100.4 | |
| 49 | 91.1 | 88.0 | 94.6 | 81.0 | 81.0 | 2.61 | 2.49 | -0.80 | -0.82 | 6.9 | 7.1 | 169.9 | 130.1 | 131.2 | 100.4 | |
| 51 | 91.2 | 87.7 | 94.6 | 80.8 | 80.8 | 2.74 | 2.61 | -0.85 | -0.88 | 7.0 | 7.2 | 169.9 | 128.4 | 133.1 | 100.4 | |
| Avg. | 91.2 | 87.7 | 94.6 | 80.8 | 80.8 | 2.74 | 2.61 | -0.85 | -0.88 | 7.0 | 7.2 | 169.9 | 128.4 | 133.1 | 100.4 | |
| Std Dv | 0.3 | 0.3 | 0.3 | 0.4 | 0.4 | 0.56 | 0.52 | 0.19 | 0.17 | 0.4 | 0.4 | 12.3 | 11.7 | 6.8 | 0.0 | |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 109 KTS | | | | | | | | | | | | | | | | |
| 18 | 88.9 | 86.1 | 91.3 | 78.4 | 78.4 | -0.25 | -0.22 | 0.03 | 0.03 | 6.9 | 7.0 | 227.3 | 229.2 | 149.9 | 151.2 | |
| 19 | 88.1 | 85.3 | 92.1 | 78.7 | 78.7 | 0.16 | 0.21 | -0.10 | -0.10 | 6.1 | 6.5 | 207.4 | 200.1 | 156.7 | 151.2 | |
| 20 | | | | | | | | | | NO TRACKING DATA | | | | | | |
| 21 | 88.3 | 85.4 | 92.1 | 78.9 | 78.9 | -0.30 | -0.27 | 0.04 | 0.04 | 6.7 | 6.7 | 225.2 | 228.2 | 149.2 | 151.2 | |
| 22 | 88.8 | 84.2 | 91.7 | 79.1 | 79.1 | -1.36 | -1.15 | 0.28 | 0.27 | 6.3 | 6.1 | 180.4 | 199.9 | 136.5 | 151.2 | |
| 23 | 87.9 | 85.2 | 91.0 | 78.0 | 78.0 | 0.73 | 0.73 | -0.27 | -0.27 | 7.2 | 7.0 | 231.2 | 211.8 | 163.0 | 151.2 | |
| Avg. | 88.4 | 85.6 | 91.6 | 78.6 | 78.6 | -0.20 | -0.14 | -0.00 | -0.01 | 6.6 | 6.7 | 214.3 | 213.8 | 151.5 | 151.2 | |
| Std Dv | 0.5 | 0.6 | 0.5 | 0.5 | 0.5 | 0.89 | 0.80 | 0.23 | 0.23 | 0.5 | 0.5 | 24.3 | 16.7 | 12.2 | 0.0 | |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 124 KTS | | | | | | | | | | | | | | | | |
| 24 | | | | | | | | | | NO TRACKING DATA | | | | | | |
| 25 | 88.3 | 85.4 | 93.4 | 80.1 | 80.1 | 0.31 | 0.32 | -0.12 | -0.13 | 5.9 | 6.2 | 224.9 | 214.4 | 158.6 | 151.2 | |
| 26 | 89.2 | 84.4 | 92.6 | 80.0 | 80.0 | -0.59 | -0.50 | 0.10 | 0.10 | 6.4 | 6.1 | 190.8 | 197.9 | 145.7 | 151.2 | |
| 27 | 88.5 | 85.7 | 93.3 | 80.1 | 80.1 | -0.15 | -0.12 | -0.01 | -0.01 | 5.8 | 5.9 | 201.8 | 201.2 | 151.6 | 151.2 | |
| 28 | 89.6 | 86.5 | 92.7 | 79.6 | 79.6 | -0.50 | -0.52 | 0.13 | 0.12 | 6.5 | 6.4 | 146.2 | 152.9 | 144.6 | 151.2 | |
| 29 | 89.0 | 86.0 | 92.6 | 79.5 | 79.5 | 0.55 | 0.47 | -0.17 | -0.17 | 6.5 | 6.5 | 214.0 | 201.6 | 160.5 | 151.2 | |
| Avg. | 88.9 | 86.0 | 92.9 | 79.9 | 79.9 | -0.08 | -0.07 | -0.01 | -0.02 | 6.2 | 6.2 | 195.5 | 193.6 | 152.2 | 151.2 | |
| Std Dv | 0.6 | 0.5 | 0.4 | 0.3 | 0.3 | 0.57 | 0.53 | 0.15 | 0.15 | 0.4 | 0.3 | 35.1 | 27.3 | 8.4 | 0.0 | |

TABLE NO. B.4-2.1

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/22/81

CORRECTION DATA - MAIN ROTOR RPM 107%

CENTERLINE - CENTER

JUNE 25, 1980

SITE: 1

| EV | CORRECTED | | CORRECTIONS (dB) | CONSTANTS | | TRACKING DATA (METERS) | | | | | | | | |
|--|-----------|------|------------------|-----------|------|------------------------|-------|-------|------|-----|------------------|-------|-------|-------|
| | EPNL | NEL | | K(F) | K(A) | (ACTUAL) | CPA | SRR | CPAR | | | | | |
| 300 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | | |
| 10 | 94.2 | 91.1 | 100.0 | 86.9 | 2.24 | 2.12 | -0.59 | -0.57 | 5.9 | 5.7 | 162.1 | 128.9 | 113.5 | 90.2 |
| 11 | 94.1 | 91.1 | 101.1 | 87.8 | 2.67 | 2.52 | -0.62 | -0.67 | 5.3 | 5.7 | 168.7 | 129.0 | 118.0 | 90.2 |
| 16 | 94.6 | 91.3 | 100.1 | 86.4 | 0.33 | 0.34 | -0.11 | -0.12 | 5.7 | 6.1 | 127.6 | 122.0 | 94.4 | 90.2 |
| 17 | | | | | | | | | | | NO TRACKING DATA | | | |
| Avg. | 94.3 | 91.2 | 100.4 | 87.0 | 1.75 | 1.66 | -0.44 | -0.45 | 5.6 | 5.8 | 152.8 | 126.6 | 108.6 | 90.2 |
| Std Dv | 0.4 | 0.1 | 0.8 | 0.9 | 1.76 | 1.64 | 0.40 | 0.41 | 0.4 | 0.3 | 31.2 | 5.7 | 17.7 | 0.0 |
| 700 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | | |
| 8 | 89.7 | 87.4 | 92.4 | 80.4 | 0.14 | 0.18 | -0.10 | -0.10 | 6.8 | 6.6 | 306.7 | 296.0 | 219.8 | 212.1 |
| 9 | 88.2 | 85.7 | 91.3 | 79.3 | 1.15 | 1.09 | -0.36 | -0.36 | 6.9 | 6.8 | 302.8 | 288.4 | 239.4 | 212.1 |
| 14 | 86.4 | 85.9 | 90.6 | 78.4 | 0.36 | 0.40 | -0.17 | -0.17 | 6.9 | 6.9 | 306.9 | 290.0 | 224.5 | 212.1 |
| 15 | 86.9 | 84.3 | 90.1 | 77.7 | 0.64 | 0.64 | -0.22 | -0.24 | 6.5 | 6.8 | 336.6 | 310.8 | 229.8 | 212.1 |
| Avg. | 88.3 | 85.8 | 91.1 | 78.9 | 0.57 | 0.58 | -0.21 | -0.22 | 6.8 | 6.8 | 313.3 | 291.3 | 228.4 | 212.1 |
| Std Dv | 1.4 | 1.5 | 1.2 | 1.4 | 0.53 | 0.48 | 0.13 | 0.14 | 0.3 | 0.2 | 19.2 | 21.6 | 10.3 | 0.0 |
| 1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | | |
| 1 | 86.0 | 83.5 | 87.7 | 75.7 | 1.01 | 0.95 | -0.34 | -0.34 | 7.2 | 7.2 | 424.5 | 381.2 | 338.1 | 303.6 |
| 2 | 86.8 | 84.5 | 86.8 | 75.2 | 0.17 | 0.16 | -0.12 | -0.11 | 7.3 | 6.9 | 451.6 | 434.8 | 315.3 | 303.6 |
| 3 | 85.9 | 83.8 | 87.6 | 76.7 | 0.45 | 0.46 | -0.21 | -0.18 | 7.3 | 6.4 | 461.4 | 432.2 | 324.1 | 303.6 |
| 4 | 86.9 | 84.7 | 87.9 | 76.3 | 0.45 | 0.48 | -0.21 | -0.20 | 7.4 | 7.0 | 407.5 | 381.8 | 324.0 | 303.6 |
| 52 | 86.4 | 84.4 | 87.2 | 75.5 | 0.58 | 0.55 | -0.19 | -0.18 | 7.2 | 7.0 | 378.5 | 356.6 | 322.3 | 303.6 |
| 53 | 84.3 | 82.4 | 86.5 | 74.4 | 0.98 | 0.94 | -0.27 | -0.28 | 6.8 | 6.9 | 489.7 | 446.3 | 333.1 | 303.6 |
| 54 | 87.7 | 85.4 | 89.5 | 77.6 | 1.60 | 1.33 | -0.31 | -0.29 | 6.5 | 6.2 | 964.1 | 865.0 | 338.4 | 303.6 |
| 55 | 85.4 | 83.4 | 87.6 | 76.1 | 0.26 | 0.27 | -0.11 | -0.10 | 7.2 | 6.9 | 434.4 | 419.9 | 314.1 | 303.6 |
| Avg. | 86.2 | 84.0 | 87.6 | 75.9 | 0.69 | 0.64 | -0.22 | -0.21 | 7.1 | 6.8 | 501.5 | 464.7 | 326.2 | 303.6 |
| Std Dv | 1.1 | 1.0 | 1.0 | 1.1 | 0.52 | 0.43 | 0.09 | 0.09 | 0.3 | 0.4 | 80.2 | 178.0 | 10.2 | 0.0 |

TABLE NO. B.4-3.1

SIKORSKY B-76 SPIRIT HELICOPTER

DOT/TSC
12/22/81

CORRECTION DATA - MAIN ROTOR RPM 107%

| EV | CORRECTED | | CORRECTIONS (dB) | | | | CONSTANTS | | TRACKING DATA (METERS) | | | | |
|--|-----------|------|------------------|------|-----------------------------|-----------------------------|-----------|------|------------------------|------------------|--------|-------|-------|
| | EPNL | NEL | PNLIN | dBAN | $\sqrt{1(P)} / \sqrt{1(A)}$ | $\sqrt{2(P)} / \sqrt{2(A)}$ | K(P) | K(A) | SR | CPA | SRR | CPAR | |
| 1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | |
| 5 | 81.9 | 80.0 | 82.4 | 70.6 | 0.69 | -0.67 | -0.27 | 7.3 | 7.4 | 813.2 | 747.3 | 496.2 | 456.0 |
| 6 | 81.9 | 80.3 | 82.5 | 71.0 | 0.75 | -0.74 | -0.29 | 7.3 | 7.4 | NO TRACKING DATA | | | 456.0 |
| 12 | 81.2 | 79.5 | 82.1 | 70.9 | 0.31 | -0.33 | -0.19 | 7.3 | 7.2 | 648.6 | 611.0 | 484.1 | 456.0 |
| 38 | 82.9 | 81.2 | 82.5 | 71.5 | 0.14 | -0.11 | -0.12 | 7.4 | 7.2 | 644.4 | 620.2 | 473.7 | 456.0 |
| 39 | 81.5 | 80.0 | 81.9 | 70.2 | 0.21 | -0.22 | -0.15 | 7.6 | 7.6 | 787.0 | 750.9 | 477.9 | 456.0 |
| Avg. | 81.9 | 80.2 | 82.3 | 70.8 | 0.42 | -0.41 | -0.20 | 7.4 | 7.4 | 691.4 | 649.0 | 486.1 | 456.0 |
| Std Dev | 0.7 | 0.7 | 0.3 | 0.6 | 0.32 | 0.32 | 0.09 | 0.2 | 0.2 | 121.5 | 115.7 | 12.7 | 0.0 |
| 2000 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | |
| 34 | 81.2 | 79.3 | 80.6 | 69.4 | -0.02 | -0.13 | -0.07 | 7.4 | 7.4 | 723.9 | 709.3 | 620.9 | 608.4 |
| 35 | 80.0 | 78.5 | 79.9 | 69.1 | -0.09 | -0.09 | -0.09 | 7.2 | 7.0 | 849.2 | 825.5 | 625.8 | 608.4 |
| 36 | - | 78.5 | 79.3 | 68.1 | 0.18 | 0.15 | -0.14 | - | 7.2 | 846.4 | 810.2 | 635.5 | 608.4 |
| 37 | 79.5 | 77.7 | 78.8 | 67.9 | 0.29 | 0.27 | -0.19 | 7.6 | 7.4 | 1105.9 | 1043.5 | 644.8 | 608.4 |
| Avg. | 80.3 | 78.5 | 79.7 | 68.6 | 0.09 | 0.05 | -0.12 | 7.4 | 7.2 | 981.3 | 847.1 | 631.8 | 608.4 |
| Std Dev | 1.2 | 0.8 | 1.0 | 0.9 | 0.22 | 0.23 | 0.07 | 0.3 | 0.2 | 116.3 | 103.1 | 13.0 | 0.0 |
| 2500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | |
| 30 | - | 75.4 | 75.5 | 64.0 | 0.37 | 0.03 | -0.12 | - | 7.7 | NO TRACKING DATA | | | 760.8 |
| 31 | 79.3 | 77.4 | 77.3 | 66.3 | -0.01 | -0.39 | -0.03 | 7.8 | 7.3 | 1029.6 | 1020.4 | 767.6 | 760.8 |
| 32 | - | 75.4 | 76.3 | 65.4 | 0.42 | 0.09 | -0.13 | - | 7.0 | 1290.3 | 1236.7 | 793.7 | 760.8 |
| 33 | - | 75.4 | 76.3 | 65.4 | 0.42 | 0.09 | -0.13 | - | 7.0 | 1290.3 | 1236.7 | 793.7 | 760.8 |
| Avg. | 79.3 | 76.1 | 76.4 | 65.2 | 0.26 | -0.09 | -0.09 | 7.8 | 7.3 | 1082.2 | 1050.6 | 783.2 | 760.8 |
| Std Dev | - | 1.6 | 1.3 | 1.6 | 0.33 | 0.37 | 0.08 | - | 0.5 | 155.4 | 153.9 | 19.5 | 0.0 |

JUNE 25, 1980

TABLE NO. 6.5-2.1

SIKORSKY UH-60A BLACKHAWK HELICOPTER

ROT/TSC
12/23/81

CORRECTION DATA

| EV | CORRECTED | | CORRECTIONS (dB) | CONSTANTS | | TRACKING DATA (ACTUAL) | | TRACKING DATA (REFERENCE) | | | | | |
|--|-----------|------|------------------|-----------|-------|------------------------|-------|---------------------------|------|------------------|-------|-------|-------|
| | EPNL | NEL | | K(P) | K(A) | SR | CFA | SKR | CPAR | | | | |
| 300 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS | | | | | | | | | | | | | |
| 56 | 100.3 | 96.5 | 104.7 | 91.4 | 0.81 | 0.78 | -0.25 | 6.7 | 6.6 | 153.1 | 140.5 | 98.3 | 90.2 |
| 57 | 99.7 | 95.8 | 104.3 | 90.9 | 0.87 | 0.83 | -0.23 | 5.7 | 6.0 | 139.5 | 127.6 | 98.7 | 90.2 |
| 58 | 101.0 | 97.5 | 106.0 | 92.4 | 1.28 | 1.23 | -0.41 | 6.6 | 7.1 | 254.0 | 222.7 | 102.9 | 90.2 |
| 59 | 99.4 | 95.8 | 103.3 | 90.0 | 0.97 | 0.94 | -0.31 | 6.8 | 7.0 | 173.0 | 156.3 | 99.9 | 90.2 |
| Avg. | 100.1 | 96.4 | 104.6 | 91.2 | 0.98 | 0.94 | -0.30 | 6.4 | 6.7 | 179.9 | 161.8 | 99.9 | 90.2 |
| Std Dv | 0.8 | 1.0 | 1.4 | 1.2 | 0.26 | 0.25 | 0.10 | 0.6 | 0.6 | 62.8 | 51.8 | 2.6 | 0.0 |
| 700 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS | | | | | | | | | | | | | |
| 60 | 95.4 | 92.4 | 97.4 | 85.1 | 0.42 | 0.40 | -0.13 | 7.6 | 7.1 | 347.3 | 332.4 | 221.7 | 212.1 |
| 61 | | | | | | | | | | NO TRACKING DATA | | | |
| 62 | 94.2 | 90.9 | 96.0 | 83.8 | 0.59 | 0.56 | -0.18 | 6.8 | 6.0 | 228.3 | 215.0 | 225.2 | 212.1 |
| 63 | 94.8 | 91.8 | 95.7 | 82.7 | -0.03 | -0.02 | -0.01 | 7.7 | 7.9 | 409.6 | 408.8 | 212.5 | 212.1 |
| Avg. | 94.8 | 91.7 | 96.4 | 83.9 | 0.33 | 0.31 | -0.11 | 7.4 | 7.0 | 328.4 | 318.7 | 219.8 | 212.1 |
| Std Dv | 0.9 | 1.1 | 1.2 | 1.7 | 0.45 | 0.42 | 0.11 | 0.7 | 1.4 | 130.2 | 138.0 | 9.3 | 0.0 |
| 1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS | | | | | | | | | | | | | |
| 64 | 92.4 | 89.5 | 93.9 | 81.1 | -0.19 | -0.17 | 0.03 | 6.9 | 6.9 | 548.2 | 554.3 | 300.2 | 303.6 |
| 65 | | | | | | | | | | NO TRACKING DATA | | | |
| 66 | 91.2 | 88.3 | 91.0 | 78.6 | -0.04 | -0.02 | -0.01 | 7.6 | 7.3 | 335.3 | 334.6 | 304.2 | 303.6 |
| 67 | 91.2 | 88.4 | 91.6 | 77.7 | -0.10 | -0.10 | 0.02 | 7.4 | 8.1 | 396.4 | 398.6 | 301.9 | 303.6 |
| Avg. | 91.6 | 88.7 | 92.2 | 79.1 | -0.11 | -0.10 | 0.01 | 7.3 | 7.4 | 426.6 | 429.2 | 302.1 | 303.6 |
| Std Dv | 1.0 | 1.0 | 2.2 | 2.5 | 0.11 | 0.11 | 0.03 | 0.5 | 0.9 | 155.0 | 159.8 | 2.8 | 0.0 |

JUNE 25, 1980

CENTERLINE - CENTER

SITE: 1

TABLE NO. B.5-3.1

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
12/23/81

CORRECTION DATA

SITE: 1 CENTERLINE - CENTER

JUNE 25, 1980

| EV | CORRECTED | | | CORRECTIONS (dB) | | | CONSTANTS | | | TRACKING DATA (METERS) | | |
|--|-----------|------|-------|------------------|---------------------------|---------------------------|-----------|------|--------|------------------------|-------|-------|
| | EFNL | NEL | PWLTM | dBAM | $\wedge 1(P) \wedge 1(A)$ | $\wedge 2(P) \wedge 2(A)$ | K(P) | K(A) | SR | CPA | SRR | CPAR |
| 1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS | | | | | | | | | | | | |
| 68 | 87.7 | 84.9 | 87.4 | 74.3 | -0.01 | -0.01 | 7.8 | 7.9 | 1139.1 | 1134.2 | 457.9 | 456.0 |
| 69 | 90.2 | 87.3 | 92.0 | 79.4 | 0.85 | 0.78 | 6.2 | 6.2 | 1252.8 | 1167.5 | 489.3 | 456.0 |
| 70 | 89.8 | 86.5 | 88.8 | 75.9 | 0.12 | -0.05 | 7.6 | 7.4 | 850.1 | 838.1 | 462.5 | 456.0 |
| 71 | 90.7 | 87.2 | 90.6 | 78.3 | 0.56 | -0.14 | 6.6 | 6.9 | 1245.3 | 1187.8 | 478.1 | 456.0 |
| Avg. | 89.6 | 86.5 | 89.7 | 77.0 | 0.38 | -0.10 | 7.0 | 7.1 | 1121.8 | 1081.9 | 471.9 | 456.0 |
| Std Dv | 1.6 | 1.4 | 2.5 | 2.6 | 0.49 | 0.44 | 0.9 | 0.9 | 192.1 | 172.4 | 17.7 | 0.0 |
| 2000 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS | | | | | | | | | | | | |
| 72 | | | | | | | | | | | | |
| 73 | 86.4 | 83.9 | 84.8 | 71.6 | 0.12 | -0.05 | 7.7 | 7.9 | 1202.6 | 1185.9 | 616.9 | 608.4 |
| 74 | - | 83.9 | 83.9 | 73.9 | 0.21 | 0.20 | - | 6.6 | 1109.2 | 1086.3 | 621.2 | 608.4 |
| 57 | | | | | | | | | | | | |
| Avg. | 86.4 | 83.9 | 85.2 | 72.8 | 0.16 | -0.05 | 7.7 | 7.3 | 1155.9 | 1136.1 | 619.0 | 608.4 |
| Std Dv | - | 0.0 | 0.9 | 1.6 | 0.06 | 0.06 | - | 0.9 | 0.0 | 0.0 | 3.0 | 0.0 |
| 2500 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS | | | | | | | | | | | | |
| 76 | 87.0 | 84.8 | 85.1 | 73.4 | 0.39 | -0.10 | 7.6 | 7.2 | 886.4 | 859.9 | 784.2 | 760.8 |
| 77 | | | | | | | | | | | | |
| Avg. | 87.0 | 84.8 | 85.1 | 73.4 | 0.39 | -0.10 | 7.6 | 7.2 | 886.4 | 859.9 | 784.2 | 760.8 |
| Std Dv | - | - | - | - | - | - | - | - | - | - | - | - |

NO TRACKING DATA
NO TRACKING DATANO TRACKING DATA
NO TRACKING DATA

TABLE NO. B.4-1.16

SIKORSKY S-76 SPIRIT HELICOPTER
CORRECTION DATA - MAIN ROTOR RPM 107%

DOT/TSC
12/23/81

JUNE 25, 1980

SITE: 16

CENTERLINE - CENTER (FLUSH)

| EV | CORRECTED | | | CORRECTIONS (dB) | | | CONSTANTS | | | TRACKING DATA (METERS) (ACTUAL) | | | TRACKING DATA (METERS) (REFERENCE) | | | | |
|---|-----------|------|-------|------------------|---------------------------|---------------------------|------------------|------|------------------|------------------------------------|-------|-------|---------------------------------------|-------|-------|-------|--|
| | EPNL | NEL | PNLTH | dBAM | $\wedge 1(P) \wedge 1(A)$ | $\wedge 2(P) \wedge 2(A)$ | K(P) | K(A) | SR | CPA | SRR | CPAR | SR | CPA | SRR | CPAR | |
| APPROACH | | | | | | | | | | | | | | | | | |
| 40 | 100.6 | 97.6 | 101.4 | 88.8 | 0.46 | -0.19 | 7.9 | 7.5 | 126.3 | 119.6 | 126.2 | 119.4 | 126.3 | 119.6 | 126.2 | 119.4 | |
| 42 | 101.8 | 98.9 | 103.9 | 92.0 | -0.60 | 0.17 | 7.1 | 6.4 | 166.9 | 176.4 | 113.0 | 119.4 | 166.9 | 176.4 | 113.0 | 119.4 | |
| 44 | 101.5 | 98.5 | 103.0 | 90.9 | 0.18 | -0.07 | 7.1 | 6.8 | 142.4 | 139.1 | 122.2 | 119.4 | 142.4 | 139.1 | 122.2 | 119.4 | |
| 46 | 101.4 | 98.6 | 102.7 | 89.7 | 0.30 | -0.11 | 7.2 | 7.0 | 124.0 | 119.7 | 123.8 | 119.4 | 124.0 | 119.7 | 123.8 | 119.4 | |
| 48 | 100.7 | 97.9 | 102.3 | 89.7 | 0.12 | -0.13 | 6.9 | 6.6 | 143.7 | 141.2 | 121.5 | 119.4 | 143.7 | 141.2 | 121.5 | 119.4 | |
| 50 | | | | | | | | | NO TRACKING DATA | | | | | | | | |
| Avg. | 101.2 | 98.3 | 102.7 | 90.2 | 0.09 | -0.10 | 7.2 | 6.9 | 140.7 | 139.2 | 121.3 | 119.4 | 140.7 | 139.2 | 121.3 | 119.4 | |
| Std Dv | 0.6 | 0.6 | 1.0 | 1.4 | 0.47 | 0.46 | 0.4 | 0.5 | 19.8 | 26.8 | 5.8 | 0.0 | 19.8 | 26.8 | 5.8 | 0.0 | |
| TAKEOFF | | | | | | | | | | | | | | | | | |
| 41 | 95.8 | 92.0 | 98.6 | 84.6 | 2.00 | -0.69 | 7.4 | 7.6 | 142.6 | 115.3 | 125.7 | 101.6 | 142.6 | 115.3 | 125.7 | 101.6 | |
| 43 | 96.2 | 92.4 | 99.3 | 85.9 | 3.26 | -1.03 | 7.2 | 7.1 | 155.0 | 111.7 | 141.0 | 101.6 | 155.0 | 111.7 | 141.0 | 101.6 | |
| 45 | | | | | | | NO TRACKING DATA | | | | | | | | | | |
| 47 | 95.5 | 91.9 | 98.7 | 85.1 | 2.71 | -0.83 | 6.9 | 6.9 | 163.5 | 123.6 | 134.5 | 101.6 | 163.5 | 123.6 | 134.5 | 101.6 | |
| 49 | 96.1 | 92.4 | 99.2 | 85.6 | 3.04 | -0.96 | 7.2 | 7.3 | 145.9 | 107.4 | 138.0 | 101.6 | 145.9 | 107.4 | 138.0 | 101.6 | |
| 51 | 95.9 | 92.5 | 99.1 | 85.5 | 2.65 | -0.79 | 6.9 | 7.1 | 145.5 | 111.7 | 132.4 | 101.6 | 145.5 | 111.7 | 132.4 | 101.6 | |
| Avg. | 95.9 | 92.2 | 99.0 | 85.3 | 2.74 | -0.84 | 7.1 | 7.2 | 150.5 | 113.9 | 134.3 | 101.6 | 150.5 | 113.9 | 134.3 | 101.6 | |
| Std Dv | 0.3 | 0.3 | 0.4 | 0.6 | 0.56 | 0.52 | 0.3 | 0.3 | 10.0 | 7.0 | 6.7 | 0.0 | 10.0 | 7.0 | 6.7 | 0.0 | |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 109 KTS | | | | | | | | | | | | | | | | | |
| 18 | 93.6 | 90.7 | 95.5 | 82.9 | -0.28 | 0.20 | 7.2 | 7.0 | 164.9 | 166.3 | 151.1 | 152.4 | 164.9 | 166.3 | 151.1 | 152.4 | |
| 19 | 91.8 | 89.1 | 95.8 | 82.8 | 0.15 | -0.20 | 6.1 | 6.4 | 235.5 | 227.2 | 158.0 | 152.4 | 235.5 | 227.2 | 158.0 | 152.4 | |
| 20 | | | | | | | NO TRACKING DATA | | | | | | | | | | |
| 21 | 92.0 | 89.4 | 95.3 | 83.1 | -0.39 | 0.04 | 6.7 | 6.8 | 226.5 | 229.5 | 150.4 | 152.4 | 226.5 | 229.5 | 150.4 | 152.4 | |
| 22 | 93.1 | 90.1 | 96.1 | 83.6 | -1.33 | -1.15 | 6.2 | 6.1 | 181.4 | 200.7 | 137.7 | 152.4 | 181.4 | 200.7 | 137.7 | 152.4 | |
| 23 | 91.9 | 89.4 | 95.0 | 82.6 | 0.73 | -0.27 | 7.1 | 7.0 | 232.0 | 212.7 | 166.2 | 152.4 | 232.0 | 212.7 | 166.2 | 152.4 | |
| Avg. | 92.5 | 89.8 | 95.5 | 83.0 | -0.22 | -0.14 | 6.7 | 6.7 | 208.1 | 207.3 | 152.7 | 152.4 | 208.1 | 207.3 | 152.7 | 152.4 | |
| Std Dv | 0.9 | 0.8 | 0.5 | 0.4 | 0.88 | 0.80 | 0.6 | 0.5 | 37.6 | 29.7 | 12.1 | 0.0 | 37.6 | 29.7 | 12.1 | 0.0 | |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 124 KTS | | | | | | | | | | | | | | | | | |
| 24 | | | | | | | NO TRACKING DATA | | | | | | | | | | |
| 25 | 92.7 | 90.1 | 98.0 | 85.1 | 0.30 | -0.12 | 5.7 | 6.0 | 225.8 | 215.3 | 159.8 | 152.4 | 225.8 | 215.3 | 159.8 | 152.4 | |
| 26 | 93.6 | 90.7 | 97.1 | 84.1 | -0.57 | 0.10 | 6.4 | 6.4 | 173.8 | 180.2 | 147.0 | 152.4 | 173.8 | 180.2 | 147.0 | 152.4 | |
| 27 | 92.8 | 90.2 | 97.4 | 84.8 | -0.15 | -0.12 | 5.7 | 5.8 | 203.2 | 202.7 | 152.8 | 152.4 | 203.2 | 202.7 | 152.8 | 152.4 | |
| 28 | 93.8 | 90.8 | 97.1 | 83.9 | -0.60 | -0.55 | 6.3 | 6.4 | 159.7 | 166.9 | 145.8 | 152.4 | 159.7 | 166.9 | 145.8 | 152.4 | |
| 29 | 92.9 | 90.2 | 97.7 | 84.6 | 0.51 | -0.15 | 5.9 | 6.3 | 214.9 | 202.6 | 161.7 | 152.4 | 214.9 | 202.6 | 161.7 | 152.4 | |
| Avg. | 93.2 | 90.4 | 97.5 | 84.5 | -0.10 | -0.08 | 6.0 | 6.2 | 195.5 | 193.5 | 153.4 | 152.4 | 195.5 | 193.5 | 153.4 | 152.4 | |
| Std Dv | 0.6 | 0.4 | 0.4 | 0.6 | 0.58 | 0.53 | 0.4 | 0.3 | 32.2 | 22.6 | 8.3 | 0.0 | 32.2 | 22.6 | 8.3 | 0.0 | |

TABLE NO. B.4-2.16

SIKORSKY S-76 SPIRIT HELICOPTER
CORRECTION DATA - MAIN ROTOR RPM 1072

DOI/TSC
12/23/81

JUNE 25, 1980

SITE: 16

CENTERLINE - CENTER (FLUSH)

| EV | CORRECTED | | | | CORRECTIONS (HP) | | | | CONSTANTS | | | | TRACKING DATA (METERS) | | | |
|--|-----------|------|-------|------|----------------------------------|---------------|----------------------|------|-----------|------------------|-------|-------|------------------------|----------|-------------|--|
| | EPNL | MEL | PNLTM | SBAM | $\sqrt{1(P)} \wedge \sqrt{1(A)}$ | $\sqrt{2(P)}$ | $\wedge \sqrt{2(A)}$ | K(P) | K(A) | SR | CFA | SRR | CFAR | (ACTUAL) | (REFERENCE) | |
| 300 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | | | | |
| 10 | 98.0 | 94.8 | 103.7 | 90.7 | 2.20 | 2.09 | -0.57 | 5.8 | 5.7 | 163.0 | 129.9 | 114.7 | 91.4 | | | |
| 11 | 97.9 | 94.9 | 104.4 | 91.7 | 2.62 | 2.46 | -0.63 | 5.2 | 5.5 | 169.6 | 130.1 | 119.2 | 91.4 | | | |
| 16 | 99.0 | 95.6 | 104.7 | 91.1 | 0.32 | 0.33 | -0.11 | 5.7 | 5.9 | 128.5 | 122.9 | 95.6 | 91.4 | | | |
| 17 | | | | | | | | | | NO TRACKING DATA | | | | | | |
| Avg. | 98.3 | 95.1 | 104.3 | 91.2 | 1.71 | 1.63 | -0.43 | 5.6 | 5.7 | 153.7 | 127.6 | 109.9 | 91.4 | | | |
| Std Dv | 0.9 | 0.6 | 0.7 | 0.7 | 1.73 | 1.61 | 0.39 | 0.4 | 0.3 | 31.2 | 5.8 | 17.7 | 0.0 | | | |
| 700 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | | | | |
| 8 | 93.6 | 91.2 | 96.3 | 84.7 | 0.13 | 0.17 | -0.10 | 6.8 | 6.4 | 307.6 | 296.9 | 221.0 | 213.4 | | | |
| 9 | 92.0 | 89.7 | 96.1 | 83.8 | 1.12 | 1.08 | -0.32 | 6.2 | 6.4 | 303.8 | 269.4 | 230.6 | 213.4 | | | |
| 14 | 92.6 | 90.2 | 95.3 | 83.0 | 0.37 | 0.39 | -0.16 | 6.7 | 6.6 | 307.8 | 291.0 | 225.7 | 213.4 | | | |
| 15 | 91.4 | 88.9 | 95.6 | 83.0 | 0.64 | 0.63 | -0.21 | 5.9 | 6.4 | 337.5 | 311.7 | 231.0 | 213.4 | | | |
| Avg. | 92.4 | 90.0 | 95.8 | 83.6 | 0.56 | 0.57 | -0.20 | 6.4 | 6.4 | 314.2 | 292.2 | 229.6 | 213.4 | | | |
| Std Dv | 1.2 | 1.2 | 0.6 | 1.0 | 0.52 | 0.48 | 0.11 | 0.5 | 0.1 | 19.2 | 21.5 | 10.3 | 0.0 | | | |
| 1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | | | | |
| 1 | 89.3 | 87.2 | 91.9 | 79.9 | 0.99 | 0.95 | -0.31 | 6.7 | 6.9 | 425.9 | 382.6 | 339.3 | 304.8 | | | |
| 2 | 90.1 | 87.8 | 91.4 | 79.5 | 0.08 | 0.15 | -0.11 | 6.7 | 6.9 | 452.4 | 435.7 | 316.5 | 304.8 | | | |
| 3 | 89.3 | 87.4 | 92.0 | 80.4 | 0.47 | 0.48 | -0.19 | 6.6 | 6.3 | 427.8 | 400.8 | 325.3 | 304.8 | | | |
| 4 | 90.8 | 88.7 | 92.3 | 80.6 | 0.46 | 0.47 | -0.20 | 7.0 | 6.9 | 431.5 | 404.4 | 325.2 | 304.8 | | | |
| 52 | 90.9 | 88.8 | 92.8 | 80.4 | 0.58 | 0.54 | -0.18 | 7.0 | 7.0 | 345.9 | 325.9 | 323.5 | 304.8 | | | |
| 53 | 89.0 | 87.2 | 91.2 | 79.4 | 1.03 | 0.93 | -0.27 | 6.8 | 6.8 | 491.1 | 447.7 | 334.3 | 304.8 | | | |
| 54 | 92.3 | 89.9 | 94.8 | 82.5 | 1.58 | 1.36 | -0.30 | 6.5 | 6.2 | 964.6 | 865.8 | 339.6 | 304.8 | | | |
| 55 | 90.0 | 88.2 | 93.4 | 81.5 | 0.27 | 0.27 | -0.09 | 6.4 | 6.5 | 401.8 | 388.4 | 315.3 | 304.8 | | | |
| Avg. | 90.2 | 88.1 | 92.5 | 80.5 | 0.69 | 0.64 | -0.21 | 6.7 | 6.7 | 492.6 | 456.4 | 327.4 | 304.8 | | | |
| Std Dv | 1.2 | 1.0 | 1.3 | 1.1 | 0.53 | 0.44 | 0.09 | 0.3 | 0.3 | 85.4 | 183.0 | 10.2 | 0.0 | | | |

TABLE NO. B.4-3.16

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/23/81

CORRECTION DATA - MAIN ROTOR RPM 107%

JUNE 25, 1980

SITE: 16

CENTERLINE - CENTER (FLUSH)

| EV | CORRECTED | | | CORRECTIONS (dB) | | | | CONSTANTS | | TRACKING DATA (METERS) | | | | |
|--|-----------|------|-------|------------------|-----------------------------|-----------------------------|-------|-----------|-----|------------------------|--------|------------------|-------|-------|
| | EPNL | MEL | PNLTH | dBAM | $\sqrt{1(P)} / \sqrt{1(A)}$ | $\sqrt{2(P)} / \sqrt{2(A)}$ | K(P) | K(A) | SR | CPA | SRR | CPAR | | |
| 1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | | |
| 5 | 85.8 | 83.9 | 87.1 | 74.9 | 0.67 | 0.66 | -0.25 | -0.26 | 6.8 | 7.2 | 699.6 | 643.0 | 497.4 | 457.2 |
| 6 | 86.2 | 84.4 | 87.8 | 75.8 | 0.75 | 0.73 | -0.26 | -0.27 | 6.8 | 7.0 | 644.6 | NO TRACKING DATA | 500.0 | 457.2 |
| 12 | 85.7 | 84.1 | 87.5 | 75.8 | 0.32 | 0.36 | -0.18 | -0.18 | 7.1 | 7.0 | 618.2 | 582.5 | 485.3 | 457.2 |
| 38 | 87.5 | 85.8 | 88.0 | 76.4 | 0.07 | 0.11 | -0.12 | -0.11 | 7.1 | 6.9 | 617.7 | 594.6 | 475.0 | 457.2 |
| 39 | 85.9 | 84.6 | 87.2 | 75.5 | 0.18 | 0.23 | -0.14 | -0.15 | 7.0 | 7.3 | 560.3 | 534.6 | 479.1 | 457.2 |
| Avg. | 86.2 | 84.5 | 87.5 | 75.7 | 0.40 | 0.42 | -0.19 | -0.19 | 7.0 | 7.1 | 628.1 | 588.8 | 487.4 | 457.2 |
| Std Dv | 0.8 | 0.9 | 0.4 | 0.6 | 0.35 | 0.31 | 0.07 | 0.08 | 0.2 | 0.2 | 58.3 | 44.5 | 12.7 | 0.0 |
| 2000 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | | |
| 34 | 85.8 | 83.8 | 85.7 | 74.4 | -0.16 | -0.19 | -0.06 | -0.06 | 7.3 | 7.2 | 769.4 | 754.0 | 622.1 | 609.6 |
| 35 | 84.4 | 82.9 | 85.4 | 74.4 | -0.11 | -0.07 | -0.08 | -0.08 | 6.6 | 6.7 | 819.0 | 796.2 | 627.1 | 609.6 |
| 36 | 84.9 | 82.9 | 84.2 | 72.4 | 0.20 | 0.12 | -0.13 | -0.14 | 7.1 | 7.2 | 847.3 | 811.2 | 636.7 | 609.6 |
| 37 | 84.4 | 82.6 | 84.2 | 73.2 | 0.37 | 0.35 | -0.19 | -0.18 | 7.6 | 7.3 | 737.2 | 695.6 | 646.0 | 609.6 |
| Avg. | 84.8 | 83.1 | 84.9 | 73.6 | 0.07 | 0.05 | -0.11 | -0.11 | 7.2 | 7.1 | 793.2 | 764.2 | 633.0 | 609.6 |
| Std Dv | 0.8 | 0.6 | 1.0 | 1.2 | 0.31 | 0.29 | 0.07 | 0.07 | 0.5 | 0.3 | 60.4 | 63.4 | 13.0 | 0.0 |
| 2500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | | |
| 30 | 81.4 | 79.6 | 80.2 | 68.7 | 0.22 | -0.04 | -0.12 | -0.12 | 7.5 | 7.5 | 1009.9 | 974.8 | 789.4 | 762.0 |
| 31 | 83.7 | 81.7 | 82.4 | 71.5 | -0.02 | -0.39 | -0.03 | -0.03 | 7.3 | 7.0 | 983.0 | 974.3 | 768.8 | 762.0 |
| 32 | 82.4 | 80.2 | 81.6 | 70.3 | 0.31 | 0.09 | -0.13 | -0.13 | 7.2 | 6.9 | 1005.7 | 964.0 | 795.0 | 762.0 |
| Avg. | 82.5 | 80.5 | 81.4 | 70.2 | 0.17 | -0.11 | -0.09 | -0.09 | 7.4 | 7.2 | 999.5 | 971.0 | 784.4 | 762.0 |
| Std Dv | 1.7 | 1.6 | 1.6 | 2.0 | 0.24 | 0.35 | 0.08 | 0.08 | 0.2 | 0.4 | 0.0 | 0.0 | 19.5 | 0.0 |

TABLE NO. B.5-2.16

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
12/23/81

| CORRECTED | | CORRECTIONS (dB) | | CONSTANTS | | TRACKING DATA (ACTUAL) | | TRACKING DATA (REFERENCE) | | | | | | |
|--|-------|------------------|-------|-----------|--|------------------------|-------|---------------------------|-----|-----|------------------|-------|-------|-------|
| EV | EPNL | NEL | PNLTH | dBAM | $\Delta(1(P) - \Delta(1(A)) / \Delta(2(P) - \Delta(2(A)))$ | K(P) | K(A) | SR | CPA | SRR | CPAR | | | |
| 300 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS | | | | | | | | | | | | | | |
| 54 | 104.1 | 100.4 | 108.8 | 96.0 | 0.78 | 0.76 | -0.24 | -0.22 | 6.5 | 6.0 | 119.2 | 109.6 | 99.5 | 91.4 |
| 57 | 103.6 | 99.8 | 108.8 | 95.3 | 0.85 | 0.82 | -0.22 | -0.22 | 5.7 | 5.7 | 140.9 | 129.0 | 99.9 | 91.4 |
| 58 | 105.0 | 101.4 | 110.5 | 98.2 | 1.25 | 1.21 | -0.35 | -0.39 | 6.3 | 6.9 | 204.4 | 179.6 | 104.1 | 91.4 |
| 59 | 103.3 | 99.4 | 107.7 | 94.2 | 0.95 | 0.93 | -0.28 | -0.28 | 6.5 | 6.5 | 173.7 | 157.2 | 101.1 | 91.4 |
| Avg. | 104.0 | 100.2 | 108.9 | 95.4 | 0.96 | 0.93 | -0.27 | -0.28 | 6.3 | 6.3 | 159.6 | 143.8 | 101.1 | 91.4 |
| Std Dev | 0.9 | 1.1 | 1.4 | 1.1 | 0.25 | 0.24 | 0.07 | 0.10 | 0.4 | 0.6 | 45.7 | 37.7 | 2.5 | 0.0 |
| 700 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS | | | | | | | | | | | | | | |
| 60 | 99.7 | 95.5 | 102.5 | 90.2 | 0.40 | 0.39 | -0.14 | -0.12 | 7.2 | 6.5 | 223.7 | 214.2 | 222.8 | 213.4 |
| 61 | | | | | | | | | | | NO TRACKING DATA | | | |
| 62 | 98.8 | 94.8 | 101.2 | 88.6 | 0.57 | 0.55 | -0.17 | -0.16 | 6.4 | 6.3 | 229.5 | 216.2 | 226.4 | 213.4 |
| 63 | 99.1 | 95.5 | 100.6 | 85.6 | -0.03 | -0.03 | -0.01 | -0.01 | 7.3 | 7.7 | 410.2 | 409.4 | 213.8 | 213.4 |
| Avg. | 99.2 | 95.6 | 101.4 | 88.5 | 0.31 | 0.30 | -0.11 | -0.10 | 7.0 | 6.8 | 287.8 | 279.9 | 221.0 | 213.4 |
| Std Dev | 0.7 | 1.2 | 1.4 | 2.6 | 0.44 | 0.42 | 0.12 | 0.11 | 0.7 | 1.1 | 149.9 | 158.6 | 9.2 | 0.0 |
| 1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS | | | | | | | | | | | | | | |
| 64 | 96.3 | 93.0 | 97.9 | 84.7 | -0.17 | -0.16 | 0.03 | 0.03 | 7.0 | 6.8 | 461.1 | 466.3 | 301.4 | 304.8 |
| 65 | | | | | | | | | | | NO TRACKING DATA | | | |
| 66 | 95.7 | 92.4 | 96.5 | 83.5 | -0.02 | -0.02 | -0.01 | -0.01 | 7.0 | 6.8 | 359.4 | 358.6 | 305.4 | 304.8 |
| 67 | 95.4 | 92.2 | 95.8 | 81.6 | -0.10 | -0.10 | 0.02 | 0.02 | 7.5 | 7.7 | 424.2 | 426.6 | 303.1 | 304.8 |
| Avg. | 95.8 | 92.5 | 96.7 | 83.3 | -0.10 | -0.09 | 0.01 | 0.01 | 7.2 | 7.1 | 414.9 | 417.2 | 303.3 | 304.8 |
| Std Dev | 0.7 | 0.6 | 1.6 | 2.2 | 0.11 | 0.10 | 0.03 | 0.03 | 0.4 | 0.8 | 72.9 | 77.0 | 2.8 | 0.0 |

JUNE 25, 1980

CENTERLINE - CENTER (FLUSH)

CORRECTION DATA

TABLE NO. B:5-3.16

SIKORSKY UH-60A BLACKHAWK HELICOPTER

POT/TSC
12/23/81

CORRECTION DATA

| CORRECTED | | CORRECTIONS (dB) | | | | CONSTANTS | | TRACKING DATA (METERS) | | | | | | |
|--|------|------------------|-------|------|---------------|---------------|---------------|------------------------|------|------|--------|--------|-------|-------|
| EV | EPNL | NEL | PNLTH | dBAM | $\wedge 1(P)$ | $\wedge 1(A)$ | $\wedge 2(P)$ | $\wedge 2(A)$ | K(P) | K(A) | SR | CPA | SRR | DPAR |
| 1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS | | | | | | | | | | | | | | |
| 68 | 92.5 | 89.1 | 91.7 | 78.7 | 0.01 | 0.01 | -0.02 | -0.01 | 8.2 | 7.9 | 553.9 | 551.6 | 459.1 | 457.2 |
| 69 | 94.1 | 90.8 | 94.1 | 81.0 | 0.84 | 0.78 | -0.22 | -0.22 | 7.3 | 7.2 | 1253.2 | 1168.3 | 490.4 | 457.2 |
| 70 | 94.0 | 90.5 | 92.9 | 79.8 | 0.12 | 0.12 | -0.05 | -0.05 | 7.6 | 7.6 | 557.0 | 549.2 | 463.7 | 457.2 |
| 71 | 94.1 | 90.5 | 93.9 | 81.0 | -0.23 | -0.20 | 0.04 | 0.04 | 6.6 | 7.1 | 936.9 | 949.5 | 451.2 | 457.2 |
| Avg. | 93.7 | 90.2 | 93.2 | 80.2 | 0.18 | 0.18 | -0.06 | -0.06 | 7.5 | 7.4 | 825.3 | 804.6 | 466.1 | 457.2 |
| Std Dev | 1.0 | 0.9 | 1.3 | 1.4 | 0.56 | 0.52 | 0.14 | 0.14 | 0.8 | 0.4 | 281.1 | 274.1 | 20.8 | 0.0 |
| 2000 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS | | | | | | | | | | | | | | |
| 72 | 90.5 | 87.7 | 88.6 | 76.0 | 0.11 | 0.10 | -0.04 | -0.04 | 7.8 | 7.6 | 805.5 | 795.1 | 617.5 | 609.6 |
| 74 | - | 87.8 | 89.8 | 77.3 | 0.21 | 0.20 | - | -0.06 | - | 7.0 | 1109.8 | 1087.0 | 622.4 | 609.6 |
| 75 | 91.2 | 88.0 | 89.6 | 76.7 | 0.06 | 0.06 | -0.03 | -0.03 | 7.5 | 7.2 | 824.3 | 816.7 | 615.3 | 609.6 |
| Avg. | 90.8 | 87.8 | 89.3 | 76.7 | 0.13 | 0.12 | -0.03 | -0.04 | 7.6 | 7.2 | 913.2 | 899.6 | 618.4 | 609.6 |
| Std Dev | 0.5 | 0.2 | 0.9 | 0.9 | 0.11 | 0.10 | 0.01 | 0.02 | 0.2 | 0.4 | 139.7 | 133.4 | 5.2 | 0.0 |
| 2500 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS | | | | | | | | | | | | | | |
| 76 | 89.4 | 86.4 | 87.1 | 74.7 | 0.33 | 0.31 | -0.10 | -0.10 | 7.9 | 7.3 | 786.6 | 763.2 | 785.4 | 762.0 |
| 77 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Avg. | 89.4 | 86.4 | 87.1 | 74.7 | 0.33 | 0.31 | -0.10 | -0.10 | 7.9 | 7.3 | 786.6 | 763.2 | 785.4 | 762.0 |
| Std Dev | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

NO TRACKING DATA

NO TRACKING DATA

NO TRACKING DATA

TABLE NO. B.4-1.1H

SIKORSKY S-76 SPIRIT HELICOPTER
CORRECTION DATA - MAIN ROTOR RPM 1072

DOT/TSC
12/23/81

| EV | CORRECTED | | | CORRECTIONS (dB) | | | CONSTANTS | | | TRACKING DATA (ACTUAL) | | | TRACKING DATA (REFERENCE) | | |
|---|------------------|------|-------|------------------|---------------|---------------|---------------|---------------|------|------------------------|-------|-------|---------------------------|-------|--|
| | EPNL | NEL | PMLTM | dBAM | $\wedge^1(P)$ | $\wedge^1(O)$ | $\wedge^2(P)$ | $\wedge^2(O)$ | K(P) | K(O) | SR | CPA | SRR | CFAR | |
| SITE: 1H CENTERLINE - CENTER (10-METER) JUNE 25, 1980 | | | | | | | | | | | | | | | |
| APPROACH | | | | | | | | | | | | | | | |
| 40 | 96.6 | 93.5 | 97.6 | 84.2 | 0.50 | 0.50 | -0.20 | -0.20 | 7.7 | 7.9 | 139.6 | 131.6 | 116.2 | 109.5 | |
| 42 | 99.7 | 97.0 | 101.7 | 89.3 | -0.65 | -0.61 | 0.19 | 0.18 | 7.0 | 6.9 | 147.6 | 157.0 | 103.0 | 109.5 | |
| 44 | 99.6 | 96.7 | 101.2 | 88.3 | 0.19 | 0.20 | -0.08 | -0.08 | 7.0 | 6.9 | 141.7 | 138.2 | 112.3 | 109.5 | |
| 46 | 99.6 | 96.8 | 100.5 | 87.8 | 0.33 | 0.32 | -0.12 | -0.12 | 7.1 | 7.1 | 113.9 | 109.7 | 113.8 | 109.5 | |
| 48 | 99.1 | 96.1 | 101.4 | 87.9 | 0.14 | 0.14 | -0.05 | -0.05 | 6.4 | 6.6 | 120.2 | 118.1 | 111.5 | 109.5 | |
| 50 | NO TRACKING DATA | | | | | | | | | | | | | | |
| Avg. | 98.9 | 96.0 | 100.5 | 87.5 | 0.10 | 0.11 | -0.05 | -0.05 | 7.0 | 7.1 | 132.6 | 130.9 | 111.4 | 109.5 | |
| Std Dv | 1.5 | 1.7 | 1.9 | 2.2 | 0.51 | 0.49 | 0.17 | 0.16 | 0.5 | 0.6 | 16.9 | 21.2 | 5.8 | 0.0 | |
| TAKEOFF | | | | | | | | | | | | | | | |
| 41 | 94.2 | 90.1 | 97.8 | 82.9 | 2.21 | 2.15 | -0.71 | -0.77 | 7.0 | 7.6 | 146.9 | 116.4 | 115.8 | 91.7 | |
| 43 | 93.7 | 89.9 | 97.0 | 83.3 | 3.43 | 3.33 | -1.14 | -1.11 | 7.3 | 7.2 | 143.3 | 100.2 | 131.1 | 91.7 | |
| 45 | NO TRACKING DATA | | | | | | | | | | | | | | |
| 47 | 93.4 | 89.8 | 97.1 | 82.9 | 2.96 | 2.87 | -0.97 | -0.96 | 7.3 | 7.2 | 144.1 | 105.9 | 124.7 | 91.7 | |
| 49 | 93.6 | 90.0 | 97.4 | 83.2 | 3.27 | 3.09 | -1.06 | -1.08 | 7.3 | 7.4 | 175.6 | 125.6 | 128.2 | 91.7 | |
| 51 | 93.6 | 90.1 | 97.3 | 83.4 | 2.79 | 2.70 | -0.90 | -0.92 | 7.2 | 7.3 | 137.1 | 102.6 | 122.6 | 91.7 | |
| Avg. | 93.7 | 90.0 | 97.3 | 83.2 | 2.93 | 2.83 | -0.96 | -0.97 | 7.2 | 7.3 | 149.4 | 110.1 | 124.5 | 91.7 | |
| Std Dv | 0.4 | 0.2 | 0.4 | 0.3 | 0.55 | 0.52 | 0.19 | 0.16 | 0.2 | 0.2 | 17.4 | 12.3 | 6.8 | 0.0 | |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 109 KTS | | | | | | | | | | | | | | | |
| 18 | 89.8 | 86.9 | 91.9 | 78.4 | -0.30 | -0.21 | 0.03 | 0.03 | 6.9 | 6.9 | 168.1 | 169.6 | 141.1 | 142.3 | |
| 19 | 88.6 | 85.7 | 93.1 | 79.7 | 0.21 | 0.24 | -0.10 | -0.10 | 5.9 | 6.1 | 200.0 | 192.4 | 148.0 | 142.3 | |
| 20 | NO TRACKING DATA | | | | | | | | | | | | | | |
| 21 | 88.9 | 86.1 | 92.9 | 79.9 | -0.37 | -0.27 | 0.04 | 0.04 | 6.4 | 6.4 | 190.4 | 192.9 | 140.5 | 142.3 | |
| 22 | 89.5 | 86.5 | 92.1 | 78.7 | -1.41 | -1.22 | 0.31 | 0.32 | 6.6 | 6.8 | 173.1 | 193.0 | 127.7 | 142.3 | |
| 23 | 88.9 | 85.9 | 92.4 | 79.4 | 0.80 | 0.79 | -0.27 | -0.27 | 6.7 | 6.6 | 224.1 | 204.1 | 156.3 | 142.3 | |
| Avg. | 89.1 | 86.2 | 92.5 | 79.2 | -0.21 | -0.13 | 0.00 | 0.00 | 6.5 | 6.5 | 191.1 | 190.4 | 142.7 | 142.3 | |
| Std Dv | 0.6 | 0.6 | 0.6 | 0.7 | 0.94 | 0.86 | 0.25 | 0.25 | 0.4 | 0.3 | 25.9 | 14.6 | 12.2 | 0.0 | |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 124 KTS | | | | | | | | | | | | | | | |
| 24 | NO TRACKING DATA | | | | | | | | | | | | | | |
| 25 | 89.3 | 86.3 | 94.6 | 81.4 | 0.35 | 0.36 | -0.12 | -0.13 | 5.6 | 5.8 | 217.7 | 206.9 | 149.8 | 142.3 | |
| 26 | 90.0 | 87.2 | 93.8 | 80.1 | -0.61 | -0.52 | 0.11 | 0.11 | 6.3 | 6.3 | 183.3 | 190.5 | 136.9 | 142.3 | |
| 27 | 89.2 | 86.5 | 94.2 | 81.4 | -0.13 | -0.10 | -0.01 | -0.01 | 5.8 | 5.6 | 194.3 | 193.7 | 142.8 | 142.3 | |
| 28 | 90.3 | 87.3 | 93.6 | 79.9 | -0.63 | -0.58 | 0.13 | 0.14 | 6.4 | 6.6 | 164.7 | 172.7 | 135.8 | 142.3 | |
| 29 | 89.4 | 86.3 | 93.7 | 80.2 | 0.62 | 0.53 | -0.18 | -0.18 | 6.2 | 6.4 | 206.7 | 193.7 | 151.9 | 142.3 | |
| Avg. | 89.7 | 86.7 | 94.0 | 80.6 | -0.08 | -0.06 | -0.01 | -0.01 | 6.0 | 6.2 | 193.3 | 191.5 | 143.4 | 142.3 | |
| Std Dv | 0.5 | 0.6 | 0.5 | 0.9 | 0.65 | 0.58 | 0.16 | 0.16 | 0.4 | 0.5 | 23.8 | 14.1 | 8.4 | 0.0 | |

TABLE NO. B.4-2.1H

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/23/81

CORRECTION DATA - MAIN ROTOR RPM 107%

| SITE: 1H | | CENTERLINE - CENTER (10-METER) | | | | | | | | | | JUNE 25, 1980 | | |
|--|------|--------------------------------|-------|------|-----------------------------|-----------------------------|-----------|------|-----|------------------------|-------|------------------------|----------|-------------|
| CORRECTED | | CORRECTIONS (dB) | | | | | CONSTANTS | | | TRACKING DATA (METERS) | | TRACKING DATA (METERS) | | |
| EV | EPNL | NEL | PNLTH | GRAM | $\sqrt{1(P)} / \sqrt{1(A)}$ | $\sqrt{2(P)} / \sqrt{2(A)}$ | K(P) | K(A) | SR | CPA | SRR | CPAR | (ACTUAL) | (REFERENCE) |
| 300 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | | |
| 10 | 94.8 | 91.4 | 100.8 | 87.1 | 2.47 | 2.32 | -0.62 | 5.7 | 5.7 | 155.0 | 120.6 | 104.6 | 81.4 | 81.4 |
| 11 | 94.6 | 91.5 | 101.3 | 88.2 | 3.00 | 2.79 | -0.70 | 5.5 | 5.3 | 200.7 | 149.6 | 109.2 | 81.4 | 81.4 |
| 16 | 95.5 | 92.1 | 101.4 | 87.6 | 0.39 | 0.41 | -0.13 | 5.4 | 6.0 | 151.1 | 143.3 | 85.8 | 81.4 | 81.4 |
| 17 | | | | | | | | | | NO TRACKING DATA | | | | |
| Avg. | 95.0 | 91.6 | 101.2 | 87.6 | 1.95 | 1.84 | -0.48 | 5.5 | 5.7 | 169.0 | 137.8 | 99.9 | 81.4 | 81.4 |
| Std Dv | 0.6 | 0.5 | 0.5 | 0.8 | 1.95 | 1.78 | 0.44 | 0.2 | 0.5 | 39.0 | 21.6 | 17.5 | 0.0 | 0.0 |
| 700 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | | |
| 8 | 89.9 | 87.2 | 93.0 | 80.2 | 0.21 | 0.20 | -0.11 | 6.5 | 6.6 | 299.4 | 288.5 | 211.0 | 203.3 | 203.3 |
| 9 | 88.1 | 85.8 | 92.1 | 79.4 | 1.21 | 1.14 | -0.34 | 6.2 | 6.6 | 295.0 | 260.0 | 230.7 | 203.3 | 203.3 |
| 14 | 89.5 | 86.8 | 92.1 | 79.1 | 0.45 | 0.43 | -0.17 | 6.6 | 6.8 | 299.6 | 282.4 | 215.7 | 203.3 | 203.3 |
| 15 | 87.6 | 85.2 | 91.3 | 78.9 | 0.69 | 0.68 | -0.23 | 6.4 | 6.5 | 294.3 | 270.7 | 221.0 | 203.3 | 203.3 |
| Avg. | 88.8 | 86.3 | 92.1 | 79.4 | 0.64 | 0.61 | -0.21 | 6.4 | 6.7 | 297.1 | 275.4 | 219.6 | 203.3 | 203.3 |
| Std Dv | 1.3 | 1.1 | 0.8 | 0.7 | 0.52 | 0.49 | 0.12 | 0.2 | 0.1 | 3.4 | 15.5 | 10.4 | 0.0 | 0.0 |
| 1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | | |
| 1 | 85.8 | 83.4 | 88.2 | 75.8 | 1.05 | 0.99 | -0.32 | 6.7 | 7.0 | 485.0 | 434.2 | 329.2 | 294.7 | 294.7 |
| 2 | 86.2 | 84.2 | 87.2 | 74.9 | 0.22 | 0.20 | -0.12 | 6.8 | 7.0 | 417.7 | 401.7 | 306.4 | 294.7 | 294.7 |
| 3 | 85.9 | 83.9 | 88.0 | 76.7 | 0.47 | 0.50 | -0.20 | 6.9 | 6.5 | 419.2 | 392.0 | 315.2 | 294.7 | 294.7 |
| 4 | 87.2 | 84.8 | 88.7 | 76.0 | 0.54 | 0.50 | -0.20 | 6.9 | 7.2 | 423.0 | 395.6 | 315.2 | 294.7 | 294.7 |
| 52 | 88.3 | 86.5 | 89.6 | 78.0 | 0.60 | 0.57 | -0.18 | 6.8 | 6.7 | 393.4 | 369.9 | 313.5 | 294.7 | 294.7 |
| 53 | 86.4 | 84.8 | 89.0 | 77.9 | 1.03 | 0.97 | -0.26 | 6.4 | 6.1 | 520.6 | 473.1 | 324.4 | 294.7 | 294.7 |
| 54 | 90.3 | 87.8 | 92.3 | 79.6 | 2.20 | 1.78 | -0.40 | 6.6 | 6.8 | 998.9 | 868.4 | 539.0 | 294.7 | 294.7 |
| 55 | 87.0 | 85.4 | 90.0 | 78.4 | 0.29 | 0.28 | -0.10 | 6.7 | 6.7 | 464.9 | 448.9 | 305.2 | 294.7 | 294.7 |
| Avg. | 87.1 | 85.1 | 89.1 | 77.2 | 0.80 | 0.72 | -0.22 | 6.7 | 6.7 | 515.3 | 473.0 | 318.5 | 294.7 | 294.7 |
| Std Dv | 1.6 | 1.6 | 1.7 | 1.7 | 0.69 | 0.55 | 0.11 | 0.2 | 0.4 | 87.2 | 176.4 | 12.5 | 0.0 | 0.0 |

TABLE NO. B.4-3.1H

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/23/81

CORRECTION DATA - MAIN ROTOR RPM 107%

| SITE: 1H | | CENTERLINE - CENTER (10-METER) | | | | | | | | | | JUNE 25, 1980 | | |
|--|--------|--------------------------------|-------|------|---------------|---------------|---------------|---------------|------------------------|------|--------|---------------------------|-------|-------|
| CORRECTED | | CORRECTIONS (dB) | | | | | CONSTANTS | | TRACKING DATA (ACTUAL) | | | TRACKING DATA (REFERENCE) | | |
| EV | EPNL | NEL | PNLTM | DBAM | $\Delta 1(P)$ | $\Delta 1(A)$ | $\Delta 2(P)$ | $\Delta 2(A)$ | K(P) | K(A) | SR | CFA | SRR | CPAR |
| 1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | | |
| 5 | 81.9 | 79.9 | 83.2 | 70.7 | 0.74 | 0.69 | -0.25 | -0.27 | 6.7 | 7.2 | 691.2 | 634.2 | 487.4 | 447.1 |
| 6 | 82.3 | 80.6 | 83.4 | 72.3 | 0.78 | 0.75 | -0.28 | -0.26 | 7.1 | 6.6 | 635.7 | 580.1 | 489.9 | 447.1 |
| 12 | - | 82.0 | 84.0 | 72.2 | 0.19 | 0.16 | - | -0.12 | - | 7.3 | 583.6 | 561.2 | 464.9 | 447.1 |
| 13 | 82.2 | 80.6 | 82.9 | 71.5 | 0.26 | 0.27 | -0.15 | -0.15 | 7.1 | 7.0 | 576.4 | 549.4 | 469.1 | 447.1 |
| 39 | 82.1 | 80.8 | 83.4 | 71.7 | 0.49 | 0.47 | -0.23 | -0.20 | 7.0 | 7.0 | 621.7 | 581.2 | 477.8 | 447.1 |
| Avg. | Std Dv | 0.3 | 1.1 | 0.5 | 0.9 | 0.38 | 0.36 | 0.10 | 0.3 | 0.4 | 65.3 | 45.9 | 15.5 | 0.0 |
| 2000 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | | |
| 34 | 81.7 | 79.7 | 81.2 | 69.3 | 0.00 | -0.15 | -0.06 | -0.07 | 7.1 | 7.4 | 789.2 | 773.1 | 612.0 | 599.5 |
| 35 | 81.0 | 79.2 | 81.7 | 69.7 | 0.05 | -0.04 | -0.08 | -0.09 | 6.6 | 7.1 | 841.6 | 817.8 | 617.0 | 599.5 |
| 36 | - | 79.4 | 80.9 | 68.1 | 0.23 | 0.17 | - | -0.14 | - | 7.4 | 899.5 | 860.5 | 626.7 | 599.5 |
| 37 | 80.7 | 78.6 | 81.2 | 68.8 | 0.40 | 0.35 | -0.18 | -0.18 | 7.0 | 7.2 | 871.0 | 821.1 | 635.9 | 599.5 |
| Avg. | Std Dv | 0.7 | 0.6 | 0.4 | 0.9 | 0.22 | 0.27 | 0.09 | 0.3 | 0.2 | 57.7 | 43.8 | 13.0 | 0.0 |
| 2500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | | |
| 30 | - | 76.1 | 77.9 | 65.7 | 0.41 | -0.01 | - | -0.11 | - | 7.2 | 1062.3 | 1024.9 | 779.4 | 751.9 |
| 31 | - | 78.0 | 78.4 | 66.1 | 0.16 | -0.32 | - | -0.03 | - | 7.6 | 995.6 | 986.7 | 758.7 | 751.9 |
| 32 | - | 76.6 | 77.3 | 65.0 | 0.47 | 0.14 | - | -0.14 | - | 7.7 | 1059.1 | 1014.6 | 784.9 | 751.9 |
| Avg. | Std Dv | - | 1.4 | 0.8 | 0.35 | -0.06 | - | -0.09 | - | 7.5 | 1039.0 | 1008.7 | 774.3 | 751.9 |
| | | | | | 0.23 | 0.33 | - | 0.08 | - | 0.4 | 0.0 | 0.0 | 19.5 | 0.0 |

TABLE NO. B.5-2.1H

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
12/23/81

CORRECTION DATA

JUNE 25, 1980

SITE: 1H CENTERLINE - CENTER (10-METER)

| EV | CORRECTED | | | CORRECTIONS (DB) | | | CONSTANTS | | TRACKING DATA (METERS) | | | | | |
|--|-----------|------|-------|------------------|---------------|---------------|---------------|---------------|------------------------|------|------------------|-------|-------|-------|
| | EPNL | NEL | PNLTH | dBAM | $\wedge 1(P)$ | $\wedge 1(A)$ | $\wedge 2(P)$ | $\wedge 2(A)$ | K(P) | K(A) | SR | CPA | SRR | CPAR |
| 300 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS | | | | | | | | | | | | | | |
| 56 | 102.3 | 98.4 | 106.9 | 93.1 | 0.91 | 0.88 | -0.26 | -0.26 | 6.3 | 6.3 | 193.0 | 175.2 | 89.6 | 81.4 |
| 57 | 101.7 | 97.7 | 106.4 | 92.8 | 0.96 | 0.92 | -0.27 | -0.27 | 6.2 | 6.2 | 132.4 | 119.9 | 89.9 | 81.4 |
| 58 | 103.0 | 99.4 | 108.3 | 94.5 | 1.41 | 1.36 | -0.41 | -0.43 | 6.4 | 6.8 | 198.1 | 171.1 | 94.3 | 81.4 |
| 59 | 101.7 | 97.6 | 106.2 | 91.8 | 1.07 | 1.03 | -0.30 | -0.33 | 6.2 | 6.8 | 167.0 | 149.3 | 91.0 | 81.4 |
| Avg. | 102.2 | 98.3 | 106.9 | 93.1 | 1.09 | 1.05 | -0.31 | -0.32 | 6.3 | 6.5 | 172.6 | 153.9 | 91.2 | 81.4 |
| Std Dv | 0.8 | 1.0 | 1.2 | 1.4 | 0.28 | 0.27 | 0.08 | 0.10 | 0.1 | 0.4 | 36.9 | 31.1 | 2.6 | 0.0 |
| 700 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS | | | | | | | | | | | | | | |
| 60 | 97.6 | 94.2 | 100.3 | 86.7 | 0.45 | 0.43 | -0.15 | -0.15 | 7.1 | 7.2 | 300.3 | 286.4 | 213.2 | 203.3 |
| 61 | | | | | | | | | | | NO TRACKING DATA | | | |
| 62 | 96.8 | 92.9 | 98.4 | 85.5 | 0.62 | 0.59 | -0.19 | -0.17 | 7.1 | 6.2 | 219.4 | 205.9 | 216.6 | 203.3 |
| 63 | 97.5 | 93.8 | 99.4 | 85.2 | -0.03 | -0.02 | -0.01 | -0.01 | 7.1 | 7.4 | 403.9 | 403.1 | 203.7 | 203.3 |
| Avg. | 97.3 | 93.6 | 99.3 | 85.8 | 0.35 | 0.33 | -0.12 | -0.11 | 7.1 | 6.9 | 307.9 | 298.5 | 211.2 | 203.3 |
| Std Dv | 0.6 | 0.9 | 1.4 | 1.1 | 0.48 | 0.45 | 0.13 | 0.12 | 0.0 | 0.9 | 130.8 | 140.2 | 9.5 | 0.0 |
| 1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS | | | | | | | | | | | | | | |
| 64 | 94.4 | 91.1 | 96.0 | 81.9 | -0.17 | -0.16 | 0.03 | 0.04 | 6.9 | 7.3 | 413.3 | 418.1 | 291.4 | 294.7 |
| 65 | | | | | | | | | | | NO TRACKING DATA | | | |
| 66 | 93.1 | 89.7 | 93.5 | 80.6 | -0.03 | -0.01 | -0.01 | -0.01 | 7.2 | 6.9 | 326.6 | 325.8 | 295.4 | 294.7 |
| 67 | 93.5 | 90.1 | 94.0 | 80.0 | -0.10 | -0.09 | 0.02 | 0.02 | 7.2 | 7.7 | 388.7 | 390.9 | 293.1 | 294.7 |
| Avg. | 93.6 | 90.3 | 94.5 | 80.8 | -0.10 | -0.09 | 0.01 | 0.02 | 7.1 | 7.3 | 376.2 | 378.3 | 293.3 | 294.7 |
| Std Dv | 0.9 | 1.0 | 1.9 | 1.4 | 0.10 | 0.11 | 0.03 | 0.04 | 0.3 | 0.6 | 63.2 | 67.0 | 2.9 | 0.0 |

TABLE NO. 8.5-3.1H

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
12/23/81

CORRECTION DATA

| EV | CORRECTED | | dBRM | CORRECTIONS (dB) | | | CONSTANTS | | TRACKING DATA (ACTUAL) | | | TRACKING DATA (REFERENCE) | | |
|--|-----------|------|------|------------------|---------------|---------------|---------------|---------------|------------------------|--------|--------|---------------------------|-------|------|
| | EPNL | NEL | | PNLTH | $\wedge 1(P)$ | $\wedge 1(A)$ | $\wedge 2(P)$ | $\wedge 2(A)$ | K(P) | K(A) | SR | CPA | SRR | CPAR |
| 1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS | | | | | | | | | | | | | | |
| 68 | 90.5 | 87.0 | 90.0 | 76.7 | 0.01 | 0.01 | -0.02 | 8.0 | 7.9 | 641.0 | 638.1 | 449.1 | 447.1 | |
| 69 | - | 88.2 | 90.6 | 78.1 | -0.06 | -0.05 | 0.00 | - | 7.1 | 897.7 | 898.8 | 446.6 | 447.1 | |
| 70 | 92.0 | 88.6 | 92.2 | 78.7 | 0.13 | 0.12 | -0.04 | 7.0 | 6.9 | 890.1 | 877.2 | 453.7 | 447.1 | |
| 71 | 91.9 | 88.4 | 91.6 | 77.1 | -0.19 | -0.18 | 0.04 | 6.9 | 7.5 | 602.0 | 610.2 | 441.1 | 447.1 | |
| Avg. | 91.5 | 88.1 | 91.1 | 77.7 | -0.03 | -0.03 | -0.01 | 7.3 | 7.3 | 757.7 | 756.1 | 447.6 | 447.1 | |
| Std Dv | 1.2 | 0.8 | 1.2 | 1.2 | 0.16 | 0.15 | 0.06 | 0.9 | 0.5 | 193.7 | 187.4 | 6.4 | 0.0 | |
| 2000 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS | | | | | | | | | | | | | | |
| 72 | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| 73 | 88.7 | 85.5 | 87.3 | 73.6 | 0.14 | 0.12 | -0.05 | 7.4 | 7.7 | 1196.7 | 1179.9 | 608.1 | 599.5 | |
| 74 | - | 85.9 | 88.6 | 75.2 | 0.22 | 0.20 | -0.06 | - | 7.0 | 1060.6 | 1038.4 | 612.4 | 599.5 | |
| 75 | 89.2 | 86.0 | 88.0 | 73.5 | 0.07 | 0.07 | -0.03 | 7.2 | 7.9 | 815.0 | 807.4 | 605.2 | 599.5 | |
| Avg. | 88.9 | 85.8 | 88.0 | 74.1 | 0.14 | 0.13 | -0.04 | 7.3 | 7.6 | 1024.1 | 1008.6 | 608.6 | 599.5 | |
| Std Dv | 0.4 | 0.4 | 0.9 | 1.4 | 0.11 | 0.09 | 0.01 | 0.2 | 0.6 | 209.1 | 201.2 | 5.1 | 0.0 | |
| 2500 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS | | | | | | | | | | | | | | |
| 76 | 87.6 | 84.2 | 85.9 | 73.3 | 0.34 | 0.31 | -0.10 | 7.2 | 7.0 | 781.0 | 757.4 | 775.4 | 751.9 | |
| 77 | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| Avg. | 87.6 | 84.2 | 85.9 | 73.3 | 0.34 | 0.31 | -0.10 | 7.2 | 7.0 | 781.0 | 757.4 | 775.4 | 751.9 | |
| Std Dv | - | - | - | - | - | - | - | - | - | - | - | - | - | |

NO TRACKING DATA

NO TRACKING DATA

SIKORSKY S-76 SPIRIT HELICOPTER
 CORRECTION DATA - MAIN ROTOR RPM 107%
DOT/TSC
12/22/81

JUNE 25, 1980

CENTERLINE - 150 M. WEST

SITE: 2

| EV | CORRECTED | | | CORRECTIONS (dB) | | | CONSTANTS | | | TRACKING DATA (ACTUAL) | | | TRACKING DATA (METERS) (REFERENCE) | | |
|---|------------------|------|-------|------------------|---------------|---------------|---------------|---------------|------|------------------------|-------|-------|------------------------------------|-------|--|
| | EPNL | NEL | PNLTM | dBAN | $\wedge 1(P)$ | $\wedge 1(A)$ | $\wedge 2(P)$ | $\wedge 2(A)$ | K(P) | K(A) | SR | CPA | SRR | CPAR | |
| APPROACH | | | | | | | | | | | | | | | |
| 40 | 96.9 | 93.6 | 99.3 | 85.7 | 0.34 | 0.35 | -0.13 | -0.13 | 7.0 | 7.0 | 116.5 | 111.6 | 107.1 | 102.6 | |
| 42 | 98.3 | 95.4 | 101.8 | 88.6 | -0.67 | -0.62 | 0.17 | 0.17 | 5.9 | 6.1 | 129.2 | 137.8 | 96.2 | 102.6 | |
| 44 | 98.4 | 94.9 | 101.5 | 88.4 | -0.13 | -0.11 | 0.02 | 0.02 | 6.2 | 5.9 | 128.8 | 129.9 | 101.7 | 102.6 | |
| 46 | 98.1 | 94.8 | 99.9 | 86.9 | -0.04 | -0.03 | 0.00 | 0.00 | 7.2 | 6.9 | 106.5 | 106.5 | 102.6 | 102.6 | |
| 48 | 97.9 | 94.5 | 101.2 | 87.8 | -0.14 | -0.12 | 0.03 | 0.03 | 6.3 | 6.2 | 137.0 | 138.3 | 101.6 | 102.6 | |
| 50 | NO TRACKING DATA | | | | | | | | | | | | | | |
| Avg. | 97.9 | 94.6 | 100.8 | 87.5 | -0.13 | -0.11 | 0.02 | 0.02 | 6.5 | 6.4 | 123.6 | 124.8 | 101.8 | 102.6 | |
| Std Dev | 0.7 | 0.8 | 1.3 | 1.4 | 0.42 | 0.40 | 0.12 | 0.12 | 0.6 | 0.6 | 13.9 | 17.2 | 4.5 | 0.0 | |
| TAKEDOFF | | | | | | | | | | | | | | | |
| 41 | 94.0 | 89.9 | 97.6 | 83.8 | 2.59 | 2.48 | -0.86 | -0.82 | 7.4 | 7.1 | 108.9 | 83.5 | 99.1 | 75.9 | |
| 43 | 94.3 | 89.9 | 98.5 | 84.2 | 3.46 | 3.34 | -1.05 | -1.01 | 6.9 | 6.6 | 123.0 | 86.5 | 107.9 | 75.9 | |
| 45 | NO TRACKING DATA | | | | | | | | | | | | | | |
| 47 | 93.8 | 89.8 | 97.7 | 84.4 | 2.44 | 2.33 | -0.80 | -0.71 | 7.3 | 6.5 | 103.8 | 80.8 | 97.5 | 75.9 | |
| 49 | 94.2 | 90.0 | 98.8 | 84.8 | 2.97 | 2.83 | -0.84 | -0.85 | 6.6 | 6.5 | 109.4 | 80.9 | 102.6 | 75.9 | |
| 51 | 93.8 | 89.7 | 98.5 | 84.5 | 2.56 | 2.45 | -0.77 | -0.75 | 6.8 | 6.7 | 108.7 | 83.8 | 98.4 | 75.9 | |
| Avg. | 94.0 | 89.9 | 98.2 | 84.3 | 2.80 | 2.69 | -0.87 | -0.83 | 7.0 | 6.7 | 110.8 | 83.1 | 101.1 | 75.9 | |
| Std Dev | 0.2 | 0.1 | 0.6 | 0.4 | 0.48 | 0.47 | 0.13 | 0.13 | 0.4 | 0.3 | 8.3 | 2.7 | 4.9 | 0.0 | |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 109 KTS | | | | | | | | | | | | | | | |
| 18 | 90.0 | 86.8 | 93.2 | 79.6 | -0.29 | -0.22 | 0.02 | 0.02 | 6.3 | 6.5 | 167.9 | 169.2 | 150.1 | 151.2 | |
| 19 | 88.6 | 85.5 | 92.5 | 78.9 | 0.05 | 0.09 | -0.07 | -0.07 | 6.1 | 6.3 | 194.5 | 189.5 | 155.1 | 151.2 | |
| 20 | NO TRACKING DATA | | | | | | | | | | | | | | |
| 21 | 88.7 | 85.7 | 91.7 | 78.4 | -0.40 | -0.31 | 0.04 | 0.05 | 6.4 | 6.9 | 185.9 | 188.9 | 148.8 | 151.2 | |
| 22 | 89.0 | 86.1 | 92.4 | 79.3 | -2.18 | -1.69 | 0.28 | 0.28 | 6.1 | 6.1 | 475.8 | 528.8 | 136.0 | 151.2 | |
| 23 | 88.8 | 85.7 | 92.8 | 79.0 | 0.75 | 0.74 | -0.24 | -0.26 | 6.3 | 6.8 | 195.4 | 178.7 | 165.3 | 151.2 | |
| Avg. | 89.0 | 86.0 | 92.5 | 79.0 | -0.41 | -0.28 | 0.01 | 0.00 | 6.2 | 6.5 | 243.9 | 251.0 | 151.1 | 151.2 | |
| Std Dev | 0.6 | 0.6 | 0.6 | 0.6 | 1.25 | 1.03 | 0.22 | 0.23 | 0.2 | 0.4 | 150.2 | 179.6 | 12.3 | 0.0 | |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 124 KTS | | | | | | | | | | | | | | | |
| 24 | NO TRACKING DATA | | | | | | | | | | | | | | |
| 25 | 89.5 | 86.4 | 94.1 | 80.7 | 0.38 | 0.38 | -0.14 | -0.15 | 6.3 | 6.5 | 196.9 | 186.8 | 159.4 | 151.2 | |
| 26 | 90.7 | 87.4 | 94.8 | 80.8 | -0.73 | -0.66 | 0.13 | 0.13 | 5.9 | 5.9 | 163.8 | 172.4 | 143.7 | 151.2 | |
| 27 | 90.3 | 87.1 | 94.5 | 81.4 | -0.33 | -0.29 | 0.03 | 0.03 | 6.2 | 6.1 | 231.6 | 234.0 | 149.6 | 151.2 | |
| 28 | 91.0 | 87.8 | 94.7 | 81.1 | -0.79 | -0.73 | 0.16 | 0.15 | 6.2 | 5.8 | 177.0 | 187.9 | 142.4 | 151.2 | |
| 29 | 89.6 | 86.3 | 93.5 | 79.7 | 0.33 | 0.26 | -0.10 | -0.11 | 6.4 | 6.7 | 185.3 | 178.5 | 156.9 | 151.2 | |
| Avg. | 90.2 | 87.0 | 94.3 | 80.7 | -0.23 | -0.21 | 0.02 | 0.01 | 6.2 | 6.2 | 190.9 | 191.9 | 150.4 | 151.2 | |
| Std Dev | 0.7 | 0.8 | 0.6 | 0.8 | 0.65 | 0.59 | 0.15 | 0.16 | 0.2 | 0.3 | 29.7 | 28.2 | 8.8 | 0.0 | |

TABLE NO. B.4-2.2

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/22/81

CORRECTION DATA - MAIN ROTOR RPM 107%

JUNE 25, 1980

CENTERLINE - 150 M. WEST

SITE: 2

| EV | CORRECTED | | | CORRECTIONS (dB) | | | | CONSTANTS | | | TRACKING DATA (METERS) (ACTUAL) | | | TRACKING DATA (METERS) (REFERENCE) | | |
|--|-----------|------|--------|------------------|-------|-------|-------|-----------|------|------|------------------------------------|-------|-------|---------------------------------------|--|--|
| | EPNL | NEL | FNL/TA | δBAH | ∧1(F) | ∧1(A) | ∧2(P) | ∧2(A) | K(P) | K(A) | SR | CPA | SRR | CFAR | | |
| 300 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | | | | |
| 10 | 93.0 | 91.4 | 100.9 | 87.1 | 2.11 | 2.01 | -0.52 | -0.53 | 5.5 | 5.6 | 147.8 | 118.9 | 112.2 | 90.2 | | |
| 11 | 94.5 | 91.2 | 101.1 | 87.7 | 2.92 | 2.74 | -0.66 | -0.68 | 5.3 | 5.4 | 182.0 | 136.3 | 120.5 | 90.2 | | |
| 16 | 95.2 | 91.9 | 101.0 | 87.0 | 0.25 | 0.27 | -0.09 | -0.10 | 5.6 | 5.9 | 118.7 | 114.3 | 93.7 | 90.2 | | |
| 17 | | | | | | | | | | | NO TRACKING DATA | | | | | |
| Avg. | 94.9 | 91.5 | 101.0 | 87.3 | 1.76 | 1.67 | -0.42 | -0.44 | 5.4 | 5.6 | 149.5 | 123.2 | 108.8 | 90.2 | | |
| Std Dv | 0.5 | 0.5 | 0.1 | 0.5 | 1.94 | 1.79 | 0.42 | 0.43 | 0.2 | 0.3 | 44.8 | 16.4 | 19.3 | 0.0 | | |
| 700 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | | | | |
| 8 | 89.9 | 87.3 | 92.1 | 79.8 | 0.07 | 0.12 | -0.09 | -0.09 | 7.0 | 6.9 | 268.3 | 260.3 | 218.6 | 212.1 | | |
| 9 | 89.1 | 86.2 | 92.3 | 79.8 | 1.01 | 0.97 | -0.28 | -0.27 | 6.0 | 5.8 | 315.8 | 283.1 | 236.7 | 212.1 | | |
| 14 | 89.1 | 86.4 | 91.4 | 79.0 | 0.36 | 0.39 | -0.16 | -0.16 | 6.8 | 6.7 | 297.4 | 281.3 | 224.2 | 212.1 | | |
| 15 | 88.3 | 85.6 | 91.4 | 79.1 | 0.55 | 0.56 | -0.22 | -0.21 | 7.0 | 6.7 | 283.1 | 263.3 | 228.1 | 212.1 | | |
| Avg. | 89.1 | 86.4 | 91.8 | 79.4 | 0.50 | 0.51 | -0.19 | -0.18 | 6.7 | 6.5 | 291.1 | 272.0 | 226.9 | 212.1 | | |
| Std Dv | 0.8 | 0.9 | 0.6 | 0.6 | 0.48 | 0.44 | 0.10 | 0.09 | 0.6 | 0.6 | 24.8 | 14.5 | 9.3 | 0.0 | | |
| 1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | | | | |
| 1 | 85.6 | 83.2 | 87.1 | 75.2 | 0.96 | 0.92 | -0.34 | -0.33 | 7.6 | 7.2 | 508.7 | 458.1 | 337.1 | 303.6 | | |
| 2 | 86.8 | 84.5 | 88.1 | 75.6 | 0.07 | 0.13 | -0.10 | -0.10 | 6.8 | 6.8 | 340.5 | 329.3 | 313.9 | 303.6 | | |
| 3 | 85.6 | 83.3 | 87.1 | 75.0 | 0.34 | 0.37 | -0.18 | -0.18 | 7.3 | 7.3 | 378.3 | 357.6 | 321.2 | 303.6 | | |
| 4 | 87.1 | 84.9 | 88.6 | 76.6 | 0.40 | 0.43 | -0.19 | -0.18 | 7.0 | 6.9 | 375.2 | 353.0 | 322.7 | 303.6 | | |
| 52 | 87.2 | 84.7 | 88.4 | 76.6 | 0.66 | 0.62 | -0.20 | -0.19 | 7.0 | 6.7 | 352.9 | 330.4 | 324.2 | 303.6 | | |
| 53 | 86.2 | 83.7 | 89.6 | 76.9 | 1.05 | 0.93 | -0.22 | -0.23 | 5.7 | 5.9 | 503.1 | 459.6 | 332.4 | 303.6 | | |
| 54 | 87.7 | 85.4 | 88.6 | 76.9 | 0.96 | 0.83 | -0.23 | -0.22 | 6.9 | 6.7 | 833.7 | 773.6 | 327.2 | 303.6 | | |
| 55 | 85.6 | 83.4 | 87.6 | 75.5 | 0.26 | 0.26 | -0.11 | -0.10 | 7.2 | 6.9 | 452.4 | 437.3 | 314.1 | 303.6 | | |
| Avg. | 86.5 | 84.1 | 88.1 | 76.0 | 0.59 | 0.56 | -0.20 | -0.19 | 6.9 | 6.8 | 468.1 | 437.3 | 324.1 | 303.6 | | |
| Std Dv | 0.9 | 0.9 | 0.9 | 0.9 | 0.40 | 0.33 | 0.08 | 0.08 | 0.6 | 0.5 | 174.7 | 158.4 | 8.8 | 0.0 | | |

TABLE NO. B.4-3.2

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/22/81

CORRECTION DATA - MAIN ROTOR RPM 107%

JUNE 25, 1980

SITE: 2

CENTERLINE - 150 M. WEST

| EV | CORRECTED | | | CORRECTIONS (dB) | | | | CONSTANTS | | TRACKING DATA (METERS) | | | | |
|--|-----------|------|-------|------------------|---------------|---------------|---------------|---------------|------|------------------------|------------------|------------------|-------|-------|
| | EPNL | NEL | PNLTM | dBAM | $\wedge 1(P)$ | $\wedge 1(A)$ | $\wedge 2(P)$ | $\wedge 2(A)$ | K(P) | K(A) | SR | CPA | SRR | CPAR |
| 1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | | |
| 5 | 82.2 | 80.1 | 82.6 | 71.5 | 0.77 | 0.74 | -0.29 | -0.26 | 7.4 | 6.7 | 589.2 | 538.9 | 498.6 | 456.0 |
| 6 | 81.8 | 79.8 | 82.3 | 71.6 | 0.82 | 0.80 | -0.29 | -0.27 | 7.1 | 6.6 | NO TRACKING DATA | NO TRACKING DATA | 501.3 | 456.0 |
| 12 | 81.6 | 79.7 | 82.9 | 71.6 | 0.31 | 0.37 | -0.18 | -0.18 | 6.9 | 6.7 | NO TRACKING DATA | NO TRACKING DATA | 484.5 | 456.0 |
| 38 | 84.6 | 82.6 | 84.2 | 73.3 | 0.18 | 0.18 | -0.14 | -0.13 | 7.6 | 7.0 | 572.6 | 538.9 | 475.9 | 456.0 |
| 39 | 82.7 | 80.7 | 84.0 | 72.6 | 0.04 | 0.14 | -0.12 | -0.11 | 6.8 | 6.3 | 590.0 | 566.0 | 475.3 | 456.0 |
| Avg. | 82.6 | 80.6 | 83.2 | 72.1 | 0.42 | 0.45 | -0.20 | -0.19 | 7.2 | 6.7 | 576.4 | 540.0 | 487.1 | 456.0 |
| Std Dv | 1.4 | 1.4 | 1.0 | 0.9 | 0.41 | 0.36 | 0.09 | 0.08 | 0.4 | 0.3 | 17.2 | 26.9 | 14.2 | 0.0 |
| 2000 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | | |
| 34 | 82.2 | 80.3 | 81.3 | 70.1 | 0.02 | -0.13 | -0.09 | -0.08 | 7.8 | 7.3 | 852.0 | 830.2 | 624.4 | 608.4 |
| 35 | 81.2 | 78.9 | 80.4 | 69.9 | -0.01 | -0.08 | -0.08 | -0.08 | 7.0 | 6.5 | 767.2 | 746.8 | 625.0 | 608.4 |
| 36 | 81.7 | 79.3 | 79.9 | 68.6 | 0.09 | 0.15 | -0.13 | -0.14 | 7.1 | 7.6 | 699.6 | 670.3 | 635.0 | 608.4 |
| 37 | 81.0 | 78.8 | 80.1 | 68.3 | 0.40 | 0.35 | -0.20 | -0.19 | 7.5 | 7.4 | 771.3 | 726.6 | 645.8 | 608.4 |
| Avg. | 81.5 | 79.3 | 80.4 | 69.2 | 0.12 | 0.07 | -0.12 | -0.12 | 7.4 | 7.2 | 772.5 | 743.5 | 632.5 | 608.4 |
| Std Dv | 0.7 | 0.8 | 0.8 | 1.1 | 0.23 | 0.27 | 0.07 | 0.07 | 0.5 | 0.6 | 76.3 | 81.1 | 12.4 | 0.0 |
| 2500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | | |
| 30 | | | | | | | | | | | | | | |
| 31 | 79.2 | 76.9 | 77.7 | 65.8 | 0.36 | -0.01 | -0.13 | -0.13 | 7.5 | 7.6 | NO TRACKING DATA | NO TRACKING DATA | 791.5 | 760.8 |
| 32 | - | 78.6 | 78.9 | 67.4 | 0.20 | -0.29 | - | -0.02 | - | 7.4 | 820.9 | 815.1 | 766.2 | 760.8 |
| 33 | 79.9 | 77.1 | 78.9 | 66.7 | 0.49 | 0.11 | -0.13 | -0.13 | 7.3 | 7.1 | 932.4 | 895.0 | 792.6 | 760.8 |
| Avg. | 79.5 | 77.5 | 78.5 | 66.6 | 0.35 | -0.06 | -0.13 | -0.09 | 7.4 | 7.4 | 979.4 | 949.7 | 783.4 | 760.8 |
| Std Dv | 0.5 | 1.3 | 1.0 | 1.2 | 0.21 | 0.29 | 0.00 | 0.09 | 0.1 | 0.4 | 165.4 | 145.3 | 21.1 | 0.0 |

TABLE NO. B.5-2.2

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
12/23/81

CORRECTION DATA

| EV | CORRECTED | | | CORRECTIONS (dB) | | | CONSTANTS | | | TRACKING DATA (ACTUAL) | | | TRACKING DATA (REFERENCE) | | |
|--|-----------|------|-------|------------------|-----------------------------|-----------------------------|-----------|-------|-------|------------------------|-------|-------|---------------------------|-------|--|
| | EPNL | NEL | PMLTM | dBAM | $\sqrt{1(P)} / \sqrt{1(A)}$ | $\sqrt{2(P)} / \sqrt{2(A)}$ | K(P) | K(A) | SR | CFA | SR | CFA | SR | CPAR | |
| 300 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS | | | | | | | | | | | | | | | |
| 56 | 99.9 | 96.5 | 104.3 | 91.7 | 0.84 | 0.81 | -0.27 | -0.24 | 7.1 | 6.3 | 224.2 | 205.2 | 98.6 | 90.2 | |
| 57 | 99.2 | 95.1 | 104.2 | 90.9 | 0.72 | 0.69 | -0.19 | -0.18 | 5.8 | 5.6 | 115.6 | 107.2 | 97.2 | 90.2 | |
| 58 | 99.4 | 95.8 | 104.4 | 91.3 | 1.13 | 1.09 | -0.32 | -0.32 | 6.2 | 6.1 | 112.0 | 99.4 | 101.7 | 90.2 | |
| 59 | 99.1 | 95.0 | 103.6 | 89.6 | 0.99 | 0.97 | -0.30 | -0.31 | 6.4 | 6.8 | 144.0 | 129.8 | 100.1 | 90.2 | |
| Avg. | 99.4 | 95.6 | 104.1 | 90.9 | 0.92 | 0.89 | -0.27 | -0.26 | 6.4 | 6.2 | 148.9 | 135.4 | 99.4 | 90.2 | |
| Std Dv | 0.5 | 0.9 | 0.4 | 1.1 | 0.22 | 0.22 | 0.07 | 0.08 | 0.7 | 0.6 | 63.9 | 59.1 | 2.3 | 0.0 | |
| 700 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS | | | | | | | | | | | | | | | |
| 60 | - | 93.3 | 98.5 | 84.7 | 0.18 | 0.18 | - | -0.08 | - | 7.5 | 732.4 | 715.6 | 217.1 | 212.1 | |
| 61 | - | 95.3 | 92.0 | 96.7 | 84.0 | 0.45 | 0.43 | -0.15 | -0.14 | 7.4 | 231.9 | 221.3 | 222.3 | 212.1 | |
| 62 | 95.3 | 92.0 | 96.7 | 84.0 | 0.45 | 0.43 | -0.15 | -0.14 | 7.4 | 7.2 | 231.9 | 221.3 | 222.3 | 212.1 | |
| 63 | 94.6 | 91.1 | 95.5 | 81.9 | 0.16 | 0.16 | -0.06 | -0.06 | 7.4 | 7.4 | 314.4 | 308.4 | 216.2 | 212.1 | |
| Avg. | 95.0 | 92.1 | 96.9 | 83.5 | 0.26 | 0.26 | -0.10 | -0.09 | 7.4 | 7.4 | 426.2 | 415.1 | 218.5 | 212.1 | |
| Std Dv | 0.5 | 1.6 | 2.1 | 2.1 | 0.23 | 0.21 | 0.06 | 0.06 | 0.1 | 0.3 | 379.5 | 373.1 | 4.6 | 0.0 | |
| 1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS | | | | | | | | | | | | | | | |
| 64 | 91.6 | 88.7 | 93.5 | 80.9 | -0.27 | -0.23 | 0.05 | 0.05 | 6.9 | 6.7 | 674.0 | 685.2 | 298.6 | 303.6 | |
| 65 | - | 90.7 | 87.4 | 91.0 | 0.06 | 0.06 | -0.03 | -0.03 | 7.8 | 7.8 | 558.6 | 553.3 | 306.5 | 303.6 | |
| 66 | 90.7 | 87.4 | 91.0 | 77.9 | 0.06 | 0.06 | -0.03 | -0.03 | 7.6 | 7.4 | 375.1 | 378.1 | 301.2 | 303.6 | |
| 67 | 91.3 | 88.1 | 91.1 | 78.4 | -0.13 | -0.13 | 0.03 | 0.03 | 7.5 | 7.3 | 535.9 | 538.9 | 302.1 | 303.6 | |
| Avg. | 91.2 | 88.1 | 91.9 | 79.1 | -0.11 | -0.10 | 0.02 | 0.02 | 0.7 | 0.8 | 213.2 | 217.8 | 5.7 | 0.0 | |
| Std Dv | 0.6 | 0.9 | 2.0 | 2.2 | 0.23 | 0.21 | 0.06 | 0.06 | | | | | | | |

JUNE 25, 1980

CENTERLINE - 150 N. WEST

SITE: 2

TABLE NO. B.5-3.2

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
12/23/81

CORRECTION DATA

JUNE 25, 1980

SITE: 2 CENTERLINE - 150 M. WEST

| EV | CORRECTED | | CORRECTIONS (dB) | | | | CONSTANTS | | TRACKING DATA (ACTUAL) | | | TRACKING DATA (REFERENCE) | |
|--|-----------|------|------------------|------|---------------------------|---------------------------|-----------|------|------------------------|--------|-------|---------------------------|------|
| | EPNL | NEL | PNLTM | dBAM | $\wedge 1(P) \wedge 1(A)$ | $\wedge 2(P) \wedge 2(A)$ | K(P) | K(A) | SR | CPA | SRR | CPAR | CPAR |
| 1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS | | | | | | | | | | | | | |
| 68 | 87.6 | 84.8 | 87.4 | 74.7 | 0.05 | -0.03 | 7.9 | 7.8 | 1113.9 | 1104.3 | 460.0 | 456.0 | |
| 69 | 88.7 | 85.8 | 87.1 | 74.2 | -0.07 | 0.01 | 7.8 | 7.8 | 567.9 | 569.3 | 454.9 | 456.0 | |
| 70 | 89.0 | 85.7 | 88.4 | 75.3 | 0.15 | -0.05 | 7.5 | 7.5 | 1063.1 | 1046.5 | 463.2 | 456.0 | |
| 71 | 89.2 | 85.9 | 87.9 | 74.7 | -0.22 | 0.05 | 7.4 | 7.9 | 705.0 | 715.4 | 449.4 | 456.0 | |
| Avg. | 88.6 | 85.5 | 87.7 | 74.7 | -0.02 | -0.00 | 7.7 | 7.7 | 862.5 | 858.9 | 456.9 | 454.0 | |
| Std Dv | 0.9 | 0.6 | 0.7 | 0.5 | 0.20 | 0.18 | 0.3 | 0.2 | 236.2 | 228.5 | 7.4 | 0.0 | |
| 2000 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS | | | | | | | | | | | | | |
| 72 | - | - | - | - | - | - | - | - | - | - | - | - | |
| 73 | - | 83.6 | 84.9 | 72.1 | 0.11 | 0.11 | - | 7.4 | 927.8 | 915.3 | 616.7 | 608.4 | |
| 74 | 86.4 | 83.7 | 84.2 | 72.1 | 0.16 | -0.06 | 8.4 | 7.8 | 641.3 | 630.3 | 618.9 | 608.4 | |
| 75 | 86.6 | 83.7 | 84.7 | 71.5 | 0.02 | -0.02 | 7.8 | 8.1 | 914.1 | 908.5 | 612.1 | 608.4 | |
| Avg. | 86.5 | 83.7 | 84.6 | 71.9 | 0.10 | -0.04 | 8.1 | 7.8 | 827.7 | 818.1 | 615.9 | 608.4 | |
| Std Dv | 0.1 | 0.1 | 0.5 | 0.5 | 0.10 | 0.03 | 0.4 | 0.4 | 228.5 | 229.9 | 4.9 | 0.0 | |
| 2500 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS | | | | | | | | | | | | | |
| 76 | - | - | - | - | - | - | - | - | - | - | - | - | |
| 77 | - | - | - | - | - | - | - | - | - | - | - | - | |
| Avg. | - | - | - | - | - | - | - | - | - | - | - | - | |
| Std Dv | - | - | - | - | - | - | - | - | - | - | - | - | |

NO TRACKING DATA
NO TRACKING DATA

TABLE NO. B.4-1.3

SIKORSKY S-76 SPIRIT HELICOPTER
CORRECTION DATA - MAIN ROTOR RPM 107%

DOT/TSC
12/22/81

JUNE 25, 1980

CENTERLINE - 150 M. EAST

SITE: 3

| EV | CORRECTED | | | CORRECTIONS (dB) | | | CONSTANTS | | TRACKING DATA (METERS) (ACTUAL) | | | | | |
|---|-----------|------|-------|------------------|----------------|----------------|----------------|----------------|------------------------------------|------|------------------|-------|-------|-------|
| | EPNL | NEL | PNLTH | dBAM | $\wedge(1(P))$ | $\wedge(1(A))$ | $\wedge(2(P))$ | $\wedge(2(A))$ | K(P) | K(A) | SR | CPA | SRR | CPAR |
| APPROACH | | | | | | | | | | | | | | |
| 40 | 95.5 | 92.2 | 95.8 | 82.7 | 0.43 | 0.43 | -0.17 | -0.16 | 7.4 | 6.9 | 186.1 | 176.4 | 141.2 | 133.9 |
| 42 | 95.9 | 93.0 | 97.3 | 85.1 | -0.53 | -0.49 | 0.14 | 0.13 | 6.8 | 6.4 | 159.9 | 167.8 | 127.6 | 133.9 |
| 44 | 97.6 | 94.6 | 98.4 | 85.7 | 0.36 | 0.36 | -0.13 | -0.12 | 6.9 | 6.6 | 183.5 | 175.7 | 139.8 | 133.9 |
| 46 | 97.4 | 94.4 | 97.7 | 85.0 | 0.34 | 0.34 | -0.13 | -0.13 | 7.4 | 7.1 | 158.2 | 151.9 | 139.5 | 133.9 |
| 48 | 97.3 | 94.4 | 99.3 | 86.6 | 0.39 | 0.39 | -0.13 | -0.13 | 6.7 | 6.6 | 187.9 | 179.6 | 140.1 | 133.9 |
| 50 | | | | | | | | | | | NO TRACKING DATA | | | |
| AVG. | | | | | | | | | | | | | | |
| Std Dv | 1.1 | 1.2 | 1.5 | 1.7 | 0.47 | 0.45 | 0.15 | 0.14 | 0.4 | 0.3 | 17.0 | 12.9 | 6.5 | 0.0 |
| TAKEOFF | | | | | | | | | | | | | | |
| 41 | 89.8 | 86.3 | 91.9 | 79.1 | 1.35 | 1.32 | -0.49 | -0.44 | 7.9 | 7.0 | 159.7 | 138.4 | 144.2 | 124.9 |
| 43 | 90.3 | 86.4 | 92.8 | 79.2 | 2.67 | 2.57 | -0.85 | -0.81 | 7.3 | 7.0 | 174.7 | 133.9 | 163.0 | 124.9 |
| 45 | | | | | | | | | | | NO TRACKING DATA | | | |
| 47 | 89.7 | 86.3 | 92.0 | 77.7 | 3.06 | 2.88 | -1.00 | -1.08 | 7.4 | 8.0 | 233.6 | 171.3 | 170.3 | 124.9 |
| 49 | 90.1 | 86.6 | 92.1 | 78.5 | 2.99 | 2.81 | -0.99 | -1.00 | 7.6 | 7.6 | 251.5 | 186.3 | 168.6 | 124.9 |
| 51 | 90.6 | 87.3 | 92.9 | 79.3 | 2.91 | 2.75 | -0.94 | -0.97 | 7.5 | 7.6 | 238.7 | 178.3 | 167.2 | 124.9 |
| AVG. | | | | | | | | | | | | | | |
| Std Dv | 0.4 | 0.5 | 0.5 | 0.8 | 0.82 | 0.75 | 0.24 | 0.29 | 0.3 | 0.5 | 47.8 | 27.6 | 12.3 | 0.0 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 109 KTS | | | | | | | | | | | | | | |
| 18 | 90.3 | 87.2 | 93.3 | 80.5 | -0.36 | -0.26 | 0.03 | 0.03 | 6.0 | 5.9 | 203.2 | 205.5 | 149.5 | 151.2 |
| 19 | 88.3 | 85.2 | 92.2 | 78.0 | 0.32 | 0.34 | -0.14 | -0.16 | 6.4 | 7.1 | 221.8 | 210.9 | 159.1 | 151.2 |
| 20 | | | | | | | | | | | NO TRACKING DATA | | | |
| 21 | 88.7 | 85.7 | 91.8 | 78.6 | -0.20 | -0.18 | 0.00 | 0.00 | 6.8 | 6.9 | 242.0 | 242.4 | 150.9 | 151.2 |
| 22 | 89.6 | 86.5 | 93.0 | 79.9 | -1.25 | -1.07 | 0.25 | 0.24 | 6.2 | 6.1 | 179.1 | 196.5 | 137.8 | 151.2 |
| 23 | 88.6 | 85.6 | 91.5 | 78.0 | 0.54 | 0.54 | -0.20 | -0.21 | 6.7 | 6.9 | 197.6 | 184.4 | 162.0 | 151.2 |
| AVG. | | | | | | | | | | | | | | |
| Std Dv | 0.9 | 1.0 | 0.9 | 1.3 | 0.81 | 0.72 | 0.20 | 0.21 | 0.4 | 0.6 | 208.8 | 207.9 | 151.9 | 151.2 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 124 KTS | | | | | | | | | | | | | | |
| 24 | | | | | | | | | | | NO TRACKING DATA | | | |
| 25 | 88.4 | 85.6 | 93.1 | 79.5 | 0.24 | 0.26 | -0.11 | -0.12 | 6.1 | 6.7 | 223.7 | 214.3 | 157.8 | 151.2 |
| 26 | 89.6 | 86.7 | 92.6 | 80.0 | -0.38 | -0.32 | 0.05 | 0.05 | 6.5 | 6.1 | 185.3 | 188.7 | 148.5 | 151.2 |
| 27 | 87.8 | 85.0 | 91.5 | 78.0 | 0.05 | 0.05 | -0.06 | -0.06 | 6.5 | 6.9 | 204.1 | 200.1 | 154.2 | 151.2 |
| 28 | 89.8 | 86.9 | 93.4 | 80.6 | -0.42 | -0.38 | 0.06 | 0.06 | 6.1 | 5.9 | 204.1 | 208.9 | 147.7 | 151.2 |
| 29 | 88.4 | 85.4 | 91.5 | 78.7 | 0.81 | 0.71 | -0.24 | -0.23 | 6.7 | 6.5 | 192.8 | 177.6 | 164.1 | 151.2 |
| AVG. | | | | | | | | | | | | | | |
| Std Dv | 1.0 | 1.0 | 1.0 | 1.2 | 0.58 | 0.52 | 0.14 | 0.14 | 0.3 | 0.5 | 16.7 | 17.2 | 7.9 | 0.0 |

TABLE NO. B.4-2.3

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/22/81

CORRECTION DATA - MAIN ROTOR RPM 107%

| EV | CORRECTED | | | CORRECTIONS (dB) | | | CONSTANTS | | | TRACKING DATA (METERS) | | | | |
|--|-----------|------|-------|------------------|---------------|---------------|---------------|---------------|------|------------------------|------------------|-------|-------|-------|
| | EPNL | NEL | PNLTM | dBAM | $\wedge^1(P)$ | $\wedge^1(A)$ | $\wedge^2(P)$ | $\wedge^2(A)$ | K(P) | K(A) | SR | CFA | SRR | CPAR |
| 300 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | | |
| 10 | 94.4 | 91.0 | 99.7 | 86.9 | 2.36 | 2.21 | -0.60 | -0.56 | 5.9 | 5.4 | 179.7 | 141.7 | 114.4 | 90.2 |
| 11 | 94.1 | 90.9 | 100.1 | 86.6 | 2.67 | 2.50 | -0.70 | -0.70 | 6.1 | 6.1 | 191.0 | 146.7 | 117.5 | 90.2 |
| 16 | 94.8 | 91.3 | 99.5 | 85.8 | 0.38 | 0.39 | -0.13 | -0.14 | 5.8 | 6.1 | 140.7 | 133.6 | 95.0 | 90.2 |
| 17 | | | | | | | | | | | NO TRACKING DATA | | | |
| Avg. | 94.4 | 91.1 | 99.8 | 86.4 | 1.80 | 1.70 | -0.48 | -0.47 | 5.9 | 5.9 | 170.5 | 140.7 | 108.9 | 90.2 |
| Std Dv | 0.5 | 0.3 | 0.4 | 0.8 | 1.76 | 1.62 | 0.43 | 0.41 | 0.2 | 0.6 | 37.3 | 9.3 | 17.2 | 0.0 |
| 700 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | | |
| 8 | 89.2 | 86.8 | 92.1 | 80.2 | 0.30 | 0.33 | -0.14 | -0.14 | 6.4 | 6.2 | 294.4 | 279.9 | 223.2 | 212.1 |
| 9 | 87.4 | 84.9 | 90.6 | 77.9 | 1.30 | 1.22 | -0.39 | -0.40 | 6.8 | 7.0 | 291.0 | 254.7 | 242.4 | 212.1 |
| 14 | 88.8 | 86.2 | 91.6 | 79.5 | 0.42 | 0.44 | -0.17 | -0.16 | 6.5 | 6.2 | 293.4 | 276.0 | 225.5 | 212.1 |
| 15 | 87.6 | 85.1 | 90.4 | 77.8 | 0.73 | 0.71 | -0.26 | -0.26 | 7.0 | 6.9 | 290.8 | 266.7 | 231.3 | 212.1 |
| Avg. | 88.3 | 85.7 | 91.2 | 78.8 | 0.69 | 0.67 | -0.24 | -0.24 | 6.7 | 6.6 | 292.4 | 269.3 | 230.6 | 212.1 |
| Std Dv | 1.1 | 1.1 | 1.0 | 1.5 | 0.55 | 0.49 | 0.14 | 0.15 | 0.4 | 0.5 | 2.2 | 13.7 | 10.5 | 0.0 |
| 1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | | |
| 1 | 85.7 | 83.3 | 87.8 | 75.6 | 1.04 | 0.99 | -0.33 | -0.33 | 6.9 | 6.8 | 597.0 | 534.4 | 339.1 | 303.6 |
| 2 | 86.3 | 84.2 | 86.1 | 75.3 | 0.19 | 0.21 | -0.13 | -0.12 | 7.6 | 6.9 | 369.6 | 355.3 | 315.8 | 303.6 |
| 3 | 85.5 | 83.4 | 87.0 | 75.0 | 0.58 | 0.59 | -0.24 | -0.24 | 7.4 | 7.2 | 416.0 | 385.6 | 327.4 | 303.6 |
| 4 | 87.3 | 84.9 | 88.4 | 77.0 | 0.47 | 0.50 | -0.21 | -0.20 | 7.2 | 6.7 | 418.5 | 391.1 | 324.9 | 303.6 |
| 52 | 86.9 | 84.7 | 88.0 | 76.4 | 0.51 | 0.48 | -0.17 | -0.16 | 7.2 | 6.8 | 352.2 | 333.7 | 320.4 | 303.6 |
| 53 | 84.7 | 82.2 | 86.7 | 74.0 | 1.06 | 0.95 | -0.30 | -0.30 | 7.0 | 7.3 | 365.2 | 331.6 | 334.4 | 303.6 |
| 54 | 88.5 | 85.9 | 90.7 | 79.1 | 1.44 | 1.21 | -0.27 | -0.25 | 6.4 | 5.8 | 946.3 | 856.8 | 335.3 | 303.6 |
| 55 | 86.2 | 83.9 | 87.5 | 75.4 | 0.35 | 0.34 | -0.13 | -0.13 | 7.3 | 7.6 | 362.1 | 347.7 | 316.2 | 303.6 |
| Avg. | 86.4 | 84.1 | 87.8 | 76.0 | 0.70 | 0.66 | -0.22 | -0.22 | 7.1 | 6.9 | 478.4 | 442.0 | 326.7 | 303.6 |
| Std Dv | 1.3 | 1.2 | 1.5 | 1.7 | 0.46 | 0.38 | 0.08 | 0.08 | 0.4 | 0.6 | 221.6 | 194.4 | 9.7 | 0.0 |

JUNE 25, 1980

CENTERLINE - 150 M. EAST

TABLE NO. B.4-3.3

SINORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/22/81

CORRECTION DATA - MAIN ROTOR RPM 107%

JUNE 25, 1980

CENTERLINE - 150 M. EAST

SITE: 3

| EV | CORRECTED | | | CORRECTIONS (dB) | | | CONSTANTS | | | TRACKING DATA (METERS) | | | | |
|--|-----------|------|-------|------------------|---------------|---------------|---------------|---------------|------|------------------------|------------------|--------|-------|-------|
| | EPNL | NEL | PNLTH | dBAM | $\sqrt{1(P)}$ | $\sqrt{1(A)}$ | $\sqrt{2(P)}$ | $\sqrt{2(A)}$ | K(P) | K(A) | SR | CPA | SRR | CPAR |
| 1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | | |
| 5 | 81.6 | 79.4 | 81.2 | 69.1 | 0.66 | 0.63 | -0.28 | -0.28 | 7.9 | 7.8 | 923.9 | 851.3 | 494.9 | 456.0 |
| 6 | | | | | | | | | | | NO TRACKING DATA | | | |
| 7 | 82.5 | 80.6 | 83.1 | 71.5 | 0.67 | 0.67 | -0.27 | -0.26 | 7.3 | 7.2 | 629.3 | 578.4 | 496.1 | 456.0 |
| 12 | | | | | | | | | | | NO TRACKING DATA | | | |
| 13 | 80.7 | 79.0 | 81.7 | 70.1 | 0.30 | 0.36 | -0.18 | -0.18 | 7.0 | 7.0 | 575.4 | 542.2 | 483.9 | 456.0 |
| 38 | 84.0 | 81.9 | 83.9 | 73.2 | 0.04 | 0.07 | -0.10 | -0.10 | 6.9 | 6.7 | 583.7 | 563.7 | 472.2 | 456.0 |
| 39 | 81.4 | 79.5 | 80.9 | 69.4 | 0.27 | 0.32 | -0.19 | -0.19 | 7.8 | 7.6 | 637.4 | 602.5 | 482.4 | 456.0 |
| Avg. | 82.0 | 80.1 | 82.2 | 70.7 | 0.39 | 0.41 | -0.20 | -0.20 | 7.4 | 7.3 | 670.0 | 627.6 | 485.9 | 456.0 |
| Std Dv | 1.5 | 1.4 | 1.5 | 1.9 | 0.31 | 0.28 | 0.09 | 0.08 | 0.5 | 0.5 | 166.9 | 146.6 | 11.4 | 0.0 |
| 2000 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | | |
| 34 | 81.6 | 79.7 | 80.7 | 69.6 | -0.11 | -0.21 | -0.06 | -0.06 | 7.7 | 7.5 | 770.9 | 758.0 | 618.8 | 608.4 |
| 35 | 81.5 | 79.5 | 80.5 | 68.4 | 1.80 | 1.52 | -0.52 | -0.52 | 8.0 | 8.0 | 1606.8 | 1384.5 | 706.1 | 608.4 |
| 36 | 81.1 | 79.0 | 80.2 | 69.4 | 0.17 | 0.18 | -0.15 | -0.14 | 7.3 | 6.8 | 767.9 | 732.8 | 637.5 | 608.4 |
| 37 | 79.9 | 77.9 | 78.7 | 67.0 | 0.38 | 0.31 | -0.18 | -0.18 | 7.7 | 7.6 | 674.4 | 638.4 | 642.6 | 608.4 |
| Avg. | 81.0 | 79.0 | 80.0 | 68.6 | 0.56 | 0.45 | -0.23 | -0.22 | 7.7 | 7.5 | 955.0 | 878.4 | 651.2 | 608.4 |
| Std Dv | 1.0 | 1.0 | 1.1 | 1.4 | 1.04 | 0.91 | 0.25 | 0.25 | 0.3 | 0.6 | 271.7 | 216.0 | 46.5 | 0.0 |
| 2500 FT. FLYOVER - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | | |
| 30 | | | | | | | | | | | NO TRACKING DATA | | | |
| 31 | | 74.8 | 75.9 | 64.4 | 0.32 | 0.00 | - | -0.10 | - | 7.0 | 871.5 | 843.1 | 786.5 | 760.8 |
| 32 | | 77.7 | 77.4 | 66.6 | 0.10 | -0.33 | - | -0.03 | - | 7.4 | 950.1 | 939.9 | 769.0 | 760.8 |
| 33 | | 75.5 | 76.3 | 64.3 | 0.49 | 0.04 | - | -0.14 | - | 7.5 | 1234.2 | 1184.0 | 793.1 | 760.8 |
| Avg. | | 76.0 | 76.5 | 65.1 | 0.30 | -0.10 | - | -0.09 | - | 7.3 | 1018.6 | 989.0 | 782.8 | 760.8 |
| Std Dv | | 2.1 | 1.1 | 1.8 | 0.28 | 0.29 | - | 0.08 | - | 0.4 | 147.1 | 154.0 | 17.6 | 0.0 |

TABLE NO. B.5-2.3

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
12/23/81

CORRECTION DATA

JUNE 25, 1980

CENTERLINE - 150 M. EAST

SITE: 3

| EV | CORRECTED | | | CORRECTIONS (dB) | | | | CONSTANTS | | | TRACKING DATA (ACTUAL) | | | TRACKING DATA (REFERENCE) | | |
|--|-----------|------|-------|------------------|---|---|---|-----------|------|------------------|------------------------|-------|-------|---------------------------|-----|--|
| | EPNL | NEL | PMLTH | dBAM | $\wedge(1(P) / \wedge(1(A) / \wedge(2(P) / \wedge(2(A)$ | $\wedge(1(P) / \wedge(1(A) / \wedge(2(P) / \wedge(2(A)$ | $\wedge(1(P) / \wedge(1(A) / \wedge(2(P) / \wedge(2(A)$ | K(P) | K(A) | SR | CPA | SR | CPA | SR | CPA | |
| 300 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS | | | | | | | | | | | | | | | | |
| 56 | 100.7 | 96.9 | 104.9 | 81.4 | 0.90 | 0.85 | -0.29 | 7.2 | 6.9 | 221.1 | 201.5 | 99.0 | 90.2 | | | |
| 57 | 100.1 | 95.8 | 104.6 | 90.2 | 0.73 | 0.70 | -0.21 | 6.3 | 6.2 | 109.8 | 101.7 | 97.4 | 90.2 | | | |
| 58 | 100.9 | 97.4 | 104.8 | 91.1 | 1.49 | 1.41 | -0.46 | 7.1 | 7.3 | 282.1 | 242.9 | 104.8 | 90.2 | | | |
| 59 | 100.0 | 95.9 | 103.8 | 89.9 | 0.62 | 0.60 | -0.19 | 6.7 | 7.1 | 169.5 | 158.7 | 96.4 | 90.2 | | | |
| Avg. | 100.4 | 96.5 | 104.5 | 90.7 | 0.93 | 0.89 | -0.29 | 6.8 | 6.9 | 195.6 | 176.2 | 99.4 | 90.2 | | | |
| Std Dv | 0.5 | 1.0 | 0.6 | 0.8 | 0.47 | 0.44 | 0.15 | 0.5 | 0.5 | 89.9 | 74.0 | 4.6 | 0.0 | | | |
| 700 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS | | | | | | | | | | | | | | | | |
| 60 | 95.3 | 91.8 | 97.3 | 84.1 | 0.67 | 0.63 | -0.21 | 7.3 | 7.1 | 613.4 | 574.7 | 226.4 | 212.1 | | | |
| 61 | | | | | | | | | | NO TRACKING DATA | | | | | | |
| 62 | 94.8 | 91.3 | 97.5 | 84.2 | 0.72 | 0.68 | -0.21 | 6.8 | 6.6 | 235.4 | 219.0 | 228.1 | 212.1 | | | |
| 63 | 95.2 | 91.8 | 96.3 | 82.6 | -0.28 | -0.25 | 0.07 | 7.8 | 8.1 | 647.3 | 660.0 | 208.1 | 212.1 | | | |
| Avg. | 95.1 | 91.6 | 97.0 | 83.6 | 0.37 | 0.35 | -0.12 | 7.3 | 7.3 | 498.7 | 484.6 | 220.8 | 212.1 | | | |
| Std Dv | 0.4 | 0.4 | 0.9 | 1.3 | 0.80 | 0.74 | 0.22 | 0.7 | 1.0 | 323.4 | 330.8 | 15.7 | 0.0 | | | |
| 1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS | | | | | | | | | | | | | | | | |
| 64 | 92.5 | 89.3 | 94.4 | 81.5 | -0.12 | -0.10 | 0.01 | 6.5 | 6.1 | 616.4 | 618.9 | 302.4 | 303.6 | | | |
| 65 | | | | | | | | | | NO TRACKING DATA | | | | | | |
| 66 | 91.7 | 88.5 | 92.4 | 79.5 | -0.05 | -0.04 | 0.00 | 6.8 | 6.6 | 310.5 | 310.9 | 303.3 | 303.6 | | | |
| 67 | 91.3 | 88.0 | 92.1 | 78.6 | -0.06 | -0.05 | 0.01 | 7.3 | 7.5 | 544.8 | 545.8 | 303.0 | 303.6 | | | |
| Avg. | 91.8 | 88.6 | 93.0 | 79.9 | -0.08 | -0.06 | 0.01 | 6.9 | 6.7 | 490.6 | 491.8 | 302.9 | 303.6 | | | |
| Std Dv | 0.9 | 0.9 | 1.7 | 2.1 | 0.05 | 0.05 | 0.01 | 0.6 | 1.0 | 226.2 | 227.6 | 0.7 | 0.0 | | | |

TABLE NO. 0.5-3.3

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
12/23/81

CORRECTION DATA

JUNE 25, 1980

CENTERLINE - 150 N. EAST

SITE: 3

| EV | CORRECTED | | | CORRECTIONS (dB) | | | CONSTANTS | | | TRACKING DATA (METERS) | | | | |
|--|-----------|------|-------|------------------|-----------------------------|-----------------------------|-----------|-------|-----|------------------------|--------|--------|-------|-------|
| | EPNL | NEL | PNLTM | dBAM | $\Delta 1(P) / \Delta 1(A)$ | $\Delta 2(P) / \Delta 2(A)$ | K(P) | K(A) | SR | CPA | SRR | CPAR | | |
| 1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS | | | | | | | | | | | | | | |
| 68 | 88.5 | 85.6 | 87.9 | 75.4 | -0.03 | -0.02 | 0.00 | 0.00 | 7.8 | 7.5 | 477.6 | 477.0 | 456.6 | 456.0 |
| 69 | 89.7 | 84.5 | 88.9 | 76.3 | -0.06 | 0.00 | 0.00 | 0.00 | 6.9 | 6.6 | 938.9 | 939.3 | 455.8 | 456.0 |
| 70 | 88.9 | 85.7 | 88.1 | 75.2 | 0.14 | -0.05 | -0.05 | -0.05 | 7.3 | 7.0 | 967.8 | 952.8 | 463.2 | 456.0 |
| 71 | 90.1 | 86.5 | 90.7 | 78.1 | -0.17 | 0.02 | 0.02 | 0.02 | 6.2 | 5.8 | 938.1 | 946.1 | 452.2 | 456.0 |
| Avg. | 89.3 | 86.1 | 88.9 | 76.3 | -0.03 | -0.02 | -0.01 | -0.01 | 7.1 | 6.7 | 830.6 | 828.8 | 456.9 | 456.0 |
| Std Dv | 0.9 | 0.6 | 1.5 | 1.6 | 0.16 | 0.14 | 0.04 | 0.04 | 0.8 | 0.9 | 271.9 | 273.6 | 5.6 | 0.0 |
| 2000 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS | | | | | | | | | | | | | | |
| 72 | | | | | | | | | | | | | | |
| 73 | 87.3 | 84.4 | 84.5 | 72.4 | 0.07 | 0.06 | -0.03 | -0.03 | 7.6 | 7.2 | 729.6 | 722.4 | 614.4 | 608.4 |
| 74 | 87.9 | 85.0 | 87.7 | 74.6 | 0.22 | -0.06 | -0.06 | -0.06 | 6.5 | 6.6 | 1179.5 | 1154.6 | 621.5 | 608.4 |
| 75 | 88.0 | 85.0 | 89.2 | 76.2 | 1.17 | 1.06 | -0.25 | -0.25 | 6.5 | 6.4 | 1461.1 | 1337.6 | 664.6 | 608.4 |
| Avg. | 87.7 | 84.8 | 87.1 | 74.4 | 0.49 | 0.44 | -0.11 | -0.11 | 6.9 | 6.7 | 1123.4 | 1071.5 | 633.5 | 608.4 |
| Std Dv | 0.5 | 0.5 | 3.4 | 2.7 | 0.84 | 0.77 | 0.17 | 0.17 | 0.9 | 0.5 | 393.8 | 349.2 | 38.4 | 0.0 |
| 2500 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS | | | | | | | | | | | | | | |
| 76 | 86.2 | 83.1 | 84.4 | 70.9 | 0.46 | 0.42 | -0.12 | -0.12 | 7.4 | 7.6 | 1484.0 | 1428.8 | 790.2 | 760.8 |
| 77 | | | | | | | | | | | | | | |
| Avg. | 86.2 | 83.1 | 84.4 | 70.9 | 0.46 | 0.42 | -0.12 | -0.12 | 7.4 | 7.6 | 1484.0 | 1428.8 | 790.2 | 760.8 |
| Std Dv | | | | | | | | | | | | | | |

NO TRACKING DATA

NO TRACKING DATA

TABLE NO. B.4-1.4

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/22/81

CORRECTION DATA - MAIN ROTOR RPM 107Z

JUNE 25, 1980

SIDELINE - 164 M. NORTH

SITE: 4

| EV | CORRECTED | | | | CORRECTIONS (dB) | | | | CONSTANTS | | TRACKING DATA (ACTUAL) | | | TRACKING DATA (REFERENCE) | | |
|---|-----------|------|-------|------|------------------|---------------|---------------|---------------|------------------|------|------------------------|-------|-------|---------------------------|-----|------|
| | EPNL | NEL | PNLTM | dBAM | $\sqrt{1(P)}$ | $\sqrt{1(A)}$ | $\sqrt{2(P)}$ | $\sqrt{2(A)}$ | K(P) | K(A) | SR | CPA | SRR | CPAR | SRR | CPAR |
| APPROACH | | | | | | | | | | | | | | | | |
| 40 | 95.1 | 92.4 | 95.9 | 83.3 | 0.35 | 0.35 | -0.15 | -0.14 | 7.4 | 6.9 | 244.5 | 233.6 | 199.9 | 191.0 | | |
| 42 | 94.8 | 92.2 | 93.9 | 81.4 | -0.17 | -0.12 | 0.01 | 0.01 | 7.8 | 7.7 | 331.1 | 332.1 | 190.4 | 191.0 | | |
| 44 | 95.5 | 92.4 | 96.4 | 83.7 | -0.34 | -0.29 | 0.07 | 0.07 | 6.7 | 6.5 | 239.3 | 235.0 | 186.3 | 191.0 | | |
| 46 | 96.3 | 93.6 | 98.1 | 84.8 | 0.26 | 0.27 | -0.09 | -0.10 | 6.2 | 6.5 | 233.1 | 225.3 | 197.5 | 191.0 | | |
| 48 | 94.2 | 91.5 | 95.3 | 82.3 | -0.16 | -0.13 | 0.02 | 0.03 | 6.8 | 6.9 | 226.1 | 228.0 | 189.4 | 191.0 | | |
| 50 | | | | | | | | | | | NO TRACKING DATA | | | | | |
| Avg. | 95.2 | 92.4 | 95.9 | 83.1 | -0.01 | 0.02 | -0.03 | -0.03 | 7.0 | 6.9 | 252.8 | 250.8 | 192.7 | 191.0 | | |
| Std Dv | 0.9 | 0.9 | 1.8 | 1.5 | 0.35 | 0.32 | 0.10 | 0.10 | 0.7 | 0.6 | 51.2 | 52.7 | 6.6 | 6.6 | 0.0 | 0.0 |
| TAKEDOFF | | | | | | | | | | | | | | | | |
| 41 | 93.4 | 90.0 | 95.4 | 81.2 | 1.14 | 1.09 | -0.39 | -0.41 | 7.4 | 7.9 | 238.0 | 211.0 | 203.6 | 180.5 | | |
| 43 | 93.5 | 90.0 | 95.6 | 81.2 | 1.31 | 1.26 | -0.38 | -0.39 | 6.4 | 6.6 | 225.5 | 196.9 | 206.7 | 180.5 | | |
| 45 | | | | | | | | | NO TRACKING DATA | | | | | | | |
| 47 | 92.7 | 89.4 | 94.4 | 81.1 | 0.71 | 0.69 | -0.25 | -0.25 | 7.4 | 7.5 | 211.5 | 195.7 | 195.0 | 180.5 | | |
| 49 | 92.7 | 89.1 | 94.7 | 81.7 | 0.96 | 0.92 | -0.32 | -0.30 | 7.4 | 7.0 | 202.5 | 183.1 | 199.5 | 180.5 | | |
| 51 | 92.9 | 89.7 | 94.7 | 81.5 | 0.71 | 0.68 | -0.23 | -0.24 | 7.1 | 7.2 | 217.5 | 201.7 | 194.6 | 180.5 | | |
| Avg. | 93.0 | 89.6 | 95.0 | 81.4 | 0.97 | 0.93 | -0.31 | -0.32 | 7.1 | 7.2 | 219.0 | 197.7 | 199.9 | 180.5 | | |
| Std Dv | 0.4 | 0.4 | 0.6 | 0.3 | 0.31 | 0.29 | 0.08 | 0.09 | 0.5 | 0.6 | 15.7 | 11.7 | 6.1 | 6.1 | 0.0 | 0.0 |
| 500 FT. FLYBY - TARGET INDICATED AIRSPEED 109 KTS | | | | | | | | | | | | | | | | |
| 18 | 90.0 | 87.2 | 90.7 | 77.8 | -0.35 | -0.33 | 0.05 | 0.05 | 7.5 | 7.5 | 276.3 | 280.6 | 209.7 | 212.9 | | |
| 19 | 90.0 | 87.6 | 93.0 | 80.1 | 0.64 | 0.64 | -0.22 | -0.24 | 6.5 | 6.9 | 243.3 | 224.9 | 230.4 | 212.9 | | |
| 20 | | | | | | | | | NO TRACKING DATA | | | | | | | |
| 21 | 89.8 | 87.4 | 92.5 | 79.9 | 0.47 | 0.46 | -0.18 | -0.19 | 6.9 | 7.0 | 250.4 | 235.6 | 226.3 | 212.9 | | |
| 22 | 89.2 | 86.4 | 90.6 | 77.7 | -0.92 | -0.88 | 0.22 | 0.21 | 7.4 | 7.3 | 268.8 | 287.7 | 199.0 | 212.9 | | |
| 23 | 89.9 | 87.4 | 92.4 | 80.0 | 0.93 | 0.90 | -0.33 | -0.32 | 7.3 | 7.1 | 275.2 | 247.7 | 236.5 | 212.9 | | |
| Avg. | 89.8 | 87.2 | 91.8 | 79.1 | 0.15 | 0.16 | -0.09 | -0.10 | 7.1 | 7.1 | 262.8 | 255.3 | 220.4 | 212.9 | | |
| Std Dv | 0.4 | 0.5 | 1.3 | 1.4 | 0.88 | 0.85 | 0.26 | 0.25 | 0.5 | 0.3 | 17.4 | 31.9 | 18.0 | 18.0 | 0.0 | 0.0 |
| 500 FT. FLYBY - TARGET INDICATED AIRSPEED 124 KTS | | | | | | | | | | | | | | | | |
| 25 | 90.7 | 88.5 | 94.2 | 81.6 | 0.92 | 0.86 | -0.28 | -0.30 | 6.4 | 6.7 | 252.7 | 228.4 | 235.5 | 212.9 | | |
| 26 | 89.7 | 87.2 | 91.4 | 78.4 | -0.51 | -0.52 | 0.10 | 0.11 | 7.1 | 7.5 | 261.8 | 270.8 | 205.9 | 212.9 | | |
| 27 | 90.4 | 88.3 | 93.7 | 81.4 | 0.49 | 0.45 | -0.18 | -0.18 | 6.9 | 7.1 | 249.6 | 235.2 | 226.0 | 212.9 | | |
| 28 | 89.8 | 87.2 | 91.7 | 78.7 | -0.48 | -0.53 | 0.11 | 0.11 | 7.1 | 7.4 | 258.1 | 267.5 | 205.5 | 212.9 | | |
| 29 | 91.4 | 88.7 | 95.8 | 82.2 | 1.50 | 1.27 | -0.35 | -0.39 | 5.8 | 6.6 | 268.3 | 233.9 | 244.2 | 212.9 | | |
| Avg. | 90.4 | 88.0 | 93.4 | 80.5 | 0.38 | 0.31 | -0.12 | -0.13 | 6.7 | 7.1 | 258.1 | 247.2 | 223.4 | 212.9 | | |
| Std Dv | 0.8 | 0.8 | 2.1 | 2.0 | 1.01 | 0.94 | 0.25 | 0.27 | 0.6 | 0.5 | 8.5 | 23.4 | 20.1 | 20.1 | 0.0 | 0.0 |

TABLE NO. B-4-2.4

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/22/81

CORRECTION DATA - MAIN ROTOR RPM 107%

JUNE 25, 1980

SITE: 4

SIDELINE - 164 N. NORTH

| EV | CORRECTED | | | CORRECTIONS (dB) | | | | CONSTANTS | | | TRACKING DATA (METERS) | | | |
|--|-----------|------|-------|------------------|---------------|---------------|---------------|---------------|------|------|------------------------|-------|-------|-------|
| | EPNL | NEL | PNLTM | dBAM | $\wedge 1(P)$ | $\wedge 1(A)$ | $\wedge 2(P)$ | $\wedge 2(A)$ | K(P) | K(A) | SR | CPA | SRR | CPAR |
| 300 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | | |
| 10 | 93.8 | 90.0 | 97.0 | 83.6 | 0.62 | 0.61 | -0.23 | -0.22 | 7.1 | 6.9 | 195.4 | 181.3 | 188.6 | 175.0 |
| 11 | 94.1 | 91.8 | 97.9 | 85.4 | 1.05 | 1.00 | -0.33 | -0.34 | 6.7 | 6.9 | 271.4 | 242.3 | 196.0 | 175.0 |
| 16 | 94.1 | 90.4 | 98.2 | 84.5 | 0.89 | 0.85 | -0.29 | -0.29 | 6.7 | 6.6 | 241.0 | 218.3 | 193.2 | 175.0 |
| 17 | | | | | | | | | | | | | | |
| NO TRACKING DATA | | | | | | | | | | | | | | |
| Avg. | 94.0 | 90.8 | 97.7 | 84.5 | 0.85 | 0.82 | -0.28 | -0.28 | 6.8 | 6.8 | 235.9 | 213.9 | 192.6 | 175.0 |
| Std Dv | 0.3 | 1.3 | 0.9 | 1.3 | 0.31 | 0.28 | 0.07 | 0.09 | 0.3 | 0.2 | 54.1 | 43.5 | 5.3 | 0.0 |
| 700 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | | |
| 8 | 91.1 | 88.5 | 92.4 | 80.1 | 0.09 | 0.15 | -0.10 | -0.10 | 7.5 | 7.5 | 290.0 | 280.9 | 268.2 | 259.8 |
| 9 | 91.9 | 89.0 | 95.4 | 81.9 | 1.54 | 1.41 | -0.43 | -0.46 | 6.6 | 7.1 | 350.8 | 310.4 | 302.0 | 259.8 |
| 14 | 89.7 | 87.1 | 91.6 | 79.2 | -0.07 | -0.07 | -0.04 | -0.04 | 7.0 | 7.1 | 317.8 | 314.1 | 262.9 | 259.8 |
| 15 | 90.4 | 87.6 | 94.1 | 80.7 | 0.71 | 0.70 | -0.23 | -0.25 | 6.3 | 6.8 | 351.6 | 322.7 | 283.0 | 259.8 |
| Avg. | 90.8 | 88.1 | 93.4 | 80.5 | 0.57 | 0.55 | -0.20 | -0.21 | 6.9 | 7.1 | 330.1 | 307.0 | 279.0 | 259.8 |
| Std Dv | 1.2 | 1.0 | 2.1 | 1.4 | 0.89 | 0.81 | 0.21 | 0.23 | 0.6 | 0.4 | 39.8 | 22.3 | 21.4 | 0.0 |
| 1000 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | | |
| 1 | 89.4 | 84.5 | 91.2 | 78.8 | 1.22 | 1.12 | -0.39 | -0.37 | 7.3 | 6.9 | 494.6 | 437.9 | 382.5 | 338.6 |
| 2 | 88.5 | 85.8 | 88.1 | 75.8 | -0.16 | -0.16 | -0.02 | -0.02 | 7.5 | 7.6 | 420.1 | 417.8 | 340.5 | 338.6 |
| 3 | 89.5 | 86.9 | 90.9 | 78.0 | 0.58 | 0.58 | -0.25 | -0.25 | 7.5 | 7.7 | 460.3 | 427.0 | 365.0 | 338.6 |
| 4 | 88.7 | 86.2 | 88.6 | 76.3 | 0.24 | 0.22 | -0.14 | -0.14 | 7.9 | 7.8 | 479.1 | 459.3 | 353.2 | 338.6 |
| 52 | 86.9 | 84.5 | 87.2 | 75.1 | -0.22 | -0.15 | 0.01 | 0.01 | 7.3 | 7.1 | 349.1 | 350.4 | 337.4 | 338.6 |
| 53 | 88.7 | 86.0 | 90.2 | 77.9 | 1.43 | 1.27 | -0.39 | -0.37 | 7.2 | 7.0 | 419.2 | 370.7 | 382.9 | 338.6 |
| 54 | 87.8 | 85.2 | 88.9 | 76.6 | 0.48 | 0.45 | -0.15 | -0.14 | 7.0 | 6.7 | 784.8 | 747.2 | 395.6 | 338.6 |
| 55 | 88.7 | 85.8 | 93.1 | 79.6 | 0.60 | 0.55 | -0.14 | -0.15 | 5.7 | 6.1 | 440.6 | 415.7 | 359.0 | 338.6 |
| Avg. | 88.5 | 85.9 | 89.8 | 77.3 | 0.52 | 0.48 | -0.18 | -0.18 | 7.2 | 7.1 | 481.0 | 453.2 | 359.5 | 338.6 |
| Std Dv | 0.9 | 0.8 | 2.1 | 1.7 | 0.63 | 0.57 | 0.16 | 0.15 | 0.7 | 0.6 | 141.1 | 133.8 | 18.3 | 0.0 |

TABLE NO. B.4-3.4

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/22/81

CORRECTION DATA - MAIN ROTOR RPM 107%

JUNE 25, 1980

SITE: 4 SIDELINE - 164 M. NORTH

| EV | CORRECTED | | CORRECTIONS (dB) | | | CONSTANTS | | TRACKING DATA (METERS) | | | | | |
|--|-----------|------|------------------|------|---|-----------|-------|------------------------|-----|------------------|--------|-------|-------|
| | EPNL | NEL | FNLTM | dBAM | $\wedge 1(P) \wedge 1(A) \wedge 2(P) \wedge 2(A)$ | K(P) | K(A) | SR | CPA | SRR | CFAR | | |
| 1500 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | |
| 5 | 85.1 | 82.6 | 85.9 | 73.2 | 0.90 | 0.81 | -0.30 | 7.2 | 7.3 | 589.9 | 536.3 | 527.9 | 480.0 |
| 6 | | | | | | | | | | NO TRACKING DATA | | | |
| 7 | 85.9 | 83.0 | 86.8 | 72.8 | 0.82 | 0.73 | -0.28 | 7.2 | 7.8 | 569.8 | 521.1 | 524.8 | 480.0 |
| 12 | | | | | | | | | | NO TRACKING DATA | | | |
| 38 | 84.4 | 82.5 | 82.9 | 71.6 | -0.31 | -0.17 | -0.04 | 7.8 | 7.7 | 502.9 | 497.1 | 485.6 | 480.0 |
| 39 | 85.1 | 82.6 | 86.1 | 73.7 | 0.36 | 0.40 | -0.18 | 6.9 | 6.7 | 615.1 | 578.7 | 510.2 | 480.0 |
| Avg. | 85.1 | 82.7 | 85.4 | 72.8 | 0.44 | 0.44 | -0.20 | 7.3 | 7.4 | 569.4 | 533.3 | 512.1 | 480.0 |
| Std Dv | 0.7 | 0.3 | 2.2 | 1.1 | 0.68 | 0.55 | 0.15 | 0.4 | 0.6 | 58.9 | 42.0 | 23.6 | 0.0 |
| 2000 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | |
| 34 | 83.5 | 81.4 | 81.5 | 69.7 | -0.09 | -0.14 | -0.07 | 7.7 | 7.6 | 721.1 | 706.8 | 639.3 | 626.6 |
| 35 | 83.3 | 80.9 | 82.2 | 70.1 | -0.03 | -0.10 | -0.08 | 7.8 | 7.7 | 1009.9 | 985.5 | 642.1 | 626.6 |
| 36 | | | | | | | | | | 685.0 | 657.2 | 653.1 | 626.6 |
| 37 | 83.4 | 81.1 | 82.4 | 70.0 | 0.38 | 0.29 | -0.18 | 7.8 | 7.8 | 736.1 | 697.2 | 661.6 | 626.6 |
| Avg. | 83.4 | 81.1 | 81.8 | 69.7 | 0.08 | 0.04 | -0.11 | 7.8 | 7.7 | 788.0 | 761.7 | 649.0 | 626.6 |
| Std Dv | 0.1 | 0.3 | 0.8 | 0.5 | 0.26 | 0.25 | 0.06 | 0.1 | 0.1 | 94.3 | 95.1 | 12.6 | 0.0 |
| 2500 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | |
| 30 | | | | | | | | | | NO TRACKING DATA | | | |
| 31 | 80.3 | 77.6 | 81.2 | 68.6 | 0.72 | 0.31 | -0.17 | 6.6 | 6.5 | 1135.7 | 1070.1 | 823.0 | 775.4 |
| 32 | 82.5 | 79.9 | 80.0 | 67.9 | 0.37 | -0.18 | -0.05 | 7.8 | 7.7 | 849.9 | 838.4 | 786.1 | 775.4 |
| 33 | 81.8 | 79.0 | 80.7 | 69.3 | 0.68 | 0.28 | -0.20 | 7.6 | 7.2 | 1486.0 | 1397.9 | 824.3 | 775.4 |
| Avg. | 81.5 | 78.8 | 80.6 | 68.6 | 0.59 | 0.14 | -0.14 | 7.3 | 7.1 | 1157.2 | 1102.1 | 811.1 | 775.4 |
| Std Dv | 1.6 | 1.7 | 0.9 | 1.0 | 0.27 | 0.39 | 0.11 | 0.9 | 0.8 | 307.3 | 263.7 | 30.7 | 0.0 |

TABLE NO. E-5-2.4

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
12/23/81

CORRECTION DATA

| SITE: 4 | | SIDELINE - 164 M. NORTH | | JUNE 25, 1980 | | | | | | | | | | |
|--|------|-------------------------|-------|---------------|--|------------------------|-------|------------------------------------|-----|-----|------------------|-------|-------|-------|
| CORRECTED | | CORRECTIONS (dB) | | CONSTANTS | | TRACKING DATA (ACTUAL) | | TRACKING DATA (METERS) (REFERENCE) | | | | | | |
| EV | EPNL | NEL | PMLTH | dBGM | $\wedge(1(F) \wedge 1(A)) \wedge 2(P) \wedge 2(A)$ | K(F) | K(A) | SR | CFA | SRR | CFAR | | | |
| 300 FT. FLYBY - TARGET INDICATED AIRSPEED 152 KTS | | | | | | | | | | | | | | |
| 56 | 97.5 | 93.5 | 101.0 | 87.3 | -0.14 | -0.12 | 0.03 | 4.02 | 6.6 | 6.1 | 193.1 | 194.8 | 173.5 | 175.0 |
| 57 | 98.6 | 95.3 | 102.6 | 89.1 | -0.43 | -0.39 | 0.07 | 0.10 | 5.8 | 6.4 | 182.9 | 189.8 | 168.6 | 175.0 |
| 58 | 96.7 | 92.8 | 99.6 | 86.5 | -0.77 | -0.74 | 0.20 | 0.20 | 6.6 | 4.6 | 248.1 | 265.8 | 163.4 | 175.0 |
| 59 | 99.7 | 96.4 | 102.0 | 89.7 | 0.43 | 0.42 | -0.15 | -0.13 | 7.4 | 6.6 | 186.5 | 178.1 | 183.3 | 175.0 |
| Avg. | 98.1 | 94.5 | 101.3 | 88.3 | -0.23 | -0.21 | 0.04 | 0.05 | 6.6 | 6.4 | 202.6 | 207.1 | 172.2 | 175.0 |
| Std Dev | 1.6 | 2.0 | 1.6 | 1.7 | 0.62 | 0.60 | 0.18 | 0.17 | 0.8 | 0.3 | 37.5 | 40.7 | 10.4 | 0.0 |
| 700 FT. FLYBY - TARGET INDICATED AIRSPEED 152 KTS | | | | | | | | | | | | | | |
| 60 | 94.8 | 92.0 | 95.6 | 82.5 | -1.56 | -1.47 | 0.38 | 0.38 | 7.5 | 7.6 | 870.7 | 977.5 | 231.4 | 259.8 |
| 61 | | | | | | | | | | | NO TRACKING DATA | | | |
| 62 | 94.9 | 91.6 | 95.9 | 83.5 | -0.79 | -0.74 | 0.22 | 0.20 | 7.0 | 6.4 | 246.2 | 264.4 | 241.9 | 259.8 |
| 63 | 95.3 | 92.6 | 95.6 | 83.6 | 0.07 | 0.07 | -0.04 | -0.04 | 8.0 | 7.7 | 323.0 | 319.3 | 262.8 | 259.8 |
| Avg. | 95.0 | 92.0 | 95.7 | 83.2 | -0.76 | -0.71 | 0.19 | 0.18 | 7.5 | 7.2 | 480.0 | 520.4 | 243.4 | 259.8 |
| Std Dev | 0.4 | 0.7 | 0.2 | 0.9 | 1.15 | 1.09 | 0.30 | 0.30 | 0.7 | 1.1 | 481.6 | 325.5 | 22.6 | 0.0 |
| 1000 FT. FLYBY - TARGET INDICATED AIRSPEED 152 KTS | | | | | | | | | | | | | | |
| 64 | 93.7 | 93.2 | 97.4 | 84.5 | -0.46 | -0.41 | 0.11 | 0.11 | 7.1 | 7.3 | 520.3 | 538.9 | 326.9 | 338.6 |
| 65 | | | | | | | | | | | NO TRACKING DATA | | | |
| 66 | 95.3 | 92.4 | 95.3 | 83.8 | -0.44 | -0.41 | 0.12 | 0.11 | 7.3 | 6.9 | 332.1 | 344.6 | 326.4 | 338.6 |
| 67 | | 90.4 | 92.8 | 80.2 | -0.07 | -0.04 | - | 0.00 | - | 7.6 | 340.8 | 341.0 | 338.4 | 338.6 |
| Avg. | 95.5 | 92.0 | 95.2 | 82.8 | -0.32 | -0.29 | 0.12 | 0.07 | 7.2 | 7.3 | 397.7 | 408.1 | 330.6 | 338.6 |
| Std Dev | 0.3 | 2.0 | 3.2 | 3.2 | 0.31 | 0.30 | 0.01 | 0.09 | 0.2 | 0.5 | 150.2 | 160.2 | 9.6 | 0.0 |

TABLE NO. B.5-3.4

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
12/23/81

CORRECTION DATA

JUNE 25, 1980

SITE: 4

SIDELINE - 164 M. NORTH

| EV | CORRECTED | | | | CORRECTIONS (dB) | | | | CONSTANTS | | | TRACKING DATA (ACTUAL) | | | TRACKING DATA (REFERENCE) | | |
|--|-----------|------|-------|------|------------------|---------------|---------------|---------------|-----------|------|--------|------------------------|-------|-------|---------------------------|-------|--|
| | EPNL | NEL | PNLTH | DBEM | $\wedge 1(P)$ | $\wedge 1(A)$ | $\wedge 2(F)$ | $\wedge 2(A)$ | K(P) | K(A) | SR | EPA | SRR | CPAR | SRR | CPAR | |
| 1500 FT. FLYBY - TARGET INDICATED AIRSPEED 152 KTS | | | | | | | | | | | | | | | | | |
| 68 | 92.1 | 89.7 | 92.7 | 81.7 | -0.41 | -0.37 | 0.10 | 0.09 | 7.3 | 6.5 | 482.1 | 497.0 | 465.6 | 480.0 | 465.6 | 480.0 | |
| 69 | 91.9 | 88.7 | 91.2 | 77.6 | 0.46 | 0.39 | -0.12 | -0.12 | 7.2 | 7.4 | 1211.2 | 1167.0 | 498.2 | 480.0 | 498.2 | 480.0 | |
| 70 | 92.5 | 90.0 | 92.1 | 81.3 | -0.08 | -0.07 | 0.01 | 0.01 | 7.9 | 6.8 | 478.5 | 480.1 | 478.5 | 480.0 | 478.5 | 480.0 | |
| 71 | 91.8 | 88.6 | 89.7 | 77.4 | -0.95 | -0.04 | 0.00 | 0.00 | 7.6 | 7.1 | 697.1 | 696.6 | 480.4 | 480.0 | 480.4 | 480.0 | |
| Avg. | 92.1 | 89.3 | 91.4 | 79.5 | -0.02 | -0.02 | -0.00 | -0.01 | 7.5 | 6.9 | 717.2 | 710.2 | 480.7 | 480.0 | 480.7 | 480.0 | |
| Std Dev | 0.4 | 0.9 | 1.6 | 2.9 | 0.44 | 0.38 | 0.11 | 0.11 | 0.4 | 0.5 | 237.3 | 222.0 | 16.4 | 0.0 | 16.4 | 0.0 | |
| 2000 FT. FLYBY - TARGET INDICATED AIRSPEED 152 KTS | | | | | | | | | | | | | | | | | |
| 72 | | | | | | | | | | | | | | | | | |
| 73 | 88.7 | 85.9 | 87.0 | 74.4 | 0.11 | 0.10 | -0.04 | -0.04 | 7.2 | 7.2 | 794.1 | 783.8 | 634.8 | 626.6 | 634.8 | 626.6 | |
| 74 | 90.4 | 88.2 | 90.0 | 78.0 | -0.06 | -0.05 | 0.00 | 0.00 | 7.3 | 7.3 | 1068.0 | 1068.1 | 626.5 | 626.6 | 626.5 | 626.6 | |
| 75 | 88.4 | 85.7 | 86.4 | 75.1 | 0.10 | 0.10 | -0.04 | -0.04 | 7.6 | 6.9 | 666.7 | 658.3 | 634.6 | 626.6 | 634.6 | 626.6 | |
| Avg. | 89.2 | 86.6 | 87.8 | 75.8 | 0.05 | 0.05 | -0.03 | -0.03 | 7.4 | 7.1 | 842.9 | 836.7 | 632.0 | 626.6 | 632.0 | 626.6 | |
| Std Dev | 1.5 | 2.0 | 2.8 | 2.7 | 0.13 | 0.12 | 0.03 | 0.03 | 0.3 | 0.3 | 182.9 | 186.1 | 6.7 | 0.0 | 6.7 | 0.0 | |
| 2500 FT. FLYBY - TARGET INDICATED AIRSPEED 152 KTS | | | | | | | | | | | | | | | | | |
| 76 | 88.1 | 85.8 | 86.3 | 75.8 | 0.08 | 0.08 | -0.04 | -0.03 | 7.4 | 6.5 | 784.0 | 775.4 | 784.1 | 775.4 | 784.1 | 775.4 | |
| 77 | | | | | | | | | | | | | | | | | |
| Avg. | 88.1 | 85.8 | 86.3 | 75.8 | 0.08 | 0.08 | -0.04 | -0.03 | 7.4 | 6.5 | 784.0 | 775.4 | 784.1 | 775.4 | 784.1 | 775.4 | |
| Std Dev | | | | | | | | | | | | | | | | | |

NO TRACKING DATA

NO TRACKING DATA

TABLE NO. B.4-1.5

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/23/81

CORRECTION DATA - MAIN ROTOR RPM 1072

JUNE 25, 1980

SIDELINE - 150 M. SOUTH

SITE: 5

| EV | CORRECTED | | | CORRECTIONS (dB) | | | CONSTANTS | | | TRACKING DATA (METERS) | | | |
|---|-----------|------|-------|------------------|---------------|---------------|---------------|------------------|------|------------------------|-------|-------|-------|
| | EPNL | NEL | FNLTM | $\Delta 1(P)$ | $\Delta 1(A)$ | $\Delta 2(P)$ | $\Delta 2(A)$ | K(P) | K(A) | SR | CFA | SRR | CFAR |
| APPROACH | | | | | | | | | | | | | |
| 40 | 92.0 | 88.7 | 90.8 | 76.5 | -0.18 | 0.01 | 0.01 | 7.6 | 7.8 | 269.8 | 270.7 | 190.3 | 191.0 |
| 42 | 92.2 | 89.4 | 91.6 | 79.1 | -0.55 | 0.49 | 0.12 | 6.9 | 6.7 | 251.7 | 241.9 | 183.5 | 191.0 |
| 44 | 93.8 | 90.3 | 92.6 | 78.4 | 0.33 | -0.14 | -0.14 | 7.7 | 7.9 | 198.9 | 191.0 | 193.8 | 191.0 |
| 46 | 93.4 | 90.1 | 91.1 | 77.2 | -0.15 | 0.03 | 0.03 | 8.1 | 8.4 | 189.7 | 191.3 | 189.4 | 191.0 |
| 48 | 93.7 | 90.6 | 92.4 | 80.5 | 0.76 | 0.72 | -0.24 | 7.8 | 7.0 | 420.2 | 388.4 | 206.6 | 191.0 |
| 50 | | | | | | | | | | NO TRACKING DATA | | | |
| NO TRACKING DATA | | | | | | | | | | | | | |
| Avs. | 93.0 | 89.8 | 91.7 | 78.3 | 0.04 | -0.05 | -0.04 | 7.6 | 7.6 | 266.0 | 260.6 | 193.7 | 191.0 |
| Std Dv | 1.0 | 0.9 | 0.9 | 1.8 | 0.59 | 0.54 | 0.17 | 0.5 | 0.8 | 107.0 | 93.2 | 10.4 | 0.0 |
| TAKEOFF | | | | | | | | | | | | | |
| 41 | 89.2 | 86.9 | 91.3 | 78.8 | 0.81 | 0.79 | -0.29 | 7.2 | 7.4 | 199.2 | 182.3 | 197.3 | 180.5 |
| 43 | 89.3 | 87.1 | 91.4 | 78.8 | 1.11 | 1.07 | -0.36 | 6.8 | 7.0 | 206.6 | 183.6 | 203.0 | 180.5 |
| 45 | | | | | | | | NO TRACKING DATA | | | | | |
| 47 | 90.2 | 88.1 | 92.6 | 80.9 | 1.27 | 1.23 | -0.39 | 6.9 | 6.8 | 213.0 | 186.6 | 206.0 | 180.5 |
| 49 | 90.1 | 88.1 | 92.7 | 80.9 | 1.29 | 1.24 | -0.42 | 7.1 | 7.2 | 208.7 | 182.6 | 206.3 | 180.5 |
| 51 | 89.8 | 87.7 | 91.5 | 79.8 | 1.17 | 1.12 | -0.38 | 7.5 | 7.2 | 207.8 | 184.2 | 203.7 | 180.5 |
| Avs. | 89.7 | 87.5 | 91.9 | 79.8 | 1.13 | 1.09 | -0.37 | 7.1 | 7.1 | 207.1 | 183.8 | 203.3 | 180.5 |
| Std Dv | 0.5 | 0.6 | 0.8 | 1.2 | 0.22 | 0.21 | 0.06 | 0.3 | 0.2 | 5.8 | 2.0 | 4.2 | 0.0 |
| 500 FT. FLYBY - TARGET INDICATED AIRSPEED 109 KTS | | | | | | | | | | | | | |
| 18 | 89.6 | 87.5 | 90.3 | 77.9 | -0.17 | -0.68 | -0.02 | 7.4 | 7.2 | 219.4 | 218.0 | 214.4 | 212.9 |
| 19 | 86.2 | 83.7 | 89.1 | 75.7 | -0.72 | -0.70 | 0.15 | 6.8 | 7.1 | 270.4 | 284.2 | 202.6 | 212.9 |
| 20 | | | | | | | | NO TRACKING DATA | | | | | |
| 21 | 88.7 | 85.8 | 90.8 | 77.5 | -1.07 | -1.01 | 0.26 | 7.1 | 7.3 | 264.7 | 288.1 | 195.6 | 212.9 |
| 22 | 89.1 | 87.1 | 90.8 | 78.6 | -0.60 | -0.47 | 0.10 | 7.2 | 6.9 | 211.7 | 218.3 | 206.5 | 212.9 |
| 23 | 85.7 | 83.6 | 87.5 | 74.9 | -0.51 | -0.41 | 0.07 | 7.1 | 7.5 | 265.6 | 271.3 | 208.5 | 212.9 |
| Avs. | 87.9 | 85.5 | 89.7 | 76.9 | -0.61 | -0.53 | 0.11 | 7.1 | 7.2 | 246.4 | 256.0 | 205.5 | 212.9 |
| Std Dv | 2.1 | 2.1 | 1.6 | 1.8 | 0.38 | 0.40 | 0.12 | 0.2 | 0.3 | 32.7 | 40.5 | 8.0 | 0.0 |
| 500 FT. FLYBY - TARGET INDICATED AIRSPEED 124 KTS | | | | | | | | | | | | | |
| 24 | | | | | | | | NO TRACKING DATA | | | | | |
| 25 | 86.7 | 84.5 | 89.4 | 77.5 | -0.32 | -0.23 | 0.02 | 7.0 | 6.7 | 215.8 | 217.6 | 211.2 | 212.9 |
| 26 | 90.7 | 88.6 | 91.7 | 79.6 | -0.25 | -0.19 | 0.01 | 7.4 | 7.4 | 236.3 | 237.0 | 212.3 | 212.9 |
| 27 | 86.1 | 84.0 | 89.0 | 76.7 | -0.99 | -0.85 | 0.18 | 6.6 | 6.8 | 245.9 | 262.3 | 199.6 | 212.9 |
| 28 | 90.4 | 88.4 | 91.7 | 79.2 | -0.27 | -0.23 | 0.03 | 7.0 | 7.4 | 226.2 | 228.1 | 211.1 | 212.9 |
| 29 | 85.4 | 83.3 | 88.2 | 75.3 | -1.42 | -1.27 | 0.33 | 6.6 | 7.2 | 245.4 | 272.3 | 191.9 | 212.9 |
| Avs. | 87.9 | 85.8 | 90.0 | 77.7 | -0.65 | -0.55 | 0.11 | 6.9 | 7.1 | 233.9 | 243.5 | 205.2 | 212.9 |
| Std Dv | 2.9 | 2.9 | 1.9 | 2.1 | 0.61 | 0.56 | 0.15 | 0.4 | 0.4 | 14.9 | 26.7 | 10.5 | 0.0 |

TABLE NO. B.4-2.5

SIVORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/23/81

CORRECTION DATA - MAIN ROTOR RPM 107%

| EV | CORRECTED | | | CORRECTIONS (dB) | | | CONSTANTS | | TRACKING DATA (METERS) | | | | | |
|--|-----------|------|-------|------------------|---------------|---------------|---------------|---------------|------------------------|------|------------------|-------|-------|-------|
| | EPNL | NEL | PNLTM | dBAM | $\wedge 1(P)$ | $\wedge 1(A)$ | $\wedge 2(P)$ | $\wedge 2(A)$ | K(P) | K(A) | (ACTUAL) | CFA | SRR | CPAR |
| 300 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | | |
| 10 | 93.0 | 91.1 | 95.8 | 83.5 | 0.57 | 0.54 | -0.21 | -0.21 | 7.1 | 7.0 | 253.5 | 236.7 | 187.4 | 175.0 |
| 11 | 90.0 | 86.9 | 94.6 | 81.1 | 0.42 | 0.43 | -0.16 | -0.17 | 6.2 | 6.6 | 227.3 | 214.5 | 185.4 | 175.0 |
| 16 | 92.4 | 90.9 | 94.1 | 82.4 | -1.28 | -1.08 | 0.29 | 0.29 | 7.1 | 7.3 | 207.2 | 227.3 | 159.6 | 175.0 |
| 17 | | | | | | | | | | | NO TRACKING DATA | | | |
| Avg. | 91.8 | 89.7 | 94.8 | 82.3 | -0.10 | -0.04 | -0.03 | -0.03 | 6.8 | 7.0 | 229.3 | 226.2 | 177.5 | 175.0 |
| Std Dv | 2.2 | 3.3 | 1.2 | 1.7 | 1.45 | 1.28 | 0.39 | 0.39 | 0.7 | 0.5 | 32.8 | 15.7 | 22.0 | 0.0 |
| 700 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | | |
| 8 | 90.6 | 88.4 | 91.2 | 78.4 | -0.10 | -0.02 | -0.05 | -0.05 | 7.5 | 7.7 | 275.1 | 270.8 | 263.9 | 259.8 |
| 9 | 86.2 | 84.1 | 87.6 | 76.0 | -0.20 | -0.14 | -0.02 | -0.02 | 7.7 | 7.4 | 325.2 | 323.0 | 261.6 | 259.8 |
| 14 | 90.7 | 88.2 | 91.4 | 78.7 | 0.46 | 0.47 | -0.21 | -0.21 | 7.6 | 7.7 | 298.7 | 280.2 | 276.9 | 259.8 |
| 15 | 86.5 | 84.0 | 89.0 | 76.7 | -0.09 | -0.01 | -0.07 | -0.07 | 6.9 | 7.0 | 334.6 | 327.4 | 265.5 | 259.8 |
| Avg. | 88.5 | 86.2 | 89.8 | 77.4 | 0.02 | 0.07 | -0.09 | -0.09 | 7.4 | 7.4 | 308.4 | 300.4 | 267.0 | 259.8 |
| Std Dv | 3.1 | 3.0 | 2.2 | 1.6 | 0.37 | 0.33 | 0.10 | 0.10 | 0.4 | 0.4 | 33.0 | 35.5 | 8.4 | 0.0 |
| 1000 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | | |
| 1 | 85.4 | 82.9 | 87.3 | 74.7 | 0.52 | 0.53 | -0.21 | -0.22 | 6.9 | 7.2 | 401.0 | 373.5 | 363.5 | 338.6 |
| 2 | 88.6 | 86.2 | 88.1 | 75.4 | 0.39 | 0.34 | -0.18 | -0.18 | 7.9 | 8.0 | 379.7 | 360.3 | 356.9 | 338.6 |
| 3 | 84.6 | 82.5 | 85.7 | 73.1 | -0.02 | 0.06 | -0.08 | -0.09 | 7.2 | 7.5 | 347.9 | 338.8 | 347.6 | 338.6 |
| 4 | 88.7 | 86.2 | 88.7 | 75.9 | 0.43 | 0.46 | -0.21 | -0.22 | 7.7 | 7.9 | 403.6 | 378.8 | 360.8 | 338.6 |
| 52 | 88.7 | 86.4 | 88.9 | 76.9 | 1.03 | 0.95 | -0.32 | -0.32 | 7.8 | 7.6 | 409.4 | 372.0 | 372.6 | 338.6 |
| 53 | 85.3 | 83.2 | 87.0 | 75.0 | 0.10 | 0.13 | -0.07 | -0.07 | 6.6 | 6.8 | 506.9 | 495.0 | 346.8 | 338.6 |
| 54 | 90.1 | 87.3 | 90.7 | 78.1 | 1.95 | 1.62 | -0.41 | -0.40 | 7.4 | 7.3 | 1019.9 | 899.4 | 383.9 | 338.6 |
| 55 | 84.8 | 82.4 | 86.1 | 73.9 | -0.26 | -0.19 | 0.02 | 0.02 | 6.5 | 6.3 | 397.2 | 399.5 | 336.6 | 338.6 |
| Avg. | 87.0 | 84.6 | 87.8 | 75.4 | 0.52 | 0.49 | -0.18 | -0.18 | 7.2 | 7.3 | 483.2 | 452.2 | 358.6 | 338.6 |
| Std Dv | 2.4 | 2.2 | 1.8 | 1.7 | 0.75 | 0.62 | 0.15 | 0.15 | 0.6 | 0.6 | 96.2 | 201.6 | 16.4 | 0.0 |

JUNE 25, 1980

SITE: 5 SIDELINE - 150 M. SOUTH

TABLE NO. B-4-3.5

 SIKORSKY S-76 SPIRIT HELICOPTER
 CORRECTION DATA - MAIN ROTOR RPM 107%
DDT/TSC
12/23/81

JUNE 25, 1980

SITE: S SIBELINE - 150 W. SOUTH

| EV | CORRECTED | | GBRM | CORRECTIONS (DB) | | | CONSTANTS | | TRACKING DATA (ACTUAL) | | | TRACKING DATA (METERS) (REFERENCE) | | | |
|--|-----------|------|------|------------------|-----------------------------|---------------|---------------|-------|------------------------|-----|------------------|------------------------------------|-------|-------|--|
| | EPNL | NEL | | FNLTH | $\sqrt{1(P)} / \sqrt{1(A)}$ | $\sqrt{2(P)}$ | $\sqrt{2(A)}$ | K(P) | K(A) | SR | CFA | SRR | CPAR | | |
| 1500 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | | | |
| 5 | 81.9 | 80.2 | 81.7 | 70.4 | 0.26 | 0.32 | -0.19 | -0.19 | 7.6 | 7.5 | 639.9 | 604.2 | 508.4 | 480.0 | |
| 6 | | | | | | | | | | | NO TRACKING DATA | | | | |
| 7 | 82.1 | 80.3 | 82.9 | 70.6 | 0.51 | 0.53 | -0.23 | -0.24 | 7.1 | 7.4 | 542.9 | 522.8 | 516.9 | 480.0 | |
| 12 | | | | | | | | | | | NO TRACKING DATA | | | | |
| 13 | 81.4 | 79.7 | 82.1 | 69.6 | -0.12 | 0.00 | -0.09 | -0.10 | 7.1 | 7.8 | 532.2 | 516.1 | 495.0 | 480.0 | |
| 38 | 84.8 | 82.6 | 84.0 | 72.3 | 0.36 | 0.35 | -0.19 | -0.19 | 7.7 | 7.8 | 647.8 | 612.2 | 507.9 | 480.0 | |
| 39 | 81.8 | 80.1 | 82.0 | 71.3 | -0.27 | -0.12 | -0.07 | -0.07 | 7.2 | 6.6 | 655.9 | 640.6 | 491.5 | 480.0 | |
| Avg. | 82.4 | 80.6 | 82.5 | 70.6 | 0.15 | 0.22 | -0.15 | -0.16 | 7.3 | 7.4 | 607.7 | 579.2 | 503.9 | 480.0 | |
| Std Dv | 1.6 | 1.4 | 1.1 | 1.2 | 0.38 | 0.31 | 0.08 | 0.08 | 0.4 | 0.6 | 65.0 | 64.9 | 12.1 | 0.0 | |
| 2000 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | | | |
| 34 | 83.1 | 80.6 | 81.3 | 69.5 | -0.10 | -0.18 | -0.06 | -0.06 | 7.3 | 7.7 | 783.7 | 769.5 | 638.1 | 626.6 | |
| 35 | 80.8 | 79.2 | 80.2 | 69.2 | -0.17 | -0.10 | -0.10 | -0.09 | 7.6 | 7.3 | 775.2 | 753.2 | 645.0 | 626.6 | |
| 36 | 82.5 | 80.3 | 80.8 | 69.1 | 0.21 | 0.13 | -0.14 | -0.14 | 7.9 | 7.8 | 718.4 | 689.5 | 652.8 | 626.6 | |
| 37 | - | 78.9 | 80.4 | 69.0 | 0.17 | 0.24 | - | -0.18 | - | 7.5 | 855.3 | 809.1 | 662.4 | 626.6 | |
| Avg. | 82.1 | 79.8 | 80.7 | 69.2 | 0.03 | 0.02 | -0.10 | -0.12 | 7.6 | 7.6 | 783.2 | 755.3 | 649.6 | 626.6 | |
| Std Dv | 1.7 | 1.0 | 0.6 | 0.3 | 0.23 | 0.24 | 0.06 | 0.07 | 0.5 | 0.3 | 68.8 | 61.0 | 12.8 | 0.0 | |
| 2500 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | | | |
| 30 | | | | | | | | | | | NO TRACKING DATA | | | | |
| 31 | - | 75.8 | 75.8 | 64.2 | -0.07 | -0.33 | - | -0.02 | - | 7.8 | 834.7 | 828.7 | 781.0 | 775.4 | |
| 32 | - | 78.7 | 78.1 | 65.7 | 0.13 | -0.37 | - | -0.01 | - | 8.0 | 918.9 | 915.8 | 778.1 | 775.4 | |
| 33 | 78.4 | 76.6 | 76.6 | 64.6 | 0.28 | -0.03 | -0.11 | -0.11 | 7.7 | 7.9 | 879.1 | 851.9 | 800.2 | 775.4 | |
| Avg. | 78.4 | 77.0 | 76.8 | 64.8 | 0.11 | -0.24 | -0.11 | -0.05 | 7.7 | 7.9 | 877.6 | 865.4 | 786.4 | 775.4 | |
| Std Dv | - | 2.1 | 1.7 | 1.1 | 0.25 | 0.26 | - | 0.08 | - | 0.1 | 59.6 | 63.8 | 17.0 | 0.0 | |

TABLE NO. B.5-2.5

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
12/23/81

CORRECTION DATA

JUNE 25, 1980

SITE: 5 SIDELINE - 150 N. SOUTH

| EV | CORRECTED | | | CORRECTIONS (dB) | | | CONSTANTS | | | TRACKING DATA (METERS) | | | | |
|--|-----------|------|-------|------------------|---------------|---------------|---------------|---------------|------|------------------------|------------------|-------|-------|-------|
| | EPNL | NEL | PNLTH | dBSM | $\sqrt{1(P)}$ | $\sqrt{1(A)}$ | $\sqrt{2(P)}$ | $\sqrt{2(A)}$ | K(P) | K(A) | SR | CPA | SRR | CPAR |
| 300 FT. FLYBY - TARGET INDICATED AIRSPEED 152 KTS | | | | | | | | | | | | | | |
| 56 | 98.9 | 95.5 | 103.0 | 90.4 | 1.08 | 1.03 | -0.30 | -0.28 | 6.3 | 5.9 | 199.8 | 179.1 | 195.3 | 175.0 |
| 57 | 98.6 | 95.0 | 101.6 | 88.9 | 0.78 | 0.75 | -0.24 | -0.21 | 6.9 | 6.1 | 193.4 | 178.3 | 189.8 | 175.0 |
| 58 | 98.7 | 95.7 | 103.0 | 90.4 | 1.25 | 1.19 | -0.36 | -0.35 | 6.6 | 6.4 | 204.3 | 180.0 | 198.6 | 175.0 |
| 59 | 98.1 | 94.4 | 100.5 | 87.1 | 0.07 | 0.07 | -0.03 | -0.03 | 6.9 | 6.9 | 266.5 | 263.6 | 176.9 | 175.0 |
| Avg. | 98.6 | 95.1 | 102.0 | 89.2 | 0.79 | 0.76 | -0.23 | -0.22 | 6.7 | 6.3 | 216.0 | 200.2 | 190.2 | 175.0 |
| Std Dv | 0.4 | 0.7 | 1.4 | 1.9 | 0.64 | 0.61 | 0.18 | 0.17 | 0.4 | 0.5 | 41.6 | 51.7 | 11.7 | 0.0 |
| 700 FT. FLYBY - TARGET INDICATED AIRSPEED 152 KTS | | | | | | | | | | | | | | |
| 60 | 96.1 | 92.7 | 98.6 | 85.5 | 1.67 | 1.50 | -0.41 | -0.39 | 6.7 | 6.4 | 378.2 | 328.1 | 299.5 | 259.8 |
| 61 | | | | | | | | | | | NO TRACKING DATA | | | |
| 62 | 94.7 | 91.3 | 96.9 | 84.2 | 1.51 | 1.38 | -0.42 | -0.38 | 7.2 | 6.7 | 301.1 | 263.8 | 296.5 | 259.8 |
| 63 | 96.7 | 94.0 | 97.9 | 86.2 | -0.14 | -0.13 | 0.03 | 0.03 | 7.2 | 6.5 | 258.5 | 261.1 | 257.3 | 259.8 |
| Avg. | 95.9 | 92.7 | 97.8 | 85.3 | 1.01 | 0.92 | -0.27 | -0.25 | 7.0 | 6.5 | 312.6 | 284.3 | 284.4 | 259.8 |
| Std Dv | 1.5 | 1.9 | 1.2 | 1.4 | 1.42 | 1.28 | 0.36 | 0.34 | 0.5 | 0.2 | 85.8 | 53.6 | 33.3 | 0.0 |
| 1000 FT. FLYBY - TARGET INDICATED AIRSPEED 152 KTS | | | | | | | | | | | | | | |
| 64 | | | | | | | | | | | NO TRACKING DATA | | | |
| 65 | | | | | | | | | | | NO TRACKING DATA | | | |
| 66 | 92.4 | 89.7 | 93.1 | 80.8 | 0.40 | 0.36 | -0.12 | -0.12 | 7.7 | 7.5 | 351.5 | 338.8 | 351.4 | 338.6 |
| 67 | 94.8 | 92.3 | 94.6 | 83.4 | -0.13 | -0.11 | 0.03 | 0.03 | 7.9 | 7.0 | 337.7 | 340.5 | 335.8 | 338.6 |
| Avg. | 93.6 | 91.0 | 93.8 | 82.1 | 0.13 | 0.12 | -0.04 | -0.04 | 7.8 | 7.2 | 344.6 | 339.6 | 343.6 | 338.6 |
| Std Dv | 1.7 | 1.8 | 1.0 | 1.9 | 0.37 | 0.33 | 0.11 | 0.11 | 0.1 | 0.4 | 9.8 | 1.2 | 11.0 | 0.0 |

TABLE NO. B.5-3.S

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/19C
12/23/81

CORRECTION DATA

JUNE 25, 1980

SITE: 5 SIDELINE - 130 M. SOUTH

| EV | CORRECTED | | CORRECTIONS (dB) | | CONSTANTS | | TRACKING DATA (ACTUAL) | | | TRACKING DATA (METERS) (REFERENCE) | | | |
|--|-----------|------|------------------|------|---|-------|------------------------|-----|-----|------------------------------------|--------|-------|-------|
| | EPNL | NEL | FMLTM | dBm | $\wedge(1(P)) \wedge(1(A)) \wedge(2(P)) \wedge(2(A))$ | K(P) | K(A) | SR | CFA | SRR | CFAR | | |
| 1500 FT. FLYBY - TARGET INDICATED AIRSPEED 152 KTS | | | | | | | | | | | | | |
| 68 | 89.5 | 86.9 | 90.2 | 78.6 | 0.42 | 0.38 | -0.10 | 6.7 | 6.4 | 545.5 | 526.3 | 497.5 | 480.0 |
| 69 | 91.9 | 89.6 | 91.1 | 80.3 | -0.01 | 0.00 | -0.01 | 7.7 | 6.6 | 491.0 | 489.5 | 481.5 | 480.0 |
| 70 | 89.1 | 86.4 | 88.9 | 77.1 | 0.31 | 0.29 | -0.08 | 6.9 | 7.1 | 540.3 | 525.4 | 493.7 | 480.0 |
| 71 | 92.3 | 89.8 | 92.6 | 81.8 | -0.33 | -0.31 | 0.08 | 6.9 | 6.0 | 473.5 | 485.6 | 468.0 | 480.0 |
| Avg. | 90.7 | 88.2 | 90.7 | 79.4 | 0.10 | 0.09 | -0.03 | 7.1 | 6.5 | 512.6 | 506.7 | 485.2 | 480.0 |
| Std Dv | 2.0 | 2.1 | 1.9 | 3.5 | 0.41 | 0.38 | 0.10 | 0.5 | 0.6 | 43.9 | 27.2 | 16.3 | 0.0 |
| 2000 FT. FLYBY - TARGET INDICATED AIRSPEED 152 KTS | | | | | | | | | | | | | |
| 72 | 88.4 | 85.8 | 87.7 | 74.9 | 0.09 | 0.09 | -0.04 | 7.4 | 7.5 | 1090.9 | 1078.7 | 633.7 | 626.6 |
| 74 | 88.1 | 85.6 | 90.5 | 77.9 | 0.73 | 0.44 | -0.10 | 5.8 | 5.8 | 1133.2 | 1090.2 | 651.3 | 626.6 |
| 75 | 89.6 | 86.9 | 87.1 | 75.7 | 0.01 | 0.01 | -0.02 | 7.8 | 7.3 | 633.1 | 630.2 | 629.5 | 626.6 |
| Avg. | 88.7 | 86.1 | 88.5 | 76.1 | 0.28 | 0.18 | -0.05 | 7.0 | 6.9 | 952.4 | 933.0 | 638.2 | 626.6 |
| Std Dv | 1.1 | 1.0 | 2.6 | 2.3 | 0.56 | 0.32 | 0.06 | 1.5 | 1.3 | 319.3 | 302.8 | 16.4 | 0.0 |
| 2500 FT. FLYBY - TARGET INDICATED AIRSPEED 152 KTS | | | | | | | | | | | | | |
| 76 | 85.0 | 82.2 | 82.7 | 70.5 | 0.57 | 0.53 | -0.16 | 7.9 | 7.6 | 961.2 | 917.3 | 812.5 | 775.4 |
| 77 | 85.0 | 82.2 | 82.7 | 70.5 | 0.57 | 0.53 | -0.16 | 7.9 | 7.6 | 961.2 | 917.3 | 812.5 | 775.4 |
| Avg. | 85.0 | 82.2 | 82.7 | 70.5 | 0.57 | 0.53 | -0.16 | 7.9 | 7.6 | 961.2 | 917.3 | 812.5 | 775.4 |
| Std Dv | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

NO TRACKING DATA

NO TRACKING DATA

TABLE NO. B.4-1.5G

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/23/81

CORRECTION DATA - MAIN ROTOR RPM 107%

JUNE 25, 1980

SITE: 5G

SIDELINE - 150 M. SOUTH (FLUSH)

| EV | CORRECTED | | | CORRECTIONS (dB) | | | CONSTANTS | | TRACKING DATA (METERS) | | | | |
|---|-----------|------|-------|------------------|---------------------------|---------------|---------------|------------------|------------------------|------------------|-------|-------|-------|
| | EPNL | NEL | PRLTM | dBRM | $\sqrt{1(P)} \sqrt{1(A)}$ | $\sqrt{2(P)}$ | $\sqrt{2(A)}$ | K(P) | K(A) | SR | CPA | SRR | CPAR |
| APPROACH | | | | | | | | | | | | | |
| 40 | 95.1 | 92.1 | 93.6 | 80.8 | -0.22 | -0.14 | 0.01 | 7.8 | 7.7 | 202.1 | 202.7 | 191.1 | 191.7 |
| 42 | 95.9 | 93.3 | 96.2 | 83.1 | -0.57 | -0.49 | 0.12 | 7.2 | 7.1 | 186.6 | 194.1 | 184.3 | 191.7 |
| 44 | 97.2 | 94.0 | 96.6 | 85.3 | 0.31 | 0.32 | -0.13 | 7.4 | 7.4 | 199.6 | 191.7 | 199.6 | 191.7 |
| 46 | 99.9 | 96.6 | 98.1 | 84.7 | -0.15 | -0.13 | 0.03 | 7.9 | 7.9 | 205.8 | 207.5 | 190.2 | 191.7 |
| 48 | 96.7 | 93.9 | 95.2 | 83.1 | 0.12 | 0.14 | -0.08 | 8.3 | 7.8 | 197.5 | 193.4 | 195.8 | 191.7 |
| 50 | | | | | | | | | | NO TRACKING DATA | | | |
| Avg. | 96.9 | 94.0 | 95.9 | 83.0 | -0.10 | -0.06 | -0.01 | 7.7 | 7.6 | 198.3 | 197.9 | 192.2 | 191.7 |
| Std Dv | 2.1 | 1.9 | 1.9 | 1.6 | 0.39 | 0.36 | 0.11 | 0.5 | 0.4 | 8.4 | 7.9 | 6.7 | 0.0 |
| TAKEOFF | | | | | | | | | | | | | |
| 41 | 95.0 | 91.9 | 97.6 | 84.0 | 0.82 | 0.80 | -0.27 | 7.0 | 7.6 | 220.8 | 202.0 | 198.0 | 181.1 |
| 43 | 95.3 | 92.3 | 97.2 | 84.5 | 1.16 | 1.11 | -0.38 | 7.3 | 7.1 | 228.2 | 202.8 | 203.9 | 181.1 |
| 45 | | | | | | | | NO TRACKING DATA | | | | | |
| 47 | 96.3 | 93.4 | 99.1 | 84.7 | 1.33 | 1.24 | -0.39 | 6.7 | 6.8 | 213.7 | 187.3 | 206.8 | 181.1 |
| 49 | 96.3 | 93.6 | 98.4 | 87.0 | 1.34 | 1.26 | -0.38 | 7.2 | 6.6 | 207.7 | 181.7 | 207.1 | 181.1 |
| 51 | | | | | | | | NO TRACKING DATA | | | | | |
| Avg. | 95.7 | 92.8 | 98.1 | 85.5 | 1.16 | 1.10 | -0.36 | 7.1 | 7.0 | 217.6 | 193.4 | 203.9 | 181.1 |
| Std Dv | 0.8 | 1.1 | 1.0 | 1.9 | 0.30 | 0.26 | 0.08 | 0.3 | 0.5 | 10.8 | 12.9 | 5.1 | 0.0 |
| 500 FT. FLYBY - TARGET INDICATED AIRSPEED 109 KTS | | | | | | | | | | | | | |
| 18 | 94.1 | 91.1 | 95.5 | 82.2 | -0.18 | -0.10 | -0.02 | 7.4 | 7.3 | 220.3 | 218.8 | 215.2 | 213.8 |
| 19 | 90.9 | 88.3 | 93.6 | 80.6 | -0.91 | -0.74 | 0.15 | 6.9 | 7.1 | 271.6 | 285.2 | 203.6 | 213.8 |
| 20 | | | | | | | | NO TRACKING DATA | | | | | |
| 21 | 90.7 | 88.5 | 93.4 | 80.9 | -1.28 | -1.09 | 0.25 | 7.0 | 7.1 | 241.2 | 262.3 | 196.6 | 213.8 |
| 22 | 94.1 | 91.1 | 96.3 | 83.1 | -0.61 | -0.49 | 0.09 | 6.9 | 6.9 | 212.5 | 219.2 | 207.3 | 213.8 |
| 23 | 90.5 | 88.2 | 93.1 | 80.3 | -0.57 | -0.43 | 0.06 | 7.0 | 7.4 | 266.4 | 272.0 | 209.4 | 213.8 |
| Avg. | 92.1 | 89.4 | 94.4 | 81.4 | -0.71 | -0.57 | 0.11 | 7.0 | 7.2 | 242.4 | 251.5 | 206.4 | 213.8 |
| Std Dv | 2.1 | 1.8 | 1.6 | 1.4 | 0.47 | 0.43 | 0.12 | 0.2 | 0.2 | 30.6 | 35.5 | 8.0 | 0.0 |
| 500 FT. FLYBY - TARGET INDICATED AIRSPEED 124 KTS | | | | | | | | | | | | | |
| 24 | | | | | | | | NO TRACKING DATA | | | | | |
| 25 | 92.0 | 89.6 | 95.6 | 83.3 | -0.34 | -0.25 | 0.02 | 6.4 | 6.5 | 228.1 | 229.9 | 212.1 | 213.8 |
| 26 | 95.5 | 92.7 | 97.2 | 84.4 | -0.25 | -0.19 | 0.01 | 7.4 | 7.1 | 218.7 | 219.4 | 213.1 | 213.8 |
| 27 | 91.4 | 89.1 | 94.7 | 82.2 | -0.96 | -0.83 | 0.18 | 6.5 | 6.7 | 224.5 | 239.4 | 200.5 | 213.8 |
| 28 | 95.0 | 92.2 | 97.2 | 84.1 | -0.27 | -0.24 | 0.03 | 6.7 | 6.7 | 218.1 | 220.1 | 211.9 | 213.8 |
| 29 | 90.9 | 88.6 | 93.7 | 81.1 | -1.42 | -1.28 | 0.30 | 6.6 | 6.9 | 246.1 | 272.9 | 192.9 | 213.8 |
| Avg. | 93.0 | 90.4 | 95.7 | 83.0 | -0.65 | -0.56 | 0.11 | 6.7 | 6.8 | 227.1 | 236.3 | 206.1 | 213.8 |
| Std Dv | 2.5 | 2.2 | 1.8 | 1.6 | 0.60 | 0.56 | 0.15 | 0.4 | 0.3 | 13.2 | 25.4 | 10.4 | 0.0 |

TABLE NO. E.A-2.50

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/23/81

CORRECTION DATA - MAIN ROTOR RPM 107%

| SITE: 56 | | CORRECTED | | CORRECTIONS (dB) | | CONSTANTS | | TRACKING DATA (METERS) | | | | |
|--|------|-----------|-------|------------------|-----------------------------|-----------------------------|------|------------------------|------------------|-------|-------|-------|
| SIDELINE - 150 M. SOUTH (FLUSH) | | EPRL | PNLTH | UBAM | $\wedge 1(P) / \wedge 1(A)$ | $\wedge 2(P) / \wedge 2(A)$ | K(P) | K(A) | SR | GPA | SRR | CPAR |
| 300 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | |
| 10 | 98.1 | 95.1 | 101.5 | 88.3 | 0.54 | -0.21 | 7.1 | 7.2 | 211.3 | 197.3 | 188.1 | 175.6 |
| 11 | 95.1 | 91.9 | 99.9 | 86.8 | 0.42 | -0.16 | 6.3 | 6.2 | 228.0 | 215.0 | 186.2 | 175.6 |
| 16 | 96.3 | 93.3 | 99.4 | 86.0 | -1.30 | 0.27 | 6.8 | 7.2 | 207.8 | 227.7 | 160.3 | 175.6 |
| 17 | | | | | | | | | NO TRACKING DATA | | | |
| Avg. | 96.5 | 93.4 | 100.3 | 87.0 | -0.11 | -0.06 | 6.7 | 6.8 | 215.7 | 213.3 | 178.2 | 175.6 |
| Std Dv | 2.2 | 2.3 | 1.6 | 1.7 | 1.46 | 0.37 | 0.5 | 0.8 | 15.3 | 21.6 | 22.0 | 0.0 |
| 700 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | |
| 8 | 95.3 | 92.4 | 97.1 | 83.8 | -0.10 | -0.03 | 7.3 | 7.5 | 276.0 | 271.8 | 264.9 | 260.8 |
| 9 | 91.4 | 89.1 | 93.6 | 81.3 | -0.22 | -0.12 | 7.2 | 7.3 | 298.4 | 296.3 | 262.7 | 260.8 |
| 14 | 94.7 | 92.0 | 96.3 | 83.0 | 0.46 | 0.46 | 7.6 | 7.8 | 331.4 | 311.1 | 277.9 | 260.8 |
| 15 | 91.4 | 88.8 | 95.0 | 82.1 | -0.09 | -0.06 | 6.6 | 6.8 | 336.0 | 328.7 | 266.5 | 260.8 |
| Avg. | 93.2 | 90.6 | 95.5 | 82.6 | 0.01 | -0.07 | 7.2 | 7.3 | 310.5 | 302.0 | 263.0 | 260.8 |
| Std Dv | 2.5 | 2.3 | 1.8 | 1.4 | 0.37 | 0.32 | 0.5 | 0.5 | 34.8 | 29.5 | 8.3 | 0.0 |
| 1000 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | |
| 1 | 90.2 | 87.8 | 92.4 | 79.4 | 0.52 | -0.53 | 6.9 | 7.4 | 424.4 | 395.4 | 364.6 | 339.7 |
| 2 | 92.7 | 90.1 | 93.4 | 79.9 | 0.29 | 0.33 | 7.5 | 7.9 | 380.9 | 361.5 | 357.9 | 339.7 |
| 3 | 89.6 | 87.4 | 90.9 | 78.5 | -0.06 | 0.03 | 7.2 | 7.5 | 400.6 | 390.2 | 348.7 | 339.7 |
| 4 | 92.9 | 90.4 | 94.3 | 80.9 | 0.45 | 0.44 | 7.2 | 7.4 | 443.7 | 416.4 | 361.9 | 339.7 |
| 52 | 93.1 | 90.5 | 94.6 | 81.5 | 1.05 | -0.30 | 7.3 | 7.6 | 493.3 | 448.4 | 373.7 | 339.7 |
| 53 | 90.2 | 88.0 | 93.0 | 79.8 | 0.11 | 0.13 | 6.4 | 7.3 | 472.5 | 461.3 | 347.9 | 339.7 |
| 54 | 94.3 | 91.4 | 96.4 | 83.4 | 1.83 | 1.68 | 6.4 | 6.4 | 1020.8 | 900.8 | 385.0 | 339.7 |
| 55 | 89.7 | 87.2 | 91.4 | 79.1 | -0.25 | -0.19 | 6.1 | 7.3 | 398.6 | 400.9 | 337.7 | 339.7 |
| Avg. | 91.6 | 89.1 | 93.3 | 80.3 | 0.49 | -0.17 | 6.9 | 7.4 | 504.3 | 471.9 | 359.7 | 339.7 |
| Std Dv | 2.0 | 1.8 | 1.9 | 1.7 | 0.72 | 0.64 | 0.5 | 0.4 | 89.8 | 190.4 | 16.4 | 0.0 |

TABLE NO. B.4-3.5G

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/23/81

CORRECTION DATA - MAIN ROTOR RPM 1072

JUNE 25, 1980

SITE: 5G

SIDELINE - 150 M. SOUTH (FLUSH)

| EV | CORRECTED | | | | CORRECTIONS (dB) | | | | CONSTANTS | | TRACKING DATA (METERS) | | | |
|--|-----------|------|-------|------|------------------|---------------|---------------|---------------|-----------|------|------------------------|-------|-------|-------|
| | EPNL | NEL | PNLTH | GBAM | $\wedge 1(P)$ | $\wedge 1(A)$ | $\wedge 2(P)$ | $\wedge 2(A)$ | K(P) | K(A) | SR | CPA | SRR | CPAR |
| 1500 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | | |
| 5 | 86.7 | 85.1 | 87.4 | 75.2 | 0.27 | 0.33 | -0.18 | -0.19 | 7.4 | 7.7 | 612.2 | 578.0 | 509.6 | 481.2 |
| 6 | | | | | | | | | | | NO TRACKING DATA | | | |
| 7 | 86.7 | 84.9 | 88.0 | 75.7 | 0.51 | 0.53 | -0.23 | -0.24 | 7.2 | 7.5 | 583.9 | 542.4 | 518.0 | 481.2 |
| 12 | | | | | | | | | | | NO TRACKING DATA | | | |
| 13 | 85.9 | 84.2 | 87.6 | 75.7 | -0.13 | -0.01 | -0.09 | -0.09 | 6.9 | 7.1 | 552.9 | 536.2 | 496.2 | 481.2 |
| 38 | 88.7 | 86.6 | 88.6 | 76.1 | 0.30 | 0.35 | -0.19 | -0.19 | 7.8 | 7.9 | 549.4 | 519.3 | 509.1 | 481.2 |
| 39 | 86.3 | 84.6 | 88.1 | 76.0 | -0.25 | -0.13 | -0.07 | -0.07 | 6.4 | 6.7 | 626.8 | 612.2 | 492.6 | 481.2 |
| Avg. | 86.9 | 85.1 | 87.9 | 75.7 | 0.14 | 0.21 | -0.15 | -0.16 | 7.1 | 7.4 | 585.1 | 557.6 | 505.1 | 481.2 |
| Std Dv | 1.2 | 1.1 | 0.5 | 0.4 | 0.37 | 0.32 | 0.08 | 0.08 | 0.6 | 0.6 | 39.9 | 43.0 | 12.1 | 0.0 |
| 2000 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | | |
| 34 | 86.7 | 84.5 | 86.2 | 73.7 | 0.03 | -0.20 | -0.06 | -0.06 | 7.4 | 7.6 | 813.9 | 799.2 | 639.3 | 627.8 |
| 35 | 84.6 | 83.1 | 84.6 | 72.8 | -0.20 | -0.12 | -0.09 | -0.10 | 7.5 | 7.7 | 833.0 | 809.3 | 646.1 | 627.8 |
| 36 | 86.1 | 84.1 | 85.3 | 73.0 | 0.16 | 0.07 | -0.14 | -0.14 | 7.6 | 7.7 | 866.2 | 831.4 | 654.0 | 627.8 |
| 37 | 84.7 | 83.2 | 84.1 | 72.6 | 0.24 | 0.27 | -0.19 | -0.19 | 7.7 | 7.8 | 685.1 | 648.2 | 663.6 | 627.8 |
| Avg. | 85.5 | 83.7 | 85.0 | 73.0 | 0.06 | 0.00 | -0.12 | -0.12 | 7.6 | 7.7 | 799.5 | 772.0 | 650.8 | 627.8 |
| Std Dv | 1.3 | 0.8 | 1.1 | 0.6 | 0.24 | 0.26 | 0.07 | 0.07 | 0.2 | 0.1 | 97.1 | 102.4 | 12.8 | 0.0 |
| 2500 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | | |
| 30 | | | | | | | | | | | NO TRACKING DATA | | | |
| 31 | 82.1 | 80.4 | 80.8 | 69.2 | -0.02 | -0.32 | -0.02 | -0.02 | 7.8 | 8.0 | 835.8 | 829.8 | 782.2 | 776.6 |
| 32 | | 82.6 | 82.2 | 70.3 | -0.15 | -0.43 | - | -0.01 | - | 8.0 | 969.6 | 966.3 | 779.3 | 776.6 |
| 33 | 82.5 | 80.8 | 81.9 | 70.1 | 0.44 | -0.03 | -0.10 | -0.10 | 7.2 | 7.3 | 899.8 | 872.0 | 801.4 | 776.6 |
| Avg. | 82.3 | 81.2 | 81.7 | 69.9 | 0.09 | -0.26 | -0.06 | -0.04 | 7.5 | 7.7 | 901.8 | 889.4 | 787.6 | 776.6 |
| Std Dv | 0.3 | 1.7 | 1.1 | 0.8 | 0.44 | 0.29 | 0.06 | 0.07 | 0.4 | 0.6 | 66.0 | 62.0 | 17.0 | 0.0 |

TABLE NO. B.5-2.50

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
12/23/81

CORRECTION DATA

| EV | CORRECTED | | | CORRECTIONS (dB) | CONSTANTS | | TRACKING DATA (METERS) | | | | | | | |
|--|-----------|-------|-------|------------------|-----------|-------|------------------------|-------|-----|------|-------|-------|-------|-------|
| | EPNL | NEL | PNLTM | | K(P) | K(A) | (ACTUAL) | CPA | SRR | CPAR | | | | |
| SITE: 56 SIDELINE - 150 N. SOUTH (FLUSH) JUNE 25, 1980 | | | | | | | | | | | | | | |
| 300 FT. FLYBY - TARGET INDICATED AIRSPEED 152 KTS | | | | | | | | | | | | | | |
| 56 | 102.7 | 99.5 | 107.3 | 95.2 | 1.07 | 1.03 | -0.29 | -0.27 | 6.1 | 5.7 | 200.4 | 179.7 | 195.9 | 175.6 |
| 57 | 102.3 | 98.9 | 106.3 | 93.3 | 0.77 | 0.77 | -0.24 | -0.22 | 7.0 | 6.4 | 248.1 | 228.9 | 190.4 | 175.6 |
| 58 | 103.0 | 100.2 | 107.2 | 95.3 | 1.25 | 1.20 | -0.37 | -0.36 | 6.8 | 6.5 | 204.9 | 180.6 | 199.2 | 175.6 |
| 59 | 101.3 | 97.8 | 104.8 | 91.5 | 0.07 | 0.07 | -0.03 | -0.03 | 6.8 | 6.5 | 236.5 | 233.8 | 177.6 | 175.6 |
| Avg. | 102.3 | 99.1 | 106.4 | 93.8 | 0.79 | 0.77 | -0.23 | -0.22 | 6.7 | 6.3 | 222.5 | 205.7 | 190.8 | 175.6 |
| Std Dev | 0.9 | 1.3 | 1.4 | 2.2 | 0.64 | 0.61 | 0.18 | 0.17 | 0.5 | 0.5 | 28.7 | 36.3 | 11.6 | 0.0 |
| 700 FT. FLYBY - TARGET INDICATED AIRSPEED 152 KTS | | | | | | | | | | | | | | |
| 60 | 100.2 | 97.0 | 104.5 | 91.1 | 1.63 | 1.50 | -0.35 | -0.38 | 5.7 | 6.2 | 378.9 | 329.0 | 300.4 | 260.8 |
| 61 | - | 96.1 | 101.5 | 89.4 | 1.49 | 1.38 | - | -0.37 | - | 6.5 | 332.8 | 291.9 | 297.4 | 260.8 |
| 62 | - | 98.2 | 102.5 | 90.9 | -0.15 | -0.13 | 0.03 | 0.03 | 7.0 | 6.4 | 266.6 | 269.1 | 258.3 | 260.8 |
| 63 | 100.7 | 98.2 | 102.5 | 90.9 | -0.15 | -0.13 | 0.03 | 0.03 | 7.0 | 6.4 | 266.6 | 269.1 | 258.3 | 260.8 |
| Avg. | 100.4 | 97.1 | 102.8 | 90.5 | 0.99 | 0.92 | -0.16 | -0.24 | 6.3 | 6.4 | 324.1 | 296.7 | 285.3 | 260.8 |
| Std Dev | 0.3 | 1.6 | 2.1 | 1.3 | 1.40 | 1.28 | 0.27 | 0.33 | 0.9 | 0.2 | 79.9 | 42.7 | 33.2 | 0.0 |
| 1000 FT. FLYBY - TARGET INDICATED AIRSPEED 152 KTS | | | | | | | | | | | | | | |
| 64 | 96.7 | 94.6 | 98.2 | 86.7 | 0.12 | 0.11 | -0.05 | -0.05 | 7.1 | 6.9 | 539.9 | 531.5 | 345.1 | 339.7 |
| 65 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 66 | 96.6 | 94.1 | 97.7 | 85.7 | 0.39 | 0.37 | -0.12 | -0.12 | 7.4 | 7.3 | 368.3 | 355.0 | 352.4 | 339.7 |
| 67 | 98.4 | 94.0 | 99.4 | 88.1 | -0.13 | -0.11 | 0.03 | 0.02 | 7.2 | 6.8 | 336.9 | 339.7 | 336.9 | 339.7 |
| Avg. | 97.3 | 94.9 | 98.4 | 86.8 | 0.13 | 0.12 | -0.05 | -0.05 | 7.2 | 7.0 | 415.0 | 408.7 | 344.8 | 339.7 |
| Std Dev | 1.4 | 1.4 | 1.3 | 1.7 | 0.37 | 0.34 | 0.11 | 0.10 | 0.3 | 0.4 | 154.5 | 150.7 | 11.0 | 0.0 |

TABLE #0, 8.4-1.6

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/23/81

CORRECTION DATA - MAIN ROTOR RPM 1072

JUNE 25, 1980

SIDELINE - 284 M. NORTH

SITE: 6

| EV | CORRECTED | | | | CORRECTIONS (dB) | | | | CONSTANTS | | TRACKING DATA (METERS) | | | |
|---|-----------|------|-------|------|------------------|----------------|----------------|----------------|-----------|------|------------------------|-------|-------|-------|
| | EFWL | NEL | PNLTH | dBRM | $\wedge(1(F))$ | $\wedge(1(A))$ | $\wedge(2(P))$ | $\wedge(2(A))$ | K(P) | K(A) | SR | CPA | SRR | CPAR |
| APPROACH | | | | | | | | | | | | | | |
| 40 | 89.8 | 87.3 | 89.0 | 77.1 | 0.10 | 0.13 | -0.08 | -0.08 | 6.9 | 6.7 | 361.6 | 352.2 | 315.6 | 307.4 |
| 42 | 90.0 | 87.7 | 90.6 | 78.4 | -0.11 | -0.07 | -0.01 | -0.01 | 6.2 | 6.1 | 432.4 | 430.2 | 308.9 | 307.4 |
| 44 | 90.2 | 88.0 | 88.2 | 76.2 | -0.37 | -0.32 | 0.07 | 0.07 | 7.7 | 7.6 | 310.5 | 317.2 | 300.9 | 307.4 |
| 46 | 90.9 | 88.8 | 91.2 | 79.1 | 0.09 | 0.11 | -0.05 | -0.05 | 6.4 | 6.4 | 380.2 | 372.8 | 313.5 | 307.4 |
| 48 | 88.5 | 86.0 | 87.3 | 74.6 | -0.19 | -0.14 | 0.03 | 0.03 | 7.3 | 7.4 | 316.7 | 319.3 | 304.9 | 307.4 |
| 50 | | | | | | | | | | | NO TRACKING DATA | | | |
| NO TRACKING DATA | | | | | | | | | | | | | | |
| Avg. | 89.9 | 87.5 | 89.3 | 77.1 | -0.10 | -0.06 | -0.01 | -0.01 | 6.9 | 6.8 | 360.3 | 358.4 | 308.8 | 307.4 |
| Std Dv | 1.0 | 1.2 | 1.9 | 2.0 | 0.23 | 0.22 | 0.07 | 0.07 | 0.7 | 0.7 | 57.7 | 53.6 | 7.0 | 0.0 |
| TAKEDOFF | | | | | | | | | | | | | | |
| 41 | 89.3 | 85.5 | 89.8 | 74.8 | -0.02 | 0.01 | -0.06 | -0.06 | 7.3 | 7.5 | 323.3 | 317.1 | 306.9 | 301.0 |
| 43 | 89.2 | 85.5 | 90.1 | 74.9 | 0.81 | 0.77 | -0.26 | -0.26 | 7.3 | 7.3 | 584.4 | 539.0 | 326.3 | 301.0 |
| 45 | | | | | | | | | | | NO TRACKING DATA | | | |
| 47 | 89.6 | 86.1 | 89.7 | 76.8 | 0.07 | 0.08 | -0.06 | -0.06 | 7.7 | 6.9 | 350.4 | 324.2 | 306.7 | 301.0 |
| 49 | 88.2 | 84.4 | 88.4 | 75.5 | 0.21 | 0.23 | -0.10 | -0.10 | 7.6 | 7.2 | 319.6 | 309.7 | 310.7 | 301.0 |
| 51 | 88.7 | 85.3 | 89.3 | 75.6 | 0.07 | 0.08 | -0.07 | -0.06 | 7.6 | 6.8 | 319.8 | 313.6 | 307.0 | 301.0 |
| Avg. | 89.0 | 85.3 | 89.5 | 75.5 | 0.23 | 0.23 | -0.11 | -0.11 | 7.5 | 7.1 | 375.5 | 360.7 | 311.5 | 301.0 |
| Std Dv | 0.7 | 0.7 | 0.8 | 0.9 | 0.39 | 0.36 | 0.10 | 0.10 | 0.2 | 0.3 | 134.9 | 115.3 | 9.7 | 0.0 |
| 500 FT. FLYBY - TARGET INDICATED AIRSPEED 109 KTS | | | | | | | | | | | | | | |
| 18 | 85.6 | 82.9 | 86.5 | 72.8 | -0.59 | -0.37 | 0.03 | 0.03 | 6.7 | 7.2 | 349.8 | 353.7 | 318.0 | 321.5 |
| 19 | 86.8 | 84.6 | 87.4 | 75.7 | 0.38 | 0.38 | -0.20 | -0.19 | 7.6 | 7.2 | 498.0 | 469.2 | 341.3 | 321.5 |
| 20 | | | | | | | | | | | NO TRACKING DATA | | | |
| 21 | 86.8 | 84.5 | 88.1 | 75.7 | 0.19 | 0.30 | -0.17 | -0.17 | 7.2 | 7.2 | 434.9 | 412.3 | 339.1 | 321.5 |
| 22 | 85.0 | 82.2 | 85.2 | 72.4 | -0.77 | -0.59 | 0.11 | 0.11 | 7.2 | 7.3 | 312.9 | 324.2 | 310.3 | 321.5 |
| 23 | 86.4 | 84.1 | 86.9 | 74.7 | 0.58 | 0.55 | -0.24 | -0.24 | 7.5 | 7.5 | 383.0 | 356.2 | 345.7 | 321.5 |
| Avg. | 86.1 | 83.7 | 86.8 | 74.3 | -0.04 | 0.05 | -0.09 | -0.09 | 7.3 | 7.3 | 395.7 | 383.1 | 330.9 | 321.5 |
| Std Dv | 0.9 | 1.2 | 1.2 | 1.8 | 0.70 | 0.58 | 0.16 | 0.16 | 0.4 | 0.1 | 83.9 | 66.6 | 18.1 | 0.0 |
| 500 FT. FLYBY - TARGET INDICATED AIRSPEED 124 KTS | | | | | | | | | | | | | | |
| 24 | | | | | | | | | | | NO TRACKING DATA | | | |
| 25 | 87.6 | 85.8 | 89.5 | 77.9 | 0.13 | 0.16 | -0.11 | -0.11 | 6.8 | 6.6 | 386.8 | 372.6 | 333.8 | 321.5 |
| 26 | 86.4 | 83.8 | 88.1 | 75.1 | -0.58 | -0.45 | 0.06 | 0.06 | 6.5 | 6.8 | 321.0 | 327.6 | 315.0 | 321.5 |
| 27 | 87.9 | 85.9 | 89.6 | 77.4 | 0.32 | 0.30 | -0.16 | -0.16 | 7.3 | 7.4 | 361.9 | 344.4 | 337.8 | 321.5 |
| 28 | 86.7 | 83.8 | 87.1 | 74.1 | -0.51 | -0.45 | 0.07 | 0.07 | 7.4 | 7.4 | 325.0 | 331.8 | 315.0 | 321.5 |
| 29 | 88.8 | 86.6 | 91.0 | 79.0 | 1.17 | 0.95 | -0.33 | -0.32 | 7.1 | 6.9 | 397.4 | 357.4 | 357.5 | 321.5 |
| Avg. | 87.5 | 85.2 | 89.1 | 76.7 | 0.11 | 0.10 | -0.09 | -0.09 | 7.0 | 7.0 | 358.4 | 346.8 | 331.8 | 321.5 |
| Std Dv | 1.1 | 1.5 | 1.7 | 2.3 | 0.82 | 0.68 | 0.19 | 0.19 | 0.4 | 0.5 | 40.2 | 21.4 | 20.5 | 0.0 |

TABLE NO. B.4-2.6

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/23/81

CORRECTION DATA - MAIN ROTOR RPM 1072

JUNE 25, 1980

SITE: 6 SIDELINE - 284 M. NORTH

| EV | CORRECTED | | CORRECTIONS (dB) | | | | CONSTANTS | | TRACKING DATA (METERS) | | | |
|--|-----------|------|------------------|---------------|---------------|---------------|-----------|------|------------------------|------------------|--------|-------|
| | EPNL | MEL | $\sqrt{1(P)}$ | $\sqrt{1(A)}$ | $\sqrt{2(P)}$ | $\sqrt{2(A)}$ | K(P) | K(A) | SR | CPA | SRR | CPAR |
| 300 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | |
| 11 | 89.7 | 87.1 | 92.9 | 79.4 | 0.35 | -0.15 | -0.16 | 6.6 | 7.2 | NO TRACKING DATA | | |
| 16 | 88.6 | 85.3 | 90.5 | 77.5 | 0.44 | -0.20 | -0.20 | 7.4 | 7.2 | 337.7 | 320.8 | 313.4 |
| 17 | | | | | | | | | | 328.5 | 308.3 | 317.3 |
| | | | | | | | | | | NO TRACKING DATA | | |
| Avg. | 89.1 | 86.2 | 91.7 | 78.5 | 0.39 | -0.17 | -0.18 | 7.0 | 7.2 | 333.1 | 314.6 | 315.4 |
| Std Dv | 0.8 | 1.3 | 1.7 | 1.3 | 0.06 | 0.08 | 0.03 | 0.6 | 0.0 | 6.5 | 8.9 | 2.7 |
| 700 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | |
| 9 | | | | | | | | | | NO TRACKING DATA | | |
| 14 | 86.5 | 83.1 | 88.2 | 73.6 | -0.32 | 0.02 | 0.02 | 6.7 | 7.5 | NO TRACKING DATA | | |
| 15 | 88.2 | 85.3 | 91.5 | 77.4 | 0.45 | -0.17 | -0.19 | 6.2 | 7.0 | 441.8 | 445.0 | 351.8 |
| | | | | | | | | | | 469.3 | 440.5 | 377.4 |
| Avg. | 87.4 | 84.2 | 89.9 | 75.5 | 0.06 | -0.07 | -0.08 | 6.4 | 7.2 | 455.6 | 442.8 | 364.6 |
| Std Dv | 1.2 | 1.5 | 2.4 | 2.7 | 0.54 | 0.54 | 0.15 | 0.4 | 0.4 | 19.4 | 3.1 | 18.1 |
| 1000 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | |
| 1 | | | | | | | | | | | | |
| 2 | | | | | | | | | | NO TRACKING DATA | | |
| 3 | | | | | | | | | | NO TRACKING DATA | | |
| 4 | | | | | | | | | | NO TRACKING DATA | | |
| 52 | 85.6 | 82.8 | 85.9 | 73.0 | -0.70 | -0.56 | 0.11 | 7.3 | 7.3 | 437.7 | 453.7 | 400.9 |
| 53 | 87.6 | 84.9 | 89.2 | 76.1 | 1.34 | 1.19 | -0.34 | 6.7 | 7.0 | 485.4 | 433.7 | 465.1 |
| 54 | 86.9 | 83.7 | 86.9 | 73.8 | 0.90 | 0.85 | -0.25 | 7.2 | 7.4 | 1083.2 | 1003.3 | 448.6 |
| 55 | 88.3 | 85.7 | 90.8 | 78.4 | 0.58 | 0.55 | -0.17 | 6.8 | 6.6 | 853.1 | 805.4 | 440.2 |
| Avg. | 87.1 | 84.3 | 88.2 | 75.3 | 0.53 | 0.51 | -0.16 | 7.0 | 7.1 | 714.9 | 674.0 | 438.7 |
| Std Dv | 1.4 | 1.6 | 2.7 | 3.0 | 1.07 | 0.93 | 0.24 | 0.3 | 0.4 | 272.6 | 248.6 | 33.4 |

TABLE NO. B.4-3.6

SIKORSKY S-76 SPIRIT HELICOPTER

DOT/TSC
12/23/81

CORRECTION DATA - MAIN ROTOR RPM 1072

JUNE 25, 1980

SITE: 6

SIDELINE - 284 M. NORTH

| EV | CORRECTED | | | CORRECTIONS (dB) | | | | CONSTANTS | | TRACKING DATA (METERS) | | | |
|--|-----------|------|-------|------------------|-----------------------------|-----------------------------|-------|-----------|-----|------------------------|--------|-------|-------|
| | EPNL | MEL | PNLTH | dBAM | $\sqrt{1(P)} / \sqrt{1(A)}$ | $\sqrt{2(P)} / \sqrt{2(A)}$ | K(P) | K(A) | SR | CPA | SRK | CFAR | |
| 1500 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | |
| 12 | 83.6 | 80.7 | 84.2 | 70.7 | 0.65 | 0.58 | -0.25 | 7.4 | 7.4 | 704.1 | 651.3 | 580.6 | 537.1 |
| 38 | 83.9 | 81.0 | 82.4 | 69.3 | -0.41 | 0.03 | 0.03 | 7.6 | 8.0 | 645.8 | 650.8 | 532.9 | 537.1 |
| 39 | 84.6 | 82.1 | 84.1 | 71.5 | 0.38 | 0.41 | -0.21 | 7.8 | 7.8 | 580.2 | 545.2 | 571.6 | 537.1 |
| Avg. | 84.0 | 81.3 | 83.6 | 70.5 | 0.21 | 0.19 | -0.14 | 7.6 | 7.8 | 643.3 | 615.8 | 561.7 | 537.1 |
| Std Dv | 0.8 | 1.0 | 1.5 | 1.6 | 0.78 | 0.75 | 0.21 | 0.2 | 0.4 | 87.6 | 86.4 | 35.9 | 0.0 |
| 2000 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | |
| 34 | 82.8 | 80.2 | 82.4 | 69.8 | 0.02 | -0.12 | -0.06 | 7.1 | 7.4 | 697.4 | 684.8 | 683.7 | 671.3 |
| 35 | 82.9 | 80.5 | 81.3 | 69.2 | -0.17 | -0.07 | -0.07 | 8.0 | 7.9 | 722.9 | 709.0 | 684.5 | 671.3 |
| 36 | 82.6 | 79.7 | 80.4 | 68.7 | 0.13 | 0.09 | -0.11 | 7.2 | 7.5 | 726.0 | 700.2 | 696.1 | 671.3 |
| 37 | 82.7 | 80.0 | 81.6 | 69.3 | 0.27 | 0.19 | -0.15 | 7.5 | 7.4 | 852.9 | 813.6 | 703.7 | 671.3 |
| Avg. | 82.7 | 80.1 | 81.4 | 69.3 | 0.06 | -0.00 | -0.10 | 7.5 | 7.5 | 749.8 | 726.9 | 692.0 | 671.3 |
| Std Dv | 0.1 | 0.4 | 1.0 | 0.6 | 0.23 | 0.21 | 0.05 | 0.5 | 0.3 | 85.6 | 71.9 | 11.8 | 0.0 |
| 2500 FT. FLYBY - TARGET INDICATED AIRSPEED 140 KTS | | | | | | | | | | | | | |
| 30 | | | | | | | | | | | | | |
| 31 | 81.3 | 78.1 | 80.8 | 67.7 | 1.09 | 0.60 | -0.23 | 7.1 | 7.1 | 1041.1 | 966.3 | 874.8 | 812.0 |
| 32 | 81.7 | 78.8 | 79.4 | 68.0 | 0.51 | -0.15 | -0.06 | 7.6 | 7.1 | 839.3 | 825.5 | 825.6 | 812.0 |
| 33 | 83.4 | 80.1 | 82.7 | 70.0 | 2.19 | 1.26 | -0.40 | 7.5 | 7.3 | 1747.2 | 1548.2 | 916.3 | 812.0 |
| Avg. | 82.2 | 79.0 | 81.0 | 68.6 | 1.26 | 0.57 | -0.33 | 7.4 | 7.2 | 1209.2 | 1113.3 | 872.2 | 812.0 |
| Std Dv | 1.5 | 1.4 | 2.4 | 1.8 | 1.21 | 1.00 | 0.24 | 0.4 | 0.2 | 369.9 | 287.8 | 64.2 | 0.0 |

NO TRACKING DATA
NO TRACKING DATA
NO TRACKING DATA
NO TRACKING DATA

NO TRACKING DATA

TABLE NO. B.5-2.6

SINORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
12/23/81

CORRECTION DATA

JUNE 25, 1980

SITE: 6 SIDELINE -- 284 N. NORTH

| EV | CORRECTED | | | | CORRECTIONS (dB) | | | | CONSTANTS | | | TRACKING DATA (METERS) | | | | |
|---|-----------|------|-------|------|------------------|---------------|---------------|---------------|-----------|------|-------|------------------------|-------|-------|----------|-------------|
| | EPNL | NEL | PNLTH | QBAM | $\wedge 1(P)$ | $\wedge 1(A)$ | $\wedge 2(P)$ | $\wedge 2(A)$ | K(P) | K(A) | SR | CPA | SRR | CPAR | (ACTUAL) | (REFERENCE) |
| 300 FT. FLYBY - TARGET INDICATED AIRSPEED 152 KTS | | | | | | | | | | | | | | | | |
| 56 | 91.6 | 87.3 | 93.7 | 80.1 | -0.65 | -0.61 | 0.17 | 0.16 | 6.6 | 6.2 | 350.1 | 371.3 | 280.8 | 297.8 | | |
| 57 | 94.5 | 90.7 | 95.8 | 83.1 | -0.45 | -0.40 | 0.10 | 0.10 | 7.4 | 6.9 | 416.4 | 430.1 | 288.3 | 297.8 | | |
| 58 | 92.7 | 88.9 | 95.4 | 82.3 | -0.70 | -0.68 | 0.17 | 0.16 | 6.9 | 6.2 | 352.5 | 373.3 | 281.1 | 297.8 | | |
| 59 | 97.3 | 93.8 | 98.6 | 86.1 | 0.15 | 0.16 | -0.07 | -0.07 | 6.9 | 6.9 | 430.7 | 421.4 | 304.4 | 297.8 | | |
| Avg. | 94.0 | 90.2 | 95.9 | 82.9 | -0.41 | -0.38 | 0.09 | 0.09 | 6.9 | 6.6 | 387.4 | 399.0 | 288.6 | 297.8 | | |
| Std Dv | 3.0 | 3.4 | 2.5 | 3.0 | 0.48 | 0.47 | 0.14 | 0.13 | 0.4 | 0.5 | 51.6 | 39.1 | 13.5 | 0.0 | | |
| 700 FT. FLYOVER - TARGET INDICATED AIRSPEED 152 KTS | | | | | | | | | | | | | | | | |
| 60 | 91.3 | 88.0 | 91.6 | 78.9 | -1.61 | -1.54 | 0.45 | 0.43 | 7.5 | 7.2 | 458.3 | 525.5 | 308.9 | 354.3 | | |
| 61 | | | | | | | | | | | | | | | | |
| 62 | 93.2 | 89.0 | 92.7 | 79.2 | -1.16 | -1.12 | 0.29 | 0.30 | 7.0 | 7.0 | 417.9 | 460.4 | 321.6 | 354.3 | | |
| 63 | 95.5 | 92.8 | 96.1 | 83.2 | 0.04 | 0.05 | -0.03 | -0.04 | 7.1 | 7.3 | 434.8 | 430.0 | 358.2 | 354.3 | | |
| Avg. | 93.3 | 89.9 | 93.5 | 80.4 | -0.91 | -0.87 | 0.24 | 0.23 | 7.2 | 7.2 | 437.0 | 472.0 | 329.6 | 354.3 | | |
| Std Dv | 3.0 | 3.6 | 3.3 | 3.4 | 1.21 | 1.17 | 0.35 | 0.34 | 0.4 | 0.2 | 28.7 | 69.0 | 36.2 | 0.0 | | |
| 1000 FT. FLYBY - TARGET INDICATED AIRSPEED 152 KTS | | | | | | | | | | | | | | | | |
| 64 | 94.1 | 90.9 | 93.5 | 81.7 | -0.50 | -0.47 | 0.14 | 0.13 | 8.1 | 7.5 | 577.9 | 600.8 | 399.7 | 415.6 | | |
| 65 | | | | | | | | | | | | | | | | |
| 66 | 92.8 | 89.8 | 92.4 | 80.1 | -0.59 | -0.53 | 0.17 | 0.15 | 8.0 | 7.2 | 570.6 | 598.6 | 396.2 | 415.6 | | |
| 67 | 91.7 | 88.7 | 91.1 | 78.7 | -0.02 | -0.02 | -0.01 | -0.01 | 7.5 | 7.2 | 417.4 | 416.6 | 416.4 | 415.6 | | |
| Avg. | 92.9 | 89.8 | 92.3 | 80.2 | -0.37 | -0.34 | 0.10 | 0.09 | 7.9 | 7.3 | 522.0 | 538.6 | 404.1 | 415.6 | | |
| Std Dv | 1.7 | 1.6 | 1.7 | 2.2 | 0.43 | 0.39 | 0.14 | 0.12 | 0.5 | 0.3 | 128.2 | 149.5 | 15.3 | 0.0 | | |

TABLE NO. E.5-3.6

SIKORSKY UH-60A BLACKHAWK HELICOPTER

NOT/TSC
12/23/81

CORRECTION DATA

| EV | CORRECTED | | | CORRECTIONS (DB) | | | CONSTANTS | | | TRACKING DATA (METERS) (ACTUAL) | | | | |
|--|-----------|------|-------|------------------|-----------------------------|-----------------------------|-----------|-------|-----|------------------------------------|--------|--------|-------|-------|
| | EPNL | NEL | PMLTM | DBM | $\sqrt{1(P)} / \sqrt{1(A)}$ | $\sqrt{2(P)} / \sqrt{2(A)}$ | K(P) | K(A) | SR | CPA | SRR | CPAR | | |
| 1500 FT. FLYBY - TARGET INDICATED AIRSPEED 152 KTS | | | | | | | | | | | | | | |
| 68 | 90.8 | 88.1 | 90.0 | 78.4 | -0.65 | -0.61 | 0.14 | 0.14 | 7.0 | 6.6 | 730.1 | 767.3 | 511.0 | 537.1 |
| 69 | 89.3 | 86.1 | 87.8 | 76.0 | -0.14 | -0.13 | 0.02 | 0.02 | 7.0 | 7.3 | 533.2 | 537.1 | 533.2 | 537.1 |
| 70 | 91.7 | 88.8 | 91.9 | 78.6 | -0.28 | -0.24 | 0.04 | 0.05 | 6.7 | 7.2 | 1220.6 | 1238.5 | 529.3 | 537.1 |
| 71 | 90.4 | 87.0 | 87.9 | 76.0 | 0.05 | 0.06 | -0.03 | -0.03 | 7.9 | 7.5 | 551.6 | 546.5 | 542.1 | 537.1 |
| Avg. | 90.6 | 87.5 | 89.4 | 77.2 | -0.25 | -0.23 | 0.04 | 0.04 | 7.1 | 7.2 | 758.9 | 772.4 | 528.9 | 537.1 |
| Std Dv | 1.2 | 1.5 | 2.4 | 1.8 | 0.36 | 0.35 | 0.09 | 0.09 | 0.6 | 0.4 | 217.4 | 230.6 | 16.0 | 0.0 |
| 2000 FT. FLYBY - TARGET INDICATED AIRSPEED 152 KTS | | | | | | | | | | | | | | |
| 72 | - | 85.5 | 86.5 | 75.2 | 0.09 | 0.09 | - | -0.04 | - | 7.2 | 679.6 | 671.5 | 679.3 | 671.3 |
| 74 | 90.0 | 87.4 | 90.2 | 77.0 | -0.28 | -0.25 | 0.05 | 0.05 | 6.9 | 7.2 | 1090.7 | 1108.3 | 660.6 | 671.3 |
| 75 | 88.5 | 85.6 | 86.6 | 73.9 | 0.12 | 0.12 | -0.04 | -0.04 | 7.1 | 7.2 | 1011.9 | 997.7 | 680.9 | 671.3 |
| Avg. | 89.2 | 86.2 | 87.8 | 75.4 | -0.02 | -0.01 | 0.00 | -0.01 | 7.0 | 7.2 | 927.4 | 925.9 | 673.6 | 671.3 |
| Std Dv | 1.1 | 1.5 | 3.0 | 2.2 | 0.32 | 0.29 | 0.06 | 0.07 | 0.1 | 0.0 | 247.8 | 254.3 | 15.9 | 0.0 |
| 2500 FT. FLYBY - TARGET INDICATED AIRSPEED 152 KTS | | | | | | | | | | | | | | |
| 76 | 88.4 | 86.1 | 87.1 | 76.4 | -0.13 | -0.11 | 0.02 | 0.01 | 7.1 | 6.2 | 809.6 | 814.0 | 807.7 | 812.0 |
| 77 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Avg. | 88.4 | 86.1 | 87.1 | 76.4 | -0.13 | -0.11 | 0.02 | 0.01 | 7.1 | 6.2 | 809.6 | 814.0 | 807.7 | 812.0 |
| Std Dv | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

JUNE 25, 1980

TABLE NO. B-6-2.1
BELL 206L HELICOPTER

DDT/TSC
12/24/81

CORRECTION DATA

JUNE 26, 1980

SITE: 1 CENTERLINE - CENTER

| EV | CORRECTED | | | CORRECTIONS (dB) | | | CONSTANTS | | | TRACKING DATA (METERS) | | | | |
|--|-----------|------|-------|------------------|-----------------------------|-----------------------------|-----------|------|-----|------------------------|-------|-------|-------|-------|
| | EPNL | NEL | PNLTM | dBAN | $\sqrt{1(P)} / \sqrt{1(A)}$ | $\sqrt{2(P)} / \sqrt{2(A)}$ | K(P) | K(A) | SR | CFA | SRR | CFAR | | |
| 300 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS | | | | | | | | | | | | | | |
| 1 | 89.1 | 83.7 | 92.5 | 78.7 | -2.42 | -2.31 | 0.63 | 0.66 | 5.9 | 6.1 | 78.5 | 100.4 | 70.6 | 90.2 |
| 2 | 88.0 | 84.4 | 92.1 | 78.2 | -1.75 | -1.67 | 0.44 | 0.47 | 5.9 | 6.2 | 81.1 | 96.6 | 75.8 | 90.2 |
| 3 | 88.6 | 85.2 | 92.6 | 78.5 | -2.46 | -2.37 | 0.61 | 0.66 | 5.8 | 6.3 | 103.1 | 131.3 | 70.8 | 90.2 |
| 4 | 88.1 | 84.7 | 92.6 | 78.7 | -2.89 | -2.76 | 0.67 | 0.72 | 5.4 | 5.8 | 104.2 | 138.5 | 67.9 | 90.2 |
| Avg. | 88.5 | 85.0 | 92.5 | 78.5 | -2.38 | -2.28 | 0.59 | 0.63 | 5.8 | 6.1 | 91.7 | 116.7 | 71.3 | 90.2 |
| Std Dv | 0.6 | 0.7 | 0.3 | 0.3 | 0.58 | 0.55 | 0.12 | 0.13 | 0.3 | 0.3 | 16.9 | 26.0 | 4.0 | 0.0 |
| 700 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS | | | | | | | | | | | | | | |
| 5 | 84.5 | 81.6 | 84.5 | 71.3 | -2.76 | -2.55 | 0.75 | 0.77 | 7.2 | 7.3 | 206.9 | 263.3 | 166.7 | 212.1 |
| 6 | 82.6 | 79.6 | 82.6 | 70.2 | -1.37 | -1.27 | 0.35 | 0.33 | 7.6 | 7.1 | 237.1 | 263.6 | 190.8 | 212.1 |
| 7 | 84.3 | 81.1 | 83.9 | 71.0 | -1.93 | -1.77 | 0.52 | 0.50 | 7.2 | 7.0 | 187.2 | 221.2 | 179.5 | 212.1 |
| 8 | 83.1 | 80.0 | 83.1 | 70.4 | -1.73 | -1.58 | 0.44 | 0.42 | 7.6 | 7.2 | 303.8 | 347.5 | 185.5 | 212.1 |
| Avg. | 83.6 | 80.6 | 83.5 | 70.7 | -1.95 | -1.79 | 0.51 | 0.50 | 7.4 | 7.2 | 233.7 | 273.9 | 180.6 | 212.1 |
| Std Dv | 1.2 | 1.1 | 1.1 | 0.6 | 0.72 | 0.67 | 0.21 | 0.23 | 0.3 | 0.2 | 62.5 | 64.8 | 12.7 | 0.0 |
| 1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS | | | | | | | | | | | | | | |
| 9 | 82.1 | 79.3 | 80.6 | 68.1 | -1.53 | -1.39 | 0.39 | 0.40 | 7.5 | 7.5 | 277.2 | 312.8 | 269.0 | 303.6 |
| 10 | 81.2 | 78.6 | 81.1 | 68.5 | -1.89 | -1.67 | 0.43 | 0.43 | 7.2 | 7.2 | 482.1 | 552.8 | 264.8 | 303.6 |
| 11 | 82.4 | 79.9 | 81.1 | 68.1 | -1.09 | -0.97 | 0.26 | 0.27 | 7.6 | 7.8 | 302.2 | 326.7 | 280.7 | 303.6 |
| 12 | 80.4 | 77.6 | 79.6 | 66.9 | -1.14 | -1.03 | 0.28 | 0.27 | 7.5 | 7.3 | 280.5 | 305.4 | 278.7 | 303.6 |
| Avg. | 81.6 | 78.8 | 80.6 | 67.9 | -1.41 | -1.26 | 0.34 | 0.34 | 7.4 | 7.4 | 335.5 | 374.4 | 273.3 | 303.6 |
| Std Dv | 1.1 | 1.2 | 0.8 | 0.8 | 0.46 | 0.40 | 0.10 | 0.10 | 0.2 | 0.3 | 120.5 | 146.0 | 9.4 | 0.0 |

TABLE NO. 8.5-3.1
 BELL 206L HELICOPTER
 CORRECTION DATA

DOT/TSC
 12/24/81

JUNE 26, 1980

SITE: 1 CENTERLINE - CENTER

| EV | CORRECTED | | | CORRECTIONS (dB) | | | CONSTANTS | | TRACKING DATA (METERS) | | | | | |
|--|-----------|------|-------|------------------|-----------------------------|-----------------------------|-----------|------|------------------------|-----|-------|-------|-------|-------|
| | EPNL | REL | PNLTN | dBAM | $\Delta 1(P) / \Delta 1(A)$ | $\Delta 2(P) / \Delta 2(A)$ | K(P) | K(A) | SR | DPA | SRP | CPAR | | |
| 1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS | | | | | | | | | | | | | | |
| 13 | 79.1 | 76.7 | 76.5 | 63.9 | -1.64 | -1.43 | 0.36 | 0.38 | 7.5 | 7.1 | 443.8 | 498.7 | 405.8 | 456.0 |
| 14 | 77.4 | 74.7 | 76.1 | 63.3 | -1.42 | -1.25 | 0.28 | 0.28 | 7.1 | 7.1 | 489.0 | 535.3 | 416.6 | 456.0 |
| 15 | 78.7 | 76.1 | 75.6 | 63.0 | -1.48 | -1.31 | 0.33 | 0.31 | 7.2 | 7.6 | 454.2 | 502.1 | 412.5 | 456.0 |
| 16 | 77.6 | 74.9 | 75.3 | 62.7 | -1.22 | -1.05 | 0.24 | 0.24 | 7.5 | 7.5 | 479.4 | 516.5 | 423.2 | 456.0 |
| Avg. | 78.2 | 75.6 | 75.9 | 63.2 | -1.44 | -1.26 | 0.30 | 0.30 | 7.3 | 7.3 | 466.6 | 513.1 | 414.5 | 456.0 |
| Std Dv | 1.0 | 1.2 | 0.7 | 0.6 | 0.21 | 0.19 | 0.07 | 0.07 | 0.3 | 0.3 | 25.9 | 29.4 | 9.0 | 0.0 |
| 2000 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS | | | | | | | | | | | | | | |
| 17 | 75.2 | 72.9 | 72.1 | 59.7 | -0.61 | -0.51 | 0.08 | 0.08 | 7.8 | 7.7 | 593.5 | 608.5 | 593.4 | 608.4 |
| 18 | 76.1 | 73.8 | 72.9 | 60.3 | -0.67 | -0.54 | 0.08 | 0.08 | 7.3 | 7.4 | 709.8 | 728.2 | 592.0 | 608.4 |
| Avg. | 75.7 | 73.3 | 72.5 | 60.0 | -0.64 | -0.52 | 0.08 | 0.08 | 7.6 | 7.6 | 651.6 | 668.3 | 593.2 | 608.4 |
| Std Dv | 0.6 | 0.6 | 0.6 | 0.4 | 0.04 | 0.02 | 0.00 | 0.00 | 0.3 | 0.2 | 82.2 | 84.6 | 0.3 | 0.0 |

NO TRACKING DATA

TABLE NO. B.7-1.1

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
12/28/81

CORRECTION DATA

| EV | CORRECTED | | | | CORRECTIONS (dB) | CONSTANTS | | TRACKING DATA (ACTUAL) | | | TRACKING DATA (REFERENCE) | | | | |
|--|-----------|------|-------|------|------------------|----------------|----------------|------------------------|----------------|------------------|---------------------------|-------|-------|-----|------|
| | EPNL | NEL | PNLTH | GBAH | | $\wedge(1(P))$ | $\wedge(1(A))$ | $\wedge(2(P))$ | $\wedge(2(A))$ | K(P) | K(A) | SR | CPA | SRR | CFAR |
| APPROACH - BEST RATE OF CLIMB PLUS 10 KTS | | | | | | | | | | | | | | | |
| 22 | 98.8 | 94.6 | 102.5 | 88.4 | 0.71 | -0.23 | -0.22 | 5.4 | 6.3 | 134.3 | 123.8 | 128.2 | 118.2 | | |
| 24 | 97.7 | 93.1 | 101.5 | 86.7 | 0.32 | -0.10 | -0.11 | 6.1 | 6.4 | 130.5 | 125.6 | 122.9 | 118.2 | | |
| 26 | 97.7 | 93.3 | 100.4 | 86.2 | -0.31 | 0.08 | 0.08 | 6.9 | 6.7 | 121.6 | 124.9 | 115.1 | 118.2 | | |
| 28 | 97.7 | 93.4 | 101.7 | 87.3 | 0.35 | -0.11 | -0.11 | 6.2 | 6.1 | 131.5 | 126.0 | 123.4 | 118.2 | | |
| Avg. | 98.0 | 93.6 | 101.5 | 87.2 | 0.27 | -0.09 | -0.09 | 6.4 | 6.4 | 129.5 | 125.1 | 122.4 | 118.2 | | |
| Std Dv | 0.7 | 0.8 | 1.0 | 1.2 | 0.52 | 0.50 | 0.15 | 0.4 | 0.3 | 6.7 | 1.2 | 6.7 | 0.0 | | |
| APPROACH - BEST RATE OF CLIMB MINUS 10 KTS | | | | | | | | | | | | | | | |
| 30 | 97.3 | 93.1 | 100.5 | 86.6 | 0.02 | -0.01 | -0.01 | 6.3 | 6.0 | 148.7 | 147.9 | 118.9 | 118.2 | | |
| 32 | 99.3 | 94.6 | 101.2 | 86.3 | 0.33 | -0.12 | -0.12 | 7.1 | 7.2 | 151.7 | 145.8 | 123.0 | 118.2 | | |
| 34 | 96.4 | 92.6 | 98.3 | 84.6 | 0.52 | -0.17 | -0.17 | 6.8 | 6.7 | 170.2 | 160.4 | 125.4 | 118.2 | | |
| 36 | | | | | | | | | | NO TRACKING DATA | | | | | |
| Avg. | 97.7 | 93.4 | 100.0 | 85.8 | 0.28 | -0.10 | -0.10 | 6.7 | 6.6 | 156.8 | 151.4 | 122.4 | 118.2 | | |
| Std Dv | 2.0 | 1.5 | 2.1 | 1.5 | 0.37 | 0.35 | 0.12 | 0.5 | 0.9 | 16.5 | 11.2 | 4.7 | 0.0 | | |
| APPROACH - BEST RATE OF CLIMB | | | | | | | | | | | | | | | |
| 38 | 97.8 | 93.6 | 99.9 | 86.2 | 0.17 | -0.07 | -0.06 | 6.9 | 6.4 | 151.9 | 148.6 | 120.9 | 118.2 | | |
| 40 | 97.3 | 92.9 | 100.7 | 86.2 | 0.36 | -0.12 | -0.12 | 6.6 | 6.5 | 135.9 | 130.3 | 123.3 | 118.2 | | |
| 42 | 97.9 | 93.7 | 101.6 | 86.9 | 0.33 | -0.10 | -0.10 | 6.1 | 5.9 | 139.9 | 134.5 | 123.0 | 118.2 | | |
| Avg. | 97.7 | 93.4 | 100.8 | 86.5 | 0.29 | -0.10 | -0.09 | 6.5 | 6.3 | 142.6 | 137.8 | 122.4 | 118.2 | | |
| Std Dv | 0.4 | 0.6 | 1.2 | 0.6 | 0.14 | 0.04 | 0.04 | 0.5 | 0.4 | 11.8 | 13.6 | 1.9 | 0.0 | | |

TABLE NO. B.7-2.1

SINKOVSKY OH-600 BLACKHAWK HELICOPTER

DOT/TSC
12/28/81

CORRECTION DATA

| EV | CORRECTED | | | CORRECTIONS (dB) | | | CONSTANTS | | | TRACKING DATA (METERS) | | | | |
|--|-----------|------|--------|------------------|---------------|---------------|---------------|---------------|------|------------------------|-------|-------|-------|-------|
| | EPNL | NEL | PWL/FM | dBHW | $\Delta 1(P)$ | $\Delta 1(G)$ | $\Delta 2(P)$ | $\Delta 2(G)$ | K(P) | K(G) | SR | CPA | SR% | CPAR |
| THROFF - HOVER POWER PLUS 10% | | | | | | | | | | | | | | |
| 21 | 87.8 | 84.1 | 90.6 | 75.1 | -1.69 | -1.68 | 0.47 | 0.49 | 6.9 | 7.2 | 120.6 | 141.0 | 118.5 | 138.6 |
| 23 | 89.2 | 83.9 | 90.2 | 75.4 | -2.16 | -2.14 | 0.63 | 0.62 | 7.0 | 7.0 | 112.9 | 138.8 | 112.8 | 138.6 |
| 25 | 89.1 | 84.0 | 89.9 | 75.7 | -2.02 | -1.82 | 0.53 | 0.53 | 7.1 | 7.0 | 118.9 | 141.5 | 116.4 | 138.6 |
| 27 | 88.9 | 84.1 | 89.9 | 75.8 | -2.20 | -1.98 | 0.59 | 0.59 | 7.0 | 7.0 | 114.7 | 139.2 | 114.2 | 138.6 |
| 29 | 88.8 | 83.6 | 90.2 | 75.7 | -1.60 | -1.44 | 0.40 | 0.40 | 6.7 | 6.8 | 123.5 | 141.4 | 121.0 | 138.6 |
| 31 | 91.3 | 85.2 | 92.2 | 77.0 | -0.72 | -0.64 | 0.17 | 0.17 | 7.2 | 7.1 | 132.6 | 139.9 | 131.3 | 138.6 |
| 33 | 90.5 | 85.6 | 91.1 | 76.7 | -1.33 | -1.22 | 0.36 | 0.35 | 7.4 | 7.1 | 125.4 | 140.5 | 123.7 | 138.6 |
| Avg. | 89.6 | 84.0 | 90.6 | 76.0 | -1.67 | -1.56 | 0.45 | 0.45 | 7.1 | 7.0 | 121.2 | 140.4 | 119.7 | 138.6 |
| Std Dv | 1.0 | 1.1 | 0.9 | 0.7 | 0.58 | 0.56 | 0.17 | 0.17 | 0.2 | 0.1 | 7.3 | 1.2 | 7.0 | 0.0 |
| TAKEOFF - MAXIMUM POWER | | | | | | | | | | | | | | |
| 35 | 91.8 | 87.0 | 93.4 | 79.4 | 1.33 | 1.25 | -0.41 | -0.39 | 7.1 | 6.7 | 180.6 | 158.1 | 158.3 | 138.6 |
| 37 | 91.6 | 86.6 | 92.6 | 78.1 | 0.52 | 0.51 | -0.19 | -0.18 | 7.4 | 7.1 | 148.0 | 139.7 | 146.9 | 138.6 |
| 41 | 91.7 | 86.8 | 92.6 | 78.0 | 2.03 | 1.88 | -0.64 | -0.64 | 7.7 | 7.6 | 187.3 | 154.4 | 168.1 | 138.6 |
| Avg. | 91.7 | 86.8 | 92.8 | 78.5 | 1.29 | 1.21 | -0.41 | -0.40 | 7.4 | 7.2 | 172.0 | 150.8 | 157.8 | 138.6 |
| Std Dv | 0.1 | 0.3 | 0.7 | 1.2 | 1.07 | 0.97 | 0.32 | 0.33 | 0.4 | 0.6 | 29.7 | 13.8 | 15.0 | 0.0 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 150 KTS - TORQUE > 90% | | | | | | | | | | | | | | |
| 43 | 95.1 | 90.9 | 98.0 | 84.3 | 0.02 | 0.02 | -0.03 | -0.02 | 6.9 | 6.6 | 197.9 | 196.2 | 152.5 | 151.2 |
| 45 | 96.0 | 91.7 | 98.2 | 84.8 | 0.99 | 0.95 | -0.33 | -0.31 | 7.4 | 6.9 | 227.6 | 205.4 | 167.6 | 151.2 |
| 46 | 94.2 | 90.1 | 97.6 | 83.4 | -0.54 | -0.51 | 0.12 | 0.13 | 6.3 | 6.5 | 202.3 | 211.7 | 144.6 | 151.2 |
| 47 | 95.3 | 92.4 | 98.6 | 84.8 | -0.09 | -0.07 | 0.01 | 0.01 | 7.3 | 7.3 | 223.7 | 224.1 | 150.9 | 151.2 |
| Avg. | 95.4 | 91.3 | 98.1 | 84.3 | 0.09 | 0.10 | -0.04 | -0.05 | 7.0 | 6.8 | 212.9 | 209.4 | 153.9 | 151.2 |
| Std Dv | 1.2 | 1.3 | 0.5 | 0.8 | 0.79 | 0.75 | 0.24 | 0.23 | 0.6 | 0.5 | 18.3 | 14.4 | 11.9 | 0.0 |

TABLE NO. B.6-2.1H
 BELL 206L HELICOPTER

DOT/TSC
 12/26/81

CORRECTION DATA

SITE: 1H CENTERLINE - CENTER (10-METER) JUNE 26, 1980

| EV | CORRECTED | | | | CORRECTIONS (GB) | | | | CONSTANTS | | TRACKING DATA (METERS) (ACTUAL) | | | |
|--|-----------|------|-------|------|------------------|---------------|---------------|---------------|-----------|------|------------------------------------|-------|-------|-------|
| | EPNL | NEL | PNLTH | GBAM | $\wedge 1(P)$ | $\wedge 1(A)$ | $\wedge 2(P)$ | $\wedge 2(A)$ | K(P) | K(A) | SR | CPA | SRR | CPAR |
| 300 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS | | | | | | | | | | | | | | |
| 1 | 90.1 | 86.2 | 94.6 | 80.1 | -2.81 | -2.64 | 0.67 | 0.72 | 5.6 | 6.0 | 61.9 | 81.6 | 61.8 | 81.4 |
| 2 | 89.4 | 85.3 | 94.1 | 79.7 | -2.16 | -1.96 | 0.49 | 0.48 | 5.8 | 5.7 | 92.4 | 112.3 | 66.9 | 81.4 |
| 3 | 90.0 | 85.9 | 94.8 | 80.1 | -2.99 | -2.75 | 0.69 | 0.71 | 5.9 | 6.1 | 96.5 | 126.6 | 62.0 | 81.4 |
| 4 | 89.5 | 85.5 | 94.7 | 80.0 | -3.51 | -3.21 | 0.73 | 0.78 | 5.3 | 5.6 | 97.7 | 134.5 | 59.1 | 81.4 |
| Avg. | 89.7 | 85.7 | 94.6 | 80.0 | -2.87 | -2.64 | 0.64 | 0.67 | 5.6 | 5.8 | 87.1 | 113.8 | 62.5 | 81.4 |
| Std Dv | 0.4 | 0.5 | 0.3 | 0.2 | 0.68 | 0.63 | 0.13 | 0.16 | 0.3 | 0.3 | 20.8 | 28.6 | 4.0 | 0.0 |
| 700 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS | | | | | | | | | | | | | | |
| 5 | 84.9 | 82.0 | 86.0 | 72.6 | -3.21 | -2.81 | 0.77 | 0.78 | 7.1 | 7.1 | 199.1 | 256.3 | 158.0 | 203.3 |
| 6 | 81.8 | 78.7 | 83.6 | 70.7 | -1.69 | -1.43 | 0.33 | 0.33 | 7.0 | 6.8 | 209.2 | 233.4 | 182.2 | 203.3 |
| 7 | 83.0 | 79.8 | 84.1 | 70.9 | -2.38 | -2.08 | 0.55 | 0.52 | 7.2 | 6.8 | 189.3 | 225.5 | 170.7 | 203.3 |
| 8 | 81.9 | 78.8 | 83.7 | 70.5 | -2.09 | -1.78 | 0.42 | 0.42 | 6.9 | 6.8 | 218.1 | 250.9 | 176.7 | 203.3 |
| Avg. | 82.9 | 79.8 | 84.4 | 71.2 | -2.34 | -2.02 | 0.52 | 0.51 | 7.0 | 6.9 | 203.9 | 241.5 | 171.9 | 203.3 |
| Std Dv | 1.8 | 1.9 | 1.4 | 1.2 | 0.79 | 0.72 | 0.23 | 0.24 | 0.1 | 0.2 | 15.3 | 17.7 | 12.8 | 0.0 |
| 1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS | | | | | | | | | | | | | | |
| 9 | 82.3 | 79.4 | 81.3 | 68.3 | -1.76 | -1.55 | 0.42 | 0.41 | 7.7 | 7.6 | 290.1 | 328.6 | 260.2 | 294.7 |
| 10 | 81.6 | 79.2 | 80.7 | 68.1 | -2.19 | -1.79 | 0.45 | 0.45 | 7.4 | 7.4 | 258.4 | 297.5 | 256.0 | 294.7 |
| 11 | - | 78.6 | 80.2 | 67.1 | -1.13 | -1.02 | - | 0.27 | - | 7.8 | 306.5 | 331.8 | 272.3 | 294.7 |
| 12 | 79.8 | 76.8 | 79.4 | 66.8 | -1.21 | -1.10 | 0.27 | 0.26 | 7.2 | 6.9 | 301.1 | 328.6 | 270.0 | 294.7 |
| Avg. | 81.2 | 78.5 | 80.4 | 67.6 | -1.57 | -1.36 | 0.38 | 0.35 | 7.4 | 7.4 | 289.0 | 321.6 | 264.6 | 294.7 |
| Std Dv | 1.8 | 1.5 | 1.0 | 0.9 | 0.61 | 0.45 | 0.14 | 0.12 | 0.4 | 0.5 | 26.4 | 19.8 | 9.5 | 0.0 |

TABLE NO. B.6-3.1H

BELL 206L HELICOPTER

DOT/TSC
12/26/81

CORRECTION DATA

JUNE 26, 1980

SITE: 1H CENTERLINE - CENTER (10-METER)

| EV | CORRECTED | | | CORRECTIONS (dB) | | | CONSTANTS | | TRACKING DATA (METERS) | | | | | |
|--|-----------|------|-------|------------------|---------------|---------------|---------------|---------------|------------------------|------|-------|-------|-------|-------|
| | EPNL | HEL | PNLTH | dBAN | $\sqrt{1(P)}$ | $\sqrt{1(A)}$ | $\sqrt{2(P)}$ | $\sqrt{2(A)}$ | K(P) | K(A) | SR | CFA | SRR | CFAR |
| 1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS | | | | | | | | | | | | | | |
| 13 | 78.4 | 75.6 | 76.2 | 62.1 | -1.79 | -1.55 | 0.39 | 0.40 | 7.6 | 7.6 | 544.3 | 613.2 | 396.9 | 447.1 |
| 14 | 76.4 | 73.7 | 74.7 | 62.2 | -1.43 | -1.24 | 0.29 | 0.28 | 7.3 | 7.1 | 481.1 | 527.3 | 408.0 | 447.1 |
| 15 | 77.6 | 74.9 | 75.0 | 62.0 | -1.58 | -1.35 | 0.33 | 0.34 | 7.5 | 7.7 | 534.5 | 591.9 | 403.8 | 447.1 |
| 16 | 76.9 | 74.1 | 75.0 | 62.1 | -1.25 | -1.08 | 0.24 | 0.24 | 7.3 | 7.3 | 488.4 | 526.8 | 414.5 | 447.1 |
| Avg. | 77.3 | 74.6 | 75.2 | 62.4 | -1.51 | -1.30 | 0.31 | 0.31 | 7.4 | 7.4 | 512.1 | 564.8 | 405.8 | 447.1 |
| Std Dev | 1.0 | 1.1 | 0.8 | 0.7 | 0.28 | 0.24 | 0.08 | 0.09 | 0.2 | 0.4 | 39.1 | 54.4 | 9.0 | 0.0 |
| 2000 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS | | | | | | | | | | | | | | |
| 17 | | | | | | | | | | | | | | |
| 18 | 75.2 | 72.4 | 71.7 | 59.0 | -0.75 | -0.56 | 0.09 | 0.08 | 7.8 | 7.7 | 828.8 | 850.0 | 584.6 | 599.5 |
| 19 | 75.9 | 73.0 | 72.3 | 59.6 | -0.76 | -0.57 | 0.08 | 0.08 | 7.5 | 7.4 | 778.7 | 799.2 | 584.2 | 599.5 |
| Avg. | 75.5 | 72.7 | 72.0 | 59.3 | -0.75 | -0.56 | 0.08 | 0.08 | 7.7 | 7.6 | 803.7 | 824.6 | 584.4 | 599.5 |
| Std Dev | 0.5 | 0.4 | 0.5 | 0.4 | 0.01 | 0.01 | 0.01 | 0.00 | 0.2 | 0.2 | 35.4 | 35.9 | 0.3 | 0.0 |

NO TRACKING DATA

TABLE NO. B.7-1.1H

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
12/28/81

CORRECTION DATA

JUNE 26, 1980

SITE: 1H CENTERLINE - CENTER (10-METER)

| EV | CORRECTED | | | CORRECTIONS (dB) | | | CONSTANTS | | TRACKING DATA (METERS) (ACTUAL) | | | TRACKING DATA (METERS) (REFERENCE) | | |
|--|-----------|------|-------|------------------|---------------|---------------|---------------|---------------|------------------------------------|------|-------|---------------------------------------|-------|-------|
| | EPNL | NEL | PNLTH | dBAM | $\wedge 1(P)$ | $\wedge 1(A)$ | $\wedge 2(P)$ | $\wedge 2(A)$ | K(P) | K(A) | SR | CPA | SRR | CPAR |
| APPROACH - BEST RATE OF CLIMB PLUS 10 KTS | | | | | | | | | | | | | | |
| 22 | 99.1 | 94.6 | 103.3 | 88.7 | 0.78 | 0.76 | -0.23 | -0.23 | 6.1 | 6.1 | 135.0 | 123.7 | 119.6 | 109.5 |
| 24 | 98.1 | 93.4 | 102.5 | 87.7 | 0.34 | 0.34 | -0.11 | -0.10 | 5.9 | 5.7 | 131.2 | 125.8 | 114.2 | 109.5 |
| 26 | 98.8 | 93.8 | 102.4 | 86.5 | -0.35 | -0.32 | 0.08 | 0.09 | 6.6 | 7.0 | 122.1 | 125.8 | 106.4 | 109.5 |
| 28 | 98.6 | 93.9 | 102.4 | 87.8 | 0.38 | 0.38 | -0.13 | -0.13 | 6.5 | 6.4 | 116.6 | 111.4 | 114.6 | 109.5 |
| Avg. | 98.7 | 94.0 | 102.7 | 87.7 | 0.29 | 0.29 | -0.10 | -0.09 | 6.3 | 6.3 | 126.2 | 121.7 | 113.7 | 109.5 |
| Std Dv | 0.6 | 0.6 | 0.5 | 1.1 | 0.57 | 0.55 | 0.16 | 0.16 | 0.4 | 0.6 | 10.3 | 8.5 | 6.7 | 0.0 |
| APPROACH - BEST RATE OF CLIMB MINUS 10 KTS | | | | | | | | | | | | | | |
| 30 | 98.3 | 93.9 | 101.5 | 87.4 | -0.01 | 0.01 | -0.01 | -0.01 | 6.5 | 5.9 | 128.3 | 127.6 | 110.1 | 109.5 |
| 32 | 98.3 | 93.6 | 101.5 | 86.5 | 0.36 | 0.36 | -0.12 | -0.12 | 6.3 | 6.4 | 119.9 | 114.9 | 114.2 | 109.5 |
| 34 | 96.0 | 91.7 | 98.0 | 84.3 | 0.56 | 0.55 | -0.19 | -0.19 | 6.9 | 6.8 | 138.0 | 129.6 | 116.6 | 109.5 |
| 36 | 96.7 | 92.2 | 98.8 | 84.9 | 0.47 | 0.47 | -0.16 | -0.15 | 7.0 | 6.5 | 148.0 | 140.1 | 115.6 | 109.5 |
| Avg. | 97.3 | 92.9 | 100.0 | 85.8 | 0.34 | 0.35 | -0.12 | -0.12 | 6.7 | 6.4 | 133.5 | 128.1 | 114.1 | 109.5 |
| Std Dv | 1.4 | 1.3 | 2.2 | 1.8 | 0.31 | 0.29 | 0.10 | 0.09 | 0.4 | 0.5 | 14.9 | 12.7 | 3.5 | 0.0 |
| APPROACH - BEST RATE OF CLIMB | | | | | | | | | | | | | | |
| 38 | 97.4 | 93.0 | 99.0 | 84.9 | 0.18 | 0.18 | -0.07 | -0.07 | 7.2 | 6.9 | 112.5 | 109.9 | 112.1 | 109.5 |
| 40 | 97.2 | 92.6 | 101.2 | 86.8 | 0.39 | 0.38 | -0.12 | -0.11 | 6.1 | 5.9 | 119.3 | 114.1 | 114.5 | 109.5 |
| 42 | 97.6 | 93.1 | 102.1 | 87.8 | 0.37 | 0.36 | -0.10 | -0.10 | 5.6 | 5.4 | 122.5 | 117.5 | 114.2 | 109.5 |
| Avg. | 97.4 | 92.9 | 100.8 | 86.5 | 0.31 | 0.31 | -0.10 | -0.09 | 6.3 | 6.0 | 118.1 | 113.8 | 113.6 | 109.5 |
| Std Dv | 0.3 | 0.4 | 2.3 | 2.1 | 0.16 | 0.16 | 0.04 | 0.03 | 1.1 | 1.1 | 7.3 | 5.4 | 1.9 | 0.0 |

TABLE NO. B.7-2.1H
SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
12/28/81

CORRECTION DATA

JUNE 26, 1980

CENTERLINE - CENTER (10-METER)

SITE: 1H

| EV | CORRECTED | | | CORRECTIONS (dB) | | | CONSTANTS | | TRACKING DATA (METERS) | | | | | |
|--|-----------|------|-------|------------------|---------------|---------------|---------------|---------------|------------------------|------|-------|-------|-------|-------|
| | EPNL | NEL | PNLTM | dBAM | $\sqrt{1(P)}$ | $\sqrt{1(A)}$ | $\sqrt{2(P)}$ | $\sqrt{2(A)}$ | K(P) | K(A) | SR | CPA | SRR | CPAR |
| TAKEDOFF - HOVER POWER PLUS 10% | | | | | | | | | | | | | | |
| 21 | 91.6 | 86.1 | 92.4 | 76.8 | -2.05 | -1.92 | 0.54 | 0.55 | 7.4 | 7.5 | 112.2 | 132.8 | 109.9 | 130.0 |
| 23 | 92.3 | 86.8 | 92.9 | 77.7 | -2.53 | -2.44 | 0.63 | 0.61 | 4.5 | 6.3 | 107.5 | 134.2 | 104.2 | 130.0 |
| 25 | 92.2 | 86.5 | 95.3 | 79.0 | -2.18 | -2.09 | 0.50 | 0.54 | 6.1 | 6.6 | 110.7 | 133.6 | 107.7 | 130.0 |
| 27 | 92.5 | 86.9 | 95.4 | 79.3 | -2.38 | -2.29 | 0.55 | 0.59 | 4.1 | 6.6 | 106.3 | 130.9 | 105.6 | 130.0 |
| 29 | 91.9 | 86.2 | 95.5 | 79.2 | -1.73 | -1.66 | 0.38 | 0.41 | 5.9 | 6.5 | 115.0 | 133.2 | 112.3 | 130.0 |
| 31 | 91.5 | 85.9 | 94.7 | 78.2 | -0.75 | -0.69 | 0.15 | 0.17 | 6.2 | 6.8 | 124.3 | 131.7 | 122.8 | 130.0 |
| 33 | 90.8 | 85.2 | 93.2 | 77.3 | -1.43 | -1.33 | 0.33 | 0.34 | 6.3 | 6.5 | 116.2 | 131.2 | 115.1 | 130.0 |
| Avg. | 91.8 | 86.2 | 94.2 | 78.2 | -1.86 | -1.77 | 0.44 | 0.46 | 6.4 | 6.7 | 113.2 | 132.5 | 111.1 | 130.0 |
| Std Dv | 0.6 | 0.6 | 1.5 | 1.1 | 0.68 | 0.67 | 0.18 | 0.18 | 0.5 | 0.4 | 6.7 | 1.4 | 7.0 | 0.0 |
| TAKEDOFF - MAXIMUM POWER | | | | | | | | | | | | | | |
| 35 | 92.5 | 86.9 | 94.9 | 79.3 | 1.44 | 1.37 | -0.43 | -0.43 | 6.9 | 6.9 | 149.9 | 130.0 | 150.0 | 130.0 |
| 37 | 91.9 | 86.1 | 94.3 | 77.9 | 0.59 | 0.58 | -0.19 | -0.20 | 6.8 | 7.2 | 139.9 | 131.3 | 138.6 | 130.0 |
| 41 | 92.6 | 87.1 | 94.2 | 78.5 | 2.17 | 2.05 | -0.57 | -0.58 | 6.4 | 6.5 | 160.0 | 130.2 | 159.8 | 130.0 |
| Avg. | 92.3 | 86.7 | 94.5 | 78.5 | 1.40 | 1.33 | -0.40 | -0.40 | 6.7 | 6.9 | 150.0 | 130.5 | 149.5 | 130.0 |
| Std Dv | 0.5 | 0.7 | 0.5 | 1.0 | 1.12 | 1.04 | 0.27 | 0.27 | 0.4 | 0.5 | 14.2 | 1.0 | 15.0 | 0.0 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 150 KTS - TORQUE > 90% | | | | | | | | | | | | | | |
| 43 | 94.4 | 89.8 | 97.9 | 83.6 | 0.01 | 0.03 | -0.03 | -0.03 | 6.4 | 6.4 | 147.3 | 145.9 | 143.6 | 142.3 |
| 44 | 95.0 | 90.3 | 98.8 | 84.5 | 1.08 | 1.02 | -0.29 | -0.30 | 6.2 | 6.4 | 171.9 | 154.1 | 158.8 | 142.3 |
| 45 | 93.6 | 88.9 | 97.5 | 83.0 | -0.60 | -0.53 | 0.13 | 0.13 | 6.1 | 6.3 | 135.8 | 142.3 | 135.8 | 142.3 |
| 46 | 95.4 | 91.4 | 98.6 | 84.6 | -0.11 | -0.07 | 0.01 | 0.01 | 6.7 | 6.7 | 145.8 | 146.1 | 142.1 | 142.3 |
| Avg. | 94.6 | 90.1 | 98.2 | 83.9 | 0.09 | 0.11 | -0.04 | -0.05 | 6.4 | 6.4 | 150.2 | 147.1 | 145.1 | 142.3 |
| Std Dv | 1.0 | 1.3 | 0.7 | 0.9 | 0.87 | 0.80 | 0.22 | 0.22 | 0.3 | 0.2 | 18.8 | 6.1 | 11.9 | 0.0 |

NO TRACKING DATA

TABLE NO. B.6-2.1G

BELL 206L HELICOPTER

CORRECTION DATA

DOT/TSC
12/28/81

JUNE 26, 1980

CENTERLINE - CENTER (FLUSH)

SITE: 1G

| EV | CORRECTED | | | CORRECTIONS (dB) | | | CONSTANTS | | | TRACKING DATA (METERS) | | | | |
|--|-----------|------|-------|------------------|-----------------------------|-----------------------------|-----------|------|-----|------------------------|-------|-------|-------|-------|
| | EFNL | NEL | PNLTH | JBAN | $\wedge 1(P) / \wedge 1(A)$ | $\wedge 2(P) / \wedge 2(A)$ | K(P) | K(A) | SR | CFA | SRR | CPAR | | |
| 300 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS | | | | | | | | | | | | | | |
| 1 | 72.6 | 88.8 | 96.3 | 82.5 | -2.35 | -2.25 | 0.63 | 0.64 | 6.0 | 6.1 | 79.6 | 101.4 | 71.8 | 91.4 |
| 2 | 91.6 | 87.8 | 95.9 | 81.9 | -1.70 | -1.63 | 0.46 | 0.46 | 6.0 | 6.1 | 82.5 | 98.0 | 77.0 | 91.4 |
| 3 | 92.1 | 88.5 | 96.0 | 82.0 | -2.40 | -2.30 | 0.63 | 0.63 | 6.1 | 6.3 | 103.9 | 131.8 | 72.1 | 91.4 |
| 4 | 91.5 | 88.1 | 96.0 | 82.1 | -2.82 | -2.68 | 0.70 | 0.71 | 5.8 | 5.8 | 105.0 | 138.9 | 69.1 | 91.4 |
| Avg. | 92.0 | 88.3 | 96.0 | 82.1 | -2.32 | -2.22 | 0.60 | 0.61 | 6.0 | 6.1 | 92.8 | 117.5 | 72.5 | 91.4 |
| Std Dv | 0.6 | 0.5 | 0.2 | 0.3 | 0.57 | 0.53 | 0.13 | 0.13 | 0.2 | 0.2 | 16.6 | 25.5 | 4.0 | 0.0 |
| 700 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS | | | | | | | | | | | | | | |
| 5 | 86.0 | 85.0 | 89.2 | 76.0 | -2.65 | -2.46 | 0.71 | 0.72 | 6.8 | 6.9 | 207.8 | 264.1 | 167.9 | 213.4 |
| 6 | 86.3 | 83.3 | 86.5 | 73.8 | -1.26 | -1.18 | 0.35 | 0.34 | 7.6 | 7.4 | 204.3 | 227.1 | 191.9 | 213.4 |
| 7 | 87.6 | 84.3 | 88.3 | 74.6 | -1.92 | -1.79 | 0.51 | 0.51 | 7.0 | 7.1 | 233.3 | 275.4 | 180.7 | 213.4 |
| 8 | 86.4 | 83.4 | 87.2 | 73.9 | -1.57 | -1.47 | 0.42 | 0.42 | 7.2 | 7.2 | 227.3 | 259.8 | 186.7 | 213.4 |
| Avg. | 87.1 | 84.0 | 87.8 | 74.6 | -1.85 | -1.72 | 0.50 | 0.50 | 7.1 | 7.1 | 218.2 | 256.6 | 181.8 | 213.4 |
| Std Dv | 1.0 | 1.0 | 1.4 | 1.2 | 0.73 | 0.67 | 0.19 | 0.20 | 0.4 | 0.2 | 17.5 | 25.4 | 12.7 | 0.0 |
| 1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS | | | | | | | | | | | | | | |
| 9 | 85.7 | 82.9 | 85.3 | 72.3 | -1.47 | -1.34 | 0.38 | 0.38 | 7.3 | 7.3 | 278.5 | 314.1 | 270.2 | 304.8 |
| 10 | 84.1 | 81.5 | 83.7 | 70.7 | -2.02 | -1.82 | 0.44 | 0.45 | 7.4 | 7.6 | 516.6 | 592.0 | 266.0 | 304.8 |
| 11 | 85.7 | 83.2 | 85.4 | 72.2 | -1.04 | -0.95 | 0.25 | 0.25 | 7.2 | 7.5 | 315.6 | 341.4 | 281.9 | 304.8 |
| 12 | 83.9 | 81.2 | 83.8 | 70.9 | -1.14 | -1.04 | 0.27 | 0.26 | 7.2 | 7.2 | 328.1 | 357.2 | 280.0 | 304.8 |
| Avg. | 84.9 | 82.2 | 84.5 | 71.5 | -1.42 | -1.29 | 0.33 | 0.33 | 7.3 | 7.4 | 359.7 | 401.2 | 274.5 | 304.8 |
| Std Dv | 1.2 | 1.2 | 1.1 | 1.1 | 0.54 | 0.48 | 0.11 | 0.12 | 0.1 | 0.2 | 130.6 | 157.3 | 9.4 | 0.0 |

TABLE NO. B-6-3.1B

BELL 206L HELICOPTER

DDY/TSC
12/28/81

| CORRECTED | | CORRECTIONS (dB) | | CONSTANTS | | TRACKING DATA (ACTUAL) | | TRACKING DATA (REFERENCE) | | | | | |
|--|------|------------------|-------|-----------|--|------------------------|-------|---------------------------|-----|-------|-------|-------|-------|
| EV | ESHL | NEL | PNLTH | DBAW | $\wedge(1(P) \wedge 1(A) \wedge 2(P) \wedge 2(A))$ | K(P) | K(A) | SR | CPA | SRR | CPAR | | |
| 1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS | | | | | | | | | | | | | |
| 13 | 83.0 | 80.3 | 81.3 | 58.0 | -1.60 | -1.43 | 0.38 | 7.4 | 7.6 | 474.3 | 532.8 | 407.0 | 457.2 |
| 14 | 81.6 | 79.0 | 80.2 | 57.3 | -1.33 | -1.20 | 0.28 | 7.2 | 7.2 | 475.3 | 520.2 | 417.8 | 457.2 |
| 15 | 82.6 | 79.9 | 80.4 | 57.4 | -1.41 | -1.25 | 0.32 | 7.4 | 7.6 | 469.8 | 519.1 | 413.7 | 457.2 |
| 16 | 82.5 | 80.4 | 81.1 | 58.6 | -1.79 | -1.43 | 0.24 | 7.4 | 7.6 | 706.2 | 760.7 | 424.4 | 457.2 |
| Avg. | 82.4 | 79.9 | 80.7 | 57.8 | -1.53 | -1.33 | 0.30 | 7.3 | 7.5 | 531.4 | 583.2 | 415.7 | 457.2 |
| Std Dv | 0.7 | 0.8 | 0.6 | 0.7 | 0.25 | 0.15 | 0.07 | 0.1 | 0.2 | 142.7 | 145.1 | 9.0 | 0.0 |
| 2000 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS | | | | | | | | | | | | | |
| 17 | - | 79.4 | 77.1 | 77.2 | 64.3 | -0.62 | -0.51 | 7.6 | 7.6 | 698.0 | 715.6 | 594.6 | 609.6 |
| 18 | - | 77.7 | 77.8 | 64.8 | -0.63 | -0.52 | - | - | 7.6 | 679.2 | 696.8 | 594.2 | 609.6 |
| 19 | - | 77.4 | 77.5 | 64.5 | -0.62 | -0.51 | 0.08 | 7.6 | 7.6 | 688.6 | 706.2 | 594.4 | 609.6 |
| Avg. | - | 79.4 | 77.4 | 77.5 | 64.5 | -0.62 | -0.51 | 7.6 | 7.6 | 688.6 | 706.2 | 594.4 | 609.6 |
| Std Dv | - | 0.4 | 0.4 | 0.4 | 0.01 | 0.01 | - | - | 0.0 | 13.2 | 13.2 | 0.3 | 0.0 |

NO TRACKING DATA

TABLE NO. B.7-1.1G

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
12/28/81

CORRECTION DATA

JUNE 26, 1980

CENTERLINE - CENTER (FLUSH)

SITE: 1G

| EV | CORRECTED | | | | CORRECTIONS (dB) | | | | CONSTANTS | | TRACKING DATA (METERS) | | | |
|--|-----------|------|-------|------|------------------|---------------|---------------|---------------|-----------|-------|------------------------|-------|-------|------|
| | EPNL | NEL | FNLTH | GBAM | $\wedge 1(P)$ | $\wedge 1(A)$ | $\wedge 2(P)$ | $\wedge 2(A)$ | K(P) | K(A) | SR | CPA | SRR | CPAR |
| APPROACH - BEST RATE OF CLIMB PLUS 10 KTS | | | | | | | | | | | | | | |
| 22 | 102.5 | 98.6 | 106.0 | 92.6 | 0.70 | 0.23 | -0.22 | 6.5 | 6.2 | 145.0 | 133.7 | 129.4 | 119.4 | |
| 24 | 101.4 | 97.4 | 105.4 | 91.5 | 0.31 | 0.32 | -0.10 | 6.0 | 6.0 | 141.1 | 135.8 | 124.1 | 119.4 | |
| 26 | 102.1 | 97.9 | 105.0 | 91.2 | -0.30 | 0.26 | 0.08 | 6.7 | 6.5 | 123.0 | 126.3 | 116.3 | 119.4 | |
| 28 | 102.0 | 97.9 | 105.1 | 91.6 | 0.35 | 0.36 | -0.12 | 6.6 | 6.3 | 126.8 | 121.6 | 124.6 | 119.4 | |
| Avg. | 102.0 | 98.0 | 105.4 | 91.7 | 0.26 | 0.28 | -0.09 | 6.5 | 6.2 | 134.0 | 125.3 | 123.6 | 119.4 | |
| Std Dv | 0.5 | 0.6 | 0.6 | 0.7 | 0.51 | 0.49 | 0.15 | 0.4 | 0.2 | 13.1 | 8.1 | 6.7 | 0.0 | |
| APPROACH - BEST RATE OF CLIMB MINUS 10 KTS | | | | | | | | | | | | | | |
| 30 | 100.9 | 97.4 | 103.6 | 91.0 | 0.00 | 0.02 | -0.01 | 6.5 | 5.8 | 149.7 | 148.9 | 120.1 | 119.4 | |
| 32 | 101.4 | 97.4 | 103.8 | 89.0 | 0.33 | 0.33 | -0.11 | 6.8 | 7.2 | 143.2 | 137.8 | 124.2 | 119.4 | |
| 34 | 99.5 | 95.8 | 100.9 | 88.2 | 0.51 | 0.51 | -0.18 | 7.0 | 6.5 | 158.8 | 149.8 | 126.6 | 119.4 | |
| 36 | 99.9 | 96.1 | 102.2 | 88.9 | 0.44 | 0.44 | -0.15 | 6.8 | 6.4 | 156.8 | 149.0 | 125.6 | 119.4 | |
| Avg. | 100.5 | 96.6 | 102.6 | 89.3 | 0.32 | 0.32 | -0.11 | 6.8 | 6.5 | 152.1 | 146.4 | 124.1 | 119.4 | |
| Std Dv | 1.1 | 1.0 | 1.7 | 1.5 | 0.28 | 0.27 | 0.08 | 0.3 | 0.7 | 8.7 | 7.0 | 3.5 | 0.0 | |
| APPROACH - BEST RATE OF CLIMB | | | | | | | | | | | | | | |
| 38 | 100.8 | 97.0 | 102.8 | 88.9 | 0.17 | 0.18 | -0.07 | 6.8 | 7.0 | 124.3 | 121.6 | 122.1 | 119.4 | |
| 40 | 100.2 | 96.3 | 103.3 | 89.4 | 0.36 | 0.36 | -0.12 | 6.8 | 6.6 | 146.9 | 140.8 | 124.5 | 119.4 | |
| 42 | 101.2 | 97.3 | 104.0 | 90.3 | 0.34 | 0.34 | -0.10 | 6.1 | 6.1 | 141.2 | 135.8 | 124.2 | 119.4 | |
| Avg. | 100.7 | 96.8 | 103.4 | 89.6 | 0.29 | 0.29 | -0.10 | 6.6 | 6.5 | 137.5 | 132.8 | 123.6 | 119.4 | |
| Std Dv | 0.7 | 0.7 | 0.9 | 1.0 | 0.15 | 0.14 | 0.04 | 0.6 | 0.7 | 16.6 | 14.1 | 1.9 | 0.0 | |

TABLE NO. B.7-2.10

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
12/28/81

CORRECTION DATA

JUNE 26, 1980

CENTERLINE - CENTER (FLUSH)

SITE: 16

| EV | CORRECTED | | | CORRECTIONS (dB) | | | CONSTANTS | | TRACKING DATA (METERS) | | | | | |
|--|-----------|------|-------|------------------|-----------------------------|-----------------------------|-----------|-------|------------------------|-----|-------|-------|-------|-------|
| | EPNL | NEL | PNLTH | dBAM | $\sqrt{1(P)} / \sqrt{1(A)}$ | $\sqrt{2(P)} / \sqrt{2(A)}$ | K(P) | K(A) | SR | CFA | SRR | CFAR | | |
| TAKEOFF - HOVER POWER PLUS 10% | | | | | | | | | | | | | | |
| 21 | 90.9 | 86.0 | 91.3 | 77.1 | -1.71 | -1.48 | 0.50 | 0.49 | 7.4 | 7.2 | 134.1 | 156.6 | 119.7 | 139.8 |
| 22 | 93.5 | 88.4 | 94.1 | 79.8 | -2.30 | -2.06 | 0.65 | 0.63 | 7.4 | 7.1 | 130.4 | 159.9 | 114.0 | 139.8 |
| 25 | 93.8 | 88.4 | 95.1 | 80.1 | -1.88 | -1.72 | 0.51 | 0.52 | 6.8 | 6.9 | 120.1 | 142.8 | 117.6 | 139.8 |
| 27 | 94.5 | 89.2 | 96.1 | 80.9 | -1.96 | -1.90 | 0.57 | 0.57 | 6.9 | 6.9 | 119.7 | 145.0 | 115.4 | 139.8 |
| 29 | 93.9 | 88.4 | 95.9 | 80.4 | -1.40 | -1.36 | 0.39 | 0.40 | 6.7 | 6.8 | 129.6 | 148.3 | 122.2 | 139.8 |
| 31 | 94.7 | 89.3 | 96.1 | 80.4 | -0.60 | -0.58 | 0.16 | 0.17 | 6.9 | 7.2 | 137.8 | 145.4 | 132.5 | 139.8 |
| 33 | 94.1 | 88.9 | 95.2 | 80.1 | -1.22 | -1.13 | 0.34 | 0.34 | 7.1 | 7.1 | 129.1 | 144.4 | 124.9 | 139.8 |
| Avg. | 93.6 | 88.4 | 94.8 | 79.8 | -1.58 | -1.46 | 0.45 | 0.45 | 7.0 | 7.0 | 128.7 | 148.9 | 120.9 | 139.8 |
| Std Dev | 1.4 | 1.2 | 1.9 | 1.4 | 0.62 | 0.55 | 0.18 | 0.17 | 0.3 | 0.2 | 7.4 | 7.3 | 7.0 | 0.0 |
| TAKEOFF - MAXIMUM POWER | | | | | | | | | | | | | | |
| 35 | 94.9 | 89.9 | 95.8 | 82.5 | 1.27 | 1.22 | -0.44 | -0.38 | 7.6 | 6.6 | 169.1 | 148.2 | 159.5 | 139.8 |
| 37 | 94.6 | 89.4 | 96.0 | 80.6 | 0.52 | 0.50 | -0.18 | -0.18 | 7.1 | 7.4 | 148.1 | 139.8 | 148.0 | 139.8 |
| 41 | 95.1 | 90.0 | 96.3 | 81.2 | 1.96 | 1.82 | -0.63 | -0.64 | 7.6 | 7.7 | 169.8 | 140.2 | 169.2 | 139.8 |
| Avg. | 94.8 | 89.8 | 96.0 | 81.5 | 1.25 | 1.18 | -0.42 | -0.40 | 7.5 | 7.2 | 162.3 | 142.8 | 158.9 | 139.8 |
| Std Dev | 0.4 | 0.5 | 0.4 | 1.4 | 1.02 | 0.93 | 0.32 | 0.33 | 0.4 | 0.8 | 17.5 | 6.7 | 15.0 | 0.0 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 150 KTS - TORQUE > 90% | | | | | | | | | | | | | | |
| 43 | 99.4 | 95.4 | 102.5 | 89.0 | 1.22 | 1.18 | -0.40 | -0.37 | 7.1 | 6.7 | 173.3 | 152.4 | 173.3 | 152.4 |
| 44 | 98.6 | 94.3 | 101.4 | 88.0 | 0.02 | 0.03 | -0.03 | -0.02 | 7.1 | 6.4 | 198.8 | 197.1 | 153.7 | 152.4 |
| 45 | 97.4 | 93.4 | 102.6 | 89.0 | 0.96 | 0.93 | -0.31 | -0.29 | 6.9 | 6.6 | 170.7 | 154.1 | 168.8 | 152.4 |
| 46 | 97.7 | 93.5 | 101.6 | 87.1 | -0.58 | -0.50 | 0.12 | 0.12 | 6.1 | 6.5 | 203.4 | 212.5 | 145.9 | 152.4 |
| 47 | 99.8 | 96.0 | 102.3 | 89.0 | -0.08 | -0.06 | 0.01 | 0.01 | 7.2 | 6.9 | 156.1 | 156.4 | 152.1 | 152.4 |
| Avg. | 99.0 | 94.9 | 102.1 | 88.4 | 0.31 | 0.32 | -0.12 | -0.11 | 6.9 | 6.6 | 180.4 | 174.5 | 158.7 | 152.4 |
| Std Dev | 1.0 | 1.1 | 0.7 | 1.0 | 0.87 | 0.82 | 0.26 | 0.24 | 0.5 | 0.2 | 23.1 | 32.6 | 13.5 | 0.0 |

TABLE NO. B.6-2.2
 BELL 206L HELICOPTER

DOT/TSC
 12/24/81

CORRECTION DATA

SITE: 2
 CENTERLINE - 150 N. WEST
 JUNE 26, 1980

| EV | CORRECTED | | | CORRECTIONS (dB) | | | CONSTANTS | | | TRACKING DATA (METERS) (ACTUAL) | | | | |
|--|-----------|------|-------|------------------|-----------------------------|-----------------------------|-----------|------|-----|------------------------------------|-------|-------|-------|-------|
| | EPNL | NEL | PNLTM | dBAM | $\wedge 1(P) / \wedge 1(A)$ | $\wedge 2(P) / \wedge 2(A)$ | K(P) | K(A) | SR | CPA | SRR | CPAR | | |
| 300 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS | | | | | | | | | | | | | | |
| 1 | 90.4 | 86.8 | 93.5 | 79.8 | -2.45 | -2.36 | 0.69 | 0.68 | 6.3 | 6.2 | 73.3 | 94.2 | 70.2 | 90.2 |
| 2 | 89.4 | 85.7 | 93.5 | 79.8 | -1.83 | -1.73 | 0.49 | 0.46 | 6.2 | 5.9 | 94.1 | 112.7 | 75.4 | 90.2 |
| 3 | 89.7 | 86.2 | 93.2 | 79.3 | -2.64 | -2.55 | 0.71 | 0.74 | 6.0 | 6.3 | 76.5 | 100.2 | 68.9 | 90.2 |
| 4 | 89.4 | 85.7 | 93.9 | 79.7 | -2.57 | -2.48 | 0.64 | 0.67 | 5.6 | 5.9 | 75.2 | 97.6 | 69.5 | 90.2 |
| Avg. | 89.7 | 86.1 | 93.5 | 79.6 | -2.37 | -2.28 | 0.63 | 0.64 | 6.0 | 6.1 | 79.8 | 101.2 | 71.0 | 90.2 |
| Std Dv | 0.6 | 0.6 | 0.3 | 0.3 | 0.45 | 0.46 | 0.12 | 0.15 | 0.4 | 0.3 | 11.8 | 9.9 | 3.6 | 0.0 |
| 700 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS | | | | | | | | | | | | | | |
| 5 | 85.4 | 82.2 | 85.6 | 72.3 | -2.57 | -2.39 | 0.71 | 0.71 | 7.1 | 7.2 | 178.8 | 224.9 | 168.6 | 212.1 |
| 6 | 83.8 | 80.7 | 85.2 | 72.3 | -1.35 | -1.22 | 0.33 | 0.32 | 6.8 | 6.5 | 190.7 | 213.2 | 189.8 | 212.1 |
| 7 | 85.1 | 82.0 | 85.3 | 71.8 | -1.92 | -1.75 | 0.51 | 0.50 | 7.1 | 7.0 | 195.2 | 230.2 | 179.8 | 212.1 |
| 8 | 83.8 | 80.7 | 84.0 | 71.5 | -1.69 | -1.53 | 0.42 | 0.40 | 7.2 | 6.9 | 264.6 | 302.9 | 185.3 | 212.1 |
| Avg. | 84.5 | 81.4 | 85.0 | 72.0 | -1.88 | -1.72 | 0.49 | 0.48 | 7.1 | 6.9 | 207.3 | 242.8 | 180.9 | 212.1 |
| Std Dv | 1.0 | 1.0 | 0.9 | 0.5 | 0.63 | 0.61 | 0.20 | 0.21 | 0.2 | 0.3 | 47.5 | 49.9 | 11.2 | 0.0 |
| 1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS | | | | | | | | | | | | | | |
| 9 | 82.9 | 80.1 | 81.7 | 68.7 | -1.57 | -1.40 | 0.40 | 0.40 | 7.5 | 7.5 | 295.9 | 334.4 | 268.6 | 303.6 |
| 10 | 81.7 | 79.1 | 81.3 | 69.2 | -1.74 | -1.55 | 0.42 | 0.41 | 7.1 | 6.9 | 279.7 | 320.6 | 264.9 | 303.6 |
| 11 | 82.8 | 80.3 | 82.6 | 69.4 | -1.32 | -1.17 | 0.30 | 0.30 | 7.0 | 7.1 | 306.0 | 337.6 | 275.2 | 303.6 |
| 12 | 81.4 | 78.4 | 81.5 | 68.8 | -1.17 | -1.03 | 0.26 | 0.25 | 7.1 | 6.8 | 319.5 | 347.8 | 278.9 | 303.6 |
| Avg. | 82.2 | 79.5 | 81.8 | 69.0 | -1.45 | -1.29 | 0.34 | 0.34 | 7.2 | 7.1 | 300.3 | 335.1 | 271.9 | 303.6 |
| Std Dv | 0.9 | 1.1 | 0.7 | 0.4 | 0.31 | 0.28 | 0.09 | 0.10 | 0.3 | 0.4 | 20.5 | 13.8 | 7.7 | 0.0 |

TABLE NO. B.6-3.2

BELL 206L HELICOPTER

CORRECTION DATA

DOT/TSC
12/24/81

JUNE 26, 1980

SITE: 2 CENTERLINE - 150 M. WEST

| EV | CORRECTED | | | CORRECTIONS (dB) | | | CONSTANTS | | TRACKING DATA (METERS) | | | | | |
|--|-----------|------|-------|------------------|---------------|---------------|---------------|---------------|------------------------|------|------------------|-------|-------|-------|
| | EPNL | NEL | PMLTM | dBAM | $\wedge 1(F)$ | $\wedge 1(A)$ | $\wedge 2(P)$ | $\wedge 2(A)$ | K(P) | K(A) | SR | CPA | SRR | CPAR |
| 1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS | | | | | | | | | | | | | | |
| 13 | 80.4 | 77.8 | 78.1 | 55.2 | -1.71 | -1.48 | 0.37 | 0.38 | 7.1 | 7.2 | 471.0 | 531.1 | 404.4 | 456.0 |
| 14 | 78.4 | 75.8 | 75.9 | 53.8 | -1.27 | -1.08 | 0.26 | 0.25 | 7.6 | 7.3 | 487.1 | 527.6 | 421.0 | 456.0 |
| 15 | 79.6 | 77.0 | 76.7 | 53.5 | -1.59 | -1.37 | 0.36 | 0.37 | 7.6 | 7.9 | 465.1 | 518.1 | 409.4 | 456.0 |
| 16 | 78.6 | 76.0 | 76.4 | 53.8 | -1.29 | -1.08 | 0.24 | 0.23 | 7.6 | 7.5 | 529.7 | 676.4 | 424.5 | 456.0 |
| Avg. | 79.2 | 76.6 | 76.8 | 54.1 | -1.47 | -1.25 | 0.31 | 0.31 | 7.5 | 7.5 | 513.2 | 563.3 | 414.8 | 456.0 |
| Std Dv | 1.1 | 1.2 | 1.1 | 0.9 | 0.27 | 0.25 | 0.08 | 0.10 | 0.3 | 0.3 | 95.8 | 92.6 | 11.6 | 0.0 |
| 2000 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS | | | | | | | | | | | | | | |
| 17 | - | - | - | - | - | - | - | - | - | - | NO TRACKING DATA | | | |
| 18 | 76.6 | 73.9 | 74.2 | 61.3 | -0.65 | -0.54 | 0.07 | 0.07 | 7.3 | 7.5 | 613.4 | 627.5 | 594.7 | 608.4 |
| 19 | - | 74.7 | 74.2 | 61.4 | -0.65 | -0.51 | - | 0.07 | - | 7.6 | 688.0 | 703.4 | 595.1 | 608.4 |
| Avg. | 76.6 | 74.3 | 74.2 | 61.3 | -0.65 | -0.52 | 0.07 | 0.07 | 7.3 | 7.5 | 650.7 | 665.4 | 594.9 | 608.4 |
| Std Dv | - | 0.5 | 0.0 | 0.1 | 0.00 | 0.02 | - | 0.00 | - | 0.1 | 52.8 | 53.7 | 0.3 | 0.0 |

TABLE NO. B.7-1.2

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
12/28/81

CORRECTION DATA

JUNE 26, 1980

SITE: 2 CENTERLINE - 150 M. WEST

| EV | CORRECTED | | CORRECTIONS (dB) | | | | CONSTANTS | | TRACKING DATA (METERS) | | | | | |
|--|-----------|------|------------------|------|---------------|---------------|---------------|---------------|------------------------|-------|-------|-------|-------|-------|
| | EPNL | MEL | PNLTM | dBSM | $\Delta 1(P)$ | $\Delta 1(A)$ | $\Delta 2(P)$ | $\Delta 2(A)$ | K(P) | K(A) | SR | CFA | SRR | CPAR |
| APPROACH - BEST RATE OF CLIMB PLUS 10 KTS | | | | | | | | | | | | | | |
| 22 | 99.4 | 94.5 | 102.4 | 87.6 | 0.82 | -0.28 | -0.28 | 7.0 | 6.8 | 115.1 | 105.8 | 112.6 | 102.6 | |
| 24 | 99.2 | 94.6 | 102.6 | 87.7 | 0.45 | -0.15 | -0.15 | 6.6 | 6.9 | 120.7 | 114.4 | 108.2 | 102.6 | |
| 26 | 99.7 | 94.9 | 103.7 | 89.3 | -0.56 | 0.15 | 0.14 | 6.3 | 5.9 | 100.3 | 105.9 | 97.1 | 102.6 | |
| 28 | 100.3 | 95.4 | 104.8 | 89.1 | 0.55 | -0.17 | -0.18 | 6.3 | 6.6 | 113.6 | 106.6 | 109.3 | 102.6 | |
| Avg. | 99.6 | 94.8 | 103.4 | 88.4 | 0.31 | -0.33 | -0.11 | -0.12 | 6.5 | 6.6 | 112.7 | 108.2 | 106.8 | 102.6 |
| Std Dv | 0.6 | 0.5 | 1.3 | 1.1 | 0.74 | 0.71 | 0.23 | 0.22 | 0.4 | 0.6 | 10.7 | 5.1 | 8.2 | 0.0 |
| APPROACH - BEST RATE OF CLIMB MINUS 10 KTS | | | | | | | | | | | | | | |
| 30 | 100.2 | 95.6 | 104.2 | 89.8 | 0.07 | -0.03 | -0.03 | 6.1 | 6.1 | 110.7 | 109.4 | 103.9 | 102.6 | |
| 32 | 98.2 | 94.0 | 102.0 | 88.3 | 0.14 | 0.16 | -0.05 | -0.05 | 6.1 | 5.8 | 123.5 | 121.1 | 104.7 | 102.6 |
| 34 | 98.5 | 94.1 | 101.8 | 87.4 | 0.81 | 0.79 | -0.25 | -0.24 | 6.3 | 6.2 | 135.5 | 123.8 | 112.2 | 102.6 |
| 36 | 99.8 | 95.1 | 102.8 | 88.3 | 0.50 | -0.17 | -0.17 | 6.9 | 6.7 | 116.3 | 109.8 | 108.6 | 102.6 | |
| Avg. | 99.2 | 94.7 | 102.7 | 88.5 | 0.38 | -0.38 | -0.12 | -0.12 | 6.3 | 6.2 | 121.5 | 116.0 | 107.4 | 102.6 |
| Std Dv | 1.2 | 1.0 | 1.4 | 1.2 | 0.42 | 0.40 | 0.13 | 0.12 | 0.5 | 0.5 | 13.1 | 9.2 | 4.7 | 0.0 |
| APPROACH - BEST RATE OF CLIMB | | | | | | | | | | | | | | |
| 38 | 98.7 | 94.3 | 102.3 | 86.8 | -0.14 | -0.11 | 0.02 | 0.02 | 6.2 | 7.0 | 129.4 | 130.1 | 102.0 | 102.6 |
| 40 | 98.5 | 94.2 | 102.7 | 87.9 | 0.33 | 0.34 | -0.11 | -0.11 | 5.8 | 6.1 | 114.3 | 109.6 | 107.0 | 102.6 |
| 42 | 99.2 | 94.5 | 102.9 | 87.6 | 0.29 | 0.31 | -0.11 | -0.11 | 6.3 | 6.5 | 120.5 | 115.9 | 106.7 | 102.6 |
| Avg. | 98.8 | 94.3 | 102.6 | 87.4 | 0.16 | 0.18 | -0.07 | -0.07 | 6.1 | 6.5 | 121.4 | 118.5 | 105.2 | 102.6 |
| Std Dv | 0.5 | 0.2 | 0.4 | 0.8 | 0.37 | 0.36 | 0.11 | 0.11 | 0.4 | 0.7 | 10.7 | 14.9 | 4.0 | 0.0 |

TABLE NO. B.7-2.2

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
12/28/81

CORRECTION DATA

| EV | CORRECTED | | | CORRECTIONS (dB) | | | | CONSTANTS | | TRACKING DATA (ACTUAL) | | | TRACKING DATA (METERS) (REFERENCE) | | |
|--|-----------|------|-------|------------------|---------------|---------------|---------------|---------------|------|------------------------|------------------|-------|------------------------------------|-------|--|
| | EPNL | MEL | PNLTH | dBAM | $\sqrt{1(P)}$ | $\sqrt{1(A)}$ | $\sqrt{2(P)}$ | $\sqrt{2(A)}$ | K(P) | K(A) | SR | CPA | SRR | CPAR | |
| TAKEOFF - HOVER POWER PLUS 10% | | | | | | | | | | | | | | | |
| 21 | 93.3 | 87.6 | 94.9 | 79.6 | -1.49 | -1.38 | 0.34 | 0.35 | 6.7 | 6.5 | 91.0 | 102.9 | 90.7 | 102.6 | |
| 23 | 92.9 | 87.3 | 95.3 | 79.9 | -2.21 | -2.14 | 0.58 | 0.59 | 6.6 | 6.8 | 96.8 | 118.3 | 83.9 | 102.6 | |
| 25 | 93.0 | 87.7 | 95.3 | 80.6 | -1.97 | -1.87 | 0.52 | 0.51 | 6.8 | 6.5 | 99.5 | 118.9 | 85.9 | 102.6 | |
| 27 | 93.2 | 87.7 | 95.5 | 81.0 | -2.28 | -2.17 | 0.58 | 0.57 | 6.3 | 6.2 | 92.6 | 114.3 | 83.1 | 102.6 | |
| 29 | 93.0 | 87.5 | 95.4 | 80.4 | -1.10 | -1.06 | 0.27 | 0.27 | 6.5 | 6.5 | 99.4 | 109.4 | 93.2 | 102.6 | |
| 31 | 92.9 | 87.7 | 94.9 | 80.1 | -0.74 | -0.70 | 0.18 | 0.17 | 6.6 | 6.2 | 103.8 | 110.5 | 96.4 | 102.6 | |
| 33 | 92.8 | 87.6 | 94.7 | 79.7 | -1.43 | -1.34 | 0.36 | 0.35 | 6.6 | 6.4 | 109.7 | 124.4 | 90.4 | 102.6 | |
| Avg. | 93.0 | 87.6 | 95.1 | 80.2 | -1.60 | -1.52 | 0.41 | 0.40 | 6.6 | 6.5 | 99.0 | 114.1 | 89.1 | 102.6 | |
| Std Dv | 0.2 | 0.2 | 0.3 | 0.6 | 0.63 | 0.61 | 0.17 | 0.17 | 0.2 | 0.2 | 7.0 | 7.9 | 5.4 | 0.0 | |
| TAKEOFF - MAXIMUM POWER | | | | | | | | | | | | | | | |
| 35 | 93.9 | 88.6 | 96.6 | 81.7 | 0.74 | 0.72 | -0.23 | -0.22 | 6.5 | 6.3 | 140.9 | 130.1 | 111.1 | 102.6 | |
| 37 | | | | | | | | | | | NO TRACKING DATA | | | | |
| 39 | 93.4 | 88.1 | 96.1 | 80.8 | -0.42 | -0.38 | 0.07 | 0.07 | 6.7 | 6.5 | 100.1 | 102.6 | 100.1 | 102.6 | |
| 41 | 93.6 | 88.3 | 95.8 | 81.0 | 1.26 | 1.23 | -0.42 | -0.41 | 7.0 | 6.8 | 164.2 | 143.0 | 117.8 | 102.6 | |
| Avg. | 93.6 | 88.3 | 96.2 | 81.2 | 0.53 | 0.52 | -0.19 | -0.19 | 6.7 | 6.5 | 135.1 | 125.2 | 109.7 | 102.6 | |
| Std Dv | 0.3 | 0.4 | 0.6 | 0.7 | 1.22 | 1.16 | 0.35 | 0.34 | 0.3 | 0.4 | 45.8 | 29.2 | 12.6 | 0.0 | |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 150 KTS - TORQUE > 90% | | | | | | | | | | | | | | | |
| 43 | | | | | 1.27 | 1.20 | - | -0.34 | - | 5.7 | 442.4 | 386.1 | 173.2 | 151.2 | |
| 44 | 95.1 | 90.7 | 98.4 | 84.5 | 0.05 | 0.03 | -0.07 | -0.07 | 6.6 | 6.5 | 261.3 | 254.8 | 155.1 | 151.2 | |
| 45 | 95.1 | 91.1 | 97.3 | 83.9 | 1.00 | 0.96 | -0.35 | -0.32 | 7.1 | 6.5 | 299.2 | 267.1 | 169.4 | 151.2 | |
| 46 | 93.5 | 89.3 | 97.5 | 82.5 | -0.72 | -0.69 | 0.12 | 0.14 | 6.2 | 6.9 | 267.5 | 280.0 | 144.5 | 151.2 | |
| 47 | 95.6 | 91.7 | 98.3 | 84.5 | -0.35 | -0.25 | 0.02 | 0.02 | 6.9 | 7.0 | 480.2 | 483.1 | 150.3 | 151.2 | |
| Avg. | 94.8 | 90.8 | 97.9 | 84.0 | 0.25 | 0.25 | -0.07 | -0.11 | 6.7 | 6.5 | 350.1 | 334.2 | 158.5 | 151.2 | |
| Std Dv | 1.1 | 1.1 | 0.6 | 1.0 | 0.99 | 0.93 | 0.25 | 0.24 | 0.5 | 0.6 | 119.4 | 113.5 | 14.3 | 0.0 | |

TABLE NO. B-6-2.3

BELL 206L HELICOPTER

DOT/TSC
12/24/81

CORRECTION DATA

SITE: 3

CENTERLINE - 150 M. EAST

JUNE 26, 1980

| EV | CORRECTED | | | CORRECTIONS (dB) | | | CONSTANTS | | TRACKING DATA (METERS) | | | | |
|--|-----------|------|-------|------------------|---------------------------|---------------|---------------|------|------------------------|------------------|-------|-------|-------|
| | EPNL | NEL | PNLTH | dBAM | $\wedge 1(P) \wedge 1(A)$ | $\wedge 2(P)$ | $\wedge 2(A)$ | K(P) | K(A) | SR | CPA | SRR | CPAR |
| 300 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS | | | | | | | | | | | | | |
| 1 | 89.5 | 86.0 | 92.1 | 78.2 | -2.36 | -2.28 | 0.65 | 6.2 | 6.6 | 79.2 | 100.7 | 71.0 | 90.2 |
| 2 | 88.6 | 84.9 | 92.2 | 78.8 | -1.62 | -1.56 | 0.43 | 6.0 | 5.9 | 81.7 | 96.2 | 76.7 | 90.2 |
| 3 | 89.7 | 86.0 | 92.8 | 78.5 | -2.00 | -1.93 | 0.55 | 6.3 | 6.6 | 79.4 | 97.2 | 73.7 | 90.2 |
| 4 | 88.7 | 85.3 | 92.4 | 79.3 | -3.03 | -2.91 | 0.82 | 6.1 | 5.9 | 67.3 | 91.9 | 66.1 | 90.2 |
| Avg. | 89.1 | 85.6 | 92.4 | 78.7 | -2.25 | -2.17 | 0.61 | 6.2 | 6.2 | 76.9 | 96.5 | 71.9 | 90.2 |
| Std Dv | 0.6 | 0.7 | 0.4 | 0.6 | 0.73 | 0.70 | 0.20 | 0.2 | 0.5 | 8.0 | 4.4 | 5.5 | 0.0 |
| 700 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS | | | | | | | | | | | | | |
| 5 | 85.2 | 82.0 | 84.6 | 71.6 | -2.82 | -2.58 | 0.79 | 7.2 | 7.5 | 176.9 | 227.7 | 164.9 | 212.1 |
| 6 | 83.3 | 80.2 | 83.8 | 70.9 | -1.32 | -1.22 | 0.34 | 7.2 | 7.0 | 197.5 | 220.1 | 190.3 | 212.1 |
| 7 | 84.9 | 81.8 | 84.5 | 71.1 | -1.95 | -1.80 | 0.53 | 7.2 | 7.2 | 189.0 | 224.0 | 179.0 | 212.1 |
| 8 | 83.8 | 80.5 | 84.7 | 72.2 | -1.60 | -1.48 | 0.42 | 7.0 | 6.6 | 198.1 | 227.3 | 184.9 | 212.1 |
| Avg. | 84.3 | 81.1 | 84.4 | 71.4 | -1.92 | -1.77 | 0.52 | 7.1 | 7.1 | 190.4 | 224.8 | 179.8 | 212.1 |
| Std Dv | 1.1 | 1.1 | 0.5 | 0.7 | 0.80 | 0.72 | 0.24 | 0.1 | 0.5 | 12.1 | 4.3 | 13.4 | 0.0 |
| 1000 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS | | | | | | | | | | | | | |
| 9 | 82.7 | 79.8 | 81.1 | 67.8 | -1.47 | -1.34 | 0.38 | 7.6 | 7.7 | 270.4 | 303.8 | 270.2 | 303.6 |
| 10 | | | | | | | | | | NO TRACKING DATA | | | |
| 11 | 82.8 | 80.3 | 80.9 | 69.1 | -0.92 | -0.82 | 0.21 | 7.7 | 7.4 | 294.7 | 314.0 | 284.9 | 303.6 |
| 12 | 81.5 | 78.3 | 80.9 | 68.3 | -1.08 | -0.98 | 0.25 | 7.1 | 7.0 | 284.7 | 308.7 | 279.9 | 303.6 |
| Avg. | 82.3 | 79.5 | 81.0 | 68.4 | -1.16 | -1.05 | 0.28 | 7.5 | 7.3 | 283.2 | 308.8 | 278.3 | 303.6 |
| Std Dv | 1.0 | 1.5 | 0.2 | 0.9 | 0.40 | 0.38 | 0.13 | 0.5 | 0.5 | 17.3 | 7.2 | 10.6 | 0.0 |

TABLE NO. 8.6-3.3.

BELL 206L HELICOPTER

DUY/TSC
12/24/81

CORRECTION DATA.

| EV | CORRECTED | | | CORRECTIONS (dB) | | | CONSTANTS | | | TRACKING DATA (METERS) | | |
|--|-----------|------|-------|------------------|---------------------------|---------------------------|-----------|------|-------|------------------------|-------|-------|
| | EPNL | NEL | FNLTM | QBRM | $\sqrt{1(P)} \wedge 1(A)$ | $\sqrt{2(P)} \wedge 2(A)$ | K(P) | K(A) | SR | CPA | SRR | CPAR |
| 1500 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS | | | | | | | | | | | | |
| 13 | - | 77.2 | 77.1 | 63.6 | -1.55 | -1.40 | - | 7.8 | 408.1 | 456.0 | 408.1 | 456.0 |
| 14 | - | 75.6 | 75.8 | 63.5 | -1.42 | -1.26 | - | 7.3 | 413.5 | 456.6 | 413.0 | 456.0 |
| 15 | - | 75.9 | 78.1 | 62.7 | -2.38 | -2.00 | - | 8.0 | 446.9 | 491.2 | 414.9 | 456.0 |
| 16 | 77.2 | 74.7 | 77.8 | 62.3 | -3.59 | -2.54 | 6.3 | 7.4 | 956.7 | 1034.6 | 421.7 | 456.0 |
| Avg. | 77.2 | 75.8 | 77.2 | 63.0 | -2.23 | -1.80 | 6.3 | 7.6 | 556.3 | 609.6 | 414.4 | 456.0 |
| Std Dv | - | 1.3 | 1.2 | 0.8 | 1.22 | 0.72 | - | 0.4 | 164.8 | 174.7 | 6.9 | 0.0 |
| 2000 FT. FLYOVER - TARGET INDICATED AIRSPEED 115 KTS | | | | | | | | | | | | |
| 17 | - | 73.7 | 74.2 | 61.0 | -0.63 | -0.51 | - | 7.6 | 594.3 | 611.4 | 591.4 | 608.4 |
| 18 | - | 74.7 | 73.9 | 60.0 | -0.67 | -0.55 | - | 8.1 | 592.4 | 610.8 | 590.1 | 608.4 |
| Avg. | - | 74.2 | 74.0 | 60.5 | -0.65 | -0.53 | - | 7.8 | 593.3 | 611.1 | 590.7 | 608.4 |
| Std Dv | - | 0.7 | 0.2 | 0.7 | 0.03 | 0.03 | - | 0.4 | 1.4 | 0.4 | 0.9 | 0.0 |

NO TRACKING DATA

TABLE NO. B.7-1.3

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
12/28/81

CORRECTION DATA

JUNE 26, 1980

SITE: 3 CENTERLINE - 150 M. EAST

| EV | CORRECTED | | | CORRECTIONS (dB) | | | CONSTANTS | | TRACKING DATA (METERS) | | | |
|--|-----------|------|-------|------------------|-----------------------------|-----------------------------|-----------|------|------------------------|-------|-------|-------|
| | EPNL | NEL | PNLTH | dBRM | $\sqrt{1(P)} / \sqrt{1(A)}$ | $\sqrt{2(P)} / \sqrt{2(A)}$ | K(P) | K(A) | SR | CPA | SRR | CPAR |
| APPROACH - BEST RATE OF CLIMB PLUS 10 KTS | | | | | | | | | | | | |
| 22 | 98.5 | 94.1 | 101.9 | 87.3 | 0.46 | -0.15 | 6.3 | 6.2 | 142.9 | 135.3 | 141.4 | 133.9 |
| 24 | 98.7 | 94.0 | 101.7 | 86.9 | 0.26 | -0.09 | 6.4 | 6.5 | 142.9 | 138.3 | 138.4 | 133.9 |
| 26 | 98.1 | 93.6 | 101.2 | 86.4 | -0.19 | 0.04 | 6.4 | 6.6 | 138.5 | 140.3 | 132.2 | 133.9 |
| 28 | 97.8 | 93.8 | 100.1 | 85.8 | 0.26 | -0.10 | 7.3 | 7.5 | 143.9 | 139.2 | 138.4 | 133.9 |
| Avg. | 98.3 | 93.8 | 101.2 | 86.6 | 0.20 | -0.07 | 6.7 | 6.7 | 142.1 | 138.3 | 137.6 | 133.9 |
| Std Dv | 0.5 | 0.3 | 0.9 | 0.8 | 0.34 | 0.10 | 0.5 | 0.7 | 2.9 | 2.6 | 4.7 | 0.0 |
| APPROACH - BEST RATE OF CLIMB MINUS 10 KTS | | | | | | | | | | | | |
| 30 | 96.9 | 92.9 | 98.9 | 84.9 | -0.10 | 0.01 | 6.9 | 6.7 | 145.8 | 146.5 | 133.2 | 133.9 |
| 32 | 96.4 | 92.1 | 97.7 | 82.9 | 0.14 | -0.06 | 7.0 | 7.4 | 166.2 | 162.7 | 136.8 | 133.9 |
| 34 | 95.8 | 92.2 | 98.3 | 85.1 | -0.06 | 0.00 | 6.8 | 6.5 | 138.7 | 138.9 | 133.7 | 133.9 |
| 36 | 97.0 | 92.7 | 98.2 | 84.3 | -0.03 | -0.01 | 7.5 | 7.1 | 139.1 | 138.7 | 134.2 | 133.9 |
| Avg. | 96.5 | 92.5 | 98.3 | 84.3 | -0.01 | 0.01 | 7.0 | 6.9 | 147.5 | 146.7 | 134.5 | 133.9 |
| Std Dv | 0.7 | 0.4 | 0.6 | 1.2 | 0.13 | 0.04 | 0.4 | 0.5 | 15.8 | 13.8 | 1.9 | 0.0 |
| APPROACH - BEST RATE OF CLIMB | | | | | | | | | | | | |
| 38 | 97.9 | 93.1 | 98.9 | 83.4 | -0.01 | 0.01 | 7.4 | 7.9 | 136.7 | 136.2 | 134.4 | 133.9 |
| 40 | 95.5 | 91.5 | 96.1 | 81.8 | 0.30 | -0.11 | 7.1 | 7.1 | 140.3 | 135.4 | 138.7 | 133.9 |
| 42 | 97.7 | 93.3 | 100.4 | 84.6 | 0.20 | -0.07 | 6.4 | 7.2 | 139.0 | 135.5 | 137.3 | 133.9 |
| Avg. | 97.0 | 92.6 | 98.4 | 83.3 | 0.16 | -0.04 | 7.0 | 7.4 | 138.6 | 135.7 | 136.8 | 133.9 |
| Std Dv | 1.9 | 1.4 | 3.0 | 2.0 | 0.22 | 0.07 | 0.7 | 0.6 | 2.6 | 0.6 | 3.1 | 0.0 |

TABLE NO. B.7-2.3

BIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
12/28/81

CORRECTION DATA

JUNE 26, 1980

CENTERLINE - 150 N. EAST

SITE: 3

| EV | CORRECTED | | | CORRECTIONS (dB) | | | CONSTANTS | | | TRACKING DATA (METERS) | | | | |
|--|-----------|------|-------|------------------|-----------------------------|-----------------------------|-----------|-------|-----|------------------------|-------|-------|-------|-------|
| | EPHL | NEL | PWLTN | dBAN | $\sqrt{1(P)} / \sqrt{1(A)}$ | $\sqrt{2(P)} / \sqrt{2(A)}$ | K(P) | K(A) | SR | CPA | SRR | CPAR | | |
| TAKEOFF - HOVER POWER PLUS 10% | | | | | | | | | | | | | | |
| 21 | 88.5 | 83.4 | 88.8 | 73.5 | -2.34 | -2.15 | 0.57 | 0.59 | 7.1 | 7.4 | 175.6 | 211.4 | 145.1 | 174.6 |
| 23 | 89.3 | 84.2 | 89.4 | 74.7 | -2.15 | -2.10 | 0.64 | 0.64 | 7.5 | 7.4 | 145.2 | 177.1 | 143.2 | 174.6 |
| 25 | 89.3 | 84.4 | 89.8 | 75.3 | -2.08 | -1.86 | 0.50 | 0.48 | 6.7 | 6.4 | 154.3 | 183.2 | 147.0 | 174.6 |
| 27 | 89.0 | 84.1 | 88.9 | 74.3 | -2.08 | -1.86 | 0.55 | 0.55 | 7.5 | 7.3 | 153.4 | 182.3 | 146.9 | 174.6 |
| 29 | 88.9 | 83.8 | 89.3 | 74.6 | -1.89 | -1.68 | 0.46 | 0.48 | 6.9 | 7.2 | 160.4 | 187.3 | 149.6 | 174.6 |
| 31 | 89.8 | 84.9 | 89.6 | 75.4 | -0.71 | -0.61 | 0.16 | 0.15 | 7.4 | 7.0 | 172.7 | 181.6 | 166.1 | 174.6 |
| 33 | 89.3 | 84.5 | 89.6 | 75.0 | -1.61 | -1.42 | 0.41 | 0.40 | 7.4 | 7.3 | 184.6 | 209.5 | 153.9 | 174.6 |
| Avg. | 89.2 | 84.2 | 89.3 | 74.7 | -1.84 | -1.67 | 0.47 | 0.47 | 7.2 | 7.1 | 163.8 | 190.4 | 150.3 | 174.6 |
| Std Dv | 0.5 | 0.5 | 0.4 | 0.7 | 0.60 | 0.58 | 0.17 | 0.18 | 0.4 | 0.4 | 15.5 | 15.4 | 8.5 | 0.0 |
| TAKEOFF - MAXIMUM POWER | | | | | | | | | | | | | | |
| 35 | 90.3 | 85.8 | 90.9 | 76.6 | 1.61 | 1.49 | -0.50 | -0.51 | 7.5 | 7.7 | 214.1 | 183.6 | 203.6 | 174.6 |
| 37 | 90.6 | 85.6 | 90.5 | 76.2 | 1.00 | 0.95 | -0.32 | -0.31 | 7.4 | 7.3 | 214.5 | 194.4 | 192.7 | 174.6 |
| 41 | 90.3 | 85.7 | 90.9 | 76.6 | 2.34 | 2.15 | -0.68 | -0.69 | 7.5 | 7.6 | 250.9 | 203.4 | 215.4 | 174.6 |
| Avg. | 90.4 | 85.7 | 90.8 | 76.5 | 1.65 | 1.53 | -0.50 | -0.50 | 7.5 | 7.5 | 226.5 | 193.8 | 203.9 | 174.6 |
| Std Dv | 0.2 | 0.1 | 0.4 | 0.3 | 0.95 | 0.85 | 0.25 | 0.27 | 0.1 | 0.3 | 29.9 | 14.0 | 16.0 | 0.0 |
| 500 FT. FLYOVER - TARGET INDICATED AIRSPEED 150 KTS - TORQUE > 90% | | | | | | | | | | | | | | |
| 43 | 95.8 | 91.7 | 98.1 | 84.1 | 1.21 | 1.17 | -0.41 | -0.41 | 7.4 | 7.4 | 175.1 | 154.1 | 171.8 | 151.2 |
| 44 | 95.2 | 91.2 | 97.8 | 84.2 | -0.24 | -0.22 | 0.06 | 0.06 | 7.2 | 6.9 | 156.2 | 159.1 | 148.4 | 151.2 |
| 45 | 96.5 | 92.3 | 98.8 | 84.4 | 0.98 | 0.95 | -0.31 | -0.32 | 6.7 | 6.9 | 179.1 | 161.2 | 168.0 | 151.2 |
| 46 | 94.0 | 89.9 | 97.2 | 83.8 | -0.58 | -0.51 | 0.13 | 0.12 | 6.5 | 6.2 | 156.8 | 164.1 | 144.5 | 151.2 |
| 47 | 96.3 | 92.5 | 98.3 | 84.5 | -0.10 | -0.08 | 0.01 | 0.01 | 7.2 | 7.5 | 170.0 | 170.4 | 150.8 | 151.2 |
| Avg. | 95.6 | 91.5 | 98.0 | 84.2 | 0.25 | 0.26 | -0.10 | -0.11 | 7.0 | 7.0 | 167.4 | 161.8 | 156.7 | 151.2 |
| Std Dv | 1.2 | 1.2 | 0.7 | 0.3 | 0.91 | 0.86 | 0.28 | 0.28 | 0.4 | 0.6 | 12.1 | 7.0 | 14.3 | 0.0 |

TABLE NO. B.6-2.4
 BELL 206L HELICOPTER
 CORRECTION DATA

DOT/TSC
 12/26/81

JUNE 26, 1980

SITE: 4 SIDELINE - 164 M. NORTH

| EV | CORRECTED | | | | CORRECTIONS (dB) | | | | CONSTANTS | | | | TRACKING DATA (METERS) (ACTUAL) | | | |
|--|-----------|------|-------|------|------------------|---------------|---------------|---------------|-----------|------|-------|-------|------------------------------------|-------|--|--|
| | EPML | NEL | PNLTM | dBAM | $\sqrt{1(P)}$ | $\sqrt{1(A)}$ | $\sqrt{2(P)}$ | $\sqrt{2(A)}$ | K(P) | K(A) | SR | CPA | SRR | CPAR | | |
| 300 FT. FLYBY - TARGET INDICATED AIRSPEED 115 KTS | | | | | | | | | | | | | | | | |
| 1 | 88.3 | 85.3 | 89.6 | 77.0 | 0.00 | 0.07 | -0.06 | -0.06 | 6.9 | 6.5 | 185.6 | 181.6 | 178.8 | 175.0 | | |
| 2 | 87.5 | 83.6 | 90.5 | 76.4 | -0.50 | -0.27 | 0.04 | 0.04 | 6.4 | 6.4 | 172.7 | 175.4 | 172.2 | 175.0 | | |
| 3 | 87.5 | 84.6 | 88.3 | 76.1 | -0.98 | -0.86 | 0.23 | 0.22 | 7.1 | 6.7 | 162.2 | 175.0 | 162.2 | 175.0 | | |
| 4 | 87.8 | 84.0 | 89.8 | 76.2 | -0.58 | -0.53 | 0.12 | 0.12 | 7.2 | 6.8 | 213.2 | 221.9 | 168.2 | 175.0 | | |
| Avg. | 87.8 | 84.4 | 89.6 | 76.4 | -0.46 | -0.40 | 0.08 | 0.08 | 6.9 | 6.6 | 183.4 | 188.5 | 170.3 | 175.0 | | |
| Std Dev | 0.5 | 0.9 | 1.1 | 0.5 | 0.51 | 0.48 | 0.15 | 0.15 | 0.4 | 0.2 | 27.0 | 27.5 | 8.5 | 0.0 | | |
| 700 FT. FLYBY - TARGET INDICATED AIRSPEED 115 KTS | | | | | | | | | | | | | | | | |
| 5 | 87.3 | 84.1 | 89.3 | 75.6 | -0.96 | -0.93 | 0.19 | 0.20 | 6.2 | 6.6 | 279.8 | 299.7 | 242.5 | 259.8 | | |
| 6 | 83.1 | 80.3 | 83.2 | 70.6 | -2.47 | -2.25 | 0.62 | 0.61 | 7.1 | 7.0 | 277.7 | 339.5 | 212.5 | 259.8 | | |
| 7 | 85.9 | 83.0 | 86.8 | 73.9 | -1.35 | -1.23 | 0.29 | 0.29 | 6.2 | 6.3 | 240.6 | 267.7 | 233.5 | 259.8 | | |
| 8 | 83.6 | 80.8 | 83.9 | 71.2 | -1.98 | -1.81 | 0.51 | 0.52 | 7.1 | 7.2 | 222.4 | 262.9 | 219.8 | 259.8 | | |
| Avg. | 84.9 | 82.0 | 85.8 | 72.8 | -1.69 | -1.55 | 0.40 | 0.40 | 6.7 | 6.8 | 255.1 | 292.4 | 227.1 | 259.8 | | |
| Std Dev | 2.4 | 2.2 | 3.4 | 2.9 | 0.82 | 0.72 | 0.24 | 0.24 | 0.6 | 0.5 | 34.6 | 43.3 | 16.5 | 0.0 | | |
| 1000 FT. FLYBY - TARGET INDICATED AIRSPEED 115 KTS | | | | | | | | | | | | | | | | |
| 9 | 84.8 | 81.6 | 85.2 | 70.7 | -0.81 | -0.78 | 0.16 | 0.17 | 6.9 | 7.5 | 348.1 | 367.2 | 321.1 | 338.6 | | |
| 10 | 82.1 | 79.2 | 81.2 | 68.3 | -1.95 | -1.78 | 0.48 | 0.50 | 7.1 | 7.3 | 289.9 | 338.8 | 289.7 | 338.6 | | |
| 11 | 85.9 | 82.5 | 86.9 | 72.1 | 0.19 | 0.19 | -0.12 | -0.12 | 6.8 | 7.1 | 381.4 | 366.4 | 352.4 | 338.6 | | |
| 12 | 81.5 | 79.1 | 81.9 | 68.9 | -1.72 | -1.56 | 0.39 | 0.41 | 6.6 | 6.9 | 295.9 | 338.7 | 295.8 | 338.6 | | |
| Avg. | 83.6 | 80.6 | 83.8 | 70.0 | -1.07 | -0.98 | 0.23 | 0.24 | 6.8 | 7.2 | 328.8 | 352.8 | 314.8 | 338.6 | | |
| Std Dev | 2.6 | 2.1 | 3.3 | 2.1 | 1.19 | 1.09 | 0.33 | 0.34 | 0.3 | 0.3 | 53.6 | 19.8 | 35.0 | 0.0 | | |

TABLE NO. B-6-3-A
 BELL 206L HELICOPTER

DUY/TSC
 12/26/81

CORRECTION DATA

JUNE 26, 1980

SIDELINE - 164 N. NORTH

SITE: 4

| EV | CORRECTED | | | CORRECTIONS (JOB) | | | CONSTANTS | | | TRACKING DATA (ACTUAL) | | | TRACKING DATA (METERS) (REFERENCE) | | |
|--|-----------|------|-------|-------------------|---------------|---------------|---------------|---------------|------|------------------------|-------|-------|------------------------------------|-------|--|
| | EPNL | NEL | PNLTH | dBGM | $\sqrt{1(P)}$ | $\sqrt{1(A)}$ | $\sqrt{2(P)}$ | $\sqrt{2(A)}$ | K(P) | K(A) | SR | CPA | SKR | CFAR | |
| 1500 FT. FLYBY - TARGET INDICATED AIRSPEED 115 KTS | | | | | | | | | | | | | | | |
| 13 | 81.6 | 78.6 | 81.0 | 66.5 | -1.61 | -1.47 | 0.32 | 0.36 | 6.8 | 7.5 | 495.9 | 553.7 | 429.9 | 480.0 | |
| 14 | 78.8 | 76.3 | 76.9 | 64.9 | -2.08 | -1.88 | 0.47 | 0.47 | 7.1 | 7.1 | 420.5 | 489.1 | 412.7 | 480.0 | |
| 15 | 81.9 | 78.9 | 81.6 | 66.8 | -0.89 | -0.80 | 0.15 | 0.16 | 6.9 | 7.4 | 543.4 | 570.4 | 457.2 | 480.0 | |
| 16 | 79.2 | 76.7 | 76.5 | 64.0 | -1.68 | -1.51 | 0.39 | 0.39 | 7.6 | 7.6 | 426.4 | 480.0 | 426.4 | 480.0 | |
| Avg. | 80.3 | 77.6 | 79.0 | 65.5 | -1.56 | -1.41 | 0.33 | 0.34 | 7.1 | 7.4 | 471.6 | 523.3 | 431.6 | 480.0 | |
| Std Dv | 2.0 | 1.6 | 3.3 | 1.6 | 0.61 | 0.55 | 0.17 | 0.16 | 0.4 | 0.3 | 72.1 | 55.6 | 22.8 | 0.0 | |
| 2000 FT. FLYBY - TARGET INDICATED AIRSPEED 115 KTS | | | | | | | | | | | | | | | |
| 17 | 77.8 | 75.0 | 74.5 | 62.1 | -0.67 | -0.55 | 0.09 | 0.09 | 7.6 | 7.4 | 617.1 | 634.5 | 609.4 | 626.6 | |
| 18 | 79.2 | 76.4 | 77.6 | 63.4 | -0.64 | -0.52 | 0.08 | 0.08 | 7.1 | 7.4 | 726.5 | 744.8 | 511.2 | 626.6 | |
| 19 | 78.5 | 75.7 | 76.1 | 62.7 | -0.65 | -0.53 | 0.08 | 0.08 | 7.4 | 7.4 | 671.8 | 689.6 | 610.3 | 626.6 | |
| Avg. | 78.5 | 75.7 | 76.1 | 62.7 | -0.65 | -0.53 | 0.08 | 0.08 | 7.4 | 7.4 | 671.8 | 689.6 | 610.3 | 626.6 | |
| Std Dv | 1.0 | 1.0 | 2.2 | 0.9 | 0.02 | 0.02 | 0.01 | 0.01 | 0.4 | 0.0 | 77.4 | 78.0 | 1.2 | 0.0 | |

NO TRACKING DATA

TABLE NO. B.7-1.4

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
12/28/81

CORRECTION DATA

JUNE 26, 1980

SITE: 4 SIDELINE - 164 M. NORTH

| EV | CORRECTED | | | CORRECTIONS (dB) | | | CONSTANTS | | | TRACKING DATA (METERS) | | | | |
|--|-----------|------|-------|------------------|--|-------|-----------|-------|-----|------------------------|-------|-------|-------|-------|
| | EPNL | NEL | PNLTM | dBAM | $\wedge(1(P) \wedge 1(A)) \wedge 2(P) \wedge 2(A)$ | K(F) | K(A) | SR | CPA | SR | CPAR | | | |
| APPROACH - BEST RATE OF CLIMB PLUS 10 KTS | | | | | | | | | | | | | | |
| 22 | 97.5 | 93.2 | 98.9 | 85.2 | -0.47 | -0.41 | 0.11 | 0.11 | 7.2 | 7.1 | 250.4 | 259.5 | 184.3 | 191.0 |
| 24 | 97.9 | 93.9 | 100.1 | 86.9 | -0.43 | -0.37 | 0.09 | 0.09 | 6.4 | 5.9 | 234.7 | 242.7 | 184.7 | 191.0 |
| 26 | 99.2 | 95.4 | 101.9 | 88.1 | -0.39 | -0.34 | 0.09 | 0.09 | 6.8 | 6.6 | 218.3 | 225.2 | 185.1 | 191.0 |
| 28 | 98.7 | 94.6 | 101.0 | 87.4 | -0.11 | -0.07 | 0.01 | 0.01 | 6.5 | 6.2 | 231.1 | 231.7 | 190.5 | 191.0 |
| Avg. | 98.3 | 94.3 | 100.5 | 86.9 | -0.35 | -0.30 | 0.07 | 0.07 | 6.7 | 6.5 | 233.7 | 239.8 | 186.2 | 191.0 |
| Std Dv | 1.0 | 1.1 | 1.6 | 1.5 | 0.20 | 0.19 | 0.05 | 0.05 | 0.4 | 0.7 | 16.2 | 18.4 | 3.6 | 0.0 |
| APPROACH - BEST RATE OF CLIMB MINUS 10 KTS | | | | | | | | | | | | | | |
| 30 | 94.2 | 90.3 | 95.6 | 80.7 | -0.53 | -0.48 | 0.12 | 0.13 | 6.4 | 7.0 | 182.9 | 191.1 | 182.8 | 191.0 |
| 32 | 94.4 | 90.5 | 98.2 | 84.9 | -0.49 | -0.43 | 0.11 | 0.10 | 5.8 | 5.3 | 191.6 | 200.0 | 182.9 | 191.0 |
| 34 | 93.6 | 89.8 | 92.6 | 78.3 | -0.31 | -0.25 | 0.05 | 0.05 | 8.1 | 8.5 | 460.2 | 466.4 | 188.4 | 191.0 |
| 36 | 94.1 | 90.5 | 93.6 | 79.7 | -0.30 | -0.26 | 0.07 | 0.07 | 7.7 | 7.9 | 211.6 | 215.9 | 187.2 | 191.0 |
| Avg. | 94.1 | 90.3 | 95.0 | 80.9 | -0.41 | -0.35 | 0.09 | 0.09 | 7.0 | 7.2 | 261.4 | 268.3 | 185.3 | 191.0 |
| Std Dv | 0.4 | 0.4 | 3.0 | 3.5 | 0.15 | 0.14 | 0.04 | 0.04 | 1.3 | 1.7 | 162.8 | 162.2 | 3.6 | 0.0 |
| APPROACH - BEST RATE OF CLIMB | | | | | | | | | | | | | | |
| 38 | 96.8 | 92.9 | 97.4 | 84.1 | 0.19 | 0.21 | -0.08 | -0.08 | 7.3 | 6.8 | 288.2 | 280.6 | 196.1 | 191.0 |
| 40 | 94.2 | 90.5 | 97.7 | 82.6 | 0.04 | 0.05 | -0.02 | -0.03 | 5.6 | 5.8 | 196.2 | 194.2 | 192.9 | 191.0 |
| 42 | 97.5 | 93.3 | 100.6 | 86.2 | 0.27 | 0.28 | -0.09 | -0.09 | 5.9 | 6.1 | 217.1 | 210.0 | 197.4 | 191.0 |
| Avg. | 96.2 | 92.2 | 98.6 | 84.3 | 0.17 | 0.18 | -0.06 | -0.07 | 6.3 | 6.2 | 233.8 | 228.3 | 195.5 | 191.0 |
| Std Dv | 2.4 | 2.1 | 2.5 | 2.5 | 0.17 | 0.17 | 0.05 | 0.05 | 1.2 | 0.7 | 68.2 | 65.0 | 3.3 | 0.0 |

TABLE NO. B.7-2.4
SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
12/28/81

CORRECTION DATA

JUNE 26, 1980

SITE: 4 SIDELINE - 164 N. NORTH

| EV | CORRECTED | | | CORRECTIONS (dB) | | | CONSTANTS | | | TRACKING DATA (ACTUAL) | | | TRACKING DATA (METERS) (REFERENCE) | | | |
|--|-----------|------|-------|------------------|-----------------------------|-----------------------------|-----------|-------|-----|------------------------|-------|-------|------------------------------------|-------|-------|-------|
| | EPNL | NEL | PNLTH | dBAM | $\Delta 1(P) / \Delta 1(A)$ | $\Delta 2(P) / \Delta 2(A)$ | K(P) | K(A) | SR | CPA | SRR | CPAR | SR | CPA | SRR | CPAR |
| TAKEDOFF - HOVER POWER PLUS 10% | | | | | | | | | | | | | | | | |
| 21 | 92.1 | 86.9 | 92.7 | 78.0 | 0.10 | 0.14 | -0.09 | -0.09 | 7.5 | 7.2 | 216.3 | 210.5 | 209.8 | 204.2 | 204.2 | 204.2 |
| 23 | 91.7 | 86.3 | 92.1 | 77.2 | -0.95 | -0.81 | 0.21 | 0.21 | 7.2 | 7.3 | 194.6 | 208.0 | 191.0 | 204.2 | 204.2 | 204.2 |
| 25 | 92.0 | 87.2 | 92.0 | 78.2 | -1.16 | -1.00 | 0.29 | 0.27 | 7.8 | 7.2 | 188.1 | 205.3 | 187.1 | 204.2 | 204.2 | 204.2 |
| 27 | 92.5 | 87.7 | 94.2 | 79.5 | -1.10 | -0.96 | 0.24 | 0.25 | 6.8 | 6.9 | 171.4 | 207.6 | 188.3 | 204.2 | 204.2 | 204.2 |
| 29 | 91.8 | 86.9 | 92.8 | 78.0 | -1.06 | -0.89 | 0.22 | 0.24 | 6.8 | 7.2 | 189.4 | 204.3 | 189.4 | 204.2 | 204.2 | 204.2 |
| 31 | 91.6 | 86.9 | 91.3 | 77.9 | -0.80 | -0.67 | 0.19 | 0.17 | 7.8 | 7.1 | 194.6 | 203.9 | 193.0 | 204.2 | 204.2 | 204.2 |
| 33 | 91.4 | 86.8 | 92.0 | 77.4 | -1.02 | -0.87 | 0.24 | 0.24 | 7.1 | 7.1 | 191.2 | 206.4 | 189.1 | 204.2 | 204.2 | 204.2 |
| Avg. | 91.9 | 87.0 | 92.4 | 78.0 | -0.86 | -0.72 | 0.19 | 0.18 | 7.3 | 7.2 | 195.1 | 206.9 | 192.5 | 204.2 | 204.2 | 204.2 |
| Std Dv | 0.4 | 0.4 | 1.0 | 0.8 | 0.48 | 0.43 | 0.14 | 0.14 | 0.5 | 0.1 | 10.6 | 2.3 | 8.6 | 0.0 | 0.0 | 0.0 |
| TAKEDOFF - MAXIMUM POWER | | | | | | | | | | | | | | | | |
| 35 | 92.1 | 87.1 | 93.3 | 78.4 | 0.38 | 0.39 | -0.14 | -0.14 | 7.0 | 7.0 | 214.4 | 204.6 | 214.0 | 204.2 | 204.2 | 204.2 |
| 37 | - | 87.0 | 92.4 | 77.9 | 0.19 | 0.21 | - | -0.09 | - | 7.1 | 210.2 | 204.3 | 210.1 | 204.2 | 204.2 | 204.2 |
| 41 | 92.6 | 87.5 | 92.8 | 77.8 | 1.06 | 0.97 | -0.34 | -0.33 | 7.6 | 7.4 | 229.9 | 207.5 | 226.2 | 204.2 | 204.2 | 204.2 |
| Avg. | 92.3 | 87.2 | 92.8 | 78.0 | 0.54 | 0.52 | -0.24 | -0.19 | 7.3 | 7.2 | 218.2 | 205.5 | 216.8 | 204.2 | 204.2 | 204.2 |
| Std Dv | 0.4 | 0.4 | 0.6 | 0.5 | 0.65 | 0.56 | 0.14 | 0.18 | 0.4 | 0.3 | 14.6 | 2.5 | 11.9 | 0.0 | 0.0 | 0.0 |
| 500 FT. FLYBY - TARGET INDICATED AIRSPEED 150 KTS TORQUE > 90% | | | | | | | | | | | | | | | | |
| 43 | 96.5 | 93.0 | 99.4 | 86.5 | 0.18 | 0.19 | -0.07 | -0.06 | 6.1 | 5.8 | 219.5 | 213.2 | 218.2 | 212.9 | 212.9 | 212.9 |
| 44 | 96.7 | 93.2 | 99.1 | 86.0 | 0.06 | 0.07 | -0.04 | -0.04 | 7.1 | 6.7 | 215.8 | 213.0 | 215.8 | 212.9 | 212.9 | 212.9 |
| 45 | 96.5 | 92.7 | 99.1 | 86.3 | 0.02 | 0.04 | -0.03 | -0.03 | 6.4 | 6.6 | 215.0 | 213.1 | 214.9 | 212.9 | 212.9 | 212.9 |
| 46 | 95.2 | 91.6 | 97.5 | 85.0 | -0.59 | -0.53 | 0.14 | 0.13 | 6.8 | 6.6 | 227.9 | 238.8 | 203.3 | 212.9 | 212.9 | 212.9 |
| 47 | 96.4 | 92.9 | 98.1 | 85.5 | -0.67 | -0.61 | 0.17 | 0.16 | 6.9 | 6.2 | 201.0 | 213.0 | 200.9 | 212.9 | 212.9 | 212.9 |
| Avg. | 96.3 | 92.7 | 98.6 | 85.8 | -0.20 | -0.17 | 0.03 | 0.03 | 6.7 | 6.4 | 215.7 | 218.2 | 210.6 | 212.9 | 212.9 | 212.9 |
| Std Dv | 0.7 | 0.7 | 0.9 | 0.7 | 0.46 | 0.43 | 0.13 | 0.12 | 0.5 | 0.4 | 11.2 | 13.3 | 9.2 | 0.0 | 0.0 | 0.0 |

TABLE NO. B.6-2.5
 BELL 206L HELICOPTER
 CORRECTION DATA

DOT/TSC
 12/26/81

JUNE 26, 1980

SITE: 5 SIDELINE - 150 H. SOUTH

| EV | CORRECTED | | | | CORRECTIONS (dB) | | | | CONSTANTS | | | | TRACKING DATA (METERS) (ACTUAL) | | | |
|--|-----------|------|-------|------|------------------|---------------|---------------|---------------|-----------|------|------------------|-------|------------------------------------|-------|--|--|
| | EPNL | NEL | PNLTH | dBAM | $\sqrt{1(P)}$ | $\sqrt{1(A)}$ | $\sqrt{2(P)}$ | $\sqrt{2(A)}$ | K(P) | K(A) | SR | CPA | SRR | CPAR | | |
| 300 FT. FLYBY - TARGET INDICATED AIRSPEED 115 KTS | | | | | | | | | | | | | | | | |
| 1 | 87.1 | 83.7 | 88.9 | 75.7 | -0.68 | -0.63 | 0.17 | 0.16 | 7.1 | 6.8 | 165.7 | 175.0 | 165.7 | 175.0 | | |
| 2 | | | | | | | | | | | | | | | | |
| 3 | 87.5 | 84.2 | 89.7 | 76.3 | -0.46 | -0.43 | 0.10 | 0.10 | 7.1 | 6.8 | NO TRACKING DATA | 175.0 | 169.4 | 175.0 | | |
| 4 | 86.7 | 84.2 | 89.1 | 76.1 | -1.14 | -0.97 | 0.24 | 0.25 | 6.7 | 6.9 | 172.6 | 187.7 | 161.0 | 175.0 | | |
| Avg. | 87.1 | 84.0 | 89.2 | 76.0 | -0.76 | -0.68 | 0.17 | 0.17 | 7.0 | 6.8 | 169.2 | 179.2 | 165.3 | 175.0 | | |
| Std Dv | 0.6 | 0.4 | 0.6 | 0.5 | 0.49 | 0.39 | 0.10 | 0.11 | 0.3 | 0.0 | 4.9 | 10.3 | 6.0 | 0.0 | | |
| 700 FT. FLYBY - TARGET INDICATED AIRSPEED 115 KTS | | | | | | | | | | | | | | | | |
| 5 | 83.3 | 80.7 | 83.9 | 70.8 | -2.75 | -2.49 | 0.69 | 0.73 | 6.6 | 7.0 | 206.6 | 263.2 | 203.9 | 259.8 | | |
| 6 | 86.3 | 82.9 | 88.3 | 74.4 | 0.17 | 0.16 | -0.11 | -0.12 | 7.2 | 7.3 | 295.1 | 284.6 | 269.4 | 259.8 | | |
| 7 | 83.9 | 81.5 | 84.9 | 71.6 | -1.29 | -1.17 | 0.30 | 0.30 | 6.7 | 6.8 | 235.3 | 261.0 | 234.2 | 259.8 | | |
| 8 | 86.0 | 82.6 | 87.6 | 73.5 | -0.38 | -0.38 | 0.05 | 0.05 | 7.1 | 7.4 | 276.0 | 280.2 | 255.9 | 259.8 | | |
| Avg. | 84.9 | 81.9 | 86.2 | 72.6 | -1.06 | -0.97 | 0.23 | 0.24 | 6.9 | 7.1 | 253.3 | 272.2 | 240.9 | 259.8 | | |
| Std Dv | 1.8 | 1.3 | 2.6 | 2.0 | 1.56 | 1.41 | 0.43 | 0.45 | 0.4 | 0.4 | 48.8 | 14.6 | 35.0 | 0.0 | | |
| 1000 FT. FLYBY - TARGET INDICATED AIRSPEED 115 KTS | | | | | | | | | | | | | | | | |
| 9 | 81.1 | 78.7 | 79.6 | 66.8 | -1.73 | -1.55 | 0.46 | 0.46 | 7.6 | 7.5 | 294.8 | 339.2 | 294.3 | 338.6 | | |
| 10 | 83.7 | 80.7 | 83.2 | 71.0 | -0.92 | -0.84 | 0.21 | 0.19 | 7.6 | 7.1 | 328.8 | 349.9 | 318.2 | 338.6 | | |
| 11 | 80.7 | 78.4 | 79.2 | 66.2 | -2.30 | -2.07 | 0.59 | 0.62 | 7.1 | 7.5 | 281.7 | 340.8 | 279.9 | 338.6 | | |
| 12 | 83.0 | 79.8 | 83.4 | 70.1 | -0.33 | -0.30 | 0.02 | 0.02 | 7.3 | 7.1 | 366.1 | 368.9 | 335.9 | 338.6 | | |
| Avg. | 82.1 | 79.4 | 81.4 | 68.5 | -1.32 | -1.19 | 0.32 | 0.32 | 7.4 | 7.3 | 317.8 | 349.7 | 307.1 | 338.6 | | |
| Std Dv | 1.8 | 1.3 | 2.8 | 2.9 | 1.07 | 0.95 | 0.31 | 0.33 | 0.3 | 0.3 | 46.3 | 16.8 | 30.5 | 0.0 | | |

TABLE NO. B.6-3.5

BELL 206L HELICOPTER

DOT/TSC
12/26/81

CORRECTION DATA

JUNE 26, 1980

SITE: 5 SIDELINE - 150 M. SOUTH

| EV | CORRECTED | | | CORRECTIONS (JB) | | | CONSTANTS | | | TRACKING DATA (METERS) (ACTUAL) | | | | |
|--|-----------|------|-------|------------------|-----------------------------|-----------------------------|-----------|------|-----|------------------------------------|-------|-------|-------|-------|
| | EPHL | NEL | PNLTM | GBAM | $\sqrt{1(P)} / \sqrt{1(A)}$ | $\sqrt{2(P)} / \sqrt{2(A)}$ | K(P) | K(A) | SR | CPA | SRR | CFAR | | |
| 1500 FT. FLYBY - TARGET INDICATED AIRSPEED 115 KTS | | | | | | | | | | | | | | |
| 13 | 80.0 | 77.6 | 76.2 | 64.0 | -1.45 | -1.26 | 0.34 | 0.32 | 7.9 | 7.6 | 435.3 | 480.1 | 435.2 | 480.0 |
| 14 | 80.3 | 77.0 | 79.2 | 66.1 | -0.54 | -0.50 | 0.06 | 0.06 | 7.7 | 7.4 | 512.9 | 522.8 | 470.9 | 480.0 |
| 15 | 78.5 | 76.4 | 75.2 | 62.7 | -1.98 | -1.75 | 0.44 | 0.45 | 7.6 | 7.8 | 491.1 | 561.5 | 419.9 | 480.0 |
| 16 | 80.2 | 77.1 | 79.2 | 65.6 | -0.54 | -0.47 | 0.06 | 0.07 | 7.4 | 7.6 | 495.7 | 506.8 | 470.5 | 480.0 |
| Avg. | 79.7 | 77.0 | 77.5 | 64.6 | -1.13 | -0.99 | 0.22 | 0.22 | 7.7 | 7.6 | 484.0 | 517.8 | 449.1 | 480.0 |
| Std Dv | 1.0 | 0.6 | 2.5 | 1.9 | 0.87 | 0.76 | 0.24 | 0.24 | 0.2 | 0.2 | 41.3 | 41.7 | 31.5 | 0.0 |
| 2000 FT. FLYBY - TARGET INDICATED AIRSPEED 115 KTS | | | | | | | | | | | | | | |
| 17 | | | | | | | | | | | | | | |
| 18 | 77.4 | 74.5 | 75.2 | 62.2 | -0.58 | -0.49 | 0.06 | 0.05 | 7.5 | 7.5 | 644.8 | 657.3 | 614.7 | 626.6 |
| 19 | 77.2 | 74.7 | 73.5 | 60.5 | -0.62 | -0.49 | 0.08 | 0.08 | 7.9 | 7.9 | 612.9 | 627.4 | 612.1 | 626.6 |
| Avg. | 77.3 | 74.6 | 74.3 | 61.4 | -0.60 | -0.49 | 0.07 | 0.07 | 7.7 | 7.7 | 628.9 | 642.4 | 613.4 | 626.6 |
| Std Dv | 0.2 | 0.1 | 1.2 | 1.2 | 0.03 | 0.00 | 0.01 | 0.01 | 0.3 | 0.3 | 22.5 | 21.1 | 1.8 | 0.0 |

NO TRACKING DATA

TABLE NO. B.7-1.5

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
12/28/81

CORRECTION DATA

JUNE 26, 1980

SITE: 5 SIDELINE - 150 M. SOUTH

| EV | CORRECTED | | | | CORRECTIONS (dB) | | | | CONSTANTS | | | | TRACKING DATA (METERS) (ACTUAL) | | | |
|--|-----------|------|-------|------|------------------|---------------|---------------|---------------|-----------|------|-------|-------|------------------------------------|-------|--|--|
| | EPNL | NEL | PNLTM | GDAM | $\sqrt{1(F)}$ | $\sqrt{1(A)}$ | $\sqrt{2(F)}$ | $\sqrt{2(A)}$ | K(P) | K(A) | SR | CPA | SRR | CPAR | | |
| APPROACH - BEST RATE OF CLIMB PLUS 10 KTS | | | | | | | | | | | | | | | | |
| 22 | 93.2 | 89.2 | 94.6 | 80.8 | 0.85 | 0.82 | -0.30 | -0.29 | 7.5 | 7.3 | 242.3 | 220.8 | 209.6 | 191.0 | | |
| 24 | 92.8 | 88.9 | 94.2 | 80.7 | 0.50 | 0.49 | -0.19 | -0.18 | 7.5 | 7.1 | 204.9 | 193.2 | 202.6 | 191.0 | | |
| 26 | 92.4 | 88.5 | 93.8 | 80.3 | -0.01 | 0.01 | -0.03 | -0.03 | 7.3 | 7.0 | 207.3 | 205.2 | 192.9 | 191.0 | | |
| 28 | 91.9 | 88.0 | 93.0 | 79.6 | 0.26 | 0.26 | -0.11 | -0.11 | 7.3 | 7.1 | 200.4 | 193.6 | 197.7 | 191.0 | | |
| Avg. | 92.6 | 88.7 | 93.9 | 80.4 | 0.40 | 0.39 | -0.16 | -0.15 | 7.4 | 7.1 | 213.7 | 203.2 | 200.7 | 191.0 | | |
| Std Dv | 0.7 | 0.6 | 0.8 | 0.7 | 0.45 | 0.42 | 0.14 | 0.14 | 0.2 | 0.2 | 23.6 | 15.9 | 8.7 | 0.0 | | |
| APPROACH - BEST RATE OF CLIMB MINUS 10 KTS | | | | | | | | | | | | | | | | |
| 30 | 93.8 | 90.0 | 94.1 | 80.4 | 0.36 | 0.36 | -0.14 | -0.14 | 7.3 | 7.1 | 207.7 | 198.7 | 199.6 | 191.0 | | |
| 32 | 94.6 | 90.6 | 94.0 | 79.5 | 0.60 | 0.59 | -0.23 | -0.24 | 8.0 | 8.3 | 207.8 | 194.3 | 204.3 | 191.0 | | |
| 34 | 93.2 | 89.8 | 94.4 | 81.4 | 0.50 | 0.49 | -0.17 | -0.16 | 6.9 | 6.5 | 237.7 | 224.5 | 202.2 | 191.0 | | |
| 36 | 93.9 | 90.1 | 94.2 | 80.4 | 0.51 | 0.50 | -0.19 | -0.19 | 7.7 | 7.6 | 216.2 | 204.2 | 202.2 | 191.0 | | |
| Avg. | 93.9 | 90.1 | 94.2 | 80.4 | 0.49 | 0.48 | -0.18 | -0.18 | 7.5 | 7.4 | 217.3 | 205.4 | 202.1 | 191.0 | | |
| Std Dv | 0.7 | 0.4 | 0.2 | 0.9 | 0.12 | 0.12 | 0.05 | 0.05 | 0.6 | 0.9 | 17.3 | 16.3 | 2.4 | 0.0 | | |
| APPROACH - BEST RATE OF CLIMB | | | | | | | | | | | | | | | | |
| 38 | 91.2 | 87.2 | 91.3 | 77.7 | -0.20 | -0.17 | 0.03 | 0.03 | 7.4 | 7.1 | 195.6 | 197.6 | 189.0 | 191.0 | | |
| 40 | 93.1 | 89.6 | 93.9 | 80.3 | 0.17 | 0.17 | -0.07 | -0.07 | 7.1 | 7.2 | 199.9 | 195.3 | 195.4 | 191.0 | | |
| 42 | 92.0 | 88.4 | 92.4 | 78.7 | -0.09 | -0.07 | 0.01 | 0.01 | 7.4 | 7.4 | 194.4 | 194.9 | 190.4 | 191.0 | | |
| Avg. | 92.1 | 88.4 | 92.5 | 78.9 | -0.04 | -0.02 | -0.01 | -0.01 | 7.3 | 7.3 | 196.6 | 196.0 | 191.6 | 191.0 | | |
| Std Dv | 1.4 | 1.7 | 1.9 | 1.9 | 0.27 | 0.25 | 0.07 | 0.07 | 0.2 | 0.2 | 4.1 | 2.1 | 4.8 | 0.0 | | |

TABLE NO. B.7-2.5

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
12/28/81

CORRECTION DATA

JUNE 26, 1980

SITE: 5 SIDELINE - 150 M. SOUTH

| EV | CORRECTED | | | CORRECTIONS (dB) | | | CONSTANTS | | | TRACKING DATA (METERS) | | | | |
|--|-----------|------|-------|------------------|---|-------|-----------|-------|-----|------------------------|------------------|-------|-------|-------|
| | EPNL | NEL | FNLTM | DBAM | $\Delta 1(P) \Delta 1(A) \Delta 2(P) \Delta 2(A)$ | K(P) | K(A) | SR | CPA | SRR | CPAR | | | |
| TAKEOFF - HOVER POWER, PLUS 10% | | | | | | | | | | | | | | |
| 21 | 89.1 | 85.0 | 88.8 | 74.8 | -1.42 | -1.20 | 0.34 | 0.34 | 7.4 | 7.5 | 184.9 | 205.4 | 183.9 | 204.2 |
| 23 | 89.1 | 85.2 | 89.0 | 75.1 | -1.40 | -1.15 | 0.34 | 0.34 | 7.6 | 7.6 | 186.8 | 207.1 | 184.2 | 204.2 |
| 25 | 89.7 | 85.7 | 89.8 | 76.1 | -0.89 | -0.70 | 0.19 | 0.19 | 7.4 | 7.3 | 192.6 | 204.4 | 192.4 | 204.2 |
| 27 | 89.6 | 85.6 | 90.0 | 76.1 | -1.10 | -0.89 | 0.25 | 0.25 | 7.3 | 7.3 | 189.7 | 205.3 | 188.7 | 204.2 |
| 29 | 90.0 | 85.8 | 89.9 | 76.0 | -0.65 | -0.52 | 0.14 | 0.14 | 7.7 | 7.6 | 198.5 | 206.9 | 195.7 | 204.2 |
| 31 | 89.7 | 85.6 | 89.8 | 76.1 | -0.11 | -0.05 | -0.02 | -0.01 | 7.4 | 7.2 | 208.0 | 207.0 | 205.2 | 204.2 |
| 33 | 90.2 | 86.2 | 90.6 | 77.0 | -0.43 | -0.33 | 0.08 | 0.08 | 7.5 | 7.3 | 202.4 | 207.3 | 199.4 | 204.2 |
| Avg. | 89.6 | 85.6 | 89.7 | 75.9 | -0.86 | -0.69 | 0.19 | 0.19 | 7.5 | 7.4 | 194.7 | 206.2 | 192.8 | 204.2 |
| Std Dv | 0.5 | 0.4 | 0.7 | 0.8 | 0.54 | 0.46 | 0.15 | 0.14 | 0.2 | 0.2 | 9.4 | 1.3 | 8.7 | 0.0 |
| TAKEOFF - MAXIMUM POWER | | | | | | | | | | | | | | |
| 35 | 89.9 | 85.7 | 90.4 | 76.2 | 0.81 | 0.78 | -0.28 | -0.28 | 7.8 | 7.7 | 225.2 | 207.3 | 221.9 | 204.2 |
| 37 | | | | | | | | | | | ND TRACKING DATA | | | |
| 39 | 89.3 | 85.1 | 88.6 | 74.6 | 0.17 | 0.19 | -0.09 | -0.09 | 7.9 | 7.9 | 212.1 | 206.6 | 209.6 | 204.2 |
| 41 | | | | | 1.02 | 0.93 | - | -0.32 | - | 7.7 | 309.4 | 281.7 | 224.3 | 204.2 |
| Avg. | 89.6 | 85.3 | 89.5 | 75.1 | 0.67 | 0.63 | -0.18 | -0.23 | 7.9 | 7.8 | 248.9 | 231.9 | 218.6 | 204.2 |
| Std Dv | 0.4 | 0.6 | 1.3 | 1.3 | 0.63 | 0.55 | 0.13 | 0.17 | 0.1 | 0.1 | 74.7 | 61.0 | 11.1 | 0.0 |
| 500 FT. FLYBY - TARGET INDICATED AIRSPEED 150 KTS - TORQUE > 90% | | | | | | | | | | | | | | |
| 43 | 95.4 | 92.1 | 97.8 | 85.4 | 1.10 | 1.05 | -0.32 | -0.32 | 6.7 | 6.7 | 257.0 | 230.2 | 237.8 | 212.9 |
| 44 | 95.9 | 92.2 | 98.5 | 85.1 | -0.12 | -0.10 | 0.01 | 0.01 | 6.6 | 6.4 | 217.7 | 218.8 | 211.9 | 212.9 |
| 45 | 95.9 | 92.4 | 97.5 | 85.2 | 0.98 | 0.91 | -0.30 | -0.30 | 7.2 | 7.2 | 266.9 | 242.5 | 234.3 | 212.9 |
| 46 | 95.4 | 91.8 | 98.0 | 85.3 | -0.07 | -0.04 | 0.00 | 0.00 | 6.3 | 5.5 | 242.2 | 241.8 | 213.3 | 212.9 |
| 47 | 96.0 | 92.6 | 97.5 | 85.5 | 0.44 | 0.44 | -0.15 | -0.14 | 6.9 | 6.7 | 261.6 | 248.9 | 223.9 | 212.9 |
| Avg. | 95.7 | 92.2 | 97.9 | 85.3 | 0.47 | 0.45 | -0.15 | -0.15 | 6.7 | 6.5 | 249.1 | 236.4 | 224.2 | 212.9 |
| Std Dv | 0.4 | 0.3 | 0.5 | 0.2 | 0.66 | 0.61 | 0.18 | 0.18 | 0.4 | 0.7 | 22.9 | 13.8 | 13.7 | 0.0 |

TABLE NO. B.6-2.5G

BELL 204L HELICOPTER

CORRECTION DATA

* DOT/TSC
12/26/81

| SITE: 5G | | SIDELINE - 150 M. SOUTH (FLUSH) | | JUNE 26*1980 | | | | | | | | | | |
|--|-----------|---------------------------------|------------------|---|-----------|-------|------------------------|-------|-----|------|-------|-------|-------|-------|
| EV | CORRECTED | | CORRECTIONS (dB) | | CONSTANTS | | TRACKING DATA (METERS) | | | | | | | |
| | EPNL | HEL PNLTH | dBAM | $\wedge 1(P) \wedge 3(A) \wedge 2(F) \wedge 2(A)$ | K(P) | K(A) | SR | CPA | SRR | CPAR | | | | |
| 300 FT. FLYBY - TARGET INDICATED AIRSPEED 115 KTS | | | | | | | | | | | | | | |
| 1 | 90.4 | 86.6 | 92.5 | 79.6 | -0.80 | -0.69 | 0.17 | 0.16 | 7.2 | 6.6 | 168.2 | 177.8 | 166.2 | 175.6 |
| 2 | 89.8 | 86.5 | 93.3 | 79.8 | -1.00 | -0.88 | 0.19 | 0.18 | 6.4 | 6.3 | 183.5 | 196.3 | 164.2 | 175.6 |
| 3 | 90.9 | 87.3 | 93.0 | 80.2 | -0.56 | -0.47 | 0.11 | 0.10 | 7.4 | 6.9 | 169.9 | 175.6 | 169.9 | 175.6 |
| 4 | 90.1 | 86.6 | 93.4 | 79.7 | -1.17 | -1.04 | 0.23 | 0.24 | 6.4 | 6.5 | 173.1 | 188.3 | 161.5 | 175.6 |
| Avg. | 90.3 | 86.7 | 93.0 | 79.8 | -0.88 | -0.77 | 0.18 | 0.17 | 6.8 | 6.6 | 173.7 | 184.5 | 165.4 | 175.6 |
| Std Dv | 0.6 | 0.4 | 0.5 | 0.3 | 0.32 | 0.30 | 0.06 | 0.07 | 0.7 | 0.3 | 8.4 | 11.8 | 4.3 | 0.0 |
| 700 FT. FLYBY - TARGET INDICATED AIRSPEED 115 KTS | | | | | | | | | | | | | | |
| 5 | 86.6 | 84.3 | 87.1 | 75.0 | -2.95 | -2.57 | 0.75 | 0.75 | 7.2 | 7.1 | 207.6 | 264.1 | 204.9 | 260.8 |
| 6 | 89.6 | 86.3 | 91.7 | 78.0 | 0.09 | 0.12 | -0.11 | -0.11 | 7.2 | 7.2 | 295.9 | 285.5 | 270.3 | 260.8 |
| 7 | 87.1 | 84.8 | 88.0 | 75.9 | -1.50 | -1.23 | 0.32 | 0.31 | 7.2 | 7.0 | 236.2 | 262.0 | 235.2 | 260.8 |
| 8 | 89.2 | 86.1 | 91.6 | 77.6 | -0.54 | -0.45 | 0.05 | 0.05 | 6.9 | 7.3 | 292.3 | 296.9 | 256.8 | 260.8 |
| Avg. | 88.1 | 85.4 | 89.6 | 76.6 | -1.22 | -1.03 | 0.25 | 0.25 | 7.1 | 7.2 | 258.0 | 277.1 | 241.8 | 260.8 |
| Std Dv | 1.8 | 1.2 | 2.9 | 1.8 | 1.62 | 1.43 | 0.46 | 0.46 | 0.2 | 0.2 | 53.1 | 20.7 | 34.9 | 0.0 |
| 1000 FT. FLYBY - TARGET INDICATED AIRSPEED 115 KTS | | | | | | | | | | | | | | |
| 9 | 85.0 | 82.7 | 83.9 | 71.7 | -1.82 | -1.69 | 0.46 | 0.46 | 7.6 | 7.5 | 310.9 | 357.6 | 295.4 | 339.7 |
| 10 | 86.7 | 84.1 | 86.5 | 73.2 | -1.42 | -1.19 | 0.20 | 0.21 | 7.4 | 7.7 | 551.9 | 587.4 | 319.2 | 339.7 |
| 11 | 84.0 | 82.0 | 82.6 | 70.8 | -2.39 | -2.16 | 0.63 | 0.63 | 7.7 | 7.7 | 282.9 | 341.9 | 281.1 | 339.7 |
| 12 | 86.4 | 83.4 | 86.5 | 73.2 | -0.35 | -0.34 | 0.03 | 0.03 | 7.4 | 7.4 | 367.3 | 370.2 | 337.0 | 339.7 |
| Avg. | 85.6 | 83.0 | 84.9 | 72.2 | -1.49 | -1.34 | 0.33 | 0.33 | 7.5 | 7.6 | 378.3 | 414.3 | 308.2 | 339.7 |
| Std Dv | 1.5 | 1.1 | 2.4 | 1.5 | 1.05 | 0.95 | 0.33 | 0.33 | 0.2 | 0.2 | 148.2 | 142.0 | 30.4 | 0.0 |

TABLE NO. 8-6-3-56

BELL 206L HELICOPTER

DOT/TSC
12/26/81

CORRECTION DATA

| CORRECTED | | CORRECTIONS (dB) | | CONSTANTS | | TRACKING DATA (METERS) | | | | | | | | | |
|--|------|------------------|-------|-----------|---|------------------------|------|----------|-----|-----|-------|-------|-------|-------|--|
| EV | EPNL | NEL | PMLTH | dBAM | $\sqrt{1(P)} / \sqrt{1(A)} / \sqrt{2(P)} / \sqrt{2(A)}$ | K(P) | K(A) | (ACTUAL) | CPA | SRR | CPAR | | | | |
| SITE: 5G SIDELINE - 150 M. SOUTH (FLUSH) JUNE 26, 1980 | | | | | | | | | | | | | | | |
| 1500 FT. FLYBY - TARGET INDICATED AIRSPEED 115 KTS | | | | | | | | | | | | | | | |
| 13 | 83.1 | 80.8 | 80.9 | 68.3 | -1.49 | -1.31 | 0.33 | 0.33 | 7.6 | 7.8 | 463.1 | 510.6 | 436.4 | 481.2 | |
| 14 | 83.3 | 80.3 | 82.9 | 69.6 | -0.56 | -0.53 | 0.06 | 0.06 | 7.4 | 7.3 | 513.8 | 523.8 | 472.0 | 481.2 | |
| 15 | 82.0 | 80.1 | 79.1 | 66.9 | -1.95 | -1.78 | 0.46 | 0.46 | 7.9 | 8.0 | 509.0 | 581.7 | 421.1 | 481.2 | |
| 16 | 83.5 | 80.6 | 82.1 | 69.5 | -0.64 | -0.55 | 0.07 | 0.07 | 7.8 | 7.4 | 706.5 | 720.9 | 471.6 | 481.2 | |
| Avg. | 83.0 | 80.5 | 81.2 | 68.6 | -1.16 | -1.04 | 0.23 | 0.23 | 7.7 | 7.6 | 548.1 | 584.3 | 450.2 | 481.2 | |
| Std Dv | 0.8 | 0.4 | 2.0 | 1.5 | 0.83 | 0.75 | 0.24 | 0.24 | 0.3 | 0.4 | 132.4 | 117.8 | 31.4 | 0.0 | |
| 2000 FT. FLYBY - TARGET INDICATED AIRSPEED 115 KTS | | | | | | | | | | | | | | | |
| 17 | | | | | | | | | | | | | | | |
| 18 | 80.9 | 78.1 | 79.6 | 66.3 | -0.63 | -0.55 | 0.06 | 0.06 | 7.5 | 7.4 | 715.4 | 729.2 | 615.8 | 627.8 | |
| 19 | 80.5 | 78.3 | 77.9 | 65.2 | -0.69 | -0.57 | 0.08 | 0.08 | 7.6 | 7.7 | 763.4 | 781.4 | 613.3 | 627.8 | |
| Avg. | 80.7 | 78.2 | 78.7 | 65.8 | -0.66 | -0.56 | 0.07 | 0.07 | 7.6 | 7.6 | 739.4 | 755.3 | 614.6 | 627.8 | |
| Std Dv | 0.3 | 0.2 | 1.2 | 0.8 | 0.04 | 0.01 | 0.01 | 0.01 | 0.0 | 0.2 | 33.9 | 36.9 | 1.8 | 0.0 | |

NO TRACKING DATA

TABLE NO. B.7-1.5G

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
12/28/81

CORRECTION DATA

JUNE 26, 1980

SITE: 5G SIDELINE - 150 M. SOUTH (FLUSH)

| EV | CORRECTED | | | CORRECTIONS (dB) | | | CONSTANTS | | | TRACKING DATA (ACTUAL) | | | TRACKING DATA (REFERENCE) | | |
|--|-----------|------|-------|------------------|---------------|---------------|---------------|---------------|------|------------------------|------------------|-------|---------------------------|-------|--|
| | EPNL | NEL | FNLTM | dBAM | $\sqrt{1(P)}$ | $\sqrt{1(A)}$ | $\sqrt{2(P)}$ | $\sqrt{2(A)}$ | K(P) | K(A) | SR | CPA | SRR | CFAR | |
| APPROACH - BEST RATE OF CLIMB PLUS 10 KTS | | | | | | | | | | | | | | | |
| 22 | 97.1 | 93.1 | 98.8 | 84.8 | 0.85 | 0.82 | -0.30 | -0.30 | 7.4 | 7.4 | 210.4 | 191.8 | 210.3 | 191.7 | |
| 24 | 96.9 | 93.0 | 98.9 | 84.9 | 0.48 | 0.48 | -0.18 | -0.18 | 7.0 | 7.0 | 205.8 | 194.1 | 203.3 | 191.7 | |
| 26 | 96.8 | 92.6 | 98.8 | 84.7 | -0.05 | 0.00 | -0.03 | -0.03 | 6.9 | 7.0 | 200.7 | 198.7 | 193.6 | 191.7 | |
| 28 | | | | | | | | | | | NO TRACKING DATA | | | | |
| Avg. | 96.9 | 92.9 | 98.8 | 84.8 | 0.43 | 0.43 | -0.17 | -0.17 | 7.1 | 7.1 | 205.6 | 194.8 | 202.4 | 191.7 | |
| Std Dv | 0.2 | 0.4 | 0.1 | 0.2 | 0.64 | 0.58 | 0.19 | 0.19 | 0.3 | 0.3 | 6.9 | 5.0 | 11.9 | 0.0 | |
| APPROACH - BEST RATE OF CLIMB MINUS 10 KTS | | | | | | | | | | | | | | | |
| 30 | 95.5 | 91.5 | 97.3 | 83.2 | 0.33 | 0.34 | -0.13 | -0.13 | 6.8 | 6.9 | 200.7 | 192.1 | 200.3 | 191.7 | |
| 32 | 98.5 | 94.2 | 99.2 | 84.1 | 0.60 | 0.58 | -0.22 | -0.23 | 7.5 | 8.0 | 205.7 | 192.4 | 205.0 | 191.7 | |
| 34 | 97.6 | 93.6 | 99.0 | 85.4 | 0.49 | 0.49 | -0.18 | -0.17 | 7.3 | 7.0 | 238.4 | 225.1 | 203.0 | 191.7 | |
| 36 | 98.0 | 94.0 | 98.8 | 84.8 | 0.50 | 0.49 | -0.19 | -0.18 | 7.5 | 7.4 | 204.9 | 193.6 | 202.9 | 191.7 | |
| Avg. | 97.4 | 93.3 | 98.6 | 84.4 | 0.48 | 0.47 | -0.18 | -0.18 | 7.3 | 7.3 | 212.4 | 200.8 | 202.8 | 191.7 | |
| Std Dv | 1.6 | 1.5 | 1.0 | 1.1 | 0.14 | 0.12 | 0.05 | 0.05 | 0.4 | 0.6 | 21.4 | 19.9 | 2.4 | 0.0 | |
| APPROACH - BEST RATE OF CLIMB | | | | | | | | | | | | | | | |
| 38 | 96.0 | 91.7 | 97.3 | 82.8 | -0.23 | -0.18 | 0.03 | 0.03 | 6.8 | 6.9 | 189.8 | 191.7 | 189.8 | 191.7 | |
| 40 | 97.1 | 93.5 | 99.6 | 85.4 | 0.15 | 0.17 | -0.07 | -0.07 | 6.5 | 7.0 | 197.4 | 192.9 | 196.2 | 191.7 | |
| 42 | 97.0 | 92.7 | 98.0 | 83.2 | -0.17 | -0.12 | 0.01 | 0.01 | 7.0 | 7.4 | 252.2 | 252.9 | 191.2 | 191.7 | |
| Avg. | 96.7 | 92.6 | 98.3 | 83.8 | -0.08 | -0.04 | -0.01 | -0.01 | 6.8 | 7.1 | 213.1 | 212.5 | 192.4 | 191.7 | |
| Std Dv | 0.9 | 1.3 | 1.7 | 1.9 | 0.29 | 0.26 | 0.07 | 0.07 | 0.4 | 0.4 | 48.2 | 49.5 | 4.8 | 0.0 | |

TABLE NO. B.7-2.56

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
12/28/81

CORRECTION DATA

| EV | CORRECTED | | | SITE: 5G | SIDELINE - 150 M. SOUTH (FLUSH) | JUNE 26, 1980 | CORRECTIONS (dB) | | | CONSTANTS | | | TRACKING DATA (ACTUAL) | | | TRACKING DATA (REFERENCE) | | |
|--|-----------|------|-------|----------|---------------------------------|---------------|------------------|---------------|---------------|---------------|---------------|-------|------------------------|-------|-----|---------------------------|------|--|
| | EPWL | NEL | PWLTH | | | | GBAW | $\wedge 1(P)$ | $\wedge 1(A)$ | $\wedge 2(P)$ | $\wedge 2(A)$ | K(P) | K(A) | SR | GPA | SRR | CPAR | |
| TAKEOFF - HOVER POWER PLUS 10% | | | | | | | | | | | | | | | | | | |
| 21 | 93.2 | 89.1 | 94.0 | 79.7 | -1.43 | -1.23 | 0.34 | 0.35 | 7.4 | 7.7 | 185.7 | 206.2 | 184.6 | 205.0 | | | | |
| 23 | 93.4 | 89.3 | 93.8 | 79.9 | -1.40 | -1.20 | 0.34 | 0.34 | 7.4 | 7.5 | 185.3 | 205.4 | 184.9 | 205.0 | | | | |
| 25 | 94.3 | 90.1 | 95.0 | 81.2 | -0.86 | -0.73 | 0.19 | 0.19 | 7.4 | 7.3 | 193.3 | 205.2 | 193.1 | 205.0 | | | | |
| 27 | 94.3 | 90.1 | 95.5 | 81.4 | -1.07 | -0.93 | 0.25 | 0.25 | 7.2 | 7.4 | 190.4 | 206.1 | 189.4 | 205.0 | | | | |
| 29 | 94.2 | 90.0 | 94.7 | 80.9 | -0.64 | -0.54 | 0.14 | 0.14 | 7.9 | 7.9 | 199.3 | 207.8 | 196.7 | 205.0 | | | | |
| 31 | 94.4 | 89.9 | 95.2 | 80.9 | -0.13 | -0.07 | -0.01 | -0.01 | 7.3 | 7.3 | 212.3 | 211.4 | 205.9 | 205.0 | | | | |
| 33 | 95.0 | 90.6 | 96.4 | 82.5 | -0.44 | -0.36 | 0.07 | 0.07 | 7.1 | 6.9 | 200.1 | 205.0 | 200.1 | 205.0 | | | | |
| Avg. | 94.1 | 89.9 | 94.9 | 80.9 | -0.85 | -0.72 | 0.19 | 0.19 | 7.4 | 7.4 | 195.2 | 206.7 | 193.5 | 205.0 | | | | |
| Std Dv | 0.7 | 0.6 | 1.0 | 1.0 | 0.53 | 0.47 | 0.15 | 0.15 | 0.3 | 0.3 | 10.5 | 2.5 | 8.7 | 0.0 | | | | |
| TAKEOFF - MAXIMUM POWER | | | | | | | | | | | | | | | | | | |
| 35 | 95.1 | 90.4 | 96.4 | 81.9 | 0.80 | 0.77 | -0.26 | -0.26 | 7.2 | 7.2 | 225.9 | 208.0 | 222.7 | 205.0 | | | | |
| 37 | 94.0 | 89.4 | 94.2 | 79.9 | 0.16 | 0.18 | -0.09 | -0.09 | 7.8 | 7.7 | 216.2 | 210.6 | 210.4 | 205.0 | | | | |
| 41 | 94.0 | 89.4 | 94.9 | 79.9 | 0.97 | 0.91 | -0.31 | -0.32 | 7.6 | 7.9 | 226.8 | 206.5 | 225.2 | 205.0 | | | | |
| Avg. | 94.4 | 89.7 | 95.2 | 80.5 | 0.64 | 0.62 | -0.22 | -0.22 | 7.5 | 7.6 | 223.0 | 208.4 | 219.4 | 205.0 | | | | |
| Std Dv | 0.9 | 0.9 | 1.6 | 1.6 | 0.60 | 0.55 | 0.16 | 0.17 | 0.4 | 0.6 | 8.3 | 3.0 | 11.2 | 0.0 | | | | |
| 500 FT. FLYBY - TARGET INDICATED AIRSPEED 150 KTS - TORQUE > 90% | | | | | | | | | | | | | | | | | | |
| 43 | 99.9 | 97.0 | 102.9 | 90.5 | 1.15 | 1.06 | -0.32 | -0.32 | 6.8 | 6.6 | 277.0 | 248.2 | 238.7 | 213.8 | | | | |
| 45 | 100.1 | 97.2 | 103.2 | 90.9 | 0.97 | 0.91 | -0.28 | -0.27 | 6.9 | 6.6 | 267.7 | 243.3 | 235.2 | 213.8 | | | | |
| 46 | 99.5 | 95.9 | 102.9 | 89.9 | -0.06 | -0.06 | 0.00 | 0.00 | 6.5 | 6.3 | 242.9 | 242.6 | 214.1 | 213.8 | | | | |
| 47 | 100.1 | 97.3 | 103.4 | 91.2 | 0.44 | 0.43 | -0.14 | -0.14 | 6.7 | 6.4 | 262.7 | 250.0 | 224.7 | 213.8 | | | | |
| Avg. | 99.9 | 96.9 | 103.1 | 90.6 | 0.62 | 0.58 | -0.18 | -0.18 | 6.7 | 6.5 | 262.6 | 246.0 | 228.2 | 213.8 | | | | |
| Std Dv | 0.3 | 0.8 | 0.3 | 0.7 | 0.67 | 0.62 | 0.18 | 0.18 | 0.2 | 0.2 | 17.6 | 4.4 | 13.6 | 0.0 | | | | |

TABLE NO. B.6-2.6
 BELL 206L HELICOPTER
 CORRECTION DATA

DOT/TSC
 12/26/81

JUNE 26, 1980

SITE: 6 SIDELINE ~ 284 M. NORTH

| EV | CORRECTED | | | | CORRECTIONS (dB) | | | | CONSTANTS | | | | TRACKING DATA (METERS) | | | |
|--|-----------|------|-------|------|------------------|----------------|----------------|----------------|-----------|------|-------|-------|------------------------|-------|--|--|
| | EPNL | NEL | PNLTH | dBAM | $\wedge(1)(F)$ | $\wedge(1)(A)$ | $\wedge(2)(P)$ | $\wedge(2)(A)$ | K(P) | K(A) | SR | CPA | SRR | CPAR | | |
| 300 FT. FLYBY - TARGET INDICATED AIRSPEED 115 KTS | | | | | | | | | | | | | | | | |
| 1 | 85.0 | 82.8 | 84.4 | 72.0 | -0.45 | -0.41 | 0.06 | 0.06 | 7.4 | 7.5 | 316.5 | 322.4 | 292.4 | 297.8 | | |
| 2 | 82.5 | 79.6 | 82.5 | 70.4 | -0.21 | -0.18 | -0.01 | -0.01 | 7.6 | 7.1 | 298.3 | 297.8 | 298.3 | 297.8 | | |
| 3 | 84.6 | 82.3 | 83.9 | 71.8 | -0.61 | -0.56 | 0.10 | 0.10 | 7.6 | 7.4 | 321.7 | 331.9 | 288.6 | 297.8 | | |
| 4 | 82.9 | 80.1 | 83.5 | 71.1 | -0.33 | -0.29 | 0.02 | 0.02 | 7.5 | 7.1 | 317.6 | 320.0 | 295.5 | 297.8 | | |
| Avg. | 83.8 | 81.2 | 83.6 | 71.3 | -0.40 | -0.36 | 0.04 | 0.04 | 7.5 | 7.3 | 313.5 | 318.0 | 293.7 | 297.8 | | |
| Std Dv | 1.5 | 2.0 | 1.0 | 0.9 | 0.21 | 0.20 | 0.06 | 0.06 | 0.1 | 0.2 | 12.7 | 17.7 | 5.1 | 0.0 | | |
| 700 FT. FLYBY - TARGET INDICATED AIRSPEED 115 KTS | | | | | | | | | | | | | | | | |
| 5 | 84.8 | 82.2 | 84.5 | 72.1 | -0.43 | -0.31 | 0.01 | 0.01 | 7.2 | 7.1 | 388.6 | 390.2 | 352.8 | 354.3 | | |
| 6 | 81.1 | 78.6 | 80.6 | 68.3 | -1.98 | -1.85 | 0.50 | 0.50 | 7.2 | 7.1 | 302.2 | 355.1 | 301.6 | 354.3 | | |
| 7 | 83.4 | 80.9 | 82.6 | 70.2 | -0.94 | -0.85 | 0.17 | 0.17 | 7.2 | 7.2 | 375.6 | 396.9 | 335.2 | 354.3 | | |
| 8 | 81.3 | 78.6 | 81.0 | 68.1 | -1.52 | -1.40 | 0.38 | 0.38 | 7.2 | 7.3 | 314.5 | 354.7 | 314.1 | 354.3 | | |
| Avg. | 82.7 | 80.1 | 82.2 | 69.7 | -1.22 | -1.10 | 0.26 | 0.26 | 7.2 | 7.2 | 345.2 | 374.2 | 325.9 | 354.3 | | |
| Std Dv | 2.2 | 2.2 | 2.2 | 2.3 | 0.83 | 0.82 | 0.27 | 0.27 | 0.0 | 0.1 | 52.9 | 27.6 | 27.8 | 0.0 | | |
| 1000 FT. FLYBY - TARGET INDICATED AIRSPEED 115 KTS | | | | | | | | | | | | | | | | |
| 9 | 83.1 | 80.2 | 82.6 | 69.9 | -0.45 | -0.42 | 0.04 | 0.04 | 7.1 | 7.2 | 435.5 | 441.0 | 410.4 | 415.6 | | |
| 10 | 80.2 | 77.4 | 79.3 | 66.3 | -1.68 | -1.52 | 0.40 | 0.40 | 7.3 | 7.3 | 367.2 | 416.5 | 366.4 | 415.6 | | |
| 11 | 84.4 | 81.4 | 84.2 | 70.8 | 0.66 | 0.61 | -0.24 | -0.25 | 7.0 | 7.2 | 460.0 | 424.7 | 450.2 | 415.6 | | |
| 12 | 79.3 | 77.0 | 79.9 | 66.4 | -1.72 | -1.53 | 0.37 | 0.40 | 6.7 | 7.3 | 367.0 | 416.2 | 366.4 | 415.6 | | |
| Avg. | 81.8 | 79.0 | 81.5 | 68.3 | -0.80 | -0.71 | 0.14 | 0.15 | 7.0 | 7.2 | 407.4 | 424.6 | 398.3 | 415.6 | | |
| Std Dv | 3.0 | 2.6 | 2.8 | 2.8 | 1.39 | 1.26 | 0.37 | 0.39 | 0.3 | 0.1 | 58.4 | 14.2 | 49.4 | 0.0 | | |

TABLE NO. B.6-3.6
 BELL 206L HELICOPTER
 CORRECTION DATA

DDT/TSC
 12/26/81

| EV | CORRECTED | | | CORRECTIONS (4B) | | | CONSTANTS | | | TRACKING DATA (METERS) | | | | |
|--|-----------|------|-------|------------------|---------------|---------------|-----------|------|-----|------------------------|-------|-------|-------|-------|
| | EPNL | NEL | PNLTH | GBAM | ^1(P) / ^1(A) | ^2(P) / ^2(A) | K(P) | K(A) | SR | DPA | SRR | CFAR | | |
| 1500 FT. FLYBY - TARGET INDICATED AIRSPEED 115 KTS | | | | | | | | | | | | | | |
| 13 | 80.1 | 77.4 | 77.9 | 65.1 | -1.39 | -1.27 | 0.28 | 0.29 | 7.2 | 7.4 | 495.4 | 542.4 | 490.6 | 537.1 |
| 14 | 77.0 | 75.1 | 74.5 | 62.9 | -2.32 | -2.06 | 0.54 | 0.54 | 7.3 | 7.4 | 456.8 | 541.3 | 453.2 | 537.1 |
| 15 | 81.4 | 78.6 | 80.3 | 67.0 | -0.44 | -0.40 | 0.04 | 0.04 | 7.2 | 7.4 | 538.4 | 544.8 | 530.8 | 537.1 |
| 16 | 77.9 | 75.7 | 75.3 | 62.9 | -1.85 | -1.63 | 0.44 | 0.43 | 7.7 | 7.6 | 471.6 | 537.3 | 471.4 | 537.1 |
| Avg. | 79.1 | 76.7 | 77.0 | 64.5 | -1.50 | -1.34 | 0.32 | 0.32 | 7.3 | 7.5 | 490.6 | 541.5 | 486.5 | 537.1 |
| Std Dev | 2.4 | 2.0 | 3.2 | 2.4 | 0.98 | 0.86 | 0.27 | 0.26 | 0.3 | 0.2 | 43.7 | 3.9 | 40.7 | 0.0 |
| 2000 FT. FLYBY - TARGET INDICATED AIRSPEED 115 KTS | | | | | | | | | | | | | | |
| 17 | | | | | | | | | | | | | | |
| 18 | 77.0 | 74.4 | 75.3 | 63.0 | -0.69 | -0.53 | 0.08 | 0.08 | 7.0 | 6.8 | 657.3 | 675.6 | 653.1 | 671.3 |
| 19 | 79.3 | 76.1 | 76.4 | 62.2 | -0.66 | -0.60 | 0.07 | 0.07 | 7.1 | 7.6 | 753.9 | 771.0 | 656.4 | 671.3 |
| Avg. | 78.2 | 75.2 | 75.9 | 62.6 | -0.67 | -0.56 | 0.07 | 0.07 | 7.0 | 7.2 | 705.6 | 723.3 | 654.8 | 671.3 |
| Std Dev | 1.6 | 1.2 | 0.7 | 0.5 | 0.02 | 0.05 | 0.01 | 0.01 | 0.0 | 0.6 | 68.3 | 67.4 | 2.4 | 0.0 |

NO TRACKING DATA

JUNE 26, 1980

SIDELINE - 284 N. NORTH

SITE: 6

TABLE NO. B,7-1.6

SIKORSKY UH-60A BLACKHAWK HELICOPTER

DOT/TSC
12/28/81

CORRECTION DATA

JUNE 26, 1980

SITE: 6 SIDELINE - 284 M. NORTH

| EV | CORRECTED | | | | CORRECTIONS (dB) | | | | CONSTANTS | | | | TRACKING DATA (METERS) (ACTUAL) | | | |
|--|-----------|------|-------|------|------------------|----------------|----------------|----------------|-----------|------|-------|-------|------------------------------------|-------|--|--|
| | EPNL | NEL | PNLTM | dBAM | $\wedge(1(P))$ | $\wedge(1(A))$ | $\wedge(2(P))$ | $\wedge(2(A))$ | K(P) | K(A) | SR | CPA | SRR | CPAR | | |
| APPROACH - BEST RATE OF CLIMB PLUS 10 KTS | | | | | | | | | | | | | | | | |
| 22 | 91.2 | 88.2 | 90.9 | 77.7 | -0.50 | 0.13 | 0.13 | 0.13 | 7.5 | 7.7 | 429.3 | 446.0 | 295.9 | 307.4 | | |
| 24 | 92.2 | 89.3 | 93.2 | 79.9 | -0.51 | -0.44 | 0.09 | 0.09 | 7.0 | 7.2 | 410.1 | 422.5 | 298.4 | 307.4 | | |
| 26 | 92.2 | 89.1 | 93.7 | 80.8 | -0.33 | -0.27 | 0.06 | 0.05 | 6.8 | 6.5 | 318.7 | 324.8 | 301.6 | 307.4 | | |
| 28 | 91.3 | 88.4 | 92.3 | 79.3 | -0.22 | -0.17 | 0.02 | 0.02 | 6.9 | 6.8 | 312.9 | 315.3 | 305.0 | 307.4 | | |
| Avg. | 91.7 | 88.8 | 92.5 | 79.4 | -0.41 | -0.34 | 0.07 | 0.07 | 7.1 | 7.1 | 367.7 | 377.2 | 300.2 | 307.4 | | |
| Std Dv | 0.7 | 0.6 | 1.5 | 1.6 | 0.20 | 0.19 | 0.06 | 0.06 | 0.4 | 0.7 | 74.1 | 81.7 | 4.9 | 0.0 | | |
| APPROACH - BEST RATE OF CLIMB MINUS 10 KTS | | | | | | | | | | | | | | | | |
| 30 | 88.4 | 85.3 | 87.6 | 74.2 | -0.55 | -0.51 | 0.10 | 0.10 | 7.1 | 7.2 | 377.3 | 389.8 | 297.6 | 307.4 | | |
| 32 | 88.5 | 85.2 | 90.7 | 77.3 | -0.50 | -0.43 | 0.09 | 0.09 | 5.8 | 5.9 | 303.3 | 314.8 | 296.2 | 307.4 | | |
| 34 | 89.1 | 86.1 | 86.8 | 74.1 | -0.38 | -0.33 | 0.06 | 0.06 | 8.0 | 7.9 | 336.3 | 342.6 | 301.7 | 307.4 | | |
| 36 | 88.9 | 86.0 | 86.9 | 73.9 | -0.42 | -0.34 | 0.07 | 0.07 | 7.6 | 7.6 | 320.1 | 327.2 | 300.7 | 307.4 | | |
| Avg. | 88.7 | 85.7 | 88.0 | 74.9 | -0.46 | -0.40 | 0.08 | 0.08 | 7.1 | 7.1 | 334.2 | 343.6 | 299.1 | 307.4 | | |
| Std Dv | 0.4 | 0.6 | 2.2 | 2.0 | 0.09 | 0.10 | 0.02 | 0.02 | 1.2 | 1.1 | 38.8 | 40.2 | 3.2 | 0.0 | | |
| APPROACH - BEST RATE OF CLIMB | | | | | | | | | | | | | | | | |
| 38 | 90.4 | 87.4 | 92.8 | 79.4 | 0.07 | 0.10 | -0.04 | -0.04 | 6.0 | 5.9 | 373.6 | 367.4 | 312.6 | 307.4 | | |
| 40 | 89.3 | 86.6 | 88.4 | 75.4 | -0.09 | -0.07 | 0.00 | 0.00 | 6.9 | 7.2 | 310.7 | 310.3 | 307.9 | 307.4 | | |
| 42 | 97.0 | 93.4 | 97.0 | 83.3 | 0.04 | 0.08 | -0.06 | -0.06 | 7.4 | 7.5 | 375.5 | 368.4 | 313.3 | 307.4 | | |
| Avg. | 92.3 | 89.1 | 92.7 | 79.3 | 0.01 | 0.04 | -0.03 | -0.03 | 6.8 | 6.9 | 353.3 | 348.7 | 311.3 | 307.4 | | |
| Std Dv | 5.9 | 5.2 | 6.1 | 5.6 | 0.12 | 0.13 | 0.04 | 0.04 | 1.0 | 1.2 | 52.1 | 47.1 | 4.2 | 0.0 | | |

TABLE NO. B.7-2.6

SIKORSKY OH-60A BLACKHAWK HELICOPTER

DOT/TSC
12/28/81

CORRECTION DATA

JUNE 26, 1980

SITE: 6 SIDELINE - 284 M. NORTH

| EV | CORRECTED | | CORRECTIONS (dB) | | | | CONSTANTS | | TRACKING DATA (ACTUAL) | | | TRACKING DATA (REFERENCE) | | |
|--|-----------|-----------|------------------|----------------|----------------|----------------|-----------|-------|------------------------|-----|-------|---------------------------|-------|-------|
| | EPNL | REL PNLTH | $\Delta N1(P)$ | $\Delta N1(A)$ | $\Delta N2(P)$ | $\Delta N2(A)$ | K(P) | K(A) | SR | CPA | SRR | CPAR | SRR | CPAR |
| TAKEOFF - HOVER POWER PLUS 10% | | | | | | | | | | | | | | |
| 21 | 89.4 | 84.2 | 88.5 | 73.7 | -0.16 | -0.17 | 0.00 | 0.00 | 8.2 | 7.8 | 374.2 | 374.1 | 315.8 | 315.8 |
| 23 | 89.2 | 83.7 | 89.3 | 73.8 | -0.38 | -0.37 | 0.07 | 0.07 | 7.6 | 7.5 | 342.1 | 349.3 | 309.3 | 315.8 |
| 25 | 88.7 | 83.9 | 88.1 | 74.7 | -0.60 | -0.58 | 0.14 | 0.12 | 7.9 | 6.9 | 357.3 | 371.7 | 303.5 | 315.8 |
| 27 | 88.4 | 83.3 | 88.3 | 73.9 | -0.50 | -0.46 | 0.11 | 0.10 | 7.6 | 7.1 | 333.5 | 344.7 | 305.6 | 315.8 |
| 29 | 88.2 | 83.1 | 88.6 | 73.3 | -0.55 | -0.50 | 0.12 | 0.12 | 7.4 | 7.4 | 355.7 | 368.9 | 304.5 | 315.8 |
| 31 | 89.1 | 84.0 | 89.1 | 73.7 | -0.54 | -0.50 | 0.11 | 0.12 | 7.4 | 7.7 | 363.8 | 376.7 | 305.0 | 315.8 |
| 33 | 88.4 | 83.1 | 88.5 | 73.0 | -0.60 | -0.56 | 0.13 | 0.13 | 7.5 | 7.5 | 360.3 | 375.3 | 303.2 | 315.8 |
| Avg. | 89.8 | 83.6 | 88.6 | 73.7 | -0.48 | -0.45 | 0.10 | 0.09 | 7.7 | 7.4 | 355.3 | 365.8 | 306.7 | 315.8 |
| Std Dev | 0.5 | 0.5 | 0.5 | 0.6 | 0.17 | 0.15 | 0.05 | 0.05 | 0.3 | 0.3 | 14.9 | 14.4 | 4.9 | 0.0 |
| TAKEOFF - MAXIMUM POWER | | | | | | | | | | | | | | |
| 35 | 89.4 | 84.1 | 89.5 | 74.0 | 0.04 | 0.03 | -0.04 | -0.04 | 7.4 | 7.6 | 375.5 | 371.0 | 319.7 | 315.8 |
| 37 | 89.6 | 84.2 | 90.1 | 74.7 | 0.05 | 0.03 | -0.04 | -0.04 | 7.4 | 7.3 | 372.9 | 368.5 | 319.6 | 315.8 |
| 41 | 90.0 | 84.5 | 90.6 | 73.9 | 0.46 | 0.41 | -0.15 | -0.16 | 7.5 | 8.0 | 360.4 | 343.9 | 331.0 | 315.8 |
| Avg. | 89.7 | 84.3 | 90.1 | 74.2 | 0.18 | 0.16 | -0.08 | -0.08 | 7.4 | 7.6 | 369.6 | 361.1 | 323.4 | 315.8 |
| Std Dev | 0.4 | 0.4 | 0.7 | 0.6 | 0.34 | 0.31 | 0.09 | 0.10 | 0.1 | 0.5 | 11.4 | 21.2 | 9.3 | 0.0 |
| 500 FT. FLYBY - TARGET INDICATED AIRSPEED 150 KTS - TORQUE > 90% | | | | | | | | | | | | | | |
| 43 | 94.0 | 89.8 | 94.6 | 81.4 | -0.17 | -0.16 | 0.02 | 0.02 | 6.7 | 6.1 | 356.2 | 359.2 | 318.9 | 321.5 |
| 44 | 94.5 | 91.4 | 96.1 | 83.4 | -0.01 | 0.01 | -0.03 | -0.03 | 7.0 | 6.8 | 333.1 | 330.0 | 324.5 | 321.5 |
| 45 | 94.1 | 89.6 | 95.1 | 82.1 | -0.25 | -0.24 | 0.05 | 0.04 | 6.9 | 6.1 | 364.4 | 369.9 | 316.7 | 321.5 |
| 46 | 93.4 | 90.2 | 95.6 | 83.2 | -0.44 | -0.39 | 0.09 | 0.08 | 6.7 | 6.6 | 314.9 | 324.3 | 312.2 | 321.5 |
| 47 | 93.8 | 89.6 | 94.1 | 81.5 | -0.62 | -0.56 | 0.16 | 0.14 | 7.6 | 6.7 | 306.9 | 321.7 | 306.7 | 321.5 |
| Avg. | 94.0 | 90.1 | 95.1 | 82.3 | -0.30 | -0.27 | 0.06 | 0.05 | 7.0 | 6.5 | 335.1 | 341.0 | 315.8 | 321.5 |
| Std Dev | 0.4 | 0.9 | 0.9 | 1.1 | 0.27 | 0.25 | 0.08 | 0.07 | 0.4 | 0.4 | 28.9 | 25.4 | 7.8 | 0.0 |

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| Year | Month | Day | Time | Location | Remarks |
|------|-------|-----|-------|----------|---------|
| 1900 | Jan | 1 | 10:00 | ... | ... |
| 1900 | Jan | 2 | 11:00 | ... | ... |
| 1900 | Jan | 3 | 12:00 | ... | ... |
| 1900 | Jan | 4 | 13:00 | ... | ... |
| 1900 | Jan | 5 | 14:00 | ... | ... |
| 1900 | Jan | 6 | 15:00 | ... | ... |
| 1900 | Jan | 7 | 16:00 | ... | ... |
| 1900 | Jan | 8 | 17:00 | ... | ... |
| 1900 | Jan | 9 | 18:00 | ... | ... |
| 1900 | Jan | 10 | 19:00 | ... | ... |
| 1900 | Jan | 11 | 20:00 | ... | ... |
| 1900 | Jan | 12 | 21:00 | ... | ... |
| 1900 | Jan | 13 | 22:00 | ... | ... |
| 1900 | Jan | 14 | 23:00 | ... | ... |
| 1900 | Jan | 15 | 24:00 | ... | ... |
| 1900 | Jan | 16 | 25:00 | ... | ... |
| 1900 | Jan | 17 | 26:00 | ... | ... |
| 1900 | Jan | 18 | 27:00 | ... | ... |
| 1900 | Jan | 19 | 28:00 | ... | ... |
| 1900 | Jan | 20 | 29:00 | ... | ... |
| 1900 | Jan | 21 | 30:00 | ... | ... |
| 1900 | Jan | 22 | 31:00 | ... | ... |

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APPENDIX C

HELICOPTER PERFORMANCE AND
POSITION DATA

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Appendix C

Helicopter Performance and Position Data

This data appendix provides graphic and tabular presentations of helicopter performance and position data. Each sub-appendix contains a series of plots depicting the ground track relative to the microphone array centerline as well as flight profiles showing altitude versus distance along the array. Following the plots a series of tables is presented which shows helicopter position relative to each microphone location. These tables contain the following information:

| | |
|---------------|--|
| EVENT | Identifies event number and type of operation. |
| Recorded Time | This is the range time, synchronized with the cockpit clock when PNLTM occurred. |
| Radiated Time | The time when the PNLTM acoustical energy was radiated. |
| R/C FPM | This indicates the helicopter rate of climb or descent averaged over 4 seconds centered on PNLTM. |
| C/D-ANG DEG | The climb or descent angle in degrees averaged over 4 seconds centered on PNLTM. |
| GS KNOTS | Ground Speed averaged over 4 seconds centered on PNLTM. |
| CPA Ft. | This is the closest point of approach between the helicopter and the measurement location. |
| SR Ft. | This is the slant distance between the helicopter and the measurement location at the time of PNLTM. |
| AR-ANG DEG | This is the acoustical radiation angle between the flight path and SR. |

Appendix C

FLIGHT PATH TRACKING PLOTS AND POSITION DATA

Sub-Appendix

Test Session

| | |
|----|--------------------|
| C1 | UH-60A, June 22 |
| C2 | S-76 100%, June 23 |
| C3 | A-109, June 24 |
| C4 | S-76 107%, June 25 |
| C5 | UH-60A, June 25 |
| C6 | Bell 206-L June 26 |
| C7 | UH-60A, June 26 |

Sub-Appendix C1 Summary
UH60A June 22, 1980
Flight Path Tracking Plots and Position Data

1. FLIGHT PATH TRACKING PLOTS

| Event No. | Plot Fig. No. | Operation | | | |
|-----------|---------------|-----------|-----|---------|--------------|
| 1 | C1-1 | 1000 Ft. | LFO | 150 kts | Target Speed |
| 2 | " | " | " | " | " |
| 3 | " | " | " | " | " |
| 4 | " | " | " | " | " |
| 5 | " | " | " | " | " |
| 39 | C1-2 | " | " | " | " |
| 40 | " | " | " | " | " |
| 47 | " | " | " | " | " |
| 48 | " | " | " | " | " |
| 25 | C1-3 | 500 Ft. | LFO | 150 kts | Target Speed |
| 26 | " | " | " | 132 kts | " |
| 27 | " | " | " | 115 kts | " |
| 28 | " | " | " | 152 kts | " |
| 29 | " | " | " | 132 kts | " |
| 30 | " | " | " | 115 kts | " |
| 31 | C1-4 | 500 Ft. | LFO | 152 kts | Target Speed |
| 32 | " | " | " | 132 kts | " |
| 33 | " | " | " | 115 kts | " |
| 34 | " | " | " | 152 kts | " |
| 35 | " | " | " | 132 kts | " |
| 36 | " | " | " | 115 kts | " |
| 49 | C1-5 | 500 Ft. | LFO | 165 kts | Target Speed |
| 50 | " | " | " | 165 kts | " |
| 51 | " | " | " | 165 kts | " |
| 52 | " | " | " | " | " |

| Event No. | Plot Fig. No. | Operation | | | |
|-----------|---------------|-----------|-----|---------|--------------|
| 41 | C1-6 | 700 Ft. | LFO | 150 kts | Target Speed |
| 42 | " | " | | 150 kts | " |
| 43 | C1-7 | 300 Ft. | LFO | 150 kts | Target Speed |
| 44 | " | " | | 150 kts | " |
| 37 | C1-8 | 1500 Ft. | LFO | 150 kts | Target Speed |
| 38 | " | " | | 150 kts | " |
| 8 | C1-9 | Takeoff | | | |
| 9 | " | " | | | |
| 10 | " | " | | | |
| 11 | " | " | | | |
| 12 | C1-10 | Takeoff | | | |
| 14 | " | " | | | |
| 15 | " | " | | | |
| 16 | C1-11 | Approach | | | |
| 17 | " | " | | | |
| 18 | " | " | | | |
| 19 | " | " | | | |
| 20 | " | " | | | |
| 21 | C1-12 | Approach | | | |
| 22 | " | " | | | |
| 23 | " | " | | | |
| 24 | " | " | | | |

2. POSITION DATA TABLES

| Table Number | Microphone |
|--------------|---------------------------------------|
| C1-1 | Mic. 1, Centerline Center, 4 ft. |
| C1-2 | Mic. 2, Centerline 150m West 4 ft. |
| C1-3 | Mic. 3, Centerline 150m East 4 ft. |
| C1-4 | Mic. 4, Sideline 164m North 4 ft. |
| C1-5 | Mic. 5, Sideline 150m South 4 ft. |
| C1-6 | Mic. 6, Sideline 284m North 4 ft. |
| C1-7 | Mic. 1G, Centerline Center (Ground) |
| C1-8 | Mic. 1H, Centerline Center 33ft. |
| C1-9 | Mic. 5G, Sideline 150m South (Ground) |

FIGURE C1-1

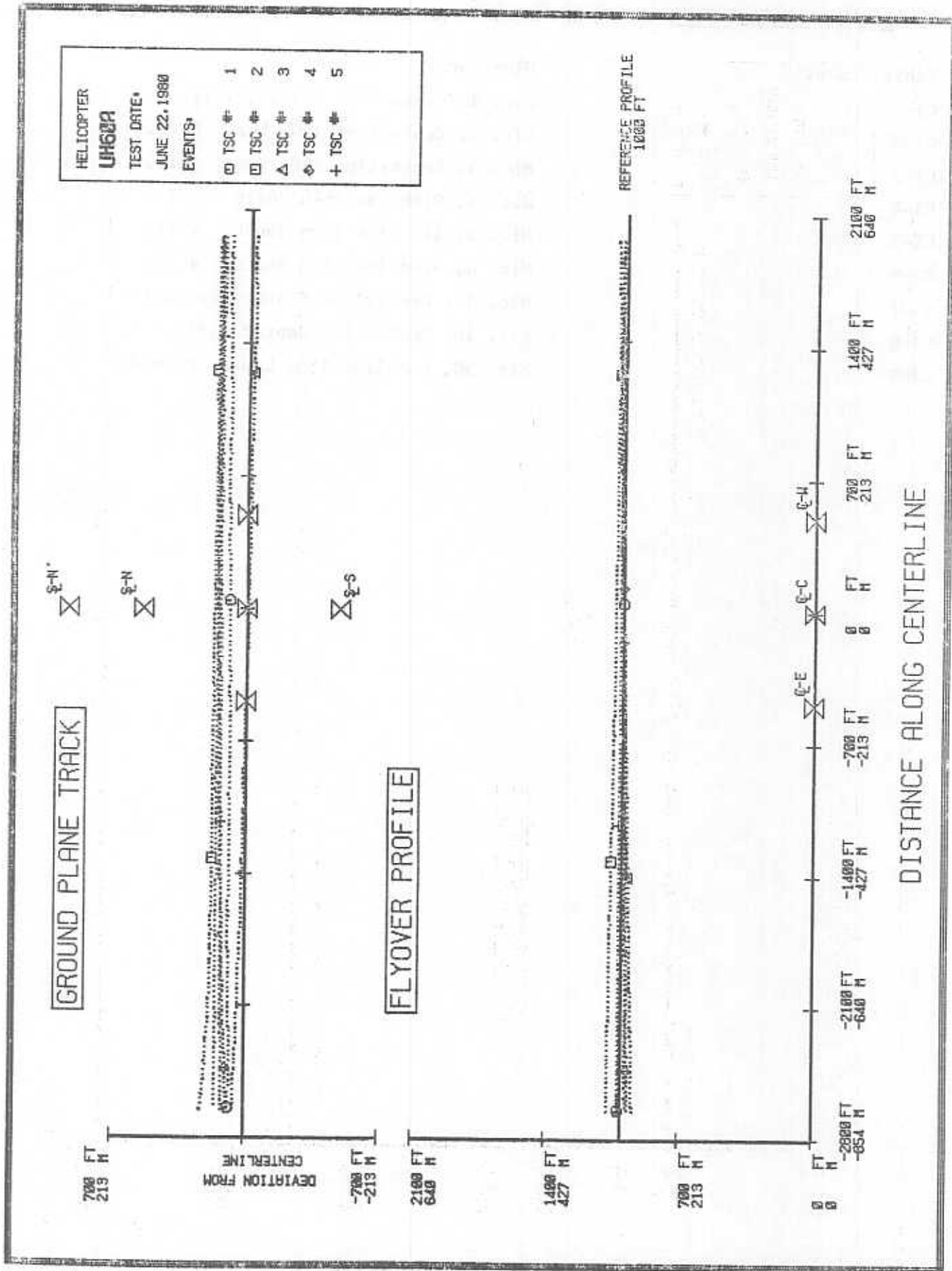


FIGURE C1-3

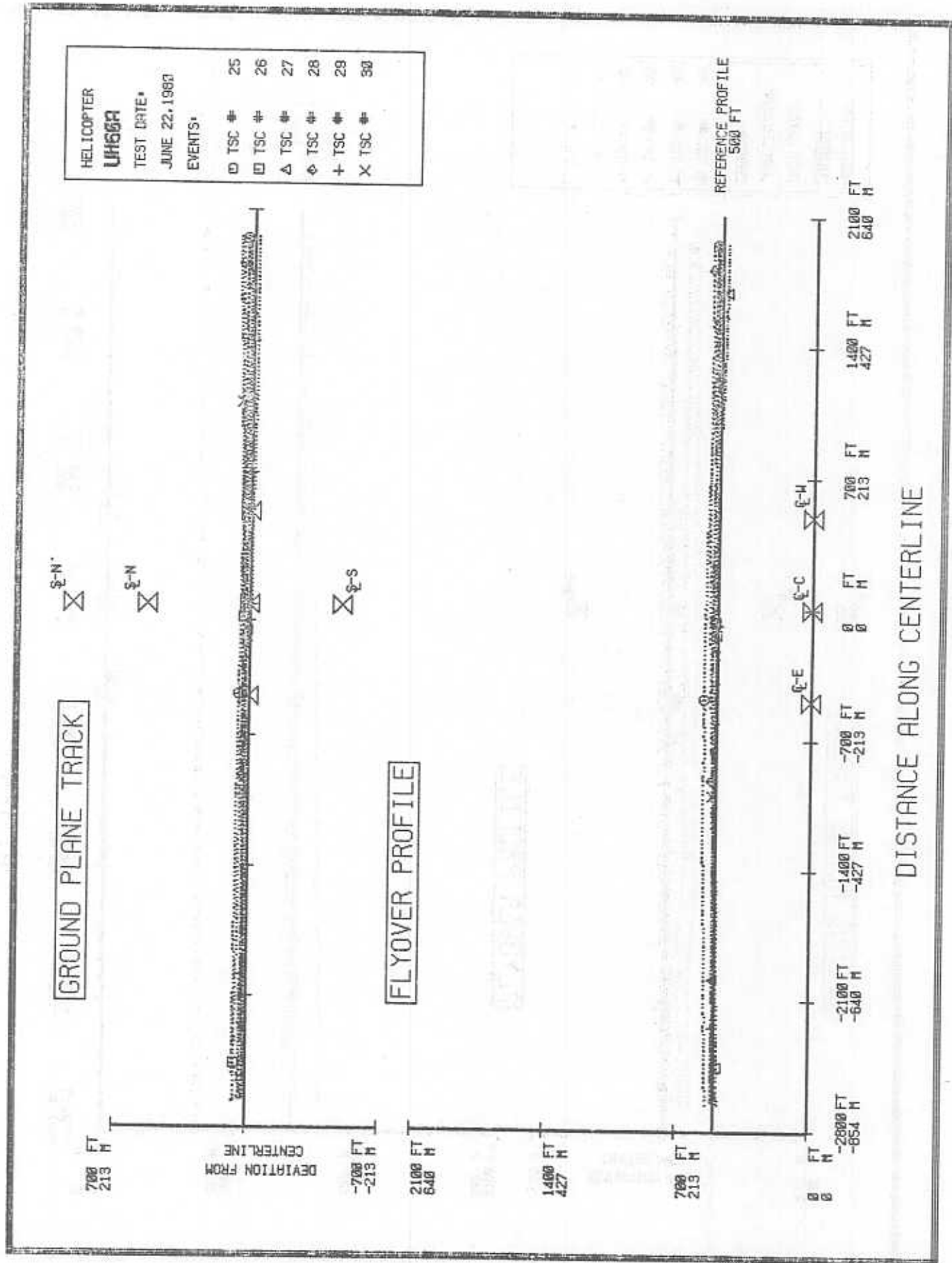


FIGURE C1-4

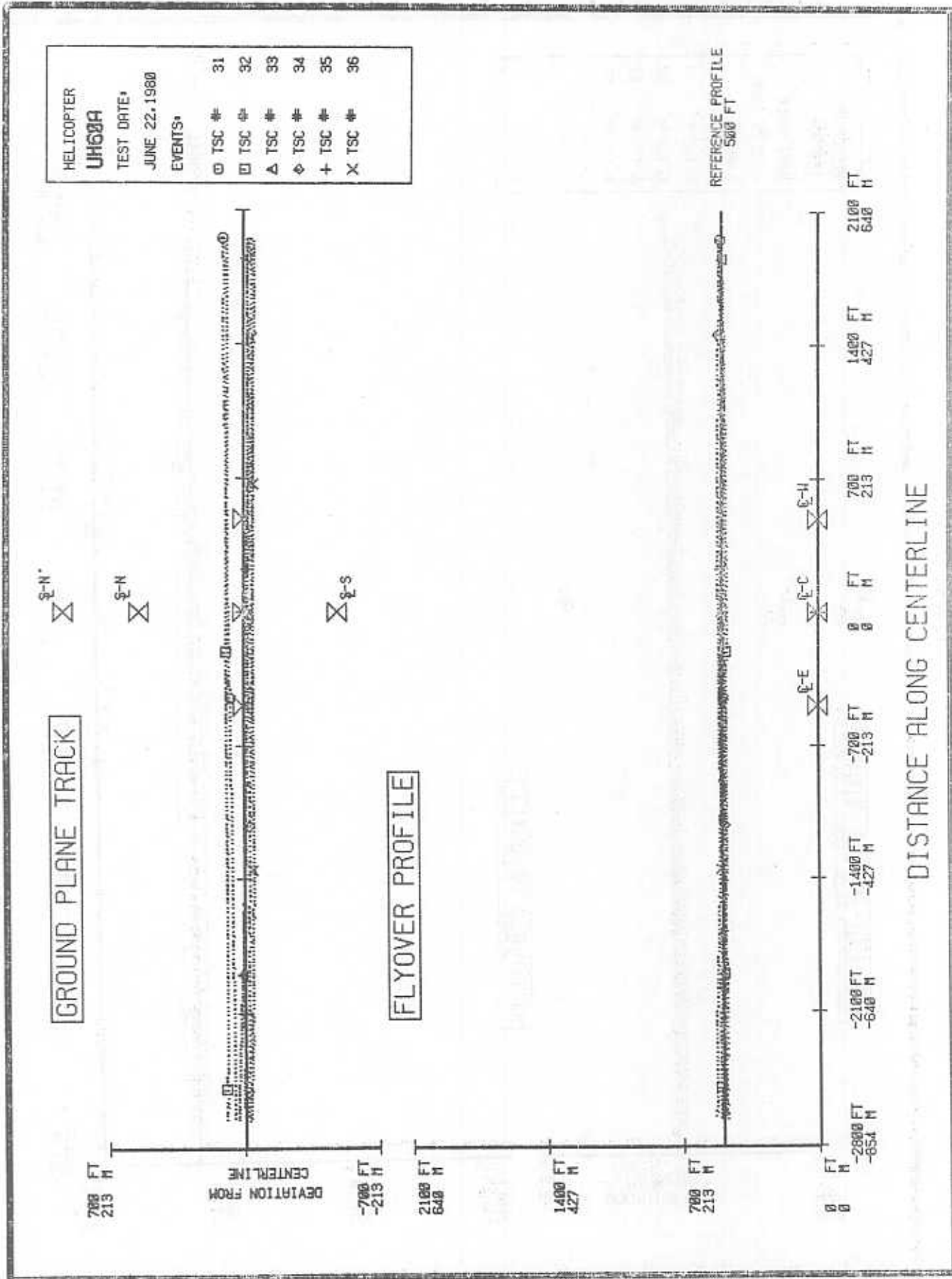


FIGURE C1-6

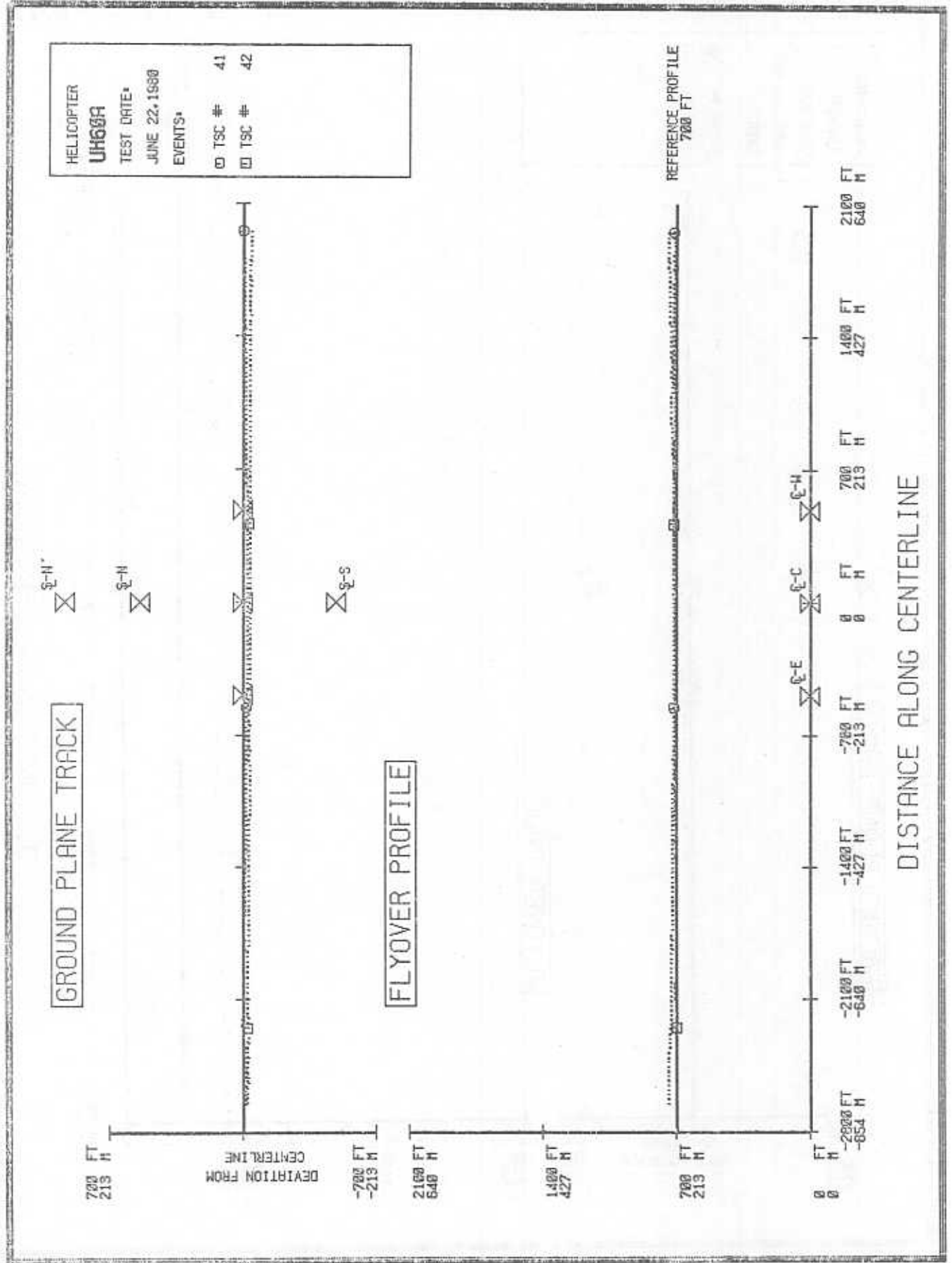


FIGURE C1-7

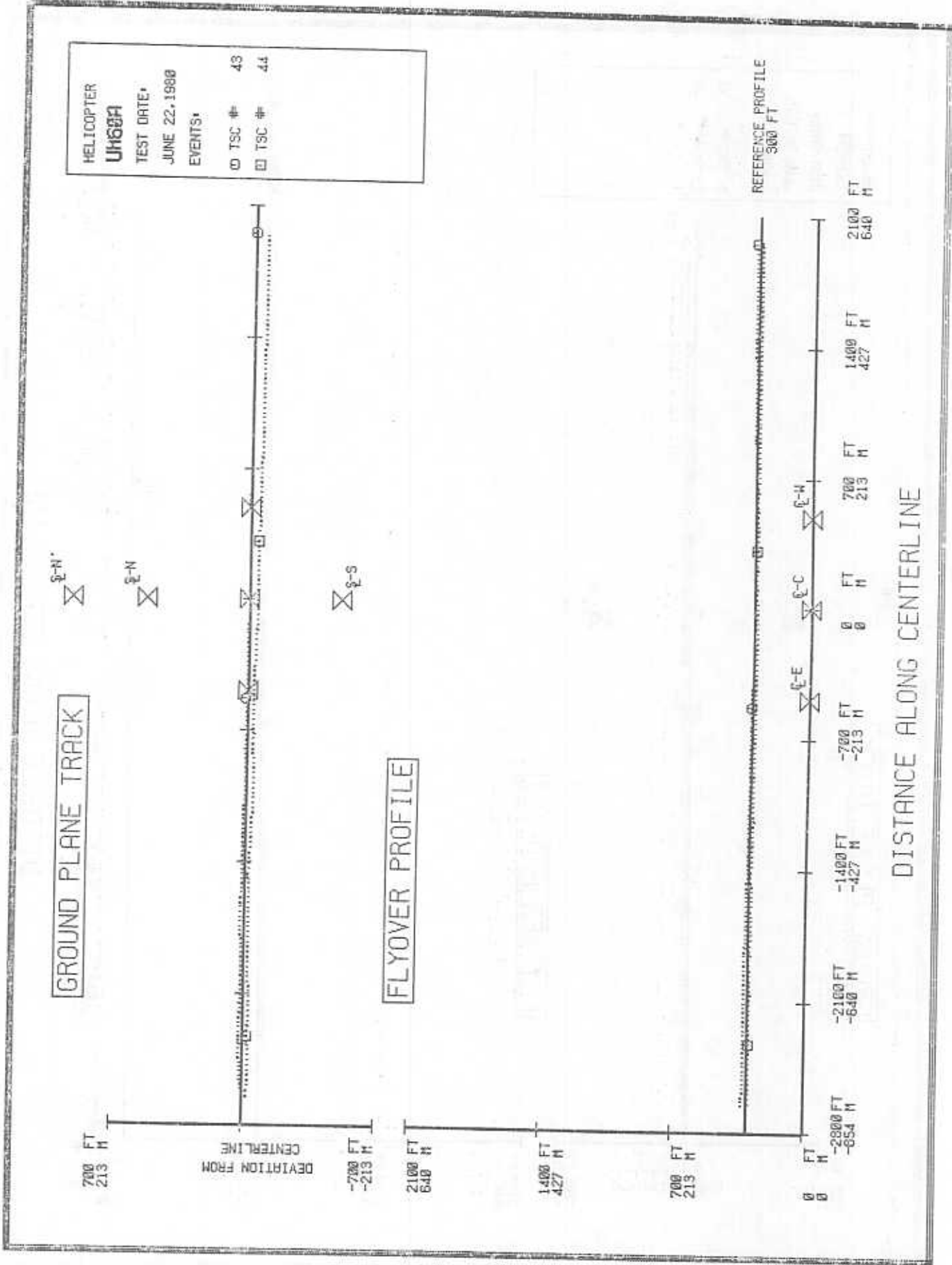


FIGURE C1-8

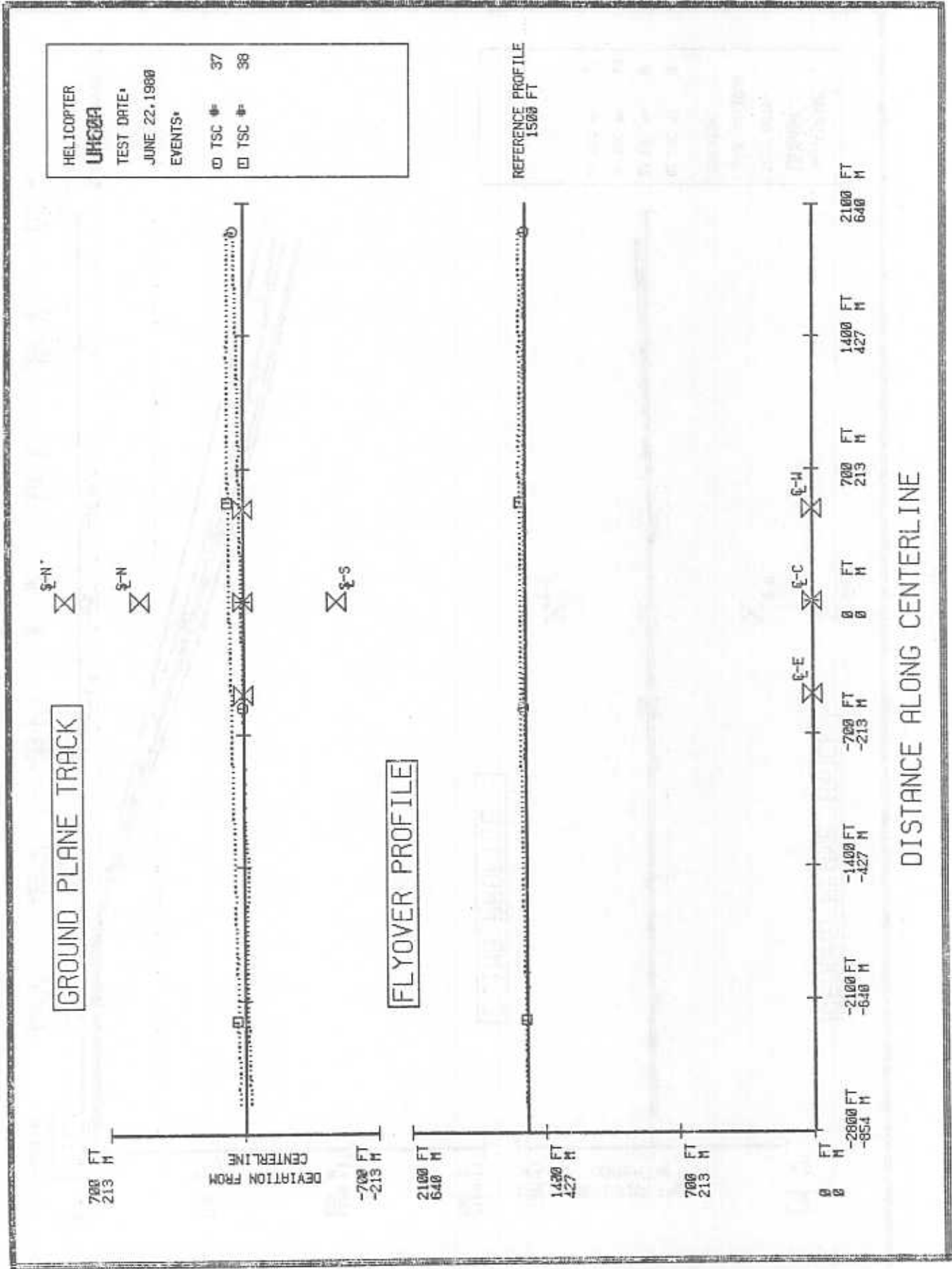


FIGURE C1-9

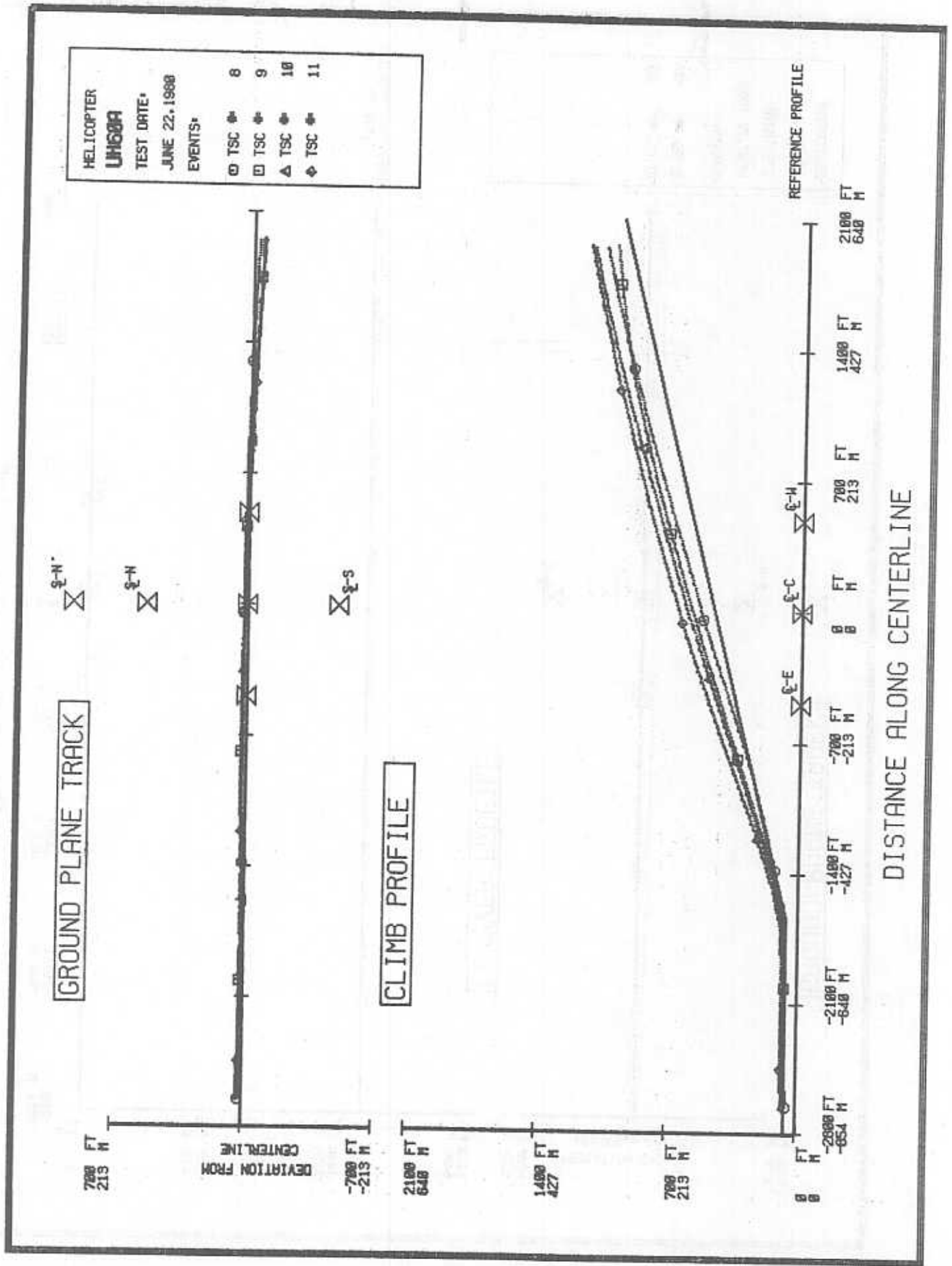


FIGURE C1-10

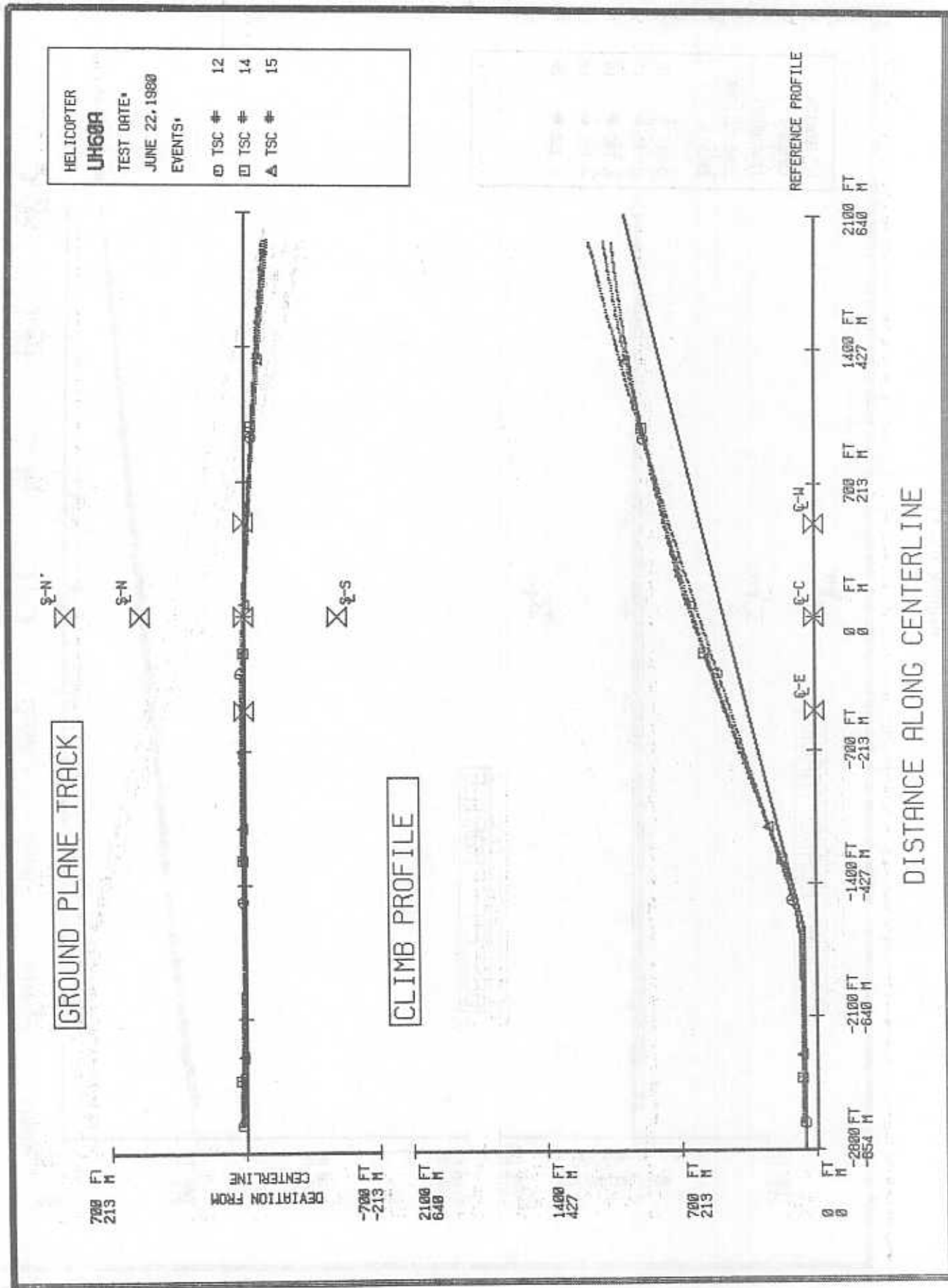


FIGURE C1-11

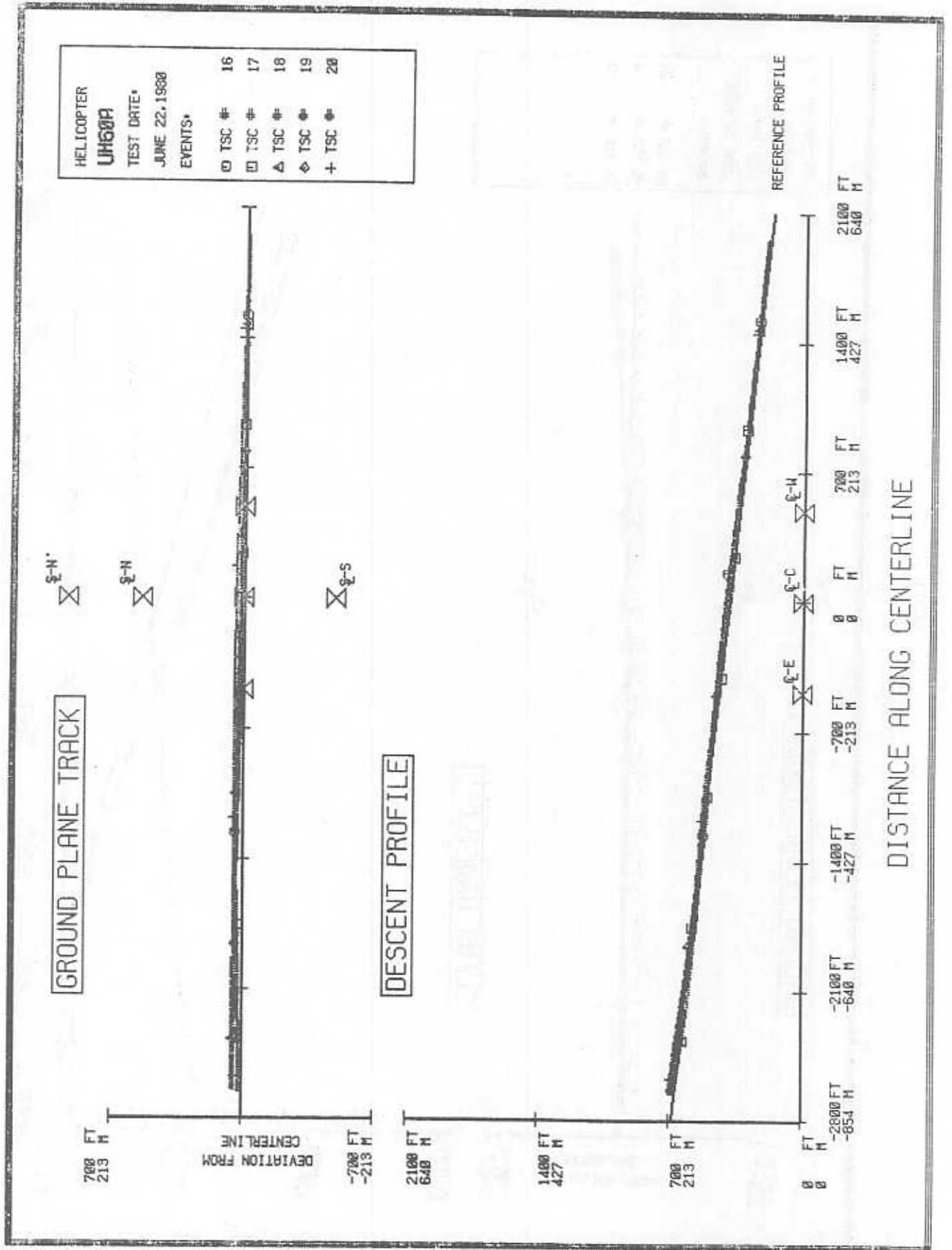


FIGURE C1-12

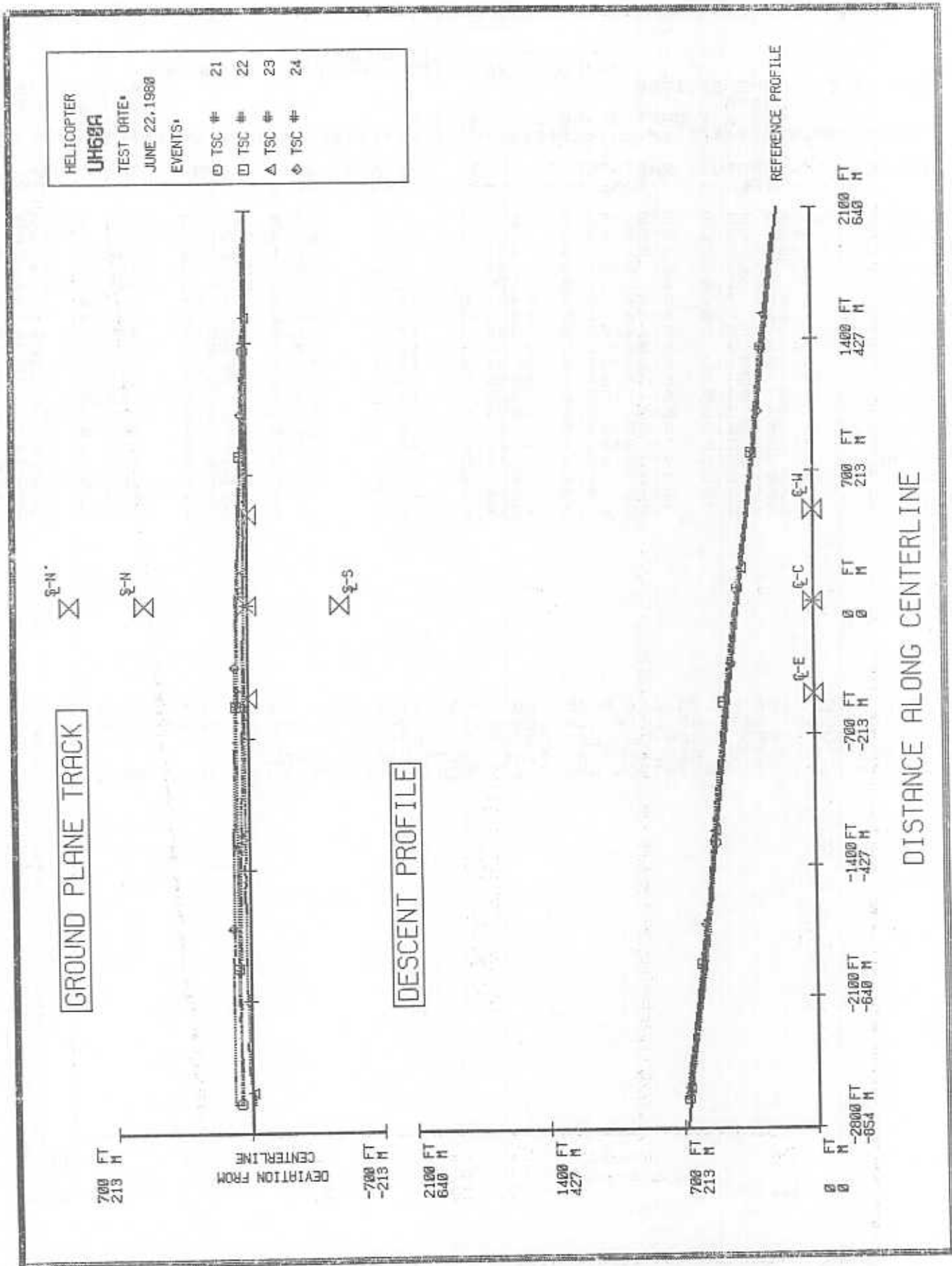


TABLE C1-1

TEST DATE: JUNE 22, 1980
 UH60A
 MIC # 1 CENTERLINE CENTER, 4 FT
 POSITION DATA
 HELICOPTER NOISE MEASUREMENT PROGRAM
 FAA/AEE 120
 JAN 29, 1981

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|---------|---------------|---------------|---------|-------------|----------|--------|--------|------------|
| 1 F-U | 5:52:53.5 | 5:52:52.2 | 116.7 | 0.4 | 160.0 | 997.6 | 1493.5 | 138.1 |
| 2 F-U | 5:56:20.5 | 5:56:18.7 | 198.2 | 0.7 | 152.4 | 1050.2 | 1998.2 | 143.9 |
| 4 F-U | 5:59:10.5 | 5:59:9.4 | 431.6 | 1.6 | 156.1 | 992.2 | 1242.7 | 126.6 |
| 5 F-U | 6:01:23.0 | 6:01:21.0 | 47.0 | 0.2 | 150.1 | 1006.0 | 1881.0 | 147.7 |
| 6 DEP | 6:01:41.0 | 6:01:39.0 | 170.7 | 0.6 | 160.2 | 1006.8 | 1297.0 | 129.1 |
| 9 DEP | 6:02:04.0 | 6:02:01.5 | 2401.5 | 16.9 | 78.2 | 511.4 | 557.0 | 66.7 |
| 10 DEP | 6:02:05.5 | 6:02:03.0 | 2288.0 | 17.7 | 70.6 | 552.0 | 560.4 | 95.3 |
| 11 DEP | 6:02:11.5 | 6:02:08.0 | 2352.0 | 18.0 | 71.0 | 578.0 | 585.4 | 99.0 |
| 12 DEP | 6:02:51.0 | 6:02:48.0 | 2352.0 | 18.0 | 68.0 | 623.0 | 628.7 | 97.1 |
| 14 DEP | 6:03:51.0 | 6:03:48.0 | 2369.0 | 18.1 | 71.7 | 565.7 | 569.6 | 96.7 |
| 15 DEP | 6:04:41.0 | 6:04:38.0 | 2256.7 | 19.1 | 64.4 | 598.4 | 613.6 | 102.8 |
| 16 ARR | 6:04:47.0 | 6:04:44.0 | 2320.7 | 18.0 | 69.4 | 590.6 | 595.8 | 97.6 |
| 17 ARR | 6:05:41.0 | 6:05:38.0 | 1803.0 | 15.1 | 82.9 | 409.7 | 437.7 | 110.6 |
| 18 ARR | 6:05:48.0 | 6:05:45.0 | 1824.5 | 15.8 | 80.0 | 381.1 | 408.0 | 110.9 |
| 19 ARR | 6:07:15.0 | 6:07:12.0 | 1843.5 | 16.3 | 75.6 | 389.6 | 425.0 | 113.7 |
| 20 ARR | 6:07:45.0 | 6:07:42.0 | 1844.5 | 16.3 | 76.0 | 404.5 | 423.5 | 107.2 |
| 201 ARR | 6:16:20.0 | 6:16:17.0 | 1817.7 | 15.8 | 79.0 | 407.6 | 427.8 | 107.7 |
| 202 ARR | 6:16:28.5 | 6:16:25.0 | 1835.7 | 16.3 | 78.7 | 393.7 | 423.3 | 111.6 |
| 203 ARR | 6:20:28.5 | 6:20:25.0 | 1922.5 | 16.6 | 79.6 | 404.1 | 421.8 | 106.6 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C1-1 (CONT)

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 22, 1980
UH60A
MIC # 1 CENTERLINE CENTER, 4 FT

FAA/AEE 120
JAN 29, 1981

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG | |
|-------|---------------|---------------|-----------|-------------|----------|--------|--------|------------|-------|
| 23 | ARR | 8: 9:27.0 | 8: 9:26.6 | -940.0 | -6.4 | 82.6 | 388.6 | 432.0 | 115.9 |
| 24 | ARR | 8:14:26.0 | 8:14:25.6 | -836.3 | -5.8 | 80.6 | 395.5 | 417.2 | 108.5 |
| 25 | F-F | 8:17:50.5 | 8:17:58.5 | 378.3 | 1.5 | 144.0 | 560.2 | 1130.7 | 150.3 |
| 26 | F-F | 8:21:35.5 | 8:21:34.7 | 163.3 | 0.7 | 141.1 | 505.7 | 936.1 | 147.3 |
| 27 | F-F | 8:24: 5.0 | 8:24: 4.5 | 24.2 | 0.1 | 108.8 | 497.9 | 525.4 | 108.6 |
| 28 | F-F | 8:26:38.5 | 8:26:38.0 | 280.7 | 1.0 | 164.1 | 534.0 | 592.4 | 115.6 |
| 29 | F-F | 8:29:18.0 | 8:29:17.4 | -137.2 | -0.6 | 128.6 | 492.9 | 692.4 | 134.6 |
| 30 | F-F | 8:31:48.5 | 8:31:48.0 | 51.7 | 0.2 | 122.9 | 517.8 | 580.4 | 116.9 |
| 31 | F-F | 8:35:17.5 | 8:35:16.8 | 11.8 | 0.0 | 142.0 | 486.8 | 788.9 | 141.9 |
| 32 | F-F | 8:38:25.0 | 8:38:24.0 | -59.3 | -0.2 | 136.7 | 475.1 | 505.6 | 110.0 |
| 33 | F-F | 8:41:52.5 | 8:41:51.0 | 128.7 | 0.7 | 110.5 | 488.1 | 844.7 | 144.7 |
| 34 | F-F | 8:45:13.5 | 8:45:12.8 | 433.3 | 1.6 | 152.6 | 509.7 | 848.2 | 143.1 |
| 35 | F-F | 8:48:34.0 | 8:48:33.5 | 72.8 | 0.3 | 126.8 | 495.0 | 612.1 | 126.0 |
| 36 | F-F | 8:52:13.0 | 8:52:12.4 | -7.2 | -0.0 | 119.1 | 507.7 | 704.7 | 133.9 |
| 37 | F-F | 9: 1:25.5 | 9: 1:22.6 | 17.5 | 0.1 | 148.2 | 1498.8 | 3315.2 | 153.1 |
| 38 | F-F | 9: 4:60.0 | 9: 4:57.6 | 239.5 | 0.2 | 160.7 | 1523.8 | 2663.6 | 145.1 |
| 40 | F-F | 9:11:41.5 | 9:11:40.2 | 175.8 | 0.6 | 160.0 | 997.3 | 1520.1 | 139.0 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C1-1 (CONT)

TEST DATE: JUNE 22, 1980
UH60A

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

FAA/AEE 120
JAN 29, 1981

MIC # 1 CENTERLINE CENTER, 4 FT

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|--------|---------------|---------------|---------|-------------|----------|--------|--------|------------|
| 41 F-E | 9:15:16.0 | 9:15:15.2 | 71.3 | 0.3 | 149.0 | 707.5 | 936.0 | 131.0 |
| 42 F-U | 9:19:34.0 | 9:19:33.2 | 100.2 | 0.4 | 158.0 | 705.5 | 922.2 | 130.1 |
| 43 F-U | 9:23:08.5 | 9:23:08.1 | -2.6 | -0.0 | 147.4 | 293.5 | 446.8 | 138.9 |
| 44 F-U | 9:26:40.0 | 9:26:39.7 | 5.8 | 0.0 | 156.9 | 286.8 | 382.0 | 131.3 |
| 47 F-E | 9:43:57.5 | 9:43:55.7 | 281.0 | 1.1 | 147.3 | 1008.0 | 2052.2 | 147.7 |
| 48 F-E | 9:47:33.0 | 9:47:31.9 | 380.8 | 1.4 | 156.6 | 991.5 | 1194.5 | 123.9 |
| 49 F-E | 9:51:32.0 | 9:51:31.4 | 293.0 | 0.7 | 156.2 | 471.1 | 675.1 | 135.7 |
| 50 F-E | 9:54:22.5 | 9:54:22.0 | 77.2 | 0.3 | 166.0 | 482.0 | 587.2 | 134.1 |
| 51 F-E | 9:57:35.0 | 9:57:34.2 | 294.7 | 1.1 | 155.6 | 505.6 | 904.1 | 144.5 |
| 52 F-E | 10:00:30.5 | 10:00:30.1 | 120.5 | 0.7 | 104.4 | 477.3 | 510.2 | 110.7 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C1-2

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 22, 1980
UH60A
MIC # 2 CENTERLINE WEST, 4 FT

FAA/AEE 120
JAN 29, 1981

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|--------|---------------|---------------|---------|-------------|----------|--------|--------|------------|
| 1 F-W | 5:52:55.0 | 5:52:53.6 | 313.0 | 1.1 | 158.7 | 1008.6 | 1571.4 | 140.1 |
| 2 F-E | 5:56:19.0 | 5:56:17.3 | 295.8 | 1.1 | 153.9 | 1044.3 | 1385.1 | 146.4 |
| 3 F-W | 5:59:12.0 | 5:59:10.8 | 378.2 | 1.4 | 157.2 | 1008.4 | 1322.6 | 130.9 |
| 4 F-E | 6:02:26.5 | 6:02:25.6 | -124.5 | -0.5 | 150.7 | 1009.3 | 1009.5 | 91.2 |
| 5 F-W | 6:05:41.5 | 6:05:40.1 | 214.2 | 0.8 | 160.9 | 1013.5 | 1609.0 | 141.0 |
| 8 DEP | 6:18:05.0 | 6:18:04.4 | 2410.2 | 16.8 | 79.0 | 654.2 | 666.7 | 101.1 |
| 9 DEP | 6:22:05.5 | 6:22:04.9 | 2156.0 | 16.2 | 73.3 | 699.1 | 707.2 | 98.7 |
| 10 DEP | 6:26:02.5 | 6:26:01.8 | 2222.3 | 16.9 | 72.9 | 726.8 | 732.3 | 97.2 |
| 11 DEP | 6:31:07.0 | 6:31:06.0 | 2156.0 | 16.8 | 70.6 | 770.8 | 735.0 | 101.3 |
| 12 DEP | 6:35:54.5 | 6:35:53.9 | 2317.7 | 17.6 | 72.1 | 718.8 | 730.8 | 98.5 |
| 14 DEP | 6:44:20.0 | 6:44:28.3 | 1379.5 | 16.2 | 67.4 | 749.3 | 760.3 | 99.7 |
| 15 DEP | 6:49:04.1 | 6:49:03.1 | 3333.3 | 20.0 | 50.7 | 700.4 | 740.0 | 90.3 |
| 16 ARR | 6:54:07.0 | 6:54:06.7 | -975.3 | -6.3 | 81.3 | 354.7 | 336.7 | 119.5 |
| 17 ARR | 6:58:51.5 | 6:58:51.2 | -673.2 | -4.8 | 79.6 | 342.0 | 372.2 | 119.2 |
| 18 ARR | 7:03:19.5 | 7:03:19.2 | -218.2 | -6.2 | 74.4 | 337.3 | 369.4 | 111.9 |
| 19 ARR | 7:07:49.0 | 7:07:48.7 | -249.5 | -7.6 | 75.8 | 347.4 | 360.6 | 105.5 |
| 20 ARR | 7:12:05.5 | 7:12:05.2 | -233.5 | -6.1 | 76.9 | 355.5 | 388.2 | 113.7 |
| 21 ARR | 7:16:22.0 | 7:16:21.7 | -217.5 | -6.0 | 77.2 | 338.8 | 355.3 | 107.5 |
| 22 ARR | 7:20:32.0 | 7:20:31.7 | -292.3 | -6.4 | 78.0 | 346.5 | 369.3 | 110.3 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C1-2 (CONT)

TEST DATE: JUNE 22, 1980
 UH60A
 MIC # 2 CENTERLINE WEST, 4 FT
 POSITION DATA
 HELICOPTER NOISE MEASUREMENT PROGRAM
 FAA/AEE 120
 JAN 29, 1981

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|----------|---------------|---------------|---------|-------------|----------|--------|--------|------------|
| 23 ARR | 01 09:30.5 | 01 09:30.2 | -743.3 | -5.1 | 81.5 | 343.3 | 384.5 | 116.8 |
| 24 ARR | 01 14:29.5 | 01 14:29.2 | -902.0 | -6.4 | 79.7 | 337.3 | 366.3 | 112.9 |
| 25 F-F-E | 01 17:58.0 | 01 17:57.1 | 341.7 | 1.3 | 144.1 | 549.9 | 991.1 | 146.0 |
| 26 F-F-E | 01 21:39.9 | 01 21:38.4 | 203.7 | 0.8 | 141.1 | 513.6 | 636.7 | 126.0 |
| 27 F-F-E | 01 23:56.0 | 01 23:59.3 | 228.0 | 1.7 | 108.0 | 497.4 | 793.3 | 141.2 |
| 28 F-F-E | 01 26:39.5 | 01 26:38.8 | 269.5 | 0.7 | 162.3 | 540.8 | 745.9 | 133.5 |
| 29 F-F-E | 01 29:17.0 | 01 29:16.5 | -105.5 | -0.5 | 128.8 | 499.2 | 530.4 | 109.7 |
| 30 F-F-E | 01 31:50.0 | 01 31:40.4 | -6.7 | -0.0 | 123.4 | 519.7 | 694.1 | 131.5 |
| 31 F-F-E | 01 35:14.5 | 01 35:13.6 | -202.5 | -0.8 | 143.4 | 484.8 | 1032.7 | 152.0 |
| 32 F-F-E | 01 38:24.0 | 01 38:24.0 | -18.2 | -0.1 | 136.4 | 476.8 | 768.9 | 141.7 |
| 33 F-F-E | 01 41:50.0 | 01 41:49.3 | 63.3 | 0.3 | 110.8 | 489.2 | 817.6 | 143.3 |
| 34 F-F-E | 01 45:15.5 | 01 45:14.8 | 250.0 | 0.9 | 152.3 | 512.1 | 897.3 | 142.3 |
| 35 F-F-E | 01 48:31.5 | 01 48:30.9 | 39.5 | 0.2 | 127.5 | 494.8 | 639.8 | 129.3 |
| 36 F-F-E | 01 52:17.0 | 01 52:16.5 | -216.0 | -1.0 | 120.9 | 499.9 | 521.5 | 106.5 |
| 37 F-F-E | 01 1:28.0 | 01 1:26.1 | 47.2 | 0.2 | 142.2 | 1499.3 | 2183.4 | 136.6 |
| 38 F-F-E | 01 5:0.5 | 01 4:57.3 | 232.0 | 0.5 | 150.5 | 1526.5 | 3042.2 | 150.0 |
| 39 F-F-E | 01 8:30.5 | 01 8:29.6 | -153.2 | -0.5 | 145.3 | 1621.0 | 1631.8 | 98.3 |
| 40 F-F-E | 01 11:46.0 | 01 11:40.6 | -15.0 | -0.1 | 165.0 | 1632.5 | 1616.2 | 101.0 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C1-2 (CONT)

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 22, 1980
UHS0A
MIC # 2 CENTERLINE WEST, 4 FT

FAA/AEE 120
JAN 29, 1981

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|--------|---------------|---------------|---------|-------------|----------|--------|--------|------------|
| 41 F-E | 9:15:13.0 | 9:15:12.0 | 20.3 | 0.1 | 148.2 | 707.4 | 1162.0 | 142.5 |
| 42 F-W | 9:19:37.5 | 9:19:36.9 | 222.8 | 0.8 | 157.2 | 707.7 | 718.2 | 99.8 |
| 43 F-E | 9:23: 7.5 | 9:23: 7.2 | -108.7 | -0.4 | 147.0 | 295.5 | 301.9 | 101.8 |
| 44 F-W | 9:26:42.5 | 9:26:42.2 | -53.3 | -0.2 | 156.2 | 289.7 | 295.8 | 101.7 |
| 47 F-E | 9:44: 1.5 | 9:44: 0.5 | 420.0 | 1.6 | 146.5 | 1084.8 | 1085.6 | 92.1 |
| 48 F-W | 9:47:36.0 | 9:47:35.1 | 343.3 | 1.2 | 156.6 | 1002.1 | 1056.7 | 108.5 |
| 49 F-E | 9:51:31.5 | 9:51:31.1 | 184.8 | 0.7 | 156.5 | 464.6 | 471.2 | 99.6 |
| 50 F-W | 9:54:25.0 | 9:54:24.6 | 274.2 | 0.9 | 165.7 | 421.0 | 452.3 | 111.5 |
| 51 F-E | 9:57:30.5 | 9:57:29.0 | 273.3 | 1.0 | 158.9 | 514.2 | 1702.1 | 162.4 |
| 52 F-W | 10: 0:33.5 | 10: 0:33.1 | 97.0 | 0.5 | 104.6 | 484.4 | 504.6 | 106.3 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C1-3

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 22, 1980

UH60A

FAA/AEE 120

JAN 29, 1981

MIC # 3 CENTERLINE EAST, 4 FT

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|--------|---------------|---------------|---------|-------------|----------|--------|--------|------------|
| 1 F-W | 5:52:51.5 | 5:52:50.1 | -155.2 | -0.5 | 160.5 | 987.4 | 1540.3 | 140.1 |
| 2 F-E | 5:56:24.0 | 5:56:22.6 | 109.0 | 0.4 | 152.9 | 1053.6 | 1600.1 | 139.8 |
| 3 F-W | 5:59:5.5 | 5:59:3.7 | 333.5 | 1.2 | 156.7 | 985.3 | 2014.5 | 150.7 |
| 4 F-E | 6:02:30.0 | 6:02:29.1 | -220.8 | -0.8 | 151.6 | 997.7 | 1006.2 | 97.4 |
| 5 F-W | 6:05:38.0 | 6:05:36.6 | 139.2 | 0.5 | 159.9 | 1001.9 | 1566.6 | 140.2 |
| 8 DEP | 6:17:60.0 | 6:17:59.7 | 2674.8 | 18.7 | 77.9 | 353.3 | 391.3 | 64.5 |
| 9 DEP | 6:21:58.0 | 6:21:57.6 | 2342.5 | 18.2 | 70.3 | 406.1 | 409.4 | 97.0 |
| 10 DEP | 6:25:55.5 | 6:25:55.1 | 2499.7 | 19.1 | 71.2 | 418.1 | 418.6 | 87.2 |
| 11 DEP | 6:30:59.0 | 6:30:58.6 | 2569.3 | 20.3 | 68.7 | 458.7 | 477.0 | 106.8 |
| 12 DEP | 6:35:48.0 | 6:35:47.6 | 2312.0 | 17.9 | 70.9 | 412.0 | 414.9 | 83.9 |
| 14 DEP | 6:44:20.5 | 6:44:20.1 | 2369.3 | 20.1 | 64.0 | 432.6 | 445.3 | 103.7 |
| 15 DEP | 6:47:56.0 | 6:47:55.6 | 2467.5 | 19.5 | 68.7 | 422.7 | 434.6 | 99.4 |
| 16 ARR | 6:53:59.0 | 6:53:58.5 | -626.2 | -4.2 | 84.3 | 458.6 | 543.0 | 122.4 |
| 17 ARR | 6:58:44.0 | 6:58:43.6 | -955.2 | -6.7 | 79.8 | 436.8 | 488.0 | 116.5 |
| 18 ARR | 7:03:12.0 | 7:03:11.6 | -701.2 | -5.2 | 76.5 | 443.0 | 461.7 | 106.4 |
| 19 ARR | 7:07:41.5 | 7:07:41.1 | -678.4 | -4.9 | 78.9 | 455.6 | 463.6 | 100.7 |
| 20 ARR | 7:11:53.0 | 7:11:52.6 | -846.0 | -6.0 | 79.6 | 453.0 | 494.5 | 112.2 |
| 21 ARR | 7:16:15.0 | 7:16:14.6 | -892.0 | -6.3 | 79.4 | 450.3 | 457.6 | 100.2 |
| 22 ARR | 7:20:24.5 | 7:20:24.1 | -861.2 | -6.0 | 81.2 | 461.7 | 495.3 | 111.2 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C1-3 (CONT)

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 22, 1980
UH60A

FAA/AEE 120
JAN 29, 1981

MIC # 3 CENTERLINE EAST, 4 FT

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|--------|---------------|---------------|---------|-------------|----------|--------|--------|------------|
| 23 ARR | 8:09:24.0 | 8:09:23.6 | -859.0 | -5.7 | 85.7 | 446.8 | 462.8 | 105.1 |
| 24 ARR | 8:14:21.0 | 8:14:20.5 | -813.7 | -5.6 | 82.1 | 443.1 | 566.6 | 128.6 |
| 25 F-E | 8:18:04.5 | 8:18:04.0 | 31.3 | 0.1 | 143.2 | 561.8 | 586.1 | 106.6 |
| 26 F-E | 8:21:34.5 | 8:21:33.9 | 152.0 | 0.6 | 142.1 | 499.4 | 692.5 | 133.9 |
| 27 F-E | 8:24:07.5 | 8:24:07.0 | 41.2 | 0.2 | 109.5 | 499.9 | 539.6 | 112.1 |
| 28 F-E | 8:26:36.0 | 8:26:35.4 | 351.7 | 1.2 | 162.0 | 524.7 | 709.1 | 132.3 |
| 29 F-E | 8:29:20.0 | 8:29:19.3 | -135.3 | -0.6 | 128.6 | 489.1 | 737.6 | 138.5 |
| 30 F-E | 8:31:45.0 | 8:31:44.4 | 179.2 | 0.8 | 122.9 | 516.8 | 724.3 | 134.5 |
| 31 F-E | 8:35:19.0 | 8:35:18.2 | 122.8 | 0.5 | 141.5 | 401.5 | 920.2 | 147.7 |
| 32 F-E | 8:38:21.5 | 8:38:20.9 | -310.8 | -1.3 | 136.1 | 480.1 | 725.5 | 138.6 |
| 33 F-E | 8:41:58.0 | 8:41:57.6 | -231.2 | -1.2 | 111.6 | 475.1 | 497.9 | 103.1 |
| 34 F-E | 8:45:11.0 | 8:45:10.1 | 212.7 | 0.8 | 154.5 | 493.1 | 1008.0 | 150.7 |
| 35 F-E | 8:48:37.0 | 8:48:36.5 | 14.0 | 0.1 | 125.7 | 496.6 | 534.1 | 111.6 |
| 36 F-E | 8:52:10.0 | 8:52:09.3 | 129.5 | 0.6 | 119.6 | 506.6 | 793.6 | 140.3 |
| 37 F-E | 9:01:28.5 | 9:01:25.8 | 61.3 | 0.2 | 148.4 | 1503.8 | 3031.9 | 150.3 |
| 38 F-E | 9:04:55.5 | 9:04:52.4 | 30.7 | 0.1 | 164.2 | 1521.7 | 3493.2 | 154.2 |
| 39 F-E | 9:08:28.5 | 9:08:26.6 | -98.5 | -0.4 | 144.5 | 1015.1 | 2108.0 | 151.2 |
| 40 F-E | 9:11:39.5 | 9:11:38.1 | 144.2 | 0.5 | 158.8 | 991.5 | 1555.0 | 140.4 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C1-3 (CONT)

TEST DATE: JUNE 22, 1980
 UH60A
 MIC # 3 CENTERLINE EAST, 4 FT

POSITION DATA
 HELICOPTER NOISE MEASUREMENT PROGRAM

FAA/AEE 120
 JAN 29, 1981

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|--------|---------------|---------------|---------|-------------|----------|--------|--------|------------|
| 41 F-E | 0:15:20.0 | 0:15:19.4 | 83.7 | 0.3 | 148.9 | 709.7 | 711.9 | 94.5 |
| 42 F-E | 0:19:30.0 | 0:19:28.7 | 62.5 | 0.2 | 158.4 | 700.8 | 1478.7 | 151.7 |
| 43 F-E | 0:23:06.5 | 0:23:05.1 | -144.5 | -0.6 | 147.3 | 299.8 | 1611.3 | 169.3 |
| 44 F-W | 0:26:36.5 | 0:26:35.8 | -19.7 | -0.1 | 155.4 | 284.4 | 841.6 | 160.2 |
| 47 F-E | 0:43:00.0 | 0:43:58.3 | 316.5 | 1.2 | 146.7 | 1116.5 | 1930.0 | 144.7 |
| 48 F-U | 0:47:28.0 | 0:47:26.9 | 69.2 | 0.3 | 154.9 | 971.4 | 1938.9 | 149.9 |
| 49 F-E | 0:51:04.0 | 0:51:33.4 | 219.3 | 0.8 | 155.9 | 479.8 | 645.1 | 131.9 |
| 50 F-E | 0:54:20.5 | 0:54:19.0 | 27.8 | 0.1 | 166.0 | 415.5 | 651.1 | 140.3 |
| 51 F-E | 0:57:37.0 | 0:57:36.2 | 325.6 | 1.2 | 154.7 | 534.5 | 377.7 | 142.5 |
| 52 F-E | 10:0:26.0 | 10:0:25.4 | 90.7 | 0.5 | 104.8 | 472.2 | 700.7 | 137.6 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C1-4

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 22, 1980

FAA/AEE 120

UH60A

JAN 29, 1981

MIC # 4 SIDELINE NORTH, 4 FT

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|--------|---------------|---------------|---------|-------------|----------|--------|--------|------------|
| 1 F-W | 5:52:53.0 | 5:52:51.5 | 48.8 | 0.2 | 160.2 | 1090.8 | 1697.0 | 140.0 |
| 2 F-E | 5:56:26.0 | 5:56:25.0 | 136.5 | 0.5 | 152.5 | 1085.7 | 1088.6 | 94.2 |
| 3 F-W | 5:59:12.5 | 5:59:11.5 | 352.2 | 1.3 | 156.3 | 1116.4 | 1130.3 | 99.0 |
| 4 F-E | 6: 2:28.5 | 6: 2:27.6 | -136.7 | -0.7 | 150.9 | 1053.0 | 1053.0 | 90.4 |
| 5 F-W | 6: 5:38.0 | 6: 5:36.1 | 139.2 | 0.5 | 159.9 | 1052.1 | 2105.3 | 150.0 |
| 8 DEP | 6:18: 1.5 | 6:18: 0.9 | 2566.3 | 18.0 | 77.9 | 695.3 | 707.1 | 100.5 |
| 9 DEP | 6:22: 1.0 | 6:22: 0.3 | 2290.0 | 17.8 | 70.5 | 729.1 | 751.9 | 104.1 |
| 10 DEP | 6:26: 1.0 | 6:26: 0.3 | 2277.3 | 17.4 | 71.5 | 740.9 | 775.0 | 74.5 |
| 11 DEP | 6:31: 4.0 | 6:31: 3.0 | 2299.0 | 18.3 | 68.6 | 783.0 | 783.1 | 90.2 |
| 12 DEP | 6:35:53.5 | 6:35:52.8 | 2303.7 | 17.4 | 72.5 | 741.1 | 778.2 | 72.2 |
| 14 DEP | 6:44:26.0 | 6:44:25.3 | 2332.5 | 18.6 | 65.5 | 770.8 | 771.0 | 88.9 |
| 15 DEP | 6:47:59.0 | 6:47:58.3 | 2380.8 | 18.7 | 69.3 | 786.8 | 793.2 | 104.8 |
| 17 ARR | 6:58:46.5 | 6:58:45.0 | -931.5 | -6.6 | 80.0 | 606.7 | 717.9 | 122.3 |
| 18 ARR | 7: 3:15.5 | 7: 3:14.9 | -843.5 | -6.3 | 75.6 | 620.7 | 646.1 | 106.1 |
| 19 ARR | 7: 7:44.5 | 7: 7:43.0 | -841.2 | -6.2 | 76.7 | 632.2 | 667.7 | 108.8 |
| 20 ARR | 7:12: 1.5 | 7:12: 0.9 | -820.7 | -5.9 | 73.8 | 605.6 | 643.9 | 109.9 |
| 21 ARR | 7:16:17.5 | 7:16:16.9 | -896.9 | -6.4 | 78.9 | 614.7 | 661.5 | 111.7 |
| 22 ARR | 7:20:28.0 | 7:20:27.4 | -956.8 | -6.8 | 79.7 | 596.4 | 630.0 | 108.8 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C1-4 (CONT)

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 22, 1980

FAA/AEE 120

UH60A

JAN 29, 1981

MIC # 4 SIDELINE NORTH, 4 FT

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|---------|---------------|---------------|---------|-------------|----------|--------|--------|------------|
| 03 ARR | 0:09:26.5 | 0:09:25.9 | -971.7 | -6.6 | 82.4 | 648.9 | 712.8 | 114.4 |
| 04 ARR | 0:14:26.0 | 0:14:25.5 | -836.3 | -5.8 | 80.6 | 583.8 | 601.6 | 104.0 |
| 05 F-EE | 0:18:26.5 | 0:18:1.8 | 156.5 | 0.6 | 143.1 | 713.6 | 736.3 | 104.0 |
| 06 F-EE | 0:21:38.5 | 0:21:37.0 | 218.0 | 0.9 | 141.0 | 622.7 | 632.7 | 90.3 |
| 07 F-EE | 0:24:4.5 | 0:24:3.8 | 30.8 | 0.2 | 108.0 | 689.3 | 748.3 | 112.9 |
| 08 F-EE | 0:26:39.0 | 0:26:38.4 | 252.2 | 0.9 | 163.3 | 701.7 | 717.7 | 102.1 |
| 09 F-EE | 0:29:20.0 | 0:29:19.4 | -135.3 | -0.6 | 128.6 | 709.0 | 703.0 | 95.2 |
| 10 F-EE | 0:31:44.5 | 0:31:43.2 | 151.5 | 0.7 | 122.8 | 689.1 | 1420.0 | 151.6 |
| 11 F-EE | 0:35:19.0 | 0:35:18.4 | 122.8 | 0.5 | 141.5 | 634.1 | 672.8 | 100.5 |
| 12 F-EE | 0:38:25.5 | 0:38:25.0 | -18.2 | -0.1 | 136.4 | 616.6 | 629.9 | 96.3 |
| 13 F-EE | 0:41:56.0 | 0:41:55.4 | -244.3 | -1.3 | 110.1 | 708.8 | 709.8 | 93.0 |
| 14 F-EE | 0:45:16.5 | 0:45:14.8 | 250.0 | 0.9 | 152.3 | 735.5 | 748.5 | 100.7 |
| 15 F-EE | 0:48:35.5 | 0:48:34.9 | 38.8 | 0.2 | 126.7 | 708.0 | 708.6 | 95.0 |
| 16 F-EE | 0:52:15.5 | 0:52:14.8 | -150.5 | -0.7 | 119.6 | 740.7 | 740.9 | 91.1 |
| 17 F-EE | 0:1:28.0 | 0:1:25.6 | 47.8 | 0.2 | 142.2 | 1574.1 | 2691.6 | 144.2 |
| 18 F-EE | 0:1:51.0 | 0:1:48.2 | 238.8 | 0.8 | 160.5 | 1572.5 | 2567.0 | 142.1 |
| 19 F-EE | 0:3:33.0 | 0:3:32.0 | -66.2 | -0.3 | 144.5 | 1123.5 | 1124.7 | 92.7 |
| 40 F-EE | 0:11:36.5 | 0:11:33.8 | 85.5 | 0.3 | 160.8 | 1120.3 | 3090.9 | 158.7 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C1-4 (CONT)

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 22, 1980

FAA/AEE 120

UH60A

JAN 29, 1981

MIC # 4 SIDELINE NORTH, 4 FT

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|--------|---------------|---------------|---------|-------------|----------|--------|--------|------------|
| 41 F-E | 9:15:15.0 | 9:15:13.9 | 14.5 | 0.1 | 148.8 | 901.6 | 1300.6 | 136.1 |
| 42 F-W | 9:19:36.0 | 9:19:35.2 | 95.7 | 0.3 | 157.9 | 891.2 | 983.1 | 93.8 |
| 43 F-E | 9:23: 9.0 | 9:23: 8.5 | 41.3 | 0.2 | 147.1 | 571.8 | 625.1 | 113.8 |
| 44 F-W | 9:26:40.5 | 9:26:40.0 | 42.2 | 0.2 | 157.4 | 604.7 | 625.6 | 104.8 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C1-5

TEST DATE: JUNE 22, 1980
 UH60A
 MIC # 5 SIDELINE SOUTH, 4 FT

POSITION DATA
 HELICOPTER NOISE MEASUREMENT PROGRAM

FAA/AEE 120
 JAN 29, 1981

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|--------|---------------|---------------|---------|-------------|----------|--------|--------|------------|
| 1 F-U | 5:52:56.5 | 5:52:55.5 | 359.2 | 1.3 | 158.1 | 1151.0 | 1171.5 | 100.7 |
| 2 F-E | 5:56:22.0 | 5:56:20.4 | 171.2 | 0.6 | 152.9 | 1229.2 | 1759.3 | 135.7 |
| 3 F-W | 5:59:12.5 | 5:59:11.5 | 352.2 | 1.3 | 156.3 | 1109.0 | 1125.2 | 99.7 |
| 4 F-E | 6:02:24.0 | 6:02:22.4 | -38.7 | -0.1 | 150.0 | 1183.2 | 1768.7 | 138.0 |
| 5 F-W | 6:05:43.5 | 6:05:42.4 | 165.5 | 0.6 | 159.8 | 1185.2 | 1190.9 | 95.6 |
| 6 DEP | 6:17:50.5 | 6:17:53.8 | 2584.7 | 18.8 | 77.8 | 723.6 | 837.0 | 120.2 |
| 7 DEP | 6:21:00.0 | 6:21:59.3 | 2321.3 | 17.9 | 70.0 | 758.3 | 824.7 | 113.2 |
| 8 DEP | 6:25:55.5 | 6:25:54.7 | 2499.7 | 19.1 | 71.2 | 771.2 | 922.6 | 123.3 |
| 9 DEP | 6:31:1.0 | 6:31:0.2 | 2489.7 | 19.8 | 68.0 | 805.8 | 901.9 | 116.7 |
| 10 DEP | 6:35:43.5 | 6:35:47.7 | 2353.3 | 18.1 | 70.9 | 758.0 | 870.4 | 119.4 |
| 11 DEP | 6:44:23.0 | 6:44:22.3 | 2316.3 | 19.7 | 63.7 | 772.5 | 847.0 | 113.2 |
| 12 DEP | 6:47:57.5 | 6:47:56.7 | 2468.0 | 19.5 | 68.9 | 770.2 | 875.2 | 118.4 |
| 13 ARR | 6:54:4.5 | 6:54:3.9 | -833.7 | -6.6 | 82.6 | 654.2 | 665.7 | 93.5 |
| 14 ARR | 6:58:48.5 | 6:58:47.9 | -800.0 | -5.7 | 90.1 | 637.6 | 647.6 | 100.1 |
| 15 ARR | 7:03:16.5 | 7:03:15.0 | -847.7 | -6.9 | 75.4 | 634.2 | 640.4 | 98.0 |
| 16 ARR | 7:12:1.0 | 7:12:0.3 | -853.2 | -6.3 | 76.2 | 641.6 | 641.7 | 91.0 |
| 17 ARR | 7:16:19.0 | 7:16:18.1 | -826.0 | -5.9 | 78.4 | 670.4 | 736.8 | 114.5 |
| 18 ARR | 7:20:29.5 | 7:20:28.0 | -848.7 | -6.7 | 75.6 | 645.1 | 646.5 | 93.8 |
| 19 ARR | | | | | 79.4 | 674.5 | 674.8 | 91.7 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C1-5 (CONT)

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 22, 1980

FAA/AEE 120
JAN 29, 1981

UH60A

MIC # 5 SIDELINE SOUTH, 4 FT

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|--------|---------------|---------------|---------|-------------|----------|--------|--------|------------|
| 23 ARR | 8: 9:28.0 | 8: 9:27.4 | -894.0 | -6.1 | 82.1 | 641.7 | 646.2 | 96.8 |
| 24 ARR | 8:14:27.0 | 8:14:26.4 | -904.2 | -6.4 | 79.9 | 675.3 | 676.2 | 93.0 |
| 25 F-E | 8:18: 3.0 | 8:18: 2.3 | 98.5 | 0.4 | 143.3 | 776.3 | 778.7 | 94.5 |
| 26 F-E | 8:21:38.0 | 8:21:37.3 | 214.2 | 0.9 | 140.6 | 727.6 | 743.6 | 101.9 |
| 27 F-E | 8:24: 5.5 | 8:24: 4.9 | 7.8 | 0.0 | 108.1 | 710.4 | 720.7 | 99.7 |
| 28 F-E | 8:26:38.5 | 8:26:37.8 | 220.7 | 1.0 | 164.1 | 749.7 | 811.3 | 112.5 |
| 29 F-E | 8:29:19.0 | 8:29:18.3 | -162.5 | -0.7 | 128.2 | 692.7 | 746.5 | 111.9 |
| 30 F-E | 8:31:49.0 | 8:31:48.3 | 31.8 | 0.1 | 122.7 | 738.7 | 763.6 | 104.7 |
| 31 F-E | 8:35:18.5 | 8:35:17.8 | 84.0 | 0.3 | 141.6 | 745.1 | 847.0 | 118.4 |
| 32 F-E | 8:38:25.0 | 8:38:24.3 | -159.3 | -0.2 | 136.7 | 745.2 | 778.9 | 106.9 |
| 33 F-E | 8:41:55.0 | 8:41:54.4 | -166.2 | -0.9 | 110.3 | 676.7 | 707.2 | 106.9 |
| 34 F-E | 8:45:13.5 | 8:45:12.6 | 433.3 | 1.6 | 152.6 | 630.3 | 984.9 | 136.3 |
| 35 F-E | 8:48:35.0 | 8:48:34.4 | 21.2 | 0.1 | 126.2 | 689.8 | 707.4 | 102.8 |
| 36 F-E | 8:52:14.5 | 8:52:13.9 | -82.7 | -0.4 | 120.0 | 671.5 | 697.7 | 105.7 |
| 37 F-E | 9: 1:30.5 | 9: 1:28.6 | 52.3 | 0.2 | 148.5 | 1580.8 | 2147.3 | 132.6 |
| 38 F-E | 9: 4:57.0 | 9: 4:53.3 | 101.2 | 0.3 | 164.0 | 1623.7 | 3638.0 | 153.5 |
| 39 F-E | 9: 8:29.5 | 9: 8:28.2 | -133.2 | -0.5 | 144.5 | 1135.0 | 1500.7 | 130.9 |
| 40 F-E | 9:11:40.5 | 9:11:38.9 | 254.2 | 0.9 | 159.3 | 1103.7 | 1860.9 | 143.6 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C1-5 (CONT)

TEST DATE: JUNE 22, 1980
 UH60A
 MIC # 5 SIDELINE SOUTH, 4 FT

POSITION DATA
 HELICOPTER NOISE MEASUREMENT PROGRAM

FAA/AEE 120
 JAN 29, 1981

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|--------|---------------|---------------|---------|-------------|----------|--------|--------|------------|
| 41 F-E | 9:15:17.5 | 9:15:16.7 | 32.7 | 0.1 | 150.5 | 850.2 | 878.6 | 104.6 |
| 42 F-E | 9:19:36.0 | 9:19:35.3 | 85.7 | 0.3 | 157.9 | 838.6 | 840.0 | 93.4 |
| 43 F-E | 9:23:10.0 | 9:23:9.5 | 103.2 | 0.4 | 146.8 | 574.1 | 574.1 | 89.6 |
| 44 F-E | 9:26:39.5 | 9:26:38.9 | 59.8 | 0.2 | 156.1 | 532.0 | 721.8 | 132.5 |
| 47 F-E | 9:44:1.0 | 9:43:59.7 | 365.2 | 1.4 | 146.1 | 1257.6 | 1454.4 | 120.2 |
| 48 F-E | 9:47:28.5 | 9:47:26.4 | 90.2 | 0.3 | 155.2 | 1142.3 | 2426.3 | 151.9 |
| 49 F-E | 9:51:33.5 | 9:51:32.9 | 239.0 | 0.9 | 156.3 | 695.4 | 700.4 | 96.9 |
| 50 F-E | 9:54:23.0 | 9:54:22.3 | 107.2 | 0.4 | 165.6 | 692.8 | 756.3 | 113.7 |
| 51 F-E | 9:57:37.5 | 9:57:36.9 | 330.3 | 1.2 | 154.6 | 732.9 | 734.3 | 93.5 |
| 52 F-E | 10:0:30.5 | 10:0:29.8 | 120.5 | 0.7 | 104.4 | 710.2 | 742.2 | 106.9 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C1-6

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 22, 1980

FAA/AEE 120
JAN 29, 1981

UH60A

MIC # 6 SIDELINE NORTH, 4 FT

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|--------|---------------|---------------|---------|-------------|----------|--------|--------|------------|
| 1 F-W | 5:52:57.0 | 5:52:55.8 | 362.0 | 1.3 | 158.2 | 1302.5 | 1306.5 | 94.5 |
| 2 F-E | 5:56:19.0 | 5:56:16.7 | 295.0 | 1.1 | 153.3 | 1286.3 | 2570.0 | 150.0 |
| 3 F-W | 5:59:12.0 | 5:59:10.7 | 378.2 | 1.4 | 157.2 | 1370.5 | 1419.2 | 105.1 |
| 4 F-E | 6: 2:27.0 | 6: 2:25.8 | -128.0 | -0.5 | 151.0 | 1266.3 | 1345.7 | 109.8 |
| 5 F-W | 6: 5:44.0 | 6: 5:42.9 | 183.0 | 0.6 | 159.9 | 1264.4 | 1264.4 | 89.6 |
| 8 DEP | 6:18: 5.5 | 6:18: 4.5 | 2424.7 | 16.9 | 78.9 | 1044.0 | 1106.3 | 70.7 |
| 9 DEP | 6:22: 2.5 | 6:22: 1.6 | 2251.5 | 17.4 | 71.1 | 1065.9 | 1066.5 | 91.8 |
| 10 DEP | 6:25:58.5 | 6:25:57.5 | 2388.2 | 18.4 | 71.0 | 1079.8 | 1089.4 | 97.6 |
| 11 DEP | 6:31: 3.0 | 6:31: 2.0 | 2391.5 | 19.2 | 67.6 | 1105.3 | 1119.4 | 99.1 |
| 12 DEP | 6:35:51.5 | 6:35:50.5 | 2323.3 | 17.7 | 71.7 | 1078.0 | 1078.5 | 91.8 |
| 14 DEP | 6:44:25.0 | 6:44:24.0 | 2245.2 | 18.9 | 64.7 | 1101.5 | 1107.4 | 95.0 |
| 15 DEP | 6:47:59.5 | 6:47:58.5 | 2340.2 | 18.4 | 69.3 | 1099.7 | 1112.0 | 98.5 |
| 16 ARR | 6:54: 3.5 | 6:54: 2.6 | -898.0 | -6.1 | 82.9 | 999.9 | 1020.1 | 101.4 |
| 17 ARR | 6:58:45.5 | 6:58:44.5 | -952.7 | -6.7 | 80.6 | 987.8 | 1141.6 | 120.1 |
| 18 ARR | 7: 3:14.5 | 7: 3:13.6 | -834.7 | -6.2 | 75.8 | 1001.1 | 1060.4 | 109.2 |
| 19 ARR | 7: 7:43.5 | 7: 7:42.5 | -806.5 | -5.9 | 77.1 | 1009.4 | 1081.6 | 111.0 |
| 20 ARR | 7:12: 0.5 | 7:11:59.6 | -823.3 | -5.9 | 78.7 | 976.9 | 1055.2 | 112.2 |
| 21 ARR | 7:16:16.5 | 7:16:15.6 | -944.2 | -6.7 | 79.5 | 992.7 | 1078.1 | 113.0 |
| 22 ARR | 7:20:26.5 | 7:20:25.6 | -928.7 | -6.5 | 80.2 | 967.4 | 1070.0 | 115.3 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C1-6 (CONT)

TEST DATE: JUNE 22, 1980
 UH60A
 MIC # 6 SIDELINE NORTH, 4 FT

POSITION DATA
 HELICOPTER NOISE MEASUREMENT PROGRAM

FAA/AEE 120
 JAN 29, 1981

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG | |
|-------|---------------|---------------|------------|-------------|----------|--------|--------|------------|-------|
| 23 | ARR | 08:09:26.0 | 08:09:25.1 | -989.8 | -6.8 | 81.8 | 991.2 | 1072.4 | 112.4 |
| 24 | ARR | 08:14:24.0 | 08:14:23.1 | -795.9 | -5.5 | 81.0 | 956.0 | 1063.9 | 116.0 |
| 25 | F-F | 08:18:11.0 | 08:17:59.9 | 311.0 | 1.2 | 143.2 | 1045.1 | 1232.0 | 122.0 |
| 26 | F-F | 08:21:38.0 | 08:21:37.1 | 214.2 | 0.9 | 140.6 | 1030.7 | 1050.5 | 101.2 |
| 27 | F-F | 08:24:55.5 | 08:24:44.0 | 7.8 | 0.0 | 108.1 | 1042.3 | 1053.0 | 98.2 |
| 28 | F-F | 08:26:38.5 | 08:26:37.5 | 280.7 | 1.0 | 164.1 | 1042.0 | 1113.9 | 110.7 |
| 29 | F-F | 08:29:16.5 | 08:29:15.2 | -24.2 | -0.4 | 128.4 | 1057.9 | 1434.0 | 132.5 |
| 30 | F-F | 08:31:50.0 | 08:31:49.1 | -6.7 | -0.0 | 123.4 | 1033.5 | 1034.0 | 91.9 |
| 31 | F-F | 08:35:17.0 | 08:35:15.9 | 17.5 | 0.1 | 142.7 | 978.6 | 1287.8 | 130.5 |
| 32 | F-F | 08:38:26.0 | 08:38:25.2 | 63.8 | 0.2 | 136.5 | 962.6 | 962.6 | 90.6 |
| 33 | F-F | 08:41:56.0 | 08:41:55.6 | -267.0 | -1.4 | 119.5 | 1070.9 | 1071.1 | 91.0 |
| 34 | F-F | 08:45:15.5 | 08:45:14.5 | 250.0 | 0.9 | 152.3 | 1095.7 | 1118.5 | 101.6 |
| 35 | F-F | 08:48:39.0 | 08:48:38.1 | 32.5 | 0.0 | 126.7 | 1084.5 | 1064.8 | 91.3 |
| 36 | F-F | 08:52:15.0 | 08:52:14.0 | -108.3 | -0.5 | 119.4 | 1105.0 | 1113.2 | 97.7 |
| 37 | F-F | 09:01:28.0 | 09:01:25.5 | 47.8 | 0.2 | 148.2 | 1758.6 | 2817.5 | 141.4 |
| 38 | F-F | 09:08:22.5 | 09:08:19.5 | 124.7 | 0.4 | 161.7 | 1747.0 | 2359.7 | 132.2 |
| 39 | F-F | 09:11:45.0 | 09:11:42.8 | 139.7 | 0.5 | 143.9 | 1370.9 | 3333.3 | 156.1 |
| 40 | F-F | 09:11:45.0 | 09:11:42.8 | 102.2 | 0.4 | 155.7 | 1375.9 | 1387.6 | 97.1 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C1-6 (CONT)

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 22, 1980

FAA/AEE 120
JAN 29, 1981

UH60A

MIC # 6 SIDELINE NORTH, 4 FT

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|--------|---------------|---------------|---------|-------------|----------|--------|--------|------------|
| 41 F-E | 9:15:17.0 | 9:15:15.9 | 56.7 | 0.2 | 149.7 | 1185.3 | 1264.6 | 110.4 |
| 42 F-W | 9:19:36.0 | 9:19:34.9 | 85.7 | 0.3 | 157.9 | 1197.4 | 1203.6 | 95.8 |
| 43 F-E | 9:23: 9.0 | 9:23: 8.1 | 41.9 | 0.2 | 147.1 | 974.9 | 1034.2 | 109.5 |
| 44 F-W | 9:26:42.0 | 9:26:41.1 | 19.8 | 0.1 | 156.4 | 1013.5 | 1021.7 | 82.8 |
| 47 F-E | 9:43:59.5 | 9:43:57.9 | 303.7 | 1.2 | 148.9 | 1350.8 | 1797.6 | 131.3 |
| 48 F-W | 9:47:35.5 | 9:47:34.4 | 400.5 | 1.4 | 156.2 | 1302.7 | 1303.0 | 91.4 |
| 49 F-E | 9:51:31.5 | 9:51:30.4 | 184.8 | 0.7 | 156.5 | 1025.4 | 1277.9 | 126.6 |
| 50 F-W | 9:54:23.0 | 9:54:22.1 | 107.2 | 0.4 | 165.6 | 965.0 | 1043.8 | 112.4 |
| 51 F-E | 9:57:35.5 | 9:57:34.4 | 315.2 | 1.1 | 155.3 | 1052.2 | 1256.2 | 123.1 |
| 52 F-W | 10: 0:30.5 | 10: 0:29.6 | 120.5 | 0.7 | 104.4 | 1014.1 | 1050.3 | 105.1 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C1-7

TEST DATE: JUNE 22, 1980
 UH60A
 MIC #1G CENTERLINE CENTER, GROUND
 POSITION DATA
 HELICOPTER NOISE MEASUREMENT PROGRAM
 FAA/AEE 120
 JAN 29, 1981

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|--------|---------------|---------------|---------|-------------|----------|--------|--------|------------|
| 1 F-W | 5:52:53.5 | 5:52:52.2 | 116.7 | 0.4 | 160.0 | 1001.6 | 1498.1 | 138.0 |
| 2 F-E | 5:56:26.0 | 5:56:25.1 | 136.5 | 0.5 | 152.5 | 1054.1 | 1056.0 | 93.6 |
| 3 F-W | 5:59:10.0 | 5:59:8.8 | 429.0 | 1.6 | 156.1 | 1002.2 | 1342.9 | 131.7 |
| 4 F-E | 6:02:28.0 | 6:02:27.1 | -176.0 | -0.7 | 150.6 | 1010.3 | 1019.6 | 97.8 |
| 5 F-W | 6:05:40.5 | 6:05:39.3 | 140.8 | 0.5 | 160.5 | 1010.8 | 1407.4 | 134.1 |
| 8 DEP | 6:18:4.0 | 6:18:3.5 | 2401.5 | 16.9 | 78.2 | 515.2 | 561.0 | 66.7 |
| 9 DEP | 6:22:3.0 | 6:22:2.5 | 2229.7 | 17.1 | 71.5 | 561.8 | 564.6 | 84.3 |
| 10 DEP | 6:25:59.5 | 6:25:59.0 | 2359.2 | 19.1 | 71.1 | 581.8 | 582.5 | 87.3 |
| 11 DEP | 6:31:2.5 | 6:31:1.9 | 2443.3 | 19.6 | 67.9 | 627.6 | 655.0 | 106.8 |
| 12 DEP | 6:35:50.5 | 6:35:50.0 | 2379.6 | 18.1 | 71.8 | 569.6 | 632.4 | 102.6 |
| 14 DEP | 6:44:24.0 | 6:44:23.4 | 2275.5 | 19.1 | 64.7 | 602.2 | 632.4 | 107.3 |
| 15 DEP | 6:47:59.0 | 6:47:58.5 | 2320.8 | 16.7 | 69.3 | 594.3 | 625.5 | 108.2 |
| 16 ARR | 6:54:5.0 | 6:54:4.6 | -903.3 | -6.2 | 82.2 | 413.7 | 412.4 | 81.4 |
| 17 ARR | 6:58:47.5 | 6:58:47.1 | -843.3 | -5.9 | 70.2 | 385.1 | 443.3 | 119.8 |
| 18 ARR | 7:03:16.5 | 7:03:16.2 | -847.8 | -6.3 | 75.4 | 393.5 | 396.7 | 97.3 |
| 19 ARR | 7:07:45.0 | 7:07:44.6 | -844.5 | -6.2 | 76.3 | 402.5 | 427.3 | 107.3 |
| 20 ARR | 7:12:2.0 | 7:12:1.6 | -817.7 | -5.8 | 79.0 | 411.6 | 431.7 | 107.6 |
| 21 ARR | 7:16:18.0 | 7:16:17.6 | -825.7 | -6.0 | 78.7 | 397.7 | 427.6 | 111.6 |
| 22 ARR | 7:20:28.5 | 7:20:28.1 | -932.5 | -6.6 | 79.6 | 402.1 | 436.1 | 106.7 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C1-7 (CONT)

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 22, 1980
UH60A

FAA/AEE 120
JAN 29, 1981

MIC #1G CENTERLINE CENTER, GROUND

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG | |
|-------|---------------|---------------|-----------|-------------|----------|--------|--------|------------|-------|
| 23 | ARR | 0:09:27.0 | 0:09:26.6 | -940.0 | -6.4 | 82.6 | 392.5 | 436.4 | 115.9 |
| 24 | ARR | 0:14:25.5 | 0:14:25.1 | -805.2 | -5.6 | 80.9 | 399.5 | 448.8 | 117.1 |
| 25 | F-E | 0:18:01.5 | 0:18:00.9 | 230.5 | 1.1 | 143.1 | 564.2 | 694.6 | 125.7 |
| 26 | F-E | 0:21:36.0 | 0:21:35.3 | 158.7 | 0.6 | 141.0 | 509.7 | 818.7 | 141.5 |
| 27 | F-E | 0:24:05.0 | 0:24:04.5 | 24.2 | 0.1 | 108.8 | 501.9 | 529.8 | 108.7 |
| 28 | F-E | 0:26:38.0 | 0:26:37.4 | 326.7 | 1.1 | 163.5 | 538.0 | 683.8 | 128.1 |
| 29 | F-E | 0:29:18.0 | 0:29:17.4 | -137.2 | -0.6 | 128.6 | 496.9 | 695.3 | 134.4 |
| 30 | F-E | 0:31:49.0 | 0:31:48.5 | 31.8 | 0.1 | 122.7 | 521.8 | 543.9 | 106.4 |
| 31 | F-E | 0:35:17.5 | 0:35:16.8 | 11.8 | 0.0 | 142.0 | 490.7 | 791.9 | 141.7 |
| 32 | F-E | 0:38:24.0 | 0:38:23.4 | -175.0 | -0.7 | 136.3 | 479.0 | 645.9 | 132.2 |
| 33 | F-E | 0:41:55.0 | 0:41:54.5 | -166.2 | -0.9 | 110.3 | 492.1 | 524.1 | 110.1 |
| 34 | F-E | 0:45:13.5 | 0:45:12.8 | 433.2 | 1.6 | 152.6 | 513.7 | 850.5 | 142.8 |
| 35 | F-E | 0:48:00.5 | 0:48:00.0 | 73.7 | 0.3 | 126.6 | 490.0 | 693.2 | 134.0 |
| 36 | F-E | 0:52:14.5 | 0:52:14.0 | -82.7 | -0.4 | 120.0 | 511.7 | 535.1 | 107.1 |
| 37 | F-E | 0:1:25.5 | 0:1:22.6 | 17.5 | 0.1 | 148.2 | 1502.8 | 3317.0 | 153.1 |
| 38 | F-E | 0:1:50.5 | 0:1:45.0 | 238.8 | 0.8 | 160.5 | 1527.8 | 2520.2 | 142.7 |
| 39 | F-E | 0:1:28.0 | 0:1:26.5 | -84.2 | -0.3 | 144.8 | 1020.4 | 1731.7 | 143.9 |
| 40 | F-E | 0:11:40.5 | 0:11:38.9 | 254.2 | 0.0 | 159.3 | 1061.3 | 1786.0 | 145.9 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C1-7 (CONT)

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 22, 1980
UH60A

FAA/AEE 120
JAN 29, 1981

MIC #1G CENTERLINE CENTER, GROUND

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|--------|---------------|---------------|---------|-------------|----------|--------|--------|------------|
| 41 F-E | 9:15:16.5 | 9:15:15.7 | 65.7 | 0.2 | 149.0 | 711.5 | 855.2 | 123.7 |
| 42 F-W | 9:19:34.0 | 9:19:33.2 | 109.2 | 0.4 | 159.0 | 709.5 | 925.2 | 129.9 |
| 43 F-E | 9:23:08.5 | 9:23:08.1 | -2.8 | -0.0 | 147.4 | 297.5 | 449.5 | 138.6 |
| 44 F-W | 9:26:39.5 | 9:26:39.1 | 59.8 | 0.2 | 156.1 | 290.8 | 513.0 | 145.5 |
| 47 F-E | 9:43:58.5 | 9:43:56.9 | 253.2 | 1.0 | 146.8 | 1102.9 | 1810.9 | 142.5 |
| 48 F-W | 9:47:32.5 | 9:47:31.4 | 449.8 | 1.6 | 156.7 | 995.5 | 1291.6 | 129.6 |
| 49 F-E | 9:51:37.5 | 9:51:36.6 | 247.5 | 0.9 | 155.5 | 475.1 | 1013.5 | 28.0 |
| 50 F-W | 9:54:22.5 | 9:54:22.0 | 77.2 | 0.3 | 166.0 | 426.0 | 592.0 | 134.0 |
| 51 F-E | 9:57:36.0 | 9:57:35.4 | 319.2 | 1.2 | 155.1 | 529.6 | 674.5 | 128.3 |
| 52 F-W | 10:00:30.5 | 10:00:30.1 | 120.5 | 0.7 | 104.4 | 481.3 | 514.0 | 110.5 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C1-8

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 22, 1980

FAA/AEE 120
JAN 29, 1981

UH60A
MIC #1H CENTERLINE CENTER, 33FT

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|--------|---------------|---------------|---------|-------------|----------|--------|--------|------------|
| 1 F-W | 5:52:52.5 | 5:52:51.0 | -17.0 | -0.1 | 160.2 | 968.7 | 1740.7 | 146.2 |
| 2 F-E | 5:56:23.0 | 5:56:21.8 | 110.7 | 0.4 | 152.4 | 1021.6 | 1375.7 | 132.0 |
| 3 F-W | 5:59:10.5 | 5:59:9.4 | 431.5 | 1.6 | 156.1 | 969.2 | 1217.0 | 127.2 |
| 4 F-E | 6:02:28.5 | 6:02:27.6 | -186.7 | -0.7 | 150.9 | 977.6 | 977.7 | 90.6 |
| 5 F-W | 6:05:41.0 | 6:05:39.9 | 170.7 | 0.6 | 160.2 | 978.2 | 1272.4 | 129.8 |
| 8 DEP | 6:18:22.5 | 6:18:21.1 | 2506.3 | 17.5 | 78.3 | 483.9 | 484.3 | 87.5 |
| 9 DEP | 6:22:22.0 | 6:22:21.5 | 2286.2 | 17.7 | 70.6 | 529.9 | 533.5 | 96.6 |
| 10 DEP | 6:25:58.5 | 6:25:58.0 | 2328.2 | 18.4 | 71.0 | 550.3 | 559.5 | 100.4 |
| 11 DEP | 6:31:22.5 | 6:31:21.9 | 2443.0 | 19.6 | 67.0 | 596.9 | 628.8 | 108.3 |
| 12 DEP | 6:35:50.5 | 6:35:50.0 | 2379.8 | 18.1 | 71.8 | 537.7 | 554.7 | 104.2 |
| 14 DEP | 6:44:24.5 | 6:44:24.0 | 2256.7 | 19.1 | 64.4 | 570.9 | 588.7 | 104.1 |
| 15 DEP | 6:47:59.5 | 6:47:59.0 | 2340.2 | 18.4 | 69.3 | 563.1 | 580.6 | 104.1 |
| 16 ARR | 6:54:55.5 | 6:54:55.2 | -916.3 | -6.3 | 81.7 | 380.9 | 404.4 | 70.4 |
| 17 ARR | 6:58:48.0 | 6:58:47.7 | -824.5 | -5.8 | 80.2 | 352.2 | 378.5 | 111.5 |
| 18 ARR | 7:03:16.5 | 7:03:16.2 | -847.8 | -6.3 | 75.4 | 360.8 | 363.2 | 96.6 |
| 19 ARR | 7:07:45.0 | 7:07:44.7 | -844.5 | -6.2 | 76.3 | 375.7 | 394.3 | 107.7 |
| 20 ARR | 7:12:22.0 | 7:12:21.7 | -817.7 | -5.8 | 79.0 | 378.9 | 398.4 | 102.0 |
| 21 ARR | 7:16:18.0 | 7:16:17.7 | -825.7 | -6.2 | 78.7 | 364.8 | 394.3 | 112.3 |
| 22 ARR | 7:20:23.5 | 7:20:22.2 | -932.5 | -6.6 | 79.6 | 375.6 | 392.2 | 106.7 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C1-8 (CONT)

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 22, 1980

UH60A

MIC #1H CENTERLINE CENTER, 33FT

FAA/AEE 120
JAN 29, 1981

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|--------|---------------|---------------|---------|-------------|----------|--------|--------|------------|
| 23 ARR | 8: 9:27.5 | 8: 9:27.2 | -920.7 | -6.3 | 82.5 | 359.7 | 375.8 | 106.8 |
| 24 ARR | 8:14:25.0 | 8:14:25.7 | -836.3 | -5.8 | 80.6 | 367.0 | 387.9 | 108.9 |
| 25 F-E | 8:18:25.5 | 8:18:25.0 | 156.5 | 0.6 | 143.1 | 531.3 | 549.2 | 104.3 |
| 26 F-E | 8:21:30.0 | 8:21:35.3 | 158.7 | 0.6 | 141.0 | 476.7 | 793.1 | 143.1 |
| 27 F-E | 8:24:55.0 | 8:24:46.6 | 24.2 | 0.1 | 108.8 | 468.9 | 496.8 | 109.3 |
| 28 F-E | 8:26:38.0 | 8:26:37.4 | 326.7 | 1.1 | 163.5 | 505.1 | 655.0 | 129.6 |
| 29 F-E | 8:29:17.5 | 8:29:16.8 | -110.0 | -0.5 | 128.7 | 463.9 | 766.1 | 142.7 |
| 30 F-E | 8:31:48.5 | 8:31:48.0 | 51.7 | 0.2 | 122.9 | 488.0 | 552.0 | 117.8 |
| 31 F-E | 8:35:17.5 | 8:35:16.8 | 11.8 | 0.0 | 142.0 | 458.2 | 787.7 | 143.4 |
| 32 F-E | 8:38:24.5 | 8:38:24.0 | -102.0 | -0.4 | 136.8 | 446.7 | 535.2 | 123.4 |
| 33 F-E | 8:41:53.0 | 8:41:52.3 | 86.3 | 0.4 | 110.2 | 459.1 | 738.2 | 141.5 |
| 34 F-E | 8:45:13.5 | 8:45:12.8 | 433.3 | 1.6 | 152.6 | 486.8 | 827.6 | 144.5 |
| 35 F-E | 8:48:34.0 | 8:48:33.5 | 72.3 | 0.3 | 126.8 | 468.0 | 586.0 | 127.3 |
| 36 F-E | 8:52:14.5 | 8:52:14.1 | -52.7 | -0.4 | 120.0 | 478.9 | 502.2 | 107.5 |
| 37 F-E | 9: 1:31.0 | 9: 1:29.3 | 41.8 | 0.2 | 143.4 | 1460.8 | 1346.4 | 131.0 |
| 38 F-E | 9: 4:60.0 | 9: 4:57.7 | 239.5 | 0.3 | 163.7 | 1497.9 | 2642.6 | 145.6 |
| 39 F-E | 9: 8:27.5 | 9: 8:25.9 | -45.7 | -0.2 | 144.7 | 927.4 | 1834.3 | 147.4 |
| 40 F-E | 9:11:42.0 | 9:11:40.8 | 154.8 | 0.5 | 159.6 | 962.4 | 1376.7 | 135.3 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C1-8 (CONT)

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 22, 1980

FAA/AEE 120
JAN 29, 1981

UH60A

MIC #1H CENTERLINE CENTER, 33FT

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|--------|---------------|---------------|---------|-------------|----------|--------|--------|------------|
| 41 F-E | 9:15:16.0 | 9:15:15.2 | 71.3 | 0.3 | 149.0 | 678.5 | 912.1 | 131.9 |
| 42 F-W | 9:19:35.5 | 9:19:34.9 | 44.5 | 0.2 | 158.5 | 676.5 | 690.9 | 101.7 |
| 44 F-W | 9:26:39.5 | 9:26:39.1 | 59.8 | 0.2 | 156.1 | 258.2 | 492.9 | 148.4 |
| 47 F-E | 9:43:60.0 | 9:43:58.7 | 316.5 | 1.2 | 146.7 | 1070.1 | 1453.3 | 132.6 |
| 48 F-W | 9:47:32.5 | 9:47:31.4 | 449.8 | 1.6 | 156.7 | 962.6 | 1261.9 | 130.3 |
| 49 F-E | 9:51:32.0 | 9:51:31.4 | 203.0 | 0.7 | 156.2 | 442.1 | 651.7 | 137.3 |
| 50 F-W | 9:54:22.5 | 9:54:22.0 | 77.2 | 0.3 | 166.0 | 393.4 | 563.1 | 135.7 |
| 51 F-E | 9:57:35.5 | 9:57:34.8 | 315.2 | 1.1 | 155.3 | 496.6 | 756.4 | 139.0 |
| 52 F-W | 10:0:30.0 | 10:0:29.5 | 122.0 | 0.7 | 104.1 | 448.4 | 524.2 | 121.2 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C1-9

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 22, 1980

FAA/AEE 120
JAN 29, 1981

UH60A

MIC #5G SIDELINE SOUTH, GROUND

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|--------|---------------|---------------|---------|-------------|----------|--------|--------|------------|
| 1 F-W | 5:52:56.5 | 5:52:55.5 | 359.2 | 1.3 | 158.1 | 1154.5 | 1174.9 | 100.7 |
| 2 F-E | 5:56:24.0 | 5:56:23.8 | 100.0 | 0.4 | 152.9 | 1232.5 | 1396.9 | 118.1 |
| 3 F-W | 5:59:12.5 | 5:59:11.5 | 352.2 | 1.3 | 156.3 | 1112.6 | 1128.8 | 99.7 |
| 4 F-E | 6:02:23.5 | 6:02:21.0 | 15.0 | 0.1 | 150.0 | 1186.6 | 1285.1 | 141.0 |
| 5 F-W | 6:05:43.0 | 6:05:41.9 | 161.7 | 0.6 | 159.8 | 1188.5 | 1216.3 | 102.3 |
| 8 DEP | 6:18:20.0 | 6:18:11.4 | 2522.5 | 17.7 | 76.1 | 726.3 | 729.5 | 95.3 |
| 9 DEP | 6:21:60.0 | 6:21:59.3 | 2321.3 | 17.9 | 70.9 | 761.1 | 826.8 | 113.0 |
| 10 DEP | 6:25:56.0 | 6:25:55.2 | 2500.0 | 19.2 | 71.0 | 774.0 | 889.7 | 119.5 |
| 11 DEP | 6:31:11.0 | 6:31:02.2 | 2480.7 | 19.8 | 68.0 | 803.7 | 903.9 | 116.5 |
| 12 DEP | 6:35:48.5 | 6:35:47.7 | 2953.3 | 18.1 | 70.9 | 766.9 | 872.3 | 119.3 |
| 14 DEP | 6:44:23.0 | 6:44:23.3 | 2315.3 | 19.7 | 63.7 | 781.4 | 849.2 | 113.0 |
| 15 DEP | 6:47:57.5 | 6:47:56.7 | 2468.0 | 19.5 | 62.9 | 773.2 | 877.7 | 118.2 |
| 16 ARR | 6:54:4.0 | 6:54:3.4 | -885.2 | -6.0 | 82.9 | 657.0 | 667.4 | 100.1 |
| 17 ARR | 6:58:48.5 | 6:58:47.9 | -899.2 | -5.7 | 60.1 | 646.0 | 650.0 | 100.1 |
| 18 ARR | 7:03:16.5 | 7:03:15.0 | -847.6 | -6.9 | 75.4 | 636.6 | 643.1 | 98.2 |
| 19 ARR | 7:07:45.5 | 7:07:44.9 | -845.0 | -6.3 | 76.2 | 644.1 | 650.1 | 97.8 |
| 20 ARR | 7:12:3.5 | 7:12:1.9 | -895.7 | -5.8 | 73.7 | 672.3 | 679.2 | 97.9 |
| 21 ARR | 7:16:19.0 | 7:16:18.4 | -864.2 | -6.2 | 73.6 | 647.5 | 649.0 | 93.0 |
| 22 ARR | 7:20:29.0 | 7:20:28.4 | -942.5 | -6.7 | 79.4 | 676.9 | 683.3 | 92.2 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
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 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C1-9 (CONT)

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 22, 1980
UH60A
MIC #5G SIDELINE SOUTH, GROUND

FAA/AEE 120
JAN 29, 1981

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|-------|---------------|---------------|---------|-------------|----------|--------|--------|------------|
| 003 | 08:09:28.5 | 08:09:27.9 | -856.0 | -5.9 | 82.0 | 644.1 | 644.0 | 90.0 |
| 004 | 08:14:27.0 | 08:14:26.4 | -904.2 | -6.4 | 79.9 | 677.6 | 678.5 | 93.0 |
| 005 | 08:18:01.0 | 08:18:00.1 | 311.0 | 1.2 | 143.2 | 779.1 | 970.1 | 126.6 |
| 006 | 08:21:38.0 | 08:21:37.3 | 214.2 | 0.9 | 140.6 | 736.4 | 746.3 | 101.9 |
| 007 | 08:24:05.5 | 08:24:04.0 | 7.8 | 0.0 | 108.1 | 713.2 | 723.4 | 99.7 |
| 008 | 08:26:38.0 | 08:26:37.2 | 326.7 | 1.1 | 163.5 | 752.5 | 889.6 | 122.2 |
| 009 | 08:29:19.5 | 08:29:18.9 | -140.2 | -0.6 | 128.5 | 695.5 | 713.8 | 103.0 |
| 010 | 08:31:49.0 | 08:31:48.3 | 31.8 | 0.1 | 122.7 | 741.5 | 766.8 | 104.2 |
| 011 | 08:35:18.5 | 08:35:17.8 | 84.0 | 0.3 | 141.6 | 747.7 | 849.2 | 118.3 |
| 012 | 08:38:25.5 | 08:38:24.8 | -18.2 | -0.1 | 136.4 | 747.7 | 754.3 | 97.0 |
| 013 | 08:41:55.5 | 08:41:54.9 | -214.0 | -1.1 | 110.1 | 679.6 | 689.2 | 90.6 |
| 014 | 08:45:12.5 | 08:45:12.6 | 433.3 | 1.6 | 152.6 | 683.3 | 986.9 | 136.2 |
| 015 | 08:48:36.0 | 08:48:34.4 | 21.2 | 0.1 | 126.2 | 692.7 | 710.6 | 102.0 |
| 016 | 08:52:15.5 | 08:52:14.9 | -150.5 | -0.7 | 119.6 | 674.5 | 674.6 | 89.1 |
| 017 | 09:01:33.5 | 09:01:28.6 | 52.3 | 0.2 | 148.5 | 1584.6 | 2151.8 | 132.6 |
| 018 | 09:04:57.5 | 09:04:54.4 | 164.7 | 0.6 | 161.8 | 1687.4 | 3485.9 | 152.0 |
| 019 | 09:08:36.0 | 09:08:28.7 | -132.2 | -0.5 | 144.2 | 1138.6 | 1415.4 | 126.4 |
| 020 | 09:11:43.5 | 09:11:41.3 | 232.2 | 0.8 | 159.0 | 1107.3 | 1330.6 | 127.2 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
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SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C1-9 (CONT)

TEST DATE: JUNE 22, 1980
 UH60A
 MIC #5G SIDELINE SOUTH, GROUND

POSITION DATA
 HELICOPTER NOISE MEASUREMENT PROGRAM

FAA/AEE 120
 JAN 29, 1981

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPN | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|--------|---------------|---------------|---------|-------------|----------|--------|--------|------------|
| 41 F-E | 9:15:17.0 | 9:15:16.2 | 56.7 | 0.2 | 149.7 | 853.5 | 926.0 | 112.8 |
| 42 F-W | 9:19:36.0 | 9:19:35.3 | 85.7 | 0.3 | 157.9 | 841.9 | 843.4 | 93.3 |
| 43 F-E | 9:23:09.5 | 9:23:09.0 | 73.0 | 0.3 | 147.1 | 576.1 | 597.0 | 101.0 |
| 44 F-W | 9:26:39.5 | 9:26:38.9 | 59.2 | 0.2 | 156.1 | 534.1 | 723.4 | 132.4 |
| 47 F-E | 9:44:11.0 | 9:43:59.7 | 365.2 | 1.4 | 146.1 | 1261.1 | 1458.6 | 120.2 |
| 48 F-E | 9:47:35.5 | 9:47:34.5 | 400.5 | 1.4 | 156.2 | 1146.2 | 1146.2 | 90.2 |
| 49 F-E | 9:51:33.0 | 9:51:32.4 | 230.7 | 0.9 | 156.4 | 698.2 | 733.2 | 107.9 |
| 50 F-E | 9:54:22.5 | 9:54:21.8 | 77.2 | 0.3 | 166.0 | 695.2 | 833.2 | 123.5 |
| 51 F-E | 9:57:35.5 | 9:57:34.7 | 315.2 | 1.1 | 155.3 | 795.2 | 960.5 | 130.0 |
| 52 F-E | 10:0:30.5 | 10:0:29.2 | 120.5 | 0.7 | 104.4 | 712.0 | 744.8 | 106.8 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
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 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

Sub-Appendix C2 Summary

S76 June 23, 1980

Flight Path Tracking Data and Position Data

1. FLIGHT PATH TRACKING PLOTS

| Event No. | Plot Fig. No. | Operation | | | | |
|-----------|---------------|-----------|-----|---------|--------------|--|
| 5 | C2-1 | 1500 Ft. | LFO | 140 kts | Target Speed | |
| 6 | " | " | | | " | |
| 12 | " | " | | | " | |
| 15 | C2-2 | 300 Ft. | LFO | 140 kts | Target Speed | |
| 16 | " | " | | " | " | |
| 7 | C2-3 | 700 Ft. | LFO | 140 kts | Target Speed | |
| 8 | " | " | | " | " | |
| 13 | " | " | | " | " | |
| 14 | " | " | | " | " | |
| 17 | C2-4 | 500 Ft. | LFO | 140 kts | Target Speed | |
| 18 | " | " | | 140 kts | " | |
| 19 | " | " | | 140 kts | " | |
| 20 | " | " | | 140 kts | " | |
| 21 | " | " | | 93 kts | " | |
| 22 | " | " | | 93 kts | " | |
| 57 | C2-5 | 500 Ft. | LFO | 140 kts | Target Speed | |
| 58 | " | " | | " | " | |
| 59 | " | " | | " | " | |
| 60 | " | " | | " | " | |
| 61 | " | " | | 93 kts | " | |
| 62 | " | " | | 93 kts | " | |
| 63 | C2-6 | 500 Ft. | LFO | 93 kts | Target Speed | |
| 64 | " | " | | " | " | |
| 65 | " | " | | 155 kts | " | |
| 66 | " | " | | " | " | |
| 67 | " | " | | " | " | |
| 68 | " | " | | " | " | |

| Event No. | Plot Fig. No. | Operation | | | | |
|-----------|---------------|-----------|-----|---------|--------------|--|
| 33 | C2-7 | Takeoff | | | | |
| 35 | " | " | | | | |
| 37 | " | " | | | | |
| 39 | " | " | | | | |
| 41 | " | " | | | | |
| 43 | C2-8 | Takeoff | | | | |
| 53 | " | " | | | | |
| 55 | " | " | | | | |
| 49 | C2-9 | 500 Ft. | LFO | 124 kts | Target Speed | |
| 50 | " | " | | " | " | |
| 51 | " | " | | " | " | |
| 52 | " | " | | " | " | |
| 34 | C2-10 | Approach | | | | |
| 36 | " | " | | | | |
| 40 | " | " | | | | |
| 42 | " | " | | | | |
| 44 | " | " | | | | |
| 45 | C2-11 | 1000 Ft. | LFO | 140 kts | Target Speed | |
| 46 | " | " | | " | " | |
| 47 | " | " | | " | " | |
| 48 | " | " | | " | " | |
| 29 | C2-12 | 500 Ft. | LFO | 109 kts | Target Speed | |
| 30 | " | " | | " | " | |
| 31 | " | " | | " | " | |
| 32 | " | " | | " | " | |

2. POSITION DATA TABLES

| Table Number | Microphone |
|--------------|---------------------------------------|
| C2-1 | Mic. 1, Centerline Center 4 ft. |
| C2-2 | Mic. 2, Centerline 150m West 4 ft. |
| C2-3 | Mic. 3, Centerline 150m East 4 ft. |
| C2-4 | Mic. 4, Sideline 164m North 4 ft. |
| C2-5 | Mic. 5, Sideline 150m South 4 ft. |
| C2-6 | Mic. 6, Sideline 284m North 4 ft. |
| C2-7 | Mic. 1G, Centerline Center (Ground) |
| C2-8 | Mic. 1H, Centerline Center 33 ft. |
| C2-9 | Mic. 5G, Sideline 150m South (Ground) |

FIGURE C2-1

HELICOPTER
S-76
 TEST DATE
 JUNE 23, 1988
 EVENTS
 □ TSC # 5
 □ TSC # 6
 △ TSC # 12

GROUND PLANE TRACK

⊗_{E-N'}

⊗_{E-N}

⊗_{E-S}

700 FT
213 M

DEVIATION FROM
CENTERLINE

-700 FT
-213 M

2100 FT
640 M

1400 FT
427 M

700 FT
213 M

0 FT
0 M

FLYOVER PROFILE

REFERENCE PROFILE
1525 FT

⊗_{E-E} ⊗_{E-C} ⊗_{E-H}

2100 FT
640 M

1400 FT
427 M

700 FT
213 M

0 FT
0 M

-700 FT
-213 M

-1400 FT
-427 M

-2100 FT
-640 M

-2800 FT
-851 M

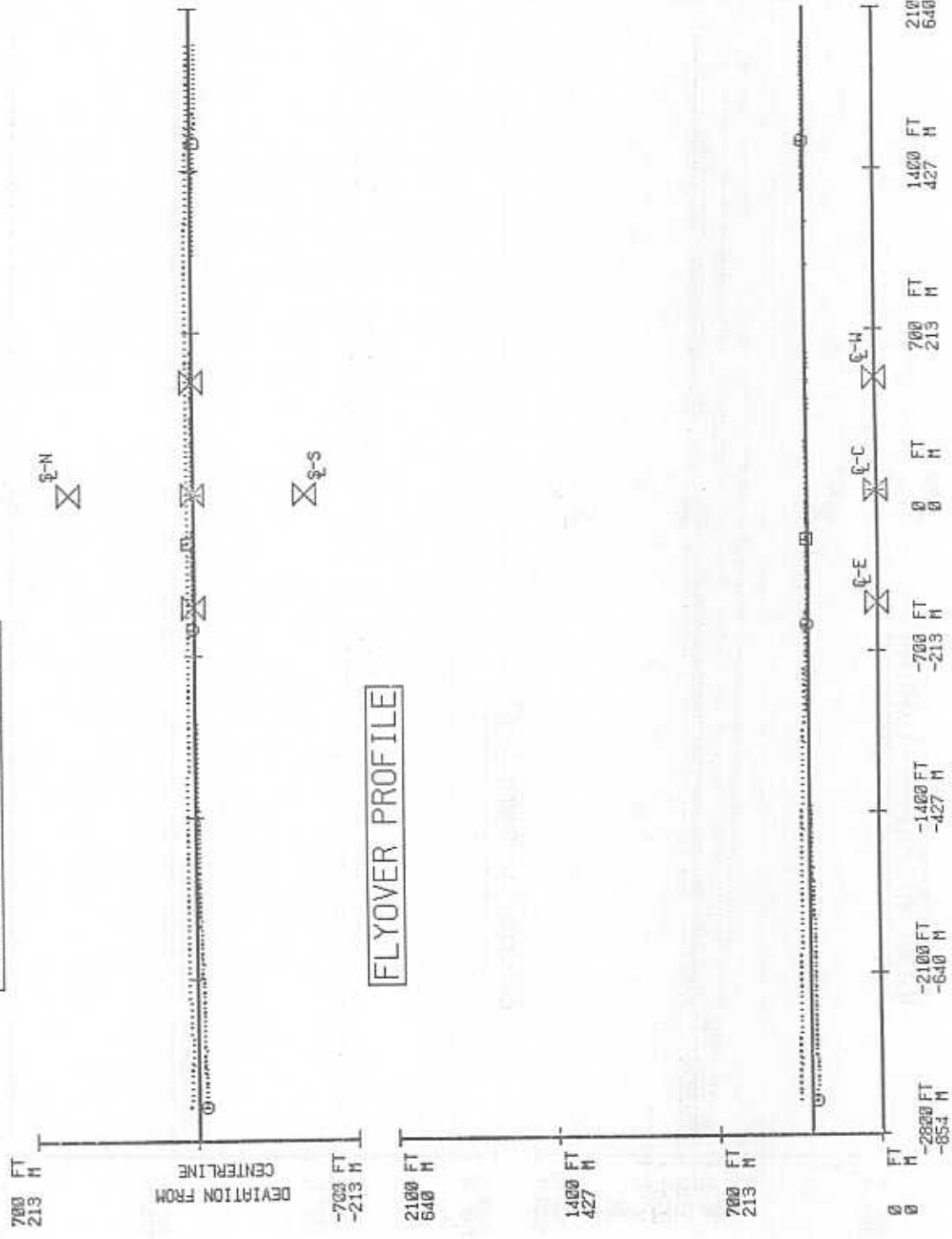
DISTANCE ALONG CENTERLINE

FIGURE C2-2

HELICOPTER
S-76
 TEST DATE
 JUNE 23, 1968
 EVENTS
 □ TSC # 15
 □ TSC # 16

GROUND PLANE TRACK

FLYOVER PROFILE



DISTANCE ALONG CENTERLINE

REFERENCE PROFILE
 300 FT

FIGURE C2-3

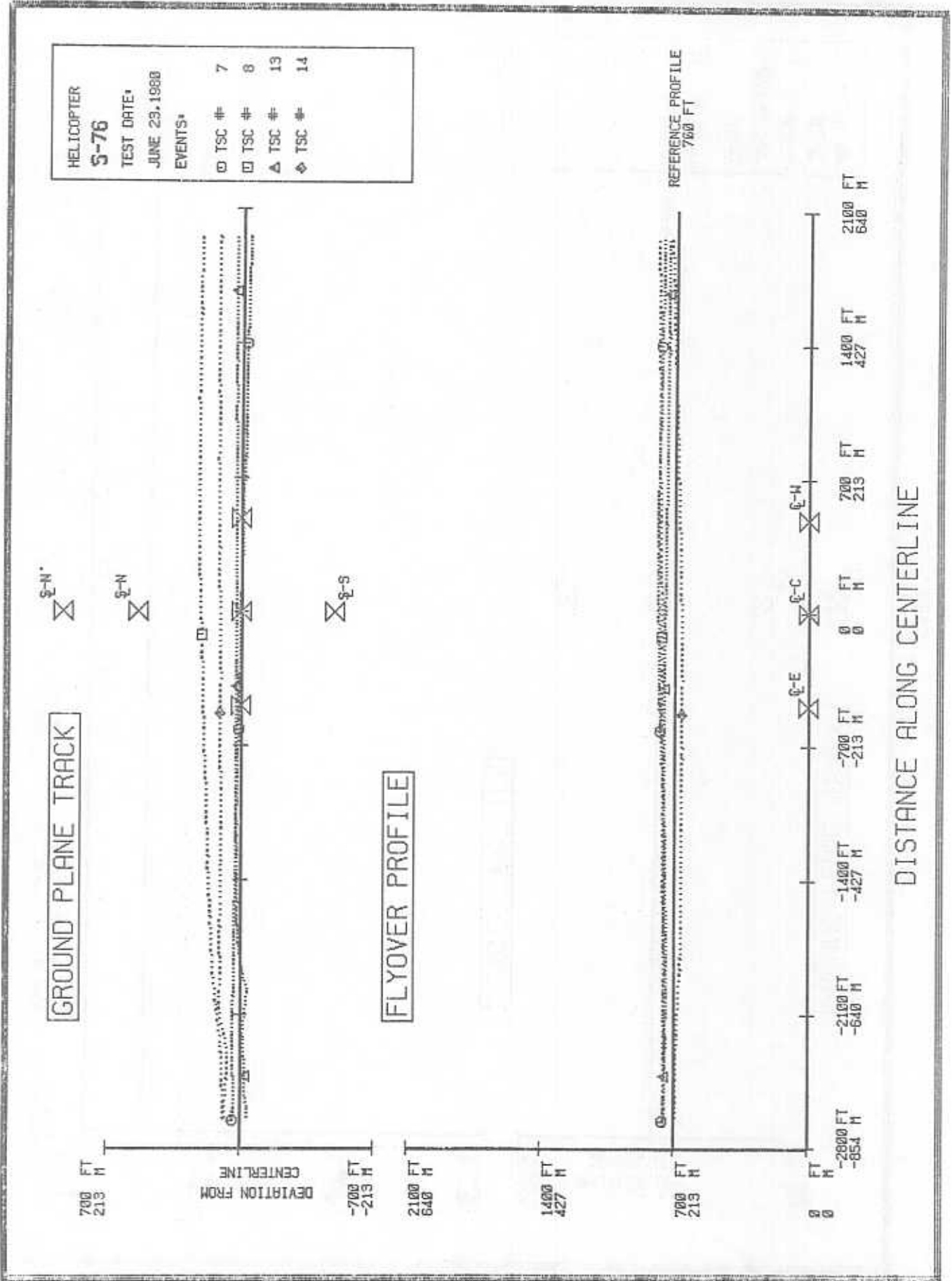


FIGURE C2-4

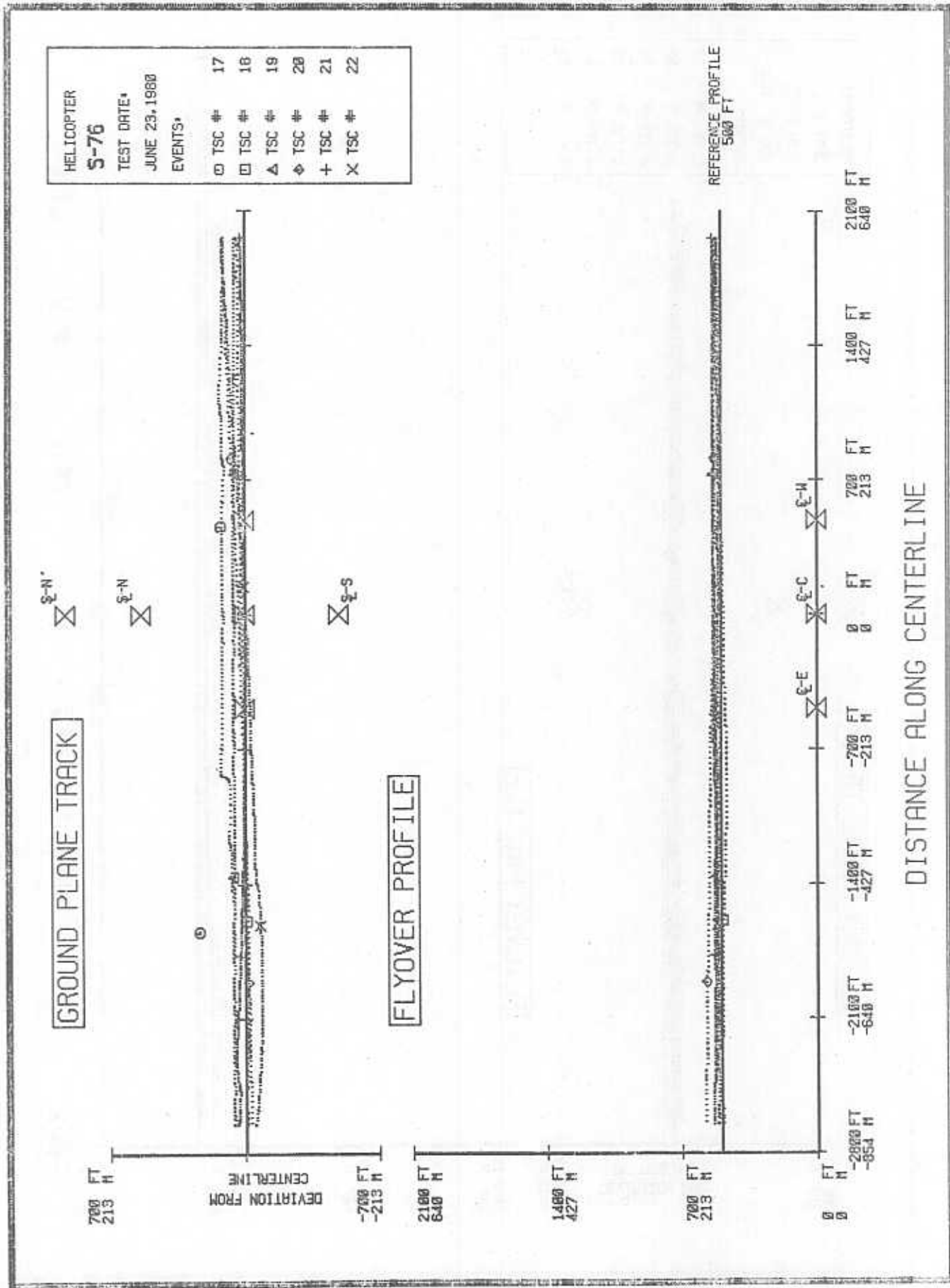


FIGURE C2-5

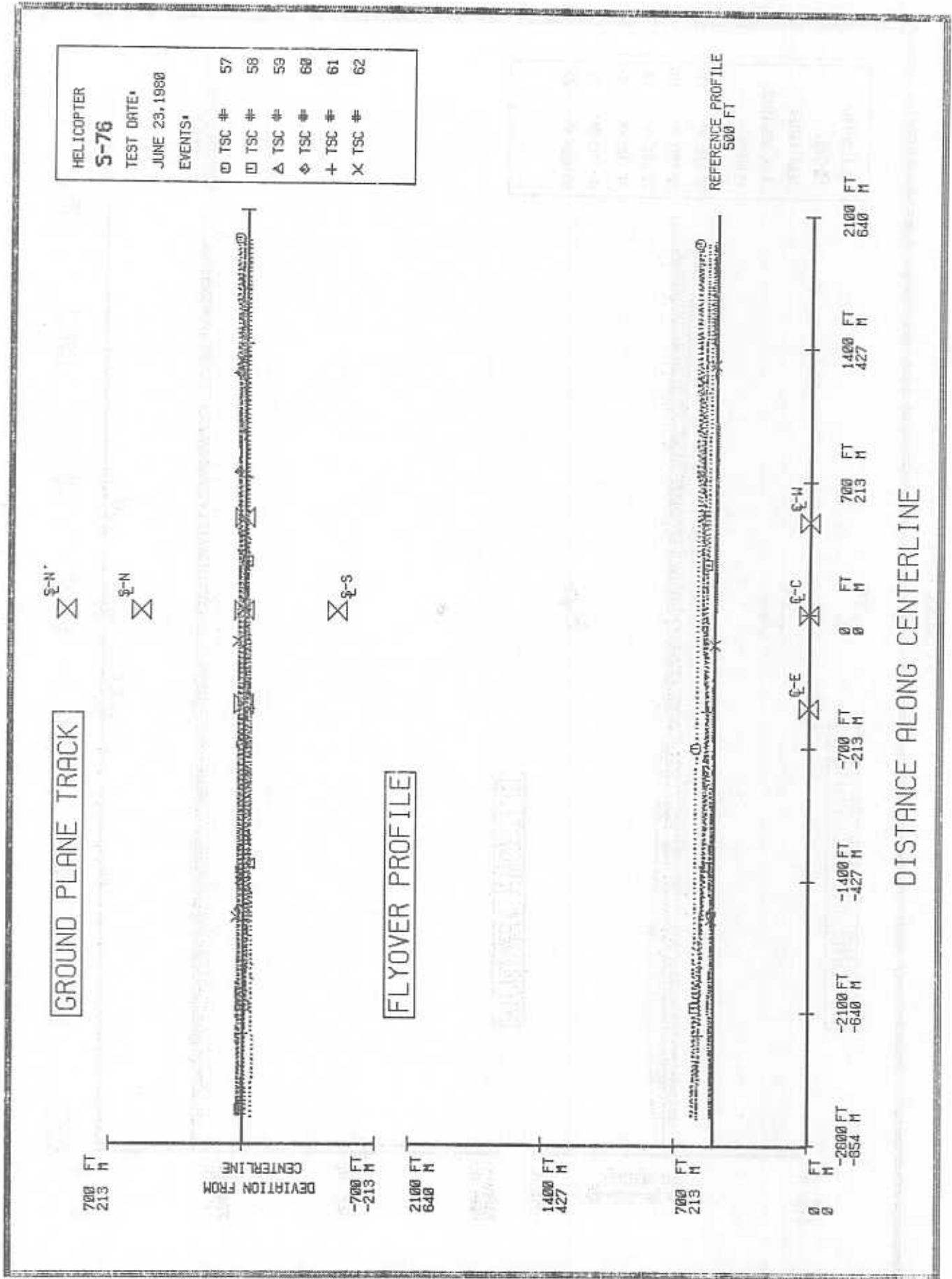


FIGURE C2-6

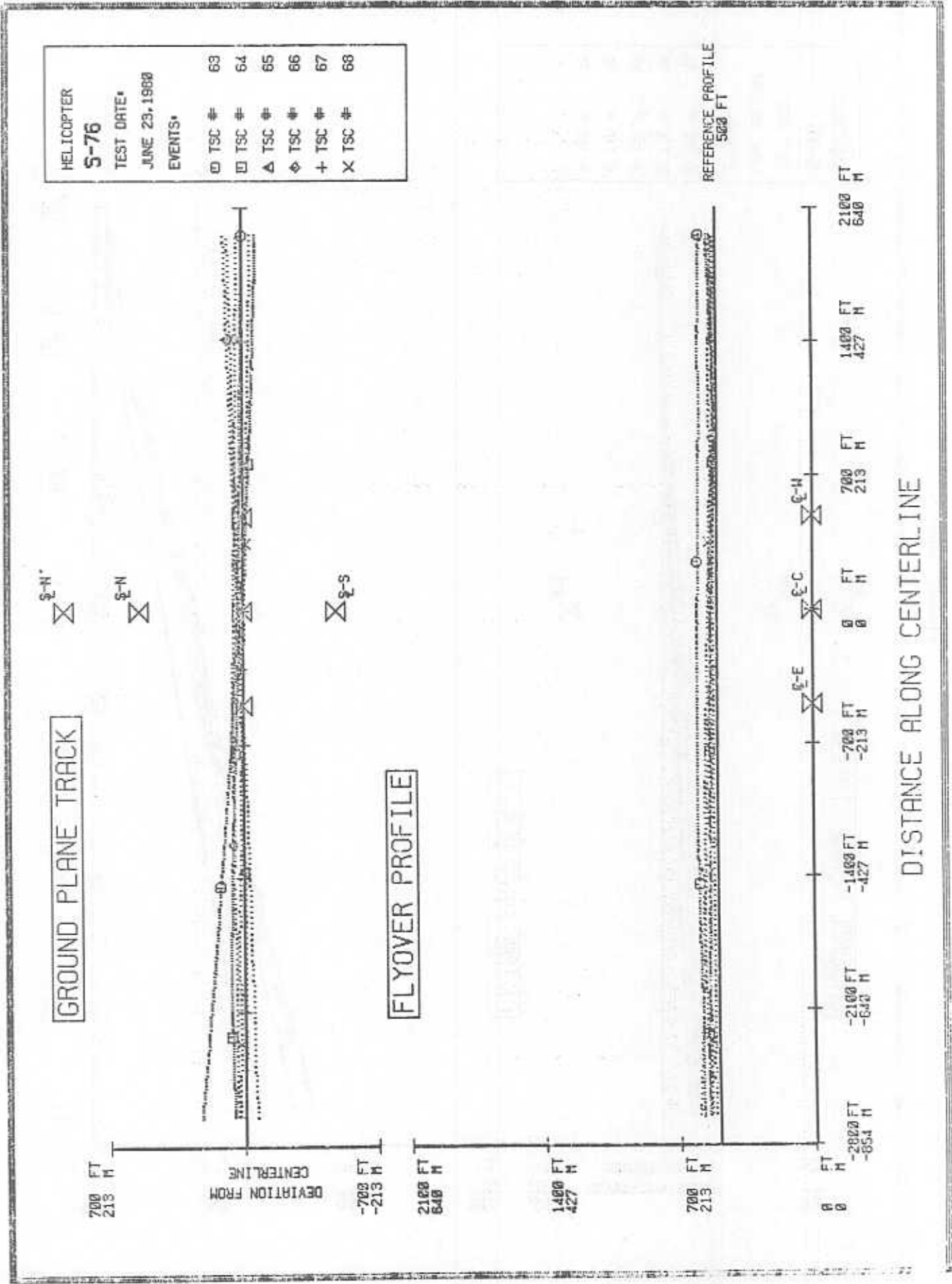
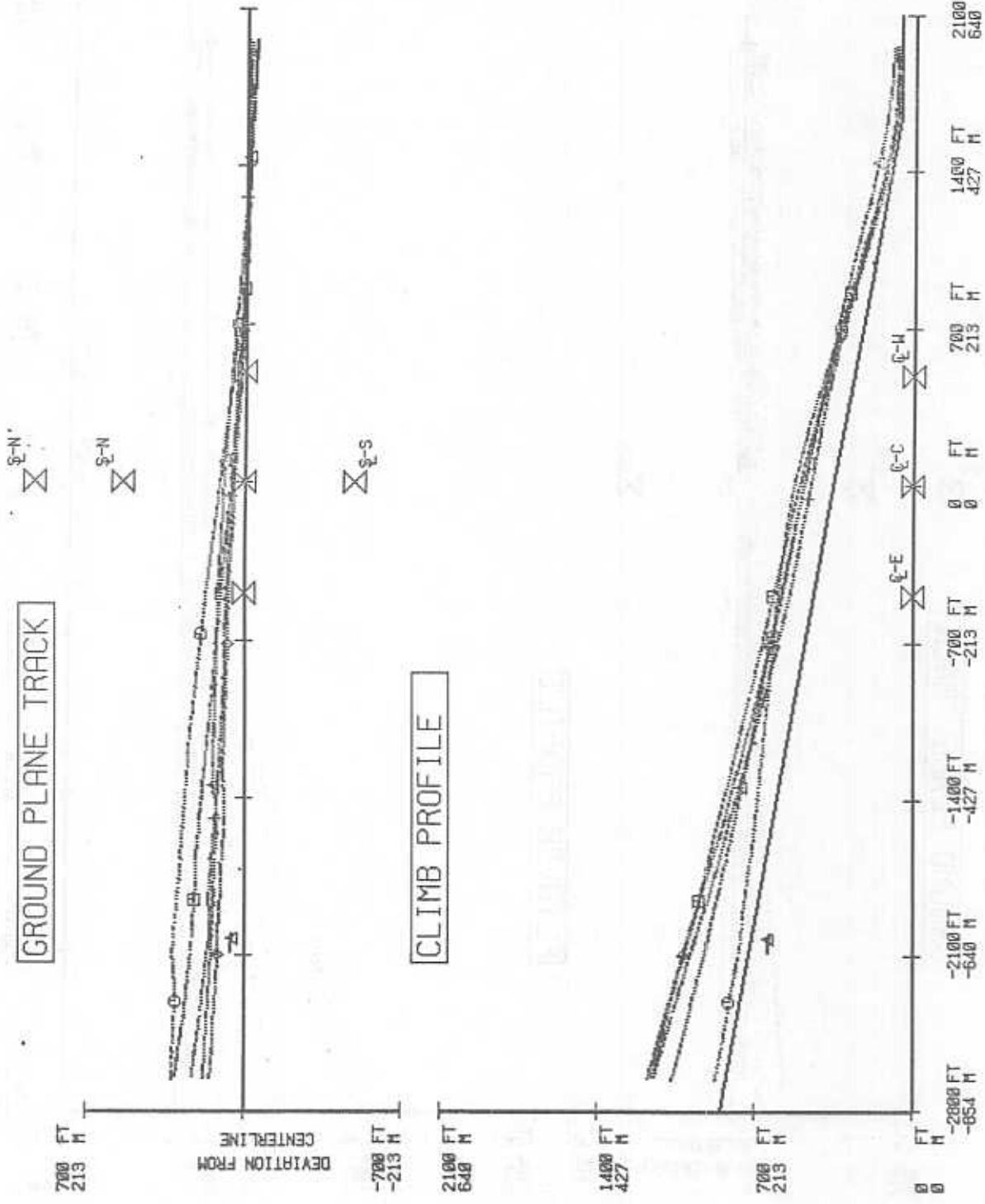


FIGURE C2-7

HELICOPTER
S-76
 TEST DATE
 JUNE 23, 1988
 EVENTS:

| | |
|---------|----|
| □ TSC # | 93 |
| □ TSC # | 95 |
| △ TSC # | 37 |
| ◇ TSC # | 99 |
| + TSC # | 41 |



DISTANCE ALONG CENTERLINE

FIGURE C2-8

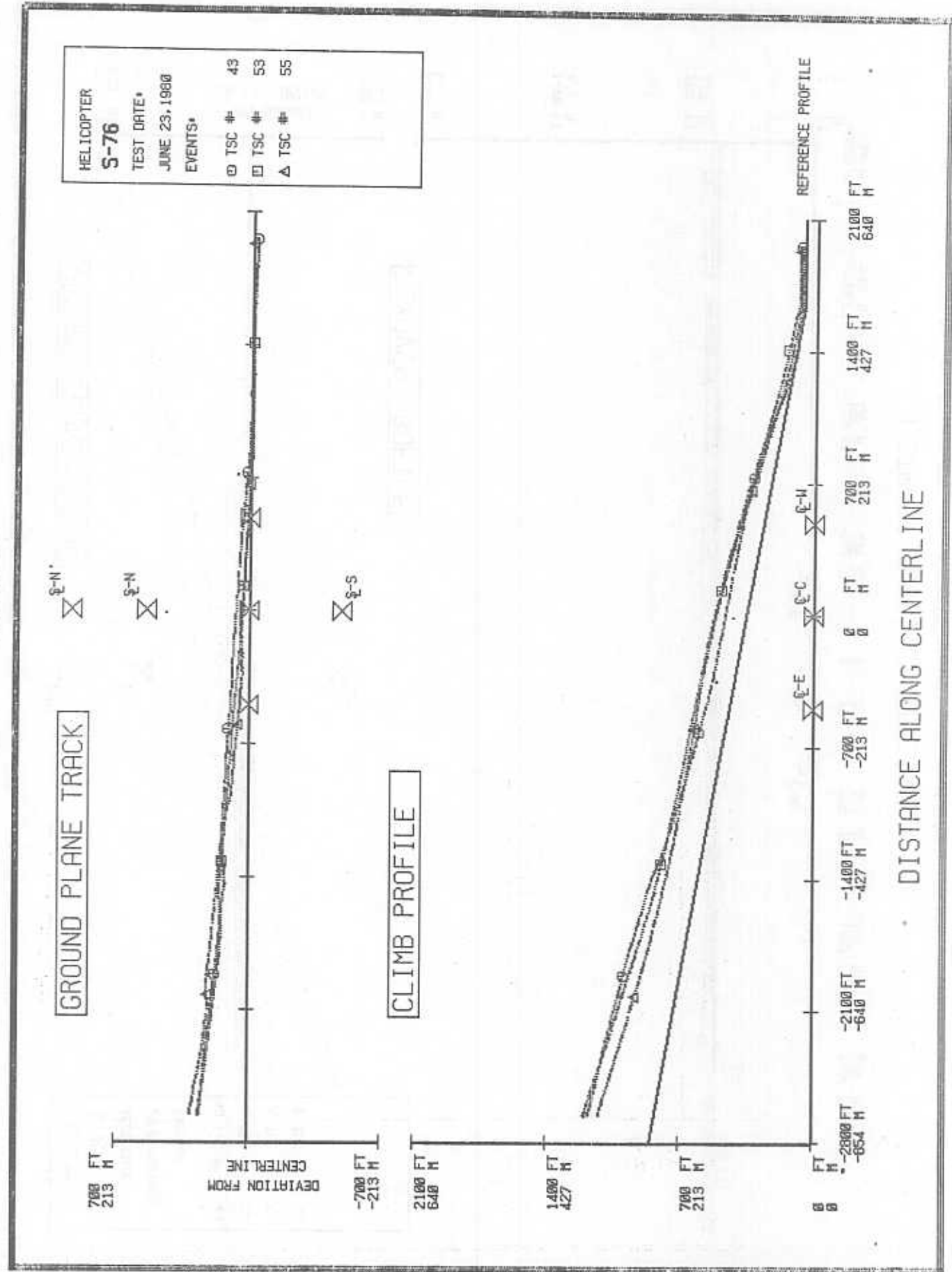


FIGURE C2-9

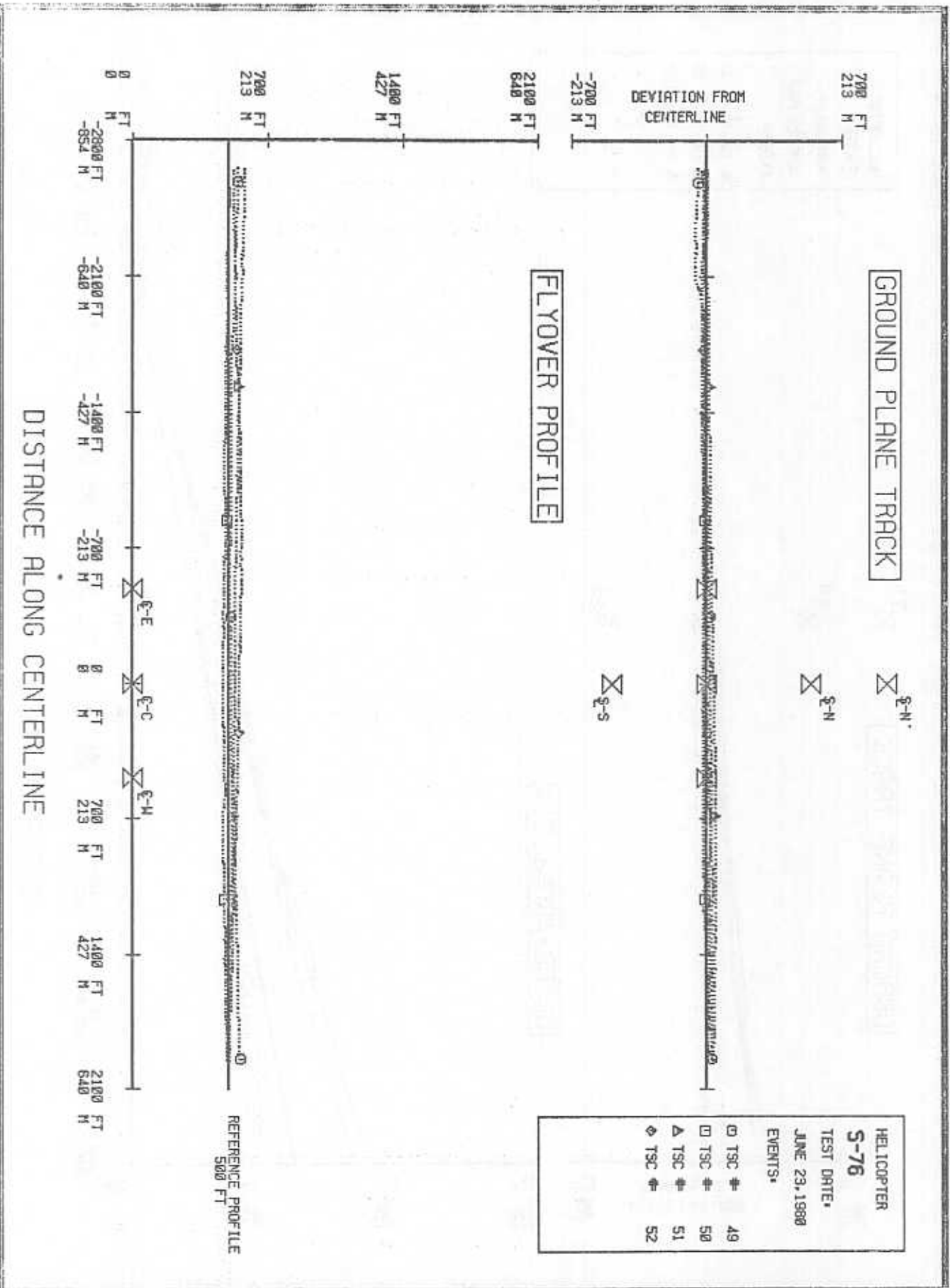


FIGURE C2-10

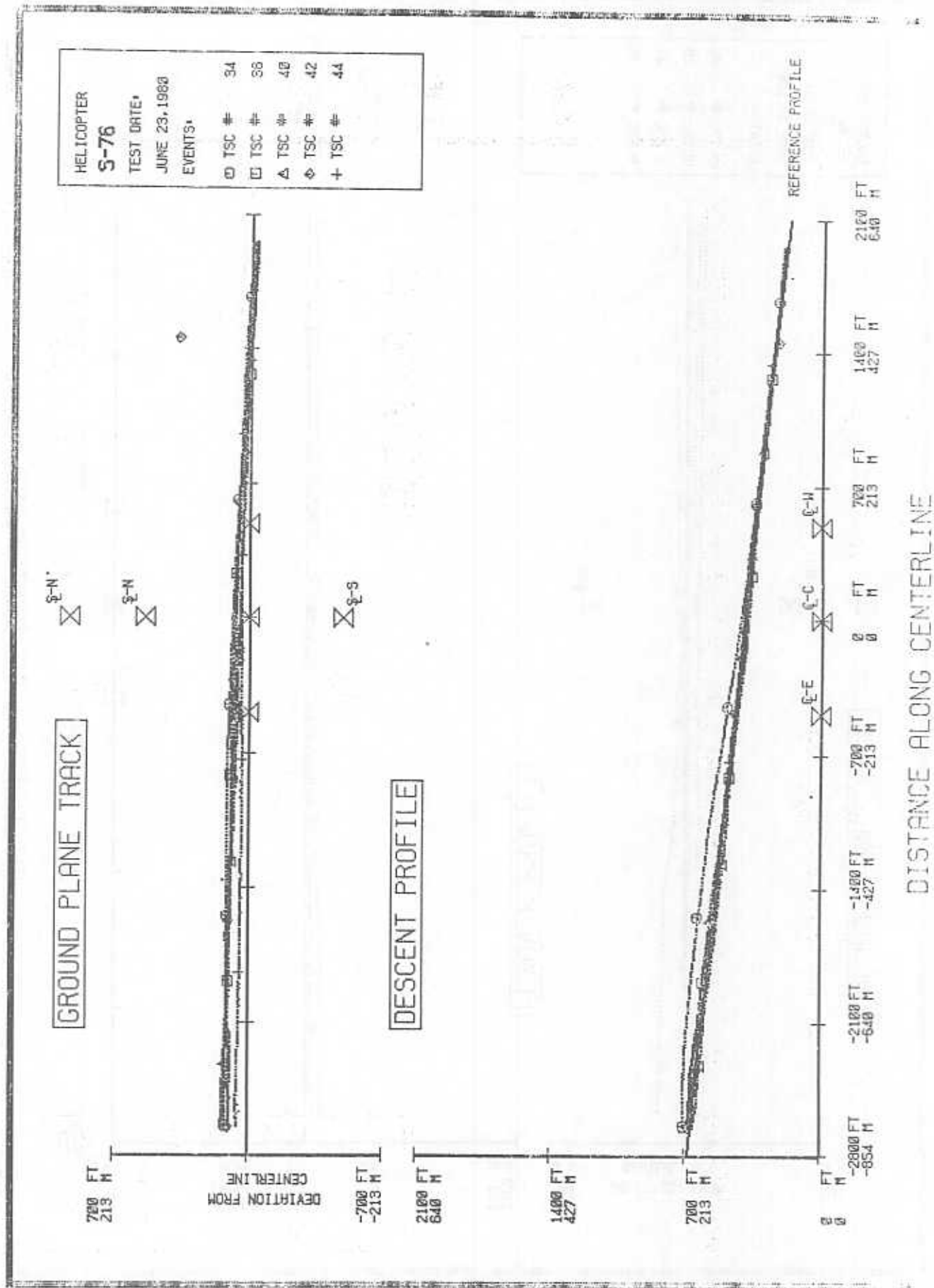


FIGURE C2-11

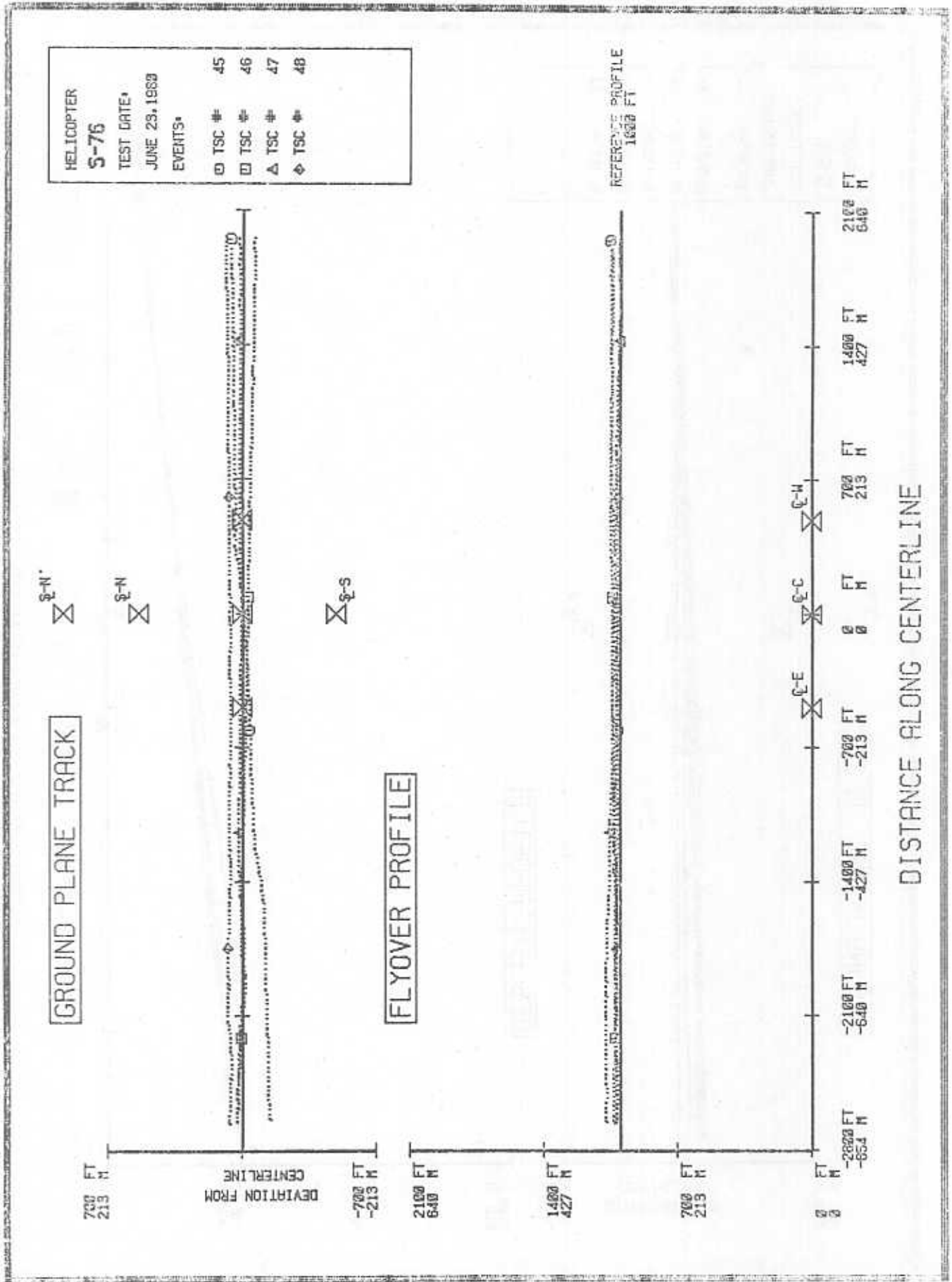


FIGURE C2-12

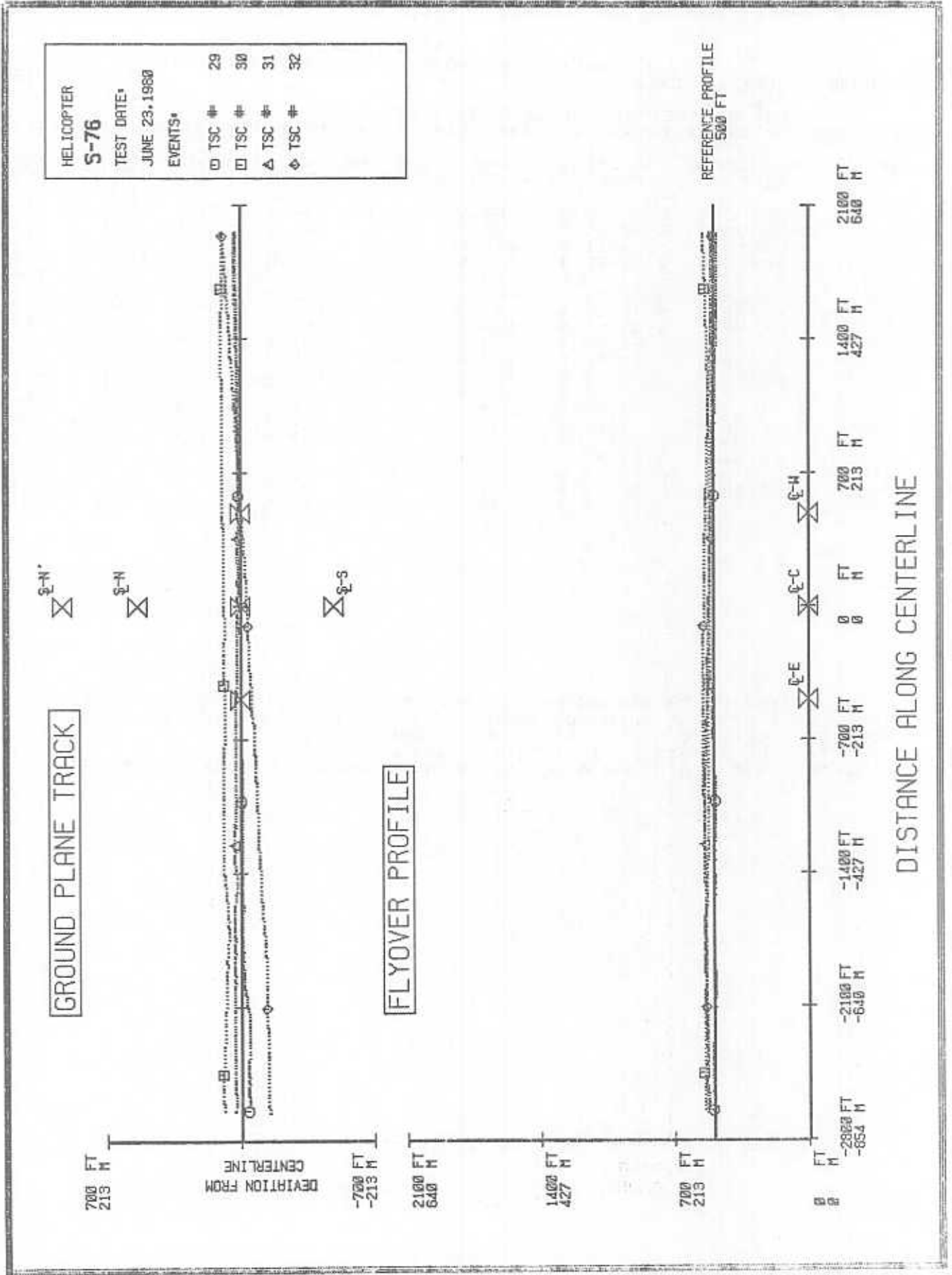


TABLE C2-1

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 23, 1980
576

FAA/AEE 120
DEC 13, 1980

NIC # 1 CENTERLINE CENTER, 4 FT

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|-------|---------------|---------------|---------|-------------|----------|--------|--------|------------|
| 5 | 08:08.5 | 08:07.0 | 90.7 | 0.4 | 132.6 | 1586.0 | 1691.0 | 110.3 |
| 6 | 08:33.0 | 08:31.0 | -35.7 | -0.1 | 100.7 | 1579.1 | 2244.4 | 138.0 |
| 7 | 09:12.5 | 09:11.7 | 243.5 | 1.2 | 116.0 | 700.1 | 892.4 | 118.0 |
| 8 | 09:23.0 | 09:22.1 | -204.5 | -0.7 | 170.6 | 704.7 | 1642.6 | 130.3 |
| 9 | 09:42.5 | 09:42.0 | 93.7 | 0.4 | 123.6 | 290.5 | 387.1 | 130.9 |
| 10 | 09:46.0 | 09:46.0 | 69.6 | 0.0 | 154.9 | 335.5 | 489.3 | 141.4 |
| 11 | 09:45.5 | 09:45.5 | 44.0 | 0.0 | 122.9 | 1400.0 | 1597.2 | 113.9 |
| 12 | 09:49.0 | 09:49.0 | -110.0 | -0.2 | 120.3 | 740.5 | 554.4 | 118.0 |
| 13 | 09:51.0 | 09:51.0 | -453.0 | -1.1 | 121.0 | 630.0 | 1009.5 | 139.4 |
| 14 | 09:54.0 | 09:54.0 | -147.0 | -0.7 | 124.0 | 236.4 | 367.0 | 125.0 |
| 15 | 09:50.5 | 09:50.5 | 175.0 | 0.6 | 100.0 | 900.3 | 403.0 | 139.2 |
| 16 | 09:53.0 | 09:53.0 | 99.0 | 0.4 | 124.7 | 510.5 | 570.0 | 115.0 |
| 17 | 09:41.5 | 09:41.5 | -351.0 | -1.0 | 107.0 | 400.0 | 554.1 | 124.6 |
| 18 | 09:27.4 | 09:27.4 | 63.0 | 0.0 | 124.1 | 500.7 | 657.0 | 125.0 |
| 19 | 09:33.4 | 09:33.4 | 153.0 | 0.0 | 100.0 | 500.3 | 659.5 | 130.0 |
| 20 | 09:49.0 | 09:49.0 | 32.0 | 0.0 | 123.7 | 600.2 | 659.0 | 110.0 |
| 21 | 09:14.0 | 09:14.0 | 50.0 | 0.0 | 127.1 | 560.5 | 604.1 | 141.9 |
| 22 | 09:45.0 | 09:45.0 | -21.0 | -0.0 | 77.0 | 640.0 | 732.0 | 134.4 |
| 23 | 09:19.0 | 09:19.0 | -34.0 | -0.0 | 104.6 | 500.7 | 500.0 | 142.1 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C2-1 (CONT)

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 23, 1980

FAA/AEE 120
DEC 13, 1980

S76

MIC # 1 CENTERLINE CENTER, 4 FT

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|--------|---------------|---------------|---------|-------------|----------|--------|-------|------------|
| 25 F-W | 6:26:35.0 | 6:26:34.5 | 15.3 | 0.1 | 143.3 | 533.9 | 588.5 | 114.9 |
| 26 F-E | 6:29:10.0 | 6:29: 9.5 | -20.7 | -0.3 | 176.3 | 547.8 | 580.6 | 109.4 |
| 27 F-W | 6:31:43.5 | 6:31:43.1 | -22.0 | -0.1 | 149.6 | 483.4 | 497.1 | 103.5 |
| 28 F-E | 6:33:59.5 | 6:33:59.0 | -29.5 | -0.1 | 177.9 | 502.0 | 569.2 | 118.1 |
| 29 F-W | 6:36:50.5 | 6:36:50.0 | -52.8 | -0.3 | 95.0 | 492.8 | 556.9 | 117.8 |
| 30 F-E | 6:38:47.0 | 6:38:46.5 | 33.2 | 0.2 | 123.7 | 520.0 | 613.4 | 122.0 |
| 31 F-W | 6:41:34.5 | 6:41:34.0 | -206.7 | -1.2 | 97.2 | 516.5 | 583.6 | 117.7 |
| 32 F-E | 6:43:42.0 | 6:43:41.5 | 233.8 | 1.1 | 119.6 | 541.7 | 610.3 | 117.4 |
| 33 DEP | 7:21:50.0 | 7:21:49.5 | 1310.3 | 8.7 | 84.6 | 617.2 | 578.2 | 63.4 |
| 34 ARR | 7:24:40.0 | 7:24:39.6 | -831.7 | -7.5 | 62.6 | 420.0 | 436.1 | 74.4 |
| 35 DEP | 7:28:47.5 | 7:28:47.1 | 1983.0 | 13.7 | 80.4 | 406.9 | 491.5 | 97.8 |
| 36 ARR | 7:31:32.5 | 7:31:32.2 | -582.8 | -5.4 | 61.3 | 383.2 | 401.2 | 107.2 |
| 37 DEP | 7:33:53.5 | 7:33:53.1 | 1719.2 | 11.6 | 82.9 | 476.9 | 437.4 | 100.7 |
| 39 DEP | 7:38:46.0 | 7:38:45.6 | 1684.3 | 11.4 | 82.4 | 471.4 | 471.4 | 90.0 |
| 40 ARR | 7:41:31.0 | 7:41:30.6 | -654.2 | -5.9 | 62.2 | 394.0 | 500.1 | 127.9 |
| 41 DEP | 7:46: 5.0 | 7:46: 4.6 | 1525.7 | 10.3 | 83.4 | 442.0 | 445.3 | 94.6 |
| 42 ARR | 7:49:11.5 | 7:49:11.1 | -592.8 | -5.3 | 62.4 | 403.8 | 465.0 | 119.7 |
| 43 DEP | 7:51:46.5 | 7:51:46.1 | 1492.3 | 10.4 | 80.4 | 459.3 | 468.4 | 101.3 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C2-1 (CONT)

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 23, 1980
S76

FAA/AEE 120
DEC 13, 1980

MIC # 1 CENTERLINE CENTER, 4 FT

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG | |
|-------|---------------|---------------|-----------|-------------|----------|--------|--------|------------|-------|
| 44 | ARR | 7:54:52.0 | 7:54:51.7 | -683.7 | -6.2 | 61.8 | 397.0 | 397.6 | 93.3 |
| 45 | F-E | 8:0:15.5 | 8:0:14.5 | -389.8 | -1.4 | 151.5 | 1017.9 | 1116.4 | 114.3 |
| 46 | F-W | 8:3:0.0 | 8:2:59.0 | 130.8 | 0.5 | 137.6 | 1039.5 | 1171.6 | 117.5 |
| 47 | F-E | 8:5:14.0 | 8:5:12.8 | 288.2 | 1.1 | 152.6 | 1027.5 | 1399.7 | 132.8 |
| 48 | F-W | 8:8:29.5 | 8:8:28.5 | -127.3 | -0.5 | 139.8 | 1013.9 | 1147.2 | 117.9 |
| 49 | F-E | 8:10:36.5 | 8:10:36.0 | -163.7 | -0.7 | 136.3 | 506.4 | 604.6 | 123.1 |
| 50 | F-E | 8:13:29.5 | 8:13:29.0 | -50.2 | -0.2 | 115.9 | 463.4 | 542.0 | 121.2 |
| 51 | F-E | 8:15:58.5 | 8:15:57.8 | 164.7 | 0.7 | 131.9 | 525.6 | 832.0 | 140.8 |
| 52 | F-W | 8:19:13.0 | 8:19:12.3 | -196.3 | -0.9 | 117.6 | 548.4 | 761.6 | 133.0 |
| 53 | DEP | 8:22:17.5 | 8:22:17.1 | 1907.3 | 12.2 | 80.3 | 503.3 | 504.5 | 92.0 |
| 54 | ARR | 8:25:49.5 | 8:25:49.1 | -711.8 | -6.4 | 62.6 | 389.5 | 466.2 | 123.3 |
| 55 | DEP | 8:28:24.0 | 8:28:23.5 | 1604.7 | 12.1 | 74.1 | 497.7 | 523.4 | 72.0 |
| 56 | ARR | 8:41:5.0 | 8:41:4.6 | -521.8 | -4.7 | 62.5 | 390.7 | 470.2 | 123.2 |
| 57 | F-E | 8:45:34.5 | 8:45:33.9 | -22.3 | -0.1 | 157.0 | 553.4 | 720.2 | 125.9 |
| 58 | F-W | 8:48:00.5 | 8:48:00.0 | -176.7 | -0.7 | 138.4 | 532.7 | 690.3 | 129.6 |
| 59 | F-E | 8:50:39.5 | 8:50:38.9 | -336.8 | -1.2 | 153.0 | 531.4 | 723.2 | 132.7 |
| 60 | F-W | 8:53:27.5 | 8:53:26.8 | 463.8 | 1.9 | 136.0 | 559.3 | 777.8 | 135.0 |
| 61 | F-E | 8:57:59.0 | 8:57:58.4 | -17.2 | -0.1 | 160.5 | 552.9 | 649.7 | 121.7 |
| 62 | F-W | 9:0:58.0 | 9:0:57.5 | -173.7 | -1.1 | 57.5 | 489.0 | 545.2 | 116.3 |
| 63 | F-E | 9:7:39.5 | 9:7:38.9 | 46.7 | 0.3 | 139.8 | 524.4 | 680.5 | 119.1 |
| 64 | F-W | 9:10:14.5 | 9:10:14.0 | -147.0 | -0.9 | 88.3 | 522.5 | 599.8 | 119.4 |
| 65 | F-E | 9:13:45.5 | 9:13:44.9 | 424.5 | 1.5 | 165.3 | 541.1 | 645.7 | 123.1 |
| 66 | F-E | 9:16:13.5 | 9:16:12.9 | 32.7 | 0.1 | 156.1 | 515.0 | 749.9 | 136.2 |
| 67 | F-E | 9:18:35.0 | 9:18:34.2 | 245.8 | 0.8 | 127.7 | 521.6 | 871.7 | 143.3 |
| 68 | F-W | 9:21:4.5 | 9:21:3.7 | 12.3 | 0.0 | 155.7 | 530.9 | 923.7 | 144.0 |
| 69 | ARR | 9:26:28.5 | 9:26:28.1 | -730.5 | -5.9 | 89.7 | 392.5 | 469.7 | 123.9 |
| 70 | ARR | 9:30:40.5 | 9:30:40.1 | -521.3 | -4.5 | 73.0 | 390.0 | 438.5 | 118.3 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C2-2

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 23, 1980
S76

FAA/AEE 120
DEC 13, 1980

MIC # 2 CENTERLINE WEST, 4 FT

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|---------|---------------|---------------|---------|-------------|----------|--------|--------|------------|
| 5 F-W | 5:28:19.5 | 5:28:9.0 | -115.0 | -0.5 | 136.2 | 1584.4 | 1717.0 | 112.7 |
| 6 F-E | 5:30:33.0 | 5:30:31.4 | -36.7 | -0.1 | 160.7 | 1562.2 | 1871.6 | 123.4 |
| 7 F-W | 5:33:15.5 | 5:33:14.8 | -37.3 | -0.2 | 119.3 | 783.3 | 847.6 | 112.5 |
| 8 F-E | 5:35:22.0 | 5:35:21.2 | -220.0 | -0.7 | 170.8 | 803.0 | 913.7 | 118.5 |
| 9 F-W | 5:37:45.0 | 5:37:44.7 | 336.5 | 1.1 | 123.6 | 301.9 | 370.7 | 125.5 |
| 10 F-E | 5:40:31.0 | 5:40:30.7 | 46.3 | 0.2 | 157.3 | 304.1 | 327.5 | 111.8 |
| 12 F-E | 5:45:54.5 | 5:45:52.6 | 48.7 | 0.2 | 159.3 | 1459.5 | 2192.4 | 138.3 |
| 13 F-W | 5:49:1.0 | 5:49:0.0 | -199.5 | -0.9 | 122.6 | 741.3 | 836.4 | 117.6 |
| 14 F-E | 5:51:25.0 | 5:51:24.0 | -559.3 | -1.9 | 170.5 | 621.6 | 1103.3 | 141.9 |
| 15 F-E | 5:54:15.0 | 5:54:14.7 | -68.7 | -0.3 | 124.4 | 892.1 | 341.6 | 121.2 |
| 16 F-E | 5:56:27.0 | 5:56:26.7 | 124.2 | 0.4 | 161.1 | 296.5 | 389.0 | 130.9 |
| 17 F-E | 5:59:0.0 | 5:59:8.5 | -122.0 | -0.6 | 130.3 | 520.2 | 593.7 | 118.8 |
| 18 F-E | 6:4:11.5 | 6:4:10.9 | -357.0 | -1.2 | 167.6 | 491.0 | 646.4 | 130.6 |
| 19 F-E | 6:6:31.0 | 6:6:30.5 | -59.8 | -0.3 | 124.9 | 534.2 | 583.9 | 113.7 |
| 20 F-E | 6:8:32.0 | 6:8:31.4 | 62.0 | 0.2 | 163.6 | 532.0 | 705.6 | 131.1 |
| 201 F-W | 6:11:53.5 | 6:11:53.0 | 53.9 | 0.4 | 74.5 | 531.3 | 588.2 | 115.4 |
| 202 F-E | 6:14:1.5 | 6:14:0.9 | -89.7 | -0.4 | 102.2 | 503.6 | 647.3 | 129.6 |
| 203 F-E | 6:16:51.0 | 6:16:50.5 | -19.5 | -0.1 | 77.4 | 522.0 | 588.6 | 117.5 |
| 24 F-W | 6:19:5.5 | 6:19:4.9 | -90.8 | -0.5 | 104.4 | 522.0 | 694.2 | 131.3 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C2-2 (CONT)

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 23, 1980
S76

FAA/AEE 120
DEC 13, 1980

MIC # 2 CENTERLINE WEST, 4 FT

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|--------|---------------|---------------|---------|-------------|----------|--------|-------|------------|
| 25 F-W | 6:26:37.0 | 6:26:36.5 | -0.7 | -0.0 | 142.5 | 534.3 | 596.5 | 116.4 |
| 26 F-E | 6:29: 7.5 | 6:29: 6.9 | -67.7 | -0.2 | 176.4 | 549.4 | 730.7 | 131.2 |
| 27 F-W | 6:31:45.0 | 6:31:44.5 | 55.0 | 0.2 | 149.4 | 483.0 | 538.0 | 116.3 |
| 28 F-E | 6:33:57.5 | 6:33:56.9 | -231.7 | -0.7 | 178.0 | 508.5 | 642.3 | 127.7 |
| 29 F-W | 6:36:54.0 | 6:36:53.5 | -54.8 | -0.3 | 94.8 | 491.6 | 523.7 | 110.2 |
| 30 F-E | 6:38:44.5 | 6:38:43.9 | -96.8 | -0.4 | 122.9 | 520.0 | 631.7 | 124.6 |
| 31 F-W | 6:41:37.5 | 6:41:37.0 | -270.0 | -1.6 | 97.5 | 504.4 | 576.8 | 119.0 |
| 32 F-E | 6:43:39.5 | 6:43:39.0 | 349.5 | 1.6 | 120.2 | 533.0 | 602.5 | 117.8 |
| 33 DEP | 7:21:45.0 | 7:21:44.7 | 2324.8 | 16.5 | 77.2 | 374.2 | 393.2 | 72.1 |
| 34 ARR | 7:24:43.0 | 7:24:42.7 | -814.5 | -7.3 | 62.7 | 353.0 | 354.6 | 95.4 |
| 35 DEP | 7:28:46.0 | 7:28:45.6 | 1939.5 | 13.3 | 80.0 | 365.9 | 422.5 | 60.0 |
| 36 ARR | 7:31:36.0 | 7:31:35.6 | -535.0 | -5.0 | 60.8 | 326.5 | 415.8 | 126.0 |
| 37 DEP | 7:33:58.0 | 7:33:51.6 | 1713.3 | 11.6 | 82.4 | 375.5 | 417.8 | 64.0 |
| 39 DEP | 7:38:43.5 | 7:38:43.2 | 1910.3 | 13.4 | 79.2 | 357.9 | 389.7 | 66.7 |
| 40 ARR | 7:41:36.5 | 7:41:36.2 | -706.0 | -6.2 | 63.3 | 346.4 | 390.3 | 119.3 |
| 41 DEP | 7:46: 2.5 | 7:46: 2.2 | 1800.3 | 11.2 | 79.6 | 350.6 | 374.5 | 69.4 |
| 42 ARR | 7:49:16.0 | 7:49:15.6 | -713.0 | -6.3 | 63.9 | 350.7 | 421.5 | 123.7 |
| 43 DEP | 7:51:44.5 | 7:51:44.2 | 1560.4 | 11.1 | 78.2 | 364.6 | 389.9 | 69.3 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TAYLE C2-2 (CONT)

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 23, 1980
S76

FAA/AEE 120
DEC 13, 1980

MIC # 2 CENTERLINE WEST, 4 FT

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG | |
|-------|---------------|---------------|-----------|-------------|----------|--------|--------|------------|-------|
| 44 | ARR | 7:54:55.0 | 7:54:54.6 | -620.7 | -5.7 | 61.2 | 343.4 | 408.2 | 122.7 |
| 45 | F-E | 8:00:11.0 | 8:00:09.6 | -168.7 | -0.6 | 151.0 | 1031.0 | 1598.0 | 139.8 |
| 46 | F-W | 8:03:25.5 | 8:03:11.5 | 76.2 | 0.3 | 139.1 | 1044.5 | 1132.7 | 112.8 |
| 47 | F-E | 8:05:13.5 | 8:05:12.5 | 303.7 | 1.1 | 153.4 | 1019.0 | 1149.0 | 117.5 |
| 48 | F-W | 8:08:31.5 | 8:08:30.5 | -94.0 | -0.4 | 139.3 | 1012.8 | 1156.7 | 118.9 |
| 49 | F-F | 8:10:34.5 | 8:10:34.0 | -382.8 | -1.6 | 135.9 | 516.9 | 599.6 | 121.5 |
| 50 | F-W | 8:13:32.0 | 8:13:31.5 | 37.7 | 0.2 | 116.1 | 473.7 | 541.1 | 118.9 |
| 51 | F-E | 8:15:57.5 | 8:15:57.0 | 265.0 | 1.1 | 132.1 | 523.3 | 617.1 | 122.0 |
| 52 | F-W | 8:19:16.5 | 8:19:16.0 | -259.2 | -1.3 | 117.0 | 539.7 | 616.9 | 119.0 |
| 53 | DEP | 8:22:15.5 | 8:22:15.1 | 2072.0 | 14.7 | 77.8 | 326.7 | 429.8 | 61.2 |
| 54 | ARR | 8:25:54.5 | 8:25:54.2 | -598.7 | -5.2 | 64.7 | 343.7 | 398.8 | 119.0 |
| 55 | DEP | 8:28:17.5 | 8:28:17.2 | 2283.2 | 17.3 | 72.2 | 364.2 | 390.4 | 111.1 |
| 56 | ARR | 8:41:10.0 | 8:41:09.7 | -581.7 | -5.1 | 64.2 | 345.4 | 405.5 | 121.6 |
| 57 | F-E | 8:45:32.5 | 8:45:31.8 | -57.8 | -0.2 | 157.4 | 523.7 | 750.3 | 128.0 |
| 58 | F-W | 8:48:33.0 | 8:48:32.5 | -97.6 | -0.4 | 137.8 | 529.0 | 623.0 | 122.0 |
| 59 | F-E | 8:50:38.0 | 8:50:37.4 | -523.8 | -1.9 | 152.9 | 543.7 | 680.9 | 124.8 |
| 60 | F-E | 8:53:30.0 | 8:53:29.4 | 414.7 | 1.7 | 135.1 | 566.0 | 729.2 | 129.1 |
| 61 | F-E | 8:57:57.0 | 8:57:56.5 | 9.2 | 0.1 | 99.3 | 551.4 | 578.7 | 107.7 |
| 62 | F-E | 9:01:01.0 | 9:01:00.5 | -41.2 | -0.2 | 87.7 | 426.7 | 564.7 | 120.5 |
| 63 | F-E | 9:07:36.5 | 9:07:35.9 | 93.2 | 0.5 | 101.2 | 591.0 | 685.4 | 120.4 |
| 64 | F-W | 9:10:16.0 | 9:10:15.3 | -105.2 | -0.7 | 89.7 | 515.1 | 781.6 | 128.8 |
| 65 | F-E | 9:13:43.0 | 9:13:42.3 | 293.0 | 1.0 | 166.4 | 528.4 | 864.4 | 128.0 |
| 66 | F-E | 9:16:16.5 | 9:16:16.0 | 10.2 | 0.0 | 157.5 | 517.5 | 550.6 | 110.0 |
| 67 | F-E | 9:18:34.0 | 9:18:33.4 | 141.7 | 0.5 | 168.0 | 511.3 | 679.5 | 131.2 |
| 68 | F-W | 9:21:08.0 | 9:21:07.5 | 8.5 | 0.0 | 155.6 | 531.6 | 583.0 | 115.3 |
| 69 | ARR | 9:26:33.0 | 9:26:32.7 | -609.2 | -5.0 | 38.5 | 333.9 | 390.2 | 121.2 |
| 70 | ARR | 9:30:45.0 | 9:30:44.7 | -747.7 | -5.3 | 73.0 | 345.0 | 374.3 | 112.3 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C2-3

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 23, 1980

FAA/AEE 120
DEC 13, 1980

S76

MIC # 3 CENTERLINE EAST, 4 FT

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|--------|---------------|---------------|---------|-------------|----------|--------|--------|------------|
| 5 F-W | 5:28:5.0 | 5:28:3.4 | -42.0 | -0.2 | 135.7 | 1584.7 | 1841.7 | 120.6 |
| 6 F-E | 5:30:34.0 | 5:30:31.8 | -61.3 | -0.2 | 160.1 | 1555.8 | 2444.3 | 140.5 |
| 7 F-W | 5:33:9.5 | 5:33:8.7 | 453.5 | 2.1 | 119.6 | 773.7 | 938.0 | 124.4 |
| 8 F-E | 5:35:26.0 | 5:35:25.3 | -111.0 | -0.4 | 170.8 | 787.3 | 823.5 | 107.0 |
| 9 F-E | 5:37:41.0 | 5:37:40.7 | 143.3 | 0.7 | 120.4 | 287.7 | 293.2 | 101.1 |
| 10 F-E | 5:40:34.5 | 5:40:34.2 | 169.3 | 0.6 | 156.3 | 310.3 | 363.3 | 121.3 |
| 12 F-E | 5:45:58.0 | 5:45:56.0 | 47.7 | 0.2 | 158.8 | 1462.3 | 2233.6 | 139.1 |
| 13 F-E | 5:48:55.5 | 5:48:54.7 | 61.5 | 0.3 | 120.8 | 753.4 | 923.0 | 125.7 |
| 14 F-E | 5:51:30.0 | 5:51:29.4 | -92.7 | -0.3 | 170.2 | 665.6 | 727.2 | 119.7 |
| 15 F-E | 5:54:10.5 | 5:54:10.2 | 9.2 | 0.0 | 123.7 | 303.8 | 309.7 | 113.0 |
| 16 F-E | 5:56:31.0 | 5:56:30.7 | 265.7 | 0.9 | 158.5 | 306.9 | 330.5 | 115.3 |
| 17 F-E | 5:59:6.0 | 5:59:5.5 | 42.2 | 0.2 | 136.6 | 517.2 | 519.0 | 85.2 |
| 18 F-E | 6:4:15.5 | 6:4:15.0 | -280.5 | -1.0 | 166.4 | 470.1 | 591.7 | 117.9 |
| 19 F-E | 6:6:26.0 | 6:6:25.5 | 130.8 | 0.5 | 123.6 | 538.6 | 603.2 | 116.8 |
| 20 F-E | 6:8:36.0 | 6:8:35.5 | 275.0 | 1.0 | 161.6 | 542.1 | 628.2 | 120.4 |
| 22 F-E | 6:11:45.5 | 6:11:45.0 | 92.7 | 0.7 | 74.3 | 526.5 | 586.1 | 116.1 |
| 22 F-E | 6:14:3.5 | 6:14:2.4 | 79.5 | 0.4 | 106.8 | 517.4 | 1225.4 | 155.0 |
| 23 F-E | 6:16:43.5 | 6:16:42.0 | -162.5 | -1.2 | 77.2 | 523.7 | 590.3 | 117.5 |
| 24 F-E | 6:19:9.0 | 6:19:8.1 | -129.2 | -0.7 | 103.6 | 495.3 | 1002.2 | 150.4 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C2-3 (CONT)

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 23, 1980

FAA/AEE 120

S76

DEC 13, 1980

MIC # 3 CENTERLINE EAST, 4 FT

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|--------|------------------|------------------|------------|----------------|-------------|-----------|----------|---------------|
| 25 F-W | 6:26:33.5 | 6:26:33.0 | 103.2 | 0.4 | 142.3 | 529.5 | 541.4 | 102.0 |
| 26 F-E | 6:29:11.5 | 6:29:11.0 | -79.3 | -0.3 | 176.8 | 544.5 | 592.6 | 113.3 |
| 27 F-W | 6:31:42.0 | 6:31:41.6 | -28.7 | -0.1 | 149.9 | 484.9 | 485.6 | 93.1 |
| 28 F-E | 6:34:1.5 | 6:34:1.0 | 159.3 | 0.5 | 176.5 | 506.0 | 524.3 | 105.2 |
| 29 F-W | 6:36:47.5 | 6:36:47.0 | 139.8 | 0.8 | 94.6 | 496.0 | 550.5 | 115.7 |
| 30 F-E | 6:38:50.0 | 6:38:49.5 | 115.3 | 0.5 | 122.7 | 525.4 | 548.4 | 106.6 |
| 31 F-W | 6:41:31.5 | 6:41:31.0 | -212.8 | -1.5 | 96.1 | 527.5 | 594.1 | 117.4 |
| 32 F-E | 6:43:44.5 | 6:43:44.0 | 84.5 | 0.4 | 119.2 | 550.7 | 610.5 | 115.6 |
| 33 DEP | 7:21:52.0 | 7:21:51.5 | 1015.0 | 6.4 | 89.5 | 613.0 | 613.7 | 87.3 |
| 34 ARR | 7:24:35.5 | 7:24:35.1 | -953.0 | -3.5 | 63.4 | 495.0 | 507.9 | 77.0 |
| 35 DEP | 7:28:54.0 | 7:28:53.4 | 1943.5 | 13.4 | 80.8 | 605.0 | 607.3 | 60.2 |
| 36 ARR | 7:31:30.0 | 7:31:29.6 | -687.0 | -6.3 | 61.4 | 435.4 | 447.2 | 76.8 |
| 37 DEP | 7:33:57.5 | 7:33:57.0 | 1768.8 | 11.7 | 84.5 | 520.5 | 520.6 | 91.3 |
| 39 DEP | 7:38:49.5 | 7:38:49.0 | 1868.5 | 12.1 | 86.9 | 569.5 | 569.4 | 90.0 |
| 40 ARR | 7:41:27.0 | 7:41:26.6 | -438.5 | -4.0 | 82.4 | 445.0 | 493.0 | 115.5 |
| 41 DEP | 7:46:8.5 | 7:46:8.0 | 1850.4 | 12.1 | 85.5 | 537.9 | 537.9 | 90.0 |
| 42 ARR | 7:49:7.0 | 7:49:6.6 | -605.0 | -5.8 | 65.1 | 450.4 | 512.5 | 118.5 |
| 43 DEP | 7:51:50.5 | 7:51:50.0 | 1978.3 | 13.2 | 83.4 | 546.3 | 547.1 | 86.9 |

REC. TIME: TIME PNLTM WAS RECORDED. RAD. TIME: TIME PNLTM WAS RADIATED.
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C2-3 (CONT)

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 23, 1980
S76

FAA/AEE 120
DEC 13, 1980

MIC # 3 CENTERLINE EAST, 4 FT

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|--------|---------------|---------------|---------|-------------|----------|--------|--------|------------|
| 44 ARR | 7:54:46.5 | 7:54:46.1 | -599.3 | -5.3 | 63.3 | 440.5 | 467.5 | 109.6 |
| 45 F-E | 8:0:19.0 | 8:0:17.1 | -144.2 | -0.5 | 151.9 | 1011.5 | 1050.7 | 105.7 |
| 46 F-W | 8:2:55.0 | 8:2:54.7 | 109.2 | 0.5 | 136.7 | 1035.7 | 1454.0 | 134.6 |
| 47 F-E | 8:5:17.0 | 8:5:15.9 | 273.7 | 1.0 | 151.6 | 1036.3 | 1213.0 | 121.3 |
| 48 F-W | 8:8:27.0 | 8:8:25.9 | 9.8 | 0.0 | 138.2 | 1017.2 | 1212.4 | 123.0 |
| 49 F-E | 8:10:38.5 | 8:10:38.0 | -30.5 | -0.1 | 136.3 | 499.1 | 623.9 | 126.9 |
| 50 F-W | 8:13:27.0 | 8:13:26.5 | -55.3 | -0.3 | 113.9 | 468.9 | 550.8 | 121.6 |
| 51 F-E | 8:16:2.0 | 8:16:1.5 | 153.3 | 0.7 | 131.2 | 529.4 | 618.1 | 121.1 |
| 52 F-W | 8:19:12.0 | 8:19:11.5 | -18.2 | -0.1 | 117.9 | 553.6 | 590.6 | 108.9 |
| 53 DEP | 8:22:23.0 | 8:22:22.4 | 1740.2 | 11.1 | 87.4 | 616.9 | 660.7 | 67.6 |
| 54 ARR | 8:25:44.5 | 8:25:44.0 | -729.3 | -6.7 | 61.0 | 443.5 | 534.9 | 124.0 |
| 55 DEP | 8:28:27.0 | 8:28:26.5 | 1356.8 | 9.9 | 81.8 | 599.2 | 599.8 | 87.4 |
| 56 ARR | 8:41:0.0 | 8:40:59.5 | -655.2 | -6.0 | 61.7 | 431.7 | 534.1 | 126.1 |
| 57 F-E | 8:45:36.5 | 8:45:35.9 | 52.2 | 0.2 | 157.1 | 584.6 | 695.7 | 122.8 |
| 58 F-W | 8:48:29.0 | 8:48:28.5 | -74.2 | -0.3 | 137.7 | 529.7 | 613.9 | 120.4 |
| 59 F-E | 8:50:42.5 | 8:50:42.0 | 30.0 | 0.1 | 152.2 | 527.7 | 551.1 | 106.8 |
| 60 F-W | 8:53:26.5 | 8:53:26.0 | 557.7 | 2.3 | 135.3 | 538.4 | 592.6 | 115.1 |
| 61 F-E | 8:58:2.0 | 8:58:1.4 | -372.0 | -2.1 | 99.4 | 531.3 | 635.2 | 120.2 |
| 62 F-W | 9:0:54.5 | 9:0:54.0 | -74.7 | -0.5 | 86.7 | 499.6 | 557.6 | 116.3 |
| 63 F-E | 9:7:42.5 | 9:7:41.9 | 44.3 | 0.2 | 100.5 | 599.3 | 672.7 | 117.0 |
| 64 F-W | 9:10:11.0 | 9:10:10.5 | -7.2 | -0.0 | 82.6 | 532.7 | 619.5 | 120.7 |
| 65 F-E | 9:13:47.0 | 9:13:46.4 | 363.3 | 1.2 | 164.7 | 550.6 | 707.1 | 128.9 |
| 66 F-E | 9:16:12.5 | 9:16:12.0 | 3.7 | 0.0 | 155.2 | 512.7 | 580.7 | 118.0 |
| 67 F-E | 9:18:38.0 | 9:18:37.5 | 418.5 | 1.4 | 165.8 | 534.2 | 597.7 | 116.7 |
| 68 F-W | 9:21:4.0 | 9:21:3.5 | -29.0 | -0.1 | 156.0 | 526.8 | 621.7 | 122.1 |
| 69 ARR | 9:26:25.5 | 9:26:25.1 | -780.8 | -6.2 | 70.7 | 432.7 | 451.8 | 106.7 |
| 70 ARR | 9:30:37.5 | 9:30:37.1 | -871.0 | -6.7 | 72.8 | 431.0 | 445.3 | 104.5 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C2-4

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 23, 1980
S76

FAA/AEE 120
DEC 13, 1980

MIC # 4 SIDELINE NORTH, 4 FT

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|--------|---------------|---------------|---------|-------------|----------|--------|--------|------------|
| 5 F-W | 5:28:10.5 | 5:28:09.0 | -115.0 | -0.5 | 136.2 | 1640.8 | 1651.0 | 96.4 |
| 6 F-E | 5:30:36.0 | 5:30:34.4 | -55.8 | -0.2 | 160.0 | 1635.3 | 1768.0 | 112.3 |
| 7 F-E | 5:33:11.5 | 5:33:10.5 | 338.3 | 1.6 | 119.7 | 921.7 | 1130.0 | 125.3 |
| 8 F-E | 5:35:22.0 | 5:35:20.8 | -220.0 | -0.7 | 170.8 | 814.4 | 1308.9 | 141.5 |
| 9 F-E | 5:37:42.5 | 5:37:41.9 | 93.7 | 0.4 | 122.6 | 599.4 | 671.3 | 116.8 |
| 10 F-E | 5:40:32.5 | 5:40:31.9 | 88.8 | 0.3 | 156.1 | 609.8 | 681.3 | 116.5 |
| 12 F-E | 5:45:56.5 | 5:45:54.6 | 46.0 | 0.2 | 159.1 | 1503.8 | 2194.8 | 136.7 |
| 13 F-E | 5:48:59.5 | 5:48:58.7 | -152.3 | -0.7 | 122.0 | 891.2 | 908.1 | 104.0 |
| 14 F-E | 5:51:28.5 | 5:51:27.8 | -273.0 | -0.9 | 170.9 | 762.3 | 806.7 | 109.1 |
| 15 F-E | 5:54:13.5 | 5:54:13.0 | -164.7 | -0.7 | 124.6 | 572.7 | 575.4 | 95.6 |
| 16 F-E | 5:56:28.5 | 5:56:27.0 | 175.3 | 0.6 | 160.0 | 553.7 | 683.4 | 125.9 |
| 17 F-E | 5:59:07.0 | 5:59:06.4 | 99.2 | 0.4 | 134.7 | 628.8 | 679.3 | 112.3 |
| 18 F-E | 6:04:13.0 | 6:04:12.2 | -320.0 | -1.1 | 167.3 | 676.5 | 862.0 | 128.3 |
| 19 F-E | 6:06:28.0 | 6:06:27.3 | 63.3 | 0.3 | 124.1 | 632.2 | 798.1 | 120.4 |
| 20 F-E | 6:08:33.5 | 6:08:32.7 | 126.8 | 0.4 | 162.9 | 734.4 | 900.2 | 128.6 |
| 21 F-E | 6:11:49.5 | 6:11:48.8 | 32.2 | 0.2 | 73.7 | 722.3 | 773.9 | 111.0 |
| 22 F-E | 6:14:04.0 | 6:14:03.3 | 114.0 | 0.6 | 106.5 | 710.2 | 833.1 | 121.5 |
| 23 F-E | 6:16:48.0 | 6:16:47.5 | -2.8 | -0.0 | 77.1 | 582.1 | 609.8 | 107.3 |
| 24 F-E | 6:19:10.0 | 6:19:09.4 | -149.5 | -0.8 | 103.0 | 624.0 | 634.9 | 100.6 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C2-4 (CONT)

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 23, 1980
S76

FAR/AEE 120
DEC 13, 1980

MIC # 4 SIDELINE NORTH, 4 FT

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|--------|---------------|---------------|---------|-------------|----------|--------|-------|------------|
| 25 F-W | 6:26:34.5 | 6:26:33.7 | 35.5 | 0.1 | 143.0 | 814.9 | 922.0 | 117.9 |
| 26 F-E | 6:29:09.5 | 6:29:08.8 | -99.7 | -0.3 | 176.9 | 645.5 | 749.5 | 120.5 |
| 27 F-W | 6:31:42.5 | 6:31:41.8 | -55.8 | -0.2 | 149.7 | 634.9 | 763.6 | 123.8 |
| 28 F-E | 6:33:59.0 | 6:33:58.3 | -82.7 | -0.3 | 177.6 | 625.1 | 779.2 | 126.7 |
| 29 F-W | 6:36:51.5 | 6:36:50.9 | -44.3 | -0.3 | 95.2 | 694.7 | 704.7 | 99.7 |
| 30 F-E | 6:38:46.5 | 6:38:45.9 | -0.3 | -0.0 | 123.4 | 653.3 | 793.6 | 124.6 |
| 31 F-W | 6:41:35.5 | 6:41:34.9 | -244.7 | -1.5 | 95.4 | 700.7 | 712.3 | 99.4 |
| 32 F-E | 6:43:43.0 | 6:43:42.3 | 163.5 | 0.2 | 119.5 | 753.5 | 757.0 | 95.8 |
| 33 DEP | 7:21:47.5 | 7:21:46.9 | 1951.7 | 13.0 | 78.9 | 642.3 | 656.0 | 101.7 |
| 34 ARR | 7:24:37.5 | 7:24:37.0 | -958.0 | -9.5 | 63.4 | 579.7 | 596.4 | 103.6 |
| 35 DEP | 7:28:47.0 | 7:28:46.4 | 1979.3 | 13.7 | 80.0 | 652.6 | 680.5 | 108.4 |
| 36 ARR | 7:31:32.0 | 7:31:31.5 | -614.0 | -5.6 | 61.5 | 559.0 | 584.0 | 106.6 |
| 37 DEP | 7:33:54.0 | 7:33:53.5 | 1723.8 | 11.6 | 96.1 | 622.1 | 624.6 | 95.1 |
| 39 DEP | 7:38:45.0 | 7:38:44.4 | 1749.7 | 12.0 | 81.6 | 649.1 | 679.2 | 107.1 |
| 40 ARR | 7:41:27.0 | 7:41:26.2 | -438.5 | -4.0 | 62.4 | 590.1 | 953.1 | 141.6 |
| 41 DEP | 7:46:07.0 | 7:46:06.4 | 1738.7 | 11.3 | 85.8 | 622.1 | 658.2 | 79.0 |
| 42 ARR | 7:49:08.0 | 7:49:07.2 | -659.7 | -5.7 | 64.9 | 588.0 | 871.0 | 138.0 |
| 43 DEP | 7:51:47.0 | 7:51:46.5 | 1505.6 | 10.4 | 81.1 | 622.9 | 626.2 | 96.3 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C2-4 (CONT)

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 23, 1980
S76

FAA/AEE 120
DEC 13, 1980

MIC # 4 SIDELINE NORTH, 4 FT

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG | |
|-------|---------------|---------------|-----------|-------------|----------|--------|--------|------------|-------|
| 44 | ARR | 7:54:50.0 | 7:54:49.4 | -599.7 | -5.5 | 62.0 | 636.1 | 697.5 | 114.2 |
| 45 | F-E | 0:0:14.0 | 0:0:12.7 | -296.2 | -1.1 | 151.7 | 1133.5 | 1440.9 | 128.1 |
| 46 | F-E | 0:2:58.5 | 0:2:57.2 | 125.7 | 0.5 | 137.3 | 1162.2 | 1491.1 | 128.8 |
| 47 | F-E | 0:5:14.0 | 0:5:12.7 | 288.2 | 1.1 | 152.6 | 1135.6 | 1492.9 | 130.5 |
| 48 | F-E | 0:8:28.0 | 0:8:26.7 | -173.5 | -0.7 | 139.9 | 1093.0 | 1460.7 | 131.9 |
| 49 | F-E | 0:10:37.0 | 0:10:36.4 | -171.2 | -0.7 | 136.4 | 693.9 | 730.3 | 108.2 |
| 50 | F-E | 0:13:39.0 | 0:13:38.3 | -147.2 | -0.7 | 116.0 | 668.1 | 805.2 | 121.3 |
| 51 | F-E | 0:16:0.0 | 0:15:59.3 | 101.5 | 0.4 | 131.3 | 693.6 | 751.1 | 112.6 |
| 52 | F-E | 0:19:13.0 | 0:19:12.2 | -193.3 | -0.9 | 117.6 | 725.1 | 927.5 | 127.6 |
| 53 | DEP | 0:22:17.0 | 0:22:16.9 | 1907.3 | 13.2 | 80.3 | 688.7 | 695.8 | 95.4 |
| 54 | DEP | 0:25:44.5 | 0:25:43.5 | -739.3 | -6.7 | 61.0 | 609.5 | 699.7 | 142.4 |
| 55 | DEP | 0:28:21.5 | 0:28:20.9 | 1379.7 | 14.9 | 73.6 | 676.4 | 703.7 | 106.0 |
| 56 | DEP | 0:41:0.0 | 0:40:59.1 | -855.2 | -6.0 | 61.7 | 635.2 | 1047.6 | 142.7 |
| 57 | F-E | 0:45:34.0 | 0:45:33.2 | -29.0 | -0.1 | 157.0 | 763.1 | 965.0 | 128.8 |
| 58 | F-E | 0:48:30.5 | 0:48:29.7 | -176.7 | -0.7 | 138.4 | 735.9 | 876.5 | 122.9 |
| 59 | F-E | 0:50:39.0 | 0:50:38.1 | -400.5 | -1.5 | 153.0 | 783.3 | 981.6 | 132.6 |
| 60 | F-E | 0:53:23.0 | 0:53:22.3 | 394.0 | 1.6 | 166.2 | 718.1 | 849.9 | 122.4 |
| 61 | F-E | 0:58:0.0 | 0:57:59.3 | -154.2 | -0.9 | 100.0 | 754.3 | 776.9 | 103.6 |
| 62 | F-E | 0:0:58.5 | 0:0:57.8 | -34.2 | -0.5 | 87.2 | 674.8 | 840.2 | 126.6 |
| 63 | F-E | 0:7:39.0 | 0:7:37.1 | 78.0 | 0.4 | 101.0 | 752.6 | 689.4 | 130.5 |
| 64 | F-E | 0:10:13.5 | 0:10:12.2 | -92.0 | -0.6 | 83.0 | 709.9 | 844.5 | 122.8 |
| 65 | F-E | 0:13:45.5 | 0:13:44.8 | 424.5 | 1.5 | 185.3 | 712.5 | 802.9 | 117.5 |
| 66 | F-E | 0:16:14.0 | 0:16:13.3 | 57.0 | 0.2 | 156.7 | 678.4 | 794.5 | 121.4 |
| 67 | F-E | 0:18:35.0 | 0:18:34.3 | 347.3 | 1.2 | 166.8 | 764.3 | 800.9 | 113.4 |
| 68 | F-E | 0:21:5.5 | 0:20:4.7 | 29.6 | 0.1 | 155.9 | 728.8 | 868.9 | 122.9 |
| 69 | ARR | 0:26:29.0 | 0:26:28.4 | -733.8 | -5.9 | 69.9 | 599.7 | 632.9 | 116.2 |
| 70 | ARR | 0:30:39.0 | 0:30:38.3 | -795.3 | -6.1 | 73.3 | 641.0 | 769.2 | 123.6 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C2-5

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 23, 1980

FAA/AEE 120
DEC 13, 1980

MIC # 5 SIDELINE SOUTH, 4 FT

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|-------|---------------|---------------|---------|-------------|----------|--------|--------|------------|
| 5 | 5:28:4.5 | 5:28:2.4 | -107.8 | -0.4 | 135.6 | 1691.5 | 2347.0 | 133.0 |
| 6 | 5:30:35.0 | 5:30:33.0 | -78.8 | -0.3 | 159.8 | 1634.0 | 1924.0 | 121.0 |
| 7 | 5:33:14.0 | 5:33:13.0 | 71.7 | 0.3 | 119.3 | 926.0 | 938.0 | 90.1 |
| 8 | 5:35:24.0 | 5:35:23.0 | -181.5 | -0.6 | 171.1 | 1040.8 | 1121.8 | 111.0 |
| 9 | 5:37:42.5 | 5:37:42.0 | 93.7 | 0.4 | 122.6 | 544.2 | 621.5 | 113.0 |
| 10 | 5:40:33.0 | 5:40:32.5 | 130.2 | 0.5 | 156.4 | 546.6 | 560.0 | 102.9 |
| 11 | 5:45:59.0 | 5:45:57.4 | 30.3 | 0.1 | 159.1 | 1576.5 | 1775.8 | 117.4 |
| 12 | 5:49:0.5 | 5:48:59.7 | -164.7 | -0.8 | 122.2 | 905.0 | 910.2 | 91.4 |
| 13 | 5:51:20.0 | 5:51:20.2 | -217.8 | -0.7 | 171.3 | 995.7 | 909.6 | 100.0 |
| 14 | 5:54:13.0 | 5:54:12.5 | -179.2 | -0.8 | 124.3 | 577.0 | 596.2 | 104.2 |
| 15 | 5:56:29.0 | 5:56:28.4 | 173.5 | 0.9 | 160.2 | 601.2 | 657.2 | 113.0 |
| 16 | 5:59:7.5 | 5:59:6.8 | 74.0 | 0.3 | 129.4 | 788.4 | 809.7 | 103.2 |
| 17 | 6:4:14.0 | 6:4:13.0 | -365.3 | -1.2 | 167.1 | 632.6 | 738.8 | 109.0 |
| 18 | 6:6:27.0 | 6:6:26.1 | 159.2 | 0.7 | 123.9 | 766.9 | 1005.1 | 130.3 |
| 19 | 6:8:34.5 | 6:8:33.8 | 208.6 | 0.7 | 162.7 | 746.2 | 803.3 | 112.6 |
| 20 | 6:11:40.5 | 6:11:40.0 | 32.2 | 0.2 | 73.7 | 723.0 | 775.2 | 111.2 |
| 21 | 6:14:2.5 | 6:14:1.0 | 9.0 | 0.0 | 107.1 | 704.1 | 1074.1 | 139.0 |
| 22 | 6:16:46.0 | 6:16:47.0 | -2.8 | -0.6 | 77.1 | 831.5 | 852.7 | 102.0 |
| 23 | 6:19:3.5 | 6:19:7.7 | -125.3 | -0.7 | 103.2 | 780.1 | 981.7 | 122.2 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C2-5 (CONT)

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 23, 1980

FAA/AEE 120

S76

DEC 13, 1980

MIC # 5 SIDELINE SOUTH, 4 FT

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|--------|---------------|---------------|---------|-------------|----------|--------|-------|------------|
| 25 F-W | 6:26:35.0 | 6:26:34.4 | 15.0 | 0.1 | 143.3 | 666.2 | 728.7 | 113.9 |
| 26 F-E | 6:29:10.5 | 6:29:9.8 | -69.0 | -0.2 | 177.1 | 817.0 | 824.6 | 97.0 |
| 27 F-W | 6:31:42.0 | 6:31:41.2 | -28.7 | -0.1 | 149.9 | 740.5 | 957.7 | 129.4 |
| 28 F-E | 6:34:0.5 | 6:33:59.8 | 25.2 | 0.1 | 176.8 | 772.9 | 773.1 | 91.4 |
| 29 F-W | 6:36:51.5 | 6:36:50.9 | -44.0 | -0.3 | 95.2 | 698.0 | 708.2 | 99.7 |
| 30 F-E | 6:38:42.0 | 6:38:47.3 | 74.2 | 0.3 | 122.8 | 773.2 | 788.1 | 101.2 |
| 31 F-W | 6:41:35.5 | 6:41:34.8 | -244.7 | -1.5 | 95.4 | 723.9 | 737.2 | 100.9 |
| 32 F-E | 6:43:42.5 | 6:43:41.2 | 221.0 | 1.0 | 119.9 | 762.7 | 746.0 | 108.2 |
| 33 DEP | 7:21:50.0 | 7:21:49.0 | 1310.0 | 8.7 | 84.6 | 774.9 | 825.6 | 69.8 |
| 34 ARR | 7:24:40.0 | 7:24:39.4 | -231.7 | -7.5 | 62.5 | 706.6 | 710.1 | 84.9 |
| 35 DEP | 7:28:50.5 | 7:28:49.8 | 1953.3 | 13.9 | 82.1 | 727.9 | 802.1 | 64.2 |
| 36 ARR | 7:31:33.0 | 7:31:32.4 | -552.7 | -5.1 | 61.9 | 678.9 | 692.6 | 101.4 |
| 37 DEP | 7:33:56.0 | 7:33:55.3 | 1746.0 | 11.6 | 84.0 | 745.1 | 786.6 | 71.0 |
| 39 DEP | 7:38:45.5 | 7:38:44.9 | 1722.0 | 11.7 | 91.9 | 711.6 | 715.2 | 95.8 |
| 40 ARR | 7:41:32.5 | 7:41:31.9 | -711.2 | -6.3 | 69.7 | 666.5 | 699.3 | 105.1 |
| 41 DEP | 7:46:5.0 | 7:46:4.4 | 1535.7 | 10.3 | 82.4 | 700.2 | 701.3 | 93.3 |
| 42 ARR | 7:49:12.5 | 7:49:11.9 | -801.2 | -5.3 | 69.7 | 635.9 | 701.6 | 102.1 |
| 43 DEP | 7:51:47.0 | 7:51:46.4 | 1605.6 | 10.4 | 81.1 | 718.3 | 718.7 | 91.0 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C2-5 (CONT)

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 23, 1980

FAA/AEE 120
DEC 13, 1980

S76

MIC # 5 SIDELINE SOUTH, 4 FT

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|--------|---------------|---------------|---------|-------------|----------|--------|--------|------------|
| 44 ARR | 7:54:53.5 | 7:54:52.9 | -663.5 | -6.1 | 61.8 | 662.7 | 665.4 | 84.8 |
| 45 F-E | 8:0:16.5 | 8:0:15.5 | -273.0 | -1.0 | 151.4 | 1126.3 | 1157.7 | 103.4 |
| 46 F-W | 8:2:58.5 | 8:2:57.2 | 125.7 | 0.5 | 137.3 | 1137.8 | 1486.1 | 130.0 |
| 47 F-E | 8:5:17.5 | 8:5:16.5 | 209.5 | 0.8 | 151.4 | 1142.9 | 1142.9 | 90.3 |
| 48 F-W | 8:8:27.5 | 8:8:26.1 | -114.2 | -0.5 | 139.7 | 1155.2 | 1604.0 | 133.9 |
| 49 F-E | 8:10:36.5 | 8:10:35.8 | -163.7 | -0.7 | 136.3 | 718.0 | 813.8 | 113.1 |
| 50 F-W | 8:13:29.5 | 8:13:28.8 | -50.2 | -0.2 | 115.9 | 663.5 | 736.3 | 115.7 |
| 51 F-E | 8:16:0.5 | 8:15:59.8 | 93.3 | 0.4 | 131.3 | 745.2 | 772.8 | 105.4 |
| 52 F-W | 8:19:14.5 | 8:19:13.8 | -230.0 | -1.1 | 118.2 | 738.4 | 767.2 | 105.8 |
| 53 DEP | 8:22:17.5 | 8:22:16.9 | 1907.3 | 13.2 | 80.3 | 724.7 | 725.4 | 92.6 |
| 54 ARR | 8:25:50.0 | 8:25:49.4 | -628.2 | -5.6 | 62.9 | 644.8 | 689.2 | 110.7 |
| 55 DEP | 8:28:25.5 | 8:28:24.8 | 1418.2 | 10.3 | 77.4 | 721.0 | 791.6 | 65.6 |
| 56 ARR | 8:41:7.0 | 8:41:6.5 | -541.7 | -4.9 | 63.0 | 620.6 | 625.2 | 96.9 |
| 57 F-E | 8:45:35.5 | 8:45:34.8 | 25.7 | 0.1 | 157.4 | 773.1 | 794.5 | 103.4 |
| 58 F-W | 8:48:31.5 | 8:48:30.8 | -12.7 | -0.1 | 138.6 | 714.2 | 748.5 | 107.4 |
| 59 F-E | 8:50:40.0 | 8:50:39.3 | -294.5 | -1.1 | 153.0 | 724.7 | 829.6 | 119.1 |
| 60 F-W | 8:53:29.0 | 8:53:28.3 | 399.8 | 1.7 | 135.2 | 757.7 | 782.5 | 104.5 |
| 61 F-E | 8:57:59.5 | 8:57:58.8 | -90.0 | -0.5 | 100.6 | 725.5 | 780.4 | 111.6 |
| 62 F-W | 9:0:58.5 | 9:0:57.8 | -125.3 | -0.8 | 87.4 | 712.0 | 738.2 | 105.3 |
| 63 F-E | 9:7:40.0 | 9:7:39.3 | 58.0 | 0.3 | 100.8 | 789.8 | 831.1 | 103.1 |
| 64 F-W | 9:10:16.0 | 9:10:15.4 | -105.2 | -0.7 | 89.7 | 724.9 | 734.5 | 99.3 |
| 65 F-E | 9:13:45.5 | 9:13:44.7 | 424.5 | 1.5 | 165.3 | 749.6 | 861.2 | 119.5 |
| 66 F-W | 9:16:13.0 | 9:16:12.1 | 19.0 | 0.1 | 155.6 | 744.5 | 1050.0 | 134.8 |
| 67 F-E | 9:18:35.0 | 9:18:35.3 | 347.3 | 1.2 | 166.8 | 729.2 | 841.4 | 119.9 |
| 68 F-W | 9:21:5.0 | 9:21:4.2 | 36.0 | 0.1 | 155.5 | 718.7 | 965.3 | 131.9 |
| 69 ARR | 9:26:28.5 | 9:26:27.9 | -730.5 | -5.9 | 69.7 | 645.8 | 702.0 | 113.1 |
| 70 ARR | 9:30:39.0 | 9:30:38.3 | -795.3 | -6.1 | 73.3 | 609.3 | 753.4 | 126.0 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C2-6

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 23, 1980
S76

FAA/AEE 120
DEC 13, 1980

MIC # 6 SIDELINE NORTH, 4 FT

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|-------|---------------|---------------|---------|-------------|----------|--------|--------|------------|
| 5 | 5:28:06.0 | 5:28:04.1 | -62.3 | -0.3 | 134.9 | 1784.9 | 2211.5 | 126.2 |
| 6 | 5:30:34.5 | 5:30:32.6 | -63.5 | -0.2 | 160.3 | 1816.6 | 2151.1 | 122.4 |
| 7 | 5:33:10.0 | 5:33:10.8 | 286.2 | 1.4 | 118.7 | 1212.6 | 1346.9 | 115.8 |
| 8 | 5:35:20.5 | 5:35:21.3 | -219.7 | -0.7 | 170.4 | 1048.8 | 1378.3 | 130.5 |
| 9 | 5:37:45.0 | 5:37:44.1 | 236.5 | 1.1 | 123.6 | 1006.0 | 1017.8 | 81.2 |
| 10 | 5:40:30.5 | 5:40:29.2 | 46.0 | 0.2 | 157.1 | 1014.3 | 1437.2 | 135.1 |
| 12 | 5:45:54.5 | 5:45:52.3 | 43.7 | 0.2 | 159.3 | 1669.2 | 2837.6 | 144.0 |
| 13 | 5:48:58.0 | 5:48:56.3 | -66.7 | -0.3 | 122.5 | 1174.0 | 1317.6 | 117.0 |
| 14 | 5:51:29.0 | 5:51:28.1 | -217.8 | -0.7 | 171.3 | 1052.2 | 1067.3 | 99.6 |
| 15 | 5:54:14.5 | 5:54:13.1 | -122.8 | -0.6 | 124.5 | 974.5 | 975.3 | 92.3 |
| 16 | 5:56:28.5 | 5:56:27.6 | 175.3 | 0.6 | 130.0 | 952.2 | 1074.6 | 117.6 |
| 17 | 5:59:09.0 | 5:59:08.2 | -123.0 | -0.6 | 130.3 | 958.4 | 963.7 | 84.0 |
| 18 | 6:04:12.5 | 6:04:11.4 | -340.5 | -1.1 | 167.5 | 1033.6 | 1296.8 | 127.2 |
| 19 | 6:06:28.5 | 6:06:27.6 | -13.2 | -0.1 | 124.3 | 1023.2 | 1079.1 | 108.5 |
| 20 | 6:08:33.5 | 6:08:32.4 | 126.3 | 0.4 | 162.0 | 1045.0 | 1214.0 | 120.6 |
| 21 | 6:11:43.5 | 6:11:47.5 | 41.8 | 0.3 | 74.4 | 1070.4 | 1160.8 | 112.3 |
| 22 | 6:14:51.5 | 6:14:44.6 | 175.2 | 0.9 | 105.5 | 1053.5 | 1080.3 | 100.1 |
| 23 | 6:16:51.0 | 6:16:50.2 | -19.5 | -0.1 | 77.4 | 997.9 | 916.2 | 78.5 |
| 24 | 6:19:02.0 | 6:19:02.1 | -112.2 | -0.6 | 103.5 | 955.7 | 1081.9 | 117.0 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C2-6 (CONT)

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 23, 1980

FAA/AEE 120

S76

DEC 13, 1980

MIC # 6 SIDELINE NORTH, 4 FT

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|--------|---------------|---------------|---------|-------------|----------|--------|--------|------------|
| 25 F-W | 6:26:36.5 | 6:26:35.5 | 6.0 | 0.0 | 143.1 | 1140.9 | 1143.8 | 86.0 |
| 26 F-E | 6:29:10.5 | 6:29:9.6 | -69.0 | -0.2 | 177.1 | 964.1 | 974.4 | 98.3 |
| 27 F-W | 6:31:42.5 | 6:31:41.5 | -55.8 | -0.2 | 149.7 | 981.2 | 1101.7 | 117.1 |
| 28 F-E | 6:34:00.0 | 6:33:59.1 | 1.7 | 0.0 | 176.9 | 960.8 | 986.7 | 103.2 |
| 29 F-W | 6:36:52.5 | 6:36:51.6 | -32.5 | -0.2 | 95.2 | 1051.3 | 1051.5 | 91.2 |
| 30 F-E | 6:38:48.5 | 6:38:47.6 | 81.7 | 0.4 | 122.3 | 987.4 | 989.9 | 94.1 |
| 31 F-W | 6:41:35.5 | 6:41:34.6 | -244.7 | -1.5 | 95.4 | 1051.2 | 1062.9 | 98.5 |
| 32 F-E | 6:43:41.5 | 6:43:40.5 | 232.0 | 1.1 | 119.3 | 1104.6 | 1179.6 | 110.5 |
| 33 DEP | 7:21:47.0 | 7:21:46.1 | 1960.5 | 13.9 | 78.2 | 973.3 | 1014.1 | 106.0 |
| 34 ARR | 7:24:35.5 | 7:24:34.6 | -953.0 | -3.5 | 63.4 | 940.6 | 1017.9 | 112.5 |
| 35 DEP | 7:28:46.5 | 7:28:45.6 | 1989.7 | 13.7 | 80.0 | 1000.5 | 1057.0 | 108.8 |
| 36 ARR | 7:31:30.0 | 7:31:29.1 | -627.0 | -6.3 | 61.4 | 931.0 | 1022.4 | 114.4 |
| 37 DEP | 7:33:50.0 | 7:33:48.9 | 1737.8 | 12.9 | 80.8 | 966.8 | 1218.6 | 127.5 |
| 39 DEP | 7:38:47.0 | 7:38:46.1 | 1692.8 | 11.3 | 83.8 | 1003.3 | 1003.7 | 88.3 |
| 40 ARR | 7:41:23.5 | 7:41:22.2 | -522.6 | -4.7 | 62.5 | 965.8 | 1506.8 | 140.1 |
| 41 DEP | 7:46:7.0 | 7:46:6.1 | 1733.7 | 11.3 | 85.8 | 982.4 | 994.0 | 81.2 |
| 42 ARR | 7:49:4.5 | 7:49:3.2 | -611.8 | -5.4 | 64.5 | 951.8 | 1439.3 | 138.6 |
| 43 DEP | 7:51:49.5 | 7:51:48.6 | 1801.2 | 12.1 | 82.8 | 975.6 | 996.9 | 78.2 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C2-6 (CONT)

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 23, 1980

FAA/AEE 120
DEC 13, 1980

S76

MIC # 6 SIDELINE NORTH, 4 FT

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG | |
|-------|---------------|---------------|-----------|-------------|----------|--------|--------|------------|-------|
| 44 | ARR | 7:54:49.0 | 7:54:48.1 | -576.8 | -5.2 | 62.9 | 974.3 | 1061.9 | 113.4 |
| 45 | F-E | 8:0:14.0 | 8:0:12.5 | -296.2 | -1.1 | 151.7 | 1382.6 | 1659.6 | 123.6 |
| 46 | F-W | 8:2:59.5 | 8:2:58.1 | 125.5 | 0.5 | 137.7 | 1414.3 | 1583.1 | 116.7 |
| 47 | F-E | 8:5:13.0 | 8:5:11.3 | 281.7 | 1.0 | 153.1 | 1380.9 | 1911.3 | 133.7 |
| 48 | F-W | 8:8:28.5 | 8:8:27.1 | -179.7 | -0.7 | 139.4 | 1331.5 | 1591.3 | 123.2 |
| 49 | F-E | 8:10:37.0 | 8:10:36.1 | -171.2 | -0.7 | 136.4 | 1044.5 | 1084.9 | 105.7 |
| 50 | F-W | 8:13:31.0 | 8:13:30.1 | 104.0 | 0.5 | 116.1 | 1055.0 | 1056.6 | 93.2 |
| 51 | F-E | 8:16:0.5 | 8:15:59.6 | 93.3 | 0.4 | 131.3 | 1035.5 | 1059.7 | 102.9 |
| 52 | F-W | 8:19:13.5 | 8:19:12.4 | -178.8 | -0.9 | 117.4 | 1078.3 | 1199.7 | 116.0 |
| 53 | DEP | 8:22:21.5 | 8:22:20.5 | 1653.8 | 10.7 | 86.3 | 1030.4 | 1102.6 | 69.2 |
| 54 | ARR | 8:25:46.5 | 8:25:45.5 | -709.5 | -6.5 | 61.7 | 937.5 | 1146.2 | 120.5 |
| 55 | DEP | 8:28:25.5 | 8:28:24.6 | 1412.2 | 10.3 | 77.4 | 1021.7 | 1058.7 | 75.4 |
| 56 | ARR | 8:40:56.5 | 8:40:54.0 | -677.2 | -6.3 | 66.8 | 1032.2 | 1691.7 | 142.4 |
| 57 | F-E | 8:45:34.5 | 8:45:33.4 | -22.3 | -0.1 | 157.0 | 1085.4 | 1203.9 | 115.6 |
| 58 | F-W | 8:48:01.5 | 8:48:00.5 | -12.7 | -0.1 | 132.6 | 1026.4 | 1127.4 | 105.5 |
| 59 | F-E | 8:50:39.5 | 8:50:38.5 | -336.0 | -1.2 | 150.0 | 1076.6 | 1214.5 | 112.2 |
| 60 | F-W | 8:53:33.5 | 8:53:32.5 | 373.2 | .6 | 135.6 | 1055.6 | 1127.3 | 110.6 |
| 61 | F-E | 8:57:52.0 | 8:57:50.2 | 122.7 | 0.7 | 99.7 | 1121.1 | 2021.9 | 147.0 |
| 62 | F-W | 9:1:1.0 | 9:1:0.1 | -41.2 | -0.3 | 27.7 | 1328.1 | 1036.6 | 22.6 |
| 63 | F-E | 9:7:34.0 | 9:7:32.4 | 21.0 | 0.1 | 101.3 | 1079.4 | 1312.8 | 143.5 |
| 64 | F-W | 9:10:13.5 | 9:10:12.5 | -92.0 | -0.6 | 88.0 | 1057.3 | 1161.8 | 114.5 |
| 65 | F-E | 9:13:46.0 | 9:13:45.0 | 419.5 | 1.4 | 165.1 | 1082.3 | 1090.1 | 105.1 |
| 66 | F-W | 9:16:13.5 | 9:16:12.4 | 33.7 | 0.1 | 156.1 | 1021.2 | 1233.0 | 122.0 |
| 67 | F-E | 9:18:36.5 | 9:18:35.5 | 415.5 | 1.4 | 166.9 | 1033.9 | 1092.6 | 165.9 |
| 68 | F-W | 9:21:5.0 | 9:21:5.0 | 58.2 | 0.2 | 156.3 | 1078.1 | 1146.0 | 109.2 |
| 69 | ARR | 9:26:22.0 | 9:26:20.7 | -806.5 | -6.3 | 71.6 | 979.2 | 1533.0 | 140.3 |
| 70 | ARR | 9:30:39.5 | 9:30:38.5 | -728.3 | -5.6 | 73.2 | 1026.1 | 1037.2 | 110.7 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C2-7

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 23, 1980

FAA/AEE 120

S76

DEC 13, 1980

MIC #10 CENTERLINE CENTER GROUND

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|--------|---------------|---------------|---------|-------------|----------|--------|--------|------------|
| 5 F-W | 5:28: 7.5 | 5:28: 5.9 | -63.5 | -0.3 | 134.0 | 1590.0 | 1798.8 | 117.9 |
| 6 F-E | 5:30:32.5 | 5:30:30.4 | -59.2 | -0.2 | 160.6 | 1563.1 | 2358.9 | 138.7 |
| 7 F-W | 5:33:11.5 | 5:33:10.6 | 333.3 | 1.6 | 119.7 | 786.1 | 1012.5 | 129.1 |
| 8 F-E | 5:35:22.5 | 5:35:21.5 | -219.7 | -0.7 | 170.4 | 792.6 | 1168.0 | 136.9 |
| 9 F-E | 5:37:42.5 | 5:37:42.2 | 93.7 | 0.4 | 122.6 | 296.5 | 390.0 | 130.5 |
| 10 F-E | 5:40:32.5 | 5:40:32.2 | 88.8 | 0.3 | 156.1 | 309.5 | 389.2 | 126.3 |
| 12 F-E | 5:45:57.0 | 5:45:55.2 | 76.5 | 0.3 | 159.0 | 1464.0 | 2040.3 | 134.1 |
| 13 F-E | 5:48:57.0 | 5:48:56.1 | -36.7 | -0.2 | 121.6 | 752.5 | 1067.2 | 135.2 |
| 14 F-E | 5:51:26.5 | 5:51:25.5 | -470.7 | -1.6 | 171.3 | 674.5 | 1157.5 | 144.4 |
| 15 F-W | 5:54:12.5 | 5:54:12.2 | -147.8 | -0.7 | 124.0 | 302.4 | 370.3 | 125.2 |
| 17 F-W | 5:59: 6.0 | 5:59: 5.4 | 42.8 | 0.2 | 136.6 | 520.4 | 718.2 | 133.6 |
| 18 F-E | 6: 4:13.0 | 6: 4:12.4 | -320.0 | -1.1 | 167.3 | 484.6 | 694.3 | 135.8 |
| 19 F-W | 6: 6:27.5 | 6: 6:26.8 | 146.7 | 0.7 | 123.6 | 541.6 | 738.0 | 132.6 |
| 20 F-E | 6: 8:33.5 | 6: 8:32.6 | 126.3 | 0.4 | 162.9 | 537.9 | 772.9 | 135.6 |
| 21 F-E | 6:11:48.0 | 6:11:47.4 | 78.3 | 0.6 | 73.8 | 593.2 | 792.6 | 130.6 |
| 22 F-E | 6:14: 3.0 | 6:14: 2.3 | 53.0 | 0.2 | 107.1 | 512.6 | 826.6 | 141.7 |
| 23 F-W | 6:16:47.0 | 6:16:46.5 | -41.0 | -0.3 | 77.3 | 526.4 | 604.0 | 119.5 |
| 24 F-E | 6:19: 8.0 | 6:19: 7.4 | -112.2 | -0.6 | 103.5 | 511.6 | 726.2 | 135.2 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C2-7

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 23, 1980

FAA/AEE 120

S76

DEC 13, 1980

MIC #1G CENTERLINE CENTER, GROUND

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPN | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|--------|------------------|------------------|------------|----------------|-------------|-----------|----------|---------------|
| 25 F-W | 6:26:35.0 | 6:26:34.5 | 15.3 | 0.1 | 143.3 | 537.9 | 592.1 | 114.7 |
| 26 F-E | 6:29:09.5 | 6:29:08.9 | -99.7 | -0.3 | 176.9 | 551.7 | 658.3 | 123.1 |
| 27 F-W | 6:31:43.5 | 6:31:43.1 | -22.0 | -0.1 | 149.6 | 487.4 | 500.9 | 103.3 |
| 28 F-E | 6:33:59.0 | 6:33:52.4 | -82.7 | -0.3 | 177.6 | 505.9 | 672.1 | 131.2 |
| 29 F-W | 6:36:50.5 | 6:36:50.0 | -52.8 | -0.3 | 95.0 | 496.8 | 560.5 | 117.6 |
| 30 F-E | 6:38:47.0 | 6:38:46.5 | 33.2 | 0.2 | 123.7 | 524.0 | 616.7 | 121.9 |
| 31 F-W | 6:41:35.0 | 6:41:34.5 | -230.2 | -1.4 | 96.2 | 520.5 | 552.1 | 109.5 |
| 32 F-E | 6:43:41.5 | 6:43:40.9 | 232.0 | 1.1 | 119.3 | 545.7 | 670.1 | 125.5 |
| 33 DEP | 7:21:47.5 | 7:21:47.0 | 1851.7 | 13.0 | 78.9 | 521.0 | 524.5 | 96.6 |
| 34 ARR | 7:24:39.5 | 7:24:39.1 | -244.3 | -7.5 | 63.2 | 423.9 | 428.9 | 81.3 |
| 35 DEP | 7:28:50.8 | 7:28:49.5 | 1994.3 | 13.5 | 81.9 | 490.8 | 562.5 | 60.8 |
| 36 ARR | 7:31:32.0 | 7:31:31.6 | -614.0 | -5.0 | 61.5 | 387.1 | 423.1 | 113.8 |
| 37 DEP | 7:33:54.0 | 7:33:53.6 | 1723.8 | 11.6 | 83.1 | 482.8 | 483.0 | 91.9 |
| 39 DEP | 7:38:46.0 | 7:38:45.6 | 1684.3 | 11.4 | 82.4 | 475.0 | 475.0 | 90.7 |
| 40 ARR | 7:41:31.5 | 7:41:31.1 | -670.3 | -6.0 | 62.7 | 398.8 | 469.3 | 121.9 |
| 41 DEP | 7:46:05.0 | 7:46:04.6 | 1535.7 | 10.3 | 83.4 | 447.8 | 449.2 | 94.5 |
| 42 ARR | 7:49:11.5 | 7:49:11.1 | -592.8 | -5.3 | 63.4 | 407.8 | 468.6 | 119.5 |
| 43 DEP | 7:51:47.5 | 7:51:47.1 | 1537.0 | 10.5 | 82.0 | 463.2 | 466.4 | 83.2 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C2-7 (CONT)

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 23, 1980

FAA/AEE 120

S76

DEC 13, 1980

MIC #1G CENTERLINE CENTER, GROUND

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG | |
|-------|---------------|---------------|-----------|-------------|----------|--------|--------|------------|-------|
| 44 | ARR | 7:54:52.5 | 7:54:52.2 | -686.0 | -6.3 | 61.6 | 400.9 | 401.0 | 90.9 |
| 45 | F-E | 8:0:13.5 | 8:0:12.2 | -254.3 | -0.9 | 152.3 | 1021.0 | 1465.4 | 135.8 |
| 46 | F-E | 8:3:0.0 | 8:2:59.0 | 130.8 | 0.5 | 137.6 | 1043.5 | 1175.1 | 117.4 |
| 47 | F-E | 8:5:19.5 | 8:5:12.2 | 303.7 | 1.1 | 153.4 | 1031.5 | 1511.0 | 137.0 |
| 48 | F-E | 8:8:27.5 | 8:8:26.2 | -114.2 | -0.5 | 139.7 | 1017.9 | 1490.2 | 136.9 |
| 49 | F-E | 8:10:36.5 | 8:10:36.0 | -163.7 | -0.7 | 136.3 | 510.4 | 607.9 | 122.9 |
| 50 | F-E | 8:13:20.0 | 8:13:28.5 | -147.2 | -0.7 | 116.0 | 467.4 | 605.8 | 129.5 |
| 51 | F-E | 8:15:52.5 | 8:15:57.8 | 164.7 | 0.7 | 131.9 | 529.6 | 836.2 | 140.7 |
| 52 | F-E | 8:19:13.0 | 8:19:12.3 | -196.3 | -0.9 | 117.6 | 552.4 | 764.6 | 133.7 |
| 53 | DEP | 8:22:19.0 | 8:22:18.5 | 1781.0 | 12.0 | 82.4 | 507.7 | 539.3 | 70.3 |
| 54 | ARR | 8:25:49.5 | 8:25:49.1 | -711.2 | -6.4 | 62.6 | 393.5 | 469.8 | 123.1 |
| 55 | DEP | 8:28:29.5 | 8:28:23.1 | 1670.0 | 12.6 | 73.6 | 501.5 | 511.2 | 78.8 |
| 56 | ARR | 8:41:5.0 | 8:41:4.6 | -521.8 | -4.7 | 62.5 | 394.7 | 473.7 | 123.6 |
| 57 | F-E | 8:45:34.5 | 8:45:33.9 | -22.3 | -0.1 | 157.0 | 527.4 | 723.4 | 125.7 |
| 58 | F-E | 8:48:39.0 | 8:48:29.3 | -171.8 | -0.7 | 132.5 | 536.7 | 785.2 | 136.9 |
| 59 | F-E | 8:50:39.5 | 8:50:38.9 | -336.0 | -1.2 | 153.0 | 525.4 | 727.9 | 132.7 |
| 60 | F-E | 8:53:27.5 | 8:53:26.8 | 462.8 | 1.9 | 136.0 | 554.3 | 780.6 | 134.8 |
| 61 | F-E | 8:57:59.0 | 8:57:58.4 | -17.2 | -0.1 | 160.5 | 556.9 | 653.1 | 121.5 |
| 62 | F-E | 9:0:57.5 | 9:0:57.0 | -171.5 | -1.1 | 87.5 | 492.9 | 589.8 | 123.3 |
| 63 | F-E | 9:7:39.0 | 9:7:38.4 | 51.2 | 0.3 | 100.7 | 598.4 | 732.6 | 125.0 |
| 64 | F-E | 9:10:14.0 | 9:10:13.4 | -150.8 | -1.0 | 27.7 | 526.5 | 646.4 | 125.5 |
| 65 | F-E | 9:13:45.5 | 9:13:44.9 | 424.5 | 1.5 | 165.3 | 542.1 | 649.0 | 122.0 |
| 66 | F-E | 9:16:13.5 | 9:16:12.3 | 33.7 | 0.1 | 156.1 | 519.9 | 748.7 | 136.1 |
| 67 | F-E | 9:18:34.5 | 9:18:33.8 | 216.7 | 0.7 | 127.9 | 525.8 | 1022.6 | 140.1 |
| 68 | F-E | 9:21:5.0 | 9:21:4.3 | 36.7 | 0.1 | 155.5 | 534.9 | 802.4 | 138.2 |
| 69 | ARR | 9:26:29.0 | 9:26:28.6 | -733.8 | -5.9 | 69.9 | 326.4 | 432.2 | 116.6 |
| 70 | ARR | 9:30:48.5 | 9:30:48.1 | -521.3 | -4.5 | 73.0 | 390.0 | 442.2 | 115.1 |

REC. TIME: TIME PNLTM WAS RECORDED. RAD. TIME: TIME PNLTM WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT. C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED. CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C2-8

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 23, 1980
S76

FAA/AEE 120
DEC 13, 1980

MIC #1H CENTERLINE CENTER, 33FT

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|--------|---------------|---------------|---------|-------------|----------|--------|--------|------------|
| 5 F-W | 5:28: 7.0 | 5:28: 5.4 | 9.2 | 0.0 | 134.8 | 1557.1 | 1836.8 | 122.0 |
| 6 F-E | 5:30:34.0 | 5:30:32.2 | -61.2 | -0.2 | 160.1 | 1530.1 | 1996.6 | 130.0 |
| 7 F-W | 5:33:12.5 | 5:33:11.7 | 243.5 | 1.2 | 118.0 | 753.1 | 364.5 | 119.4 |
| 8 F-E | 5:35:22.0 | 5:35:20.9 | -220.0 | -0.7 | 170.8 | 766.8 | 1277.1 | 143.1 |
| 9 F-W | 5:37:43.0 | 5:37:42.7 | 135.0 | 0.6 | 123.3 | 263.7 | 295.6 | 116.9 |
| 10 F-E | 5:40:32.5 | 5:40:32.2 | 88.9 | 0.3 | 156.1 | 276.7 | 352.0 | 122.4 |
| 12 F-E | 5:45:53.5 | 5:45:57.8 | 37.5 | 0.1 | 158.5 | 1431.1 | 1712.5 | 123.3 |
| 13 F-W | 5:48:53.5 | 5:48:57.8 | -110.0 | -0.5 | 122.3 | 719.5 | 826.9 | 119.5 |
| 14 F-E | 5:51:27.5 | 5:51:26.7 | -399.2 | -1.3 | 170.9 | 642.0 | 859.0 | 131.6 |
| 15 F-W | 5:54:12.5 | 5:54:12.2 | -147.2 | -0.7 | 124.0 | 269.4 | 340.9 | 127.8 |
| 17 F-W | 5:59: 6.5 | 5:59: 6.0 | 73.5 | 0.3 | 137.9 | 493.2 | 602.0 | 125.9 |
| 18 F-E | 6: 4:13.0 | 6: 4:12.4 | -320.0 | -1.1 | 167.3 | 451.6 | 627.6 | 137.4 |
| 19 F-W | 6: 6:28.5 | 6: 6:28.0 | -13.2 | -0.1 | 124.0 | 505.9 | 661.8 | 115.1 |
| 20 F-E | 6: 8:34.0 | 6: 8:33.4 | 153.0 | 0.6 | 162.8 | 505.0 | 633.1 | 127.1 |
| 21 F-W | 6:11:46.5 | 6:11:47.0 | 41.9 | 0.3 | 74.4 | 500.2 | 632.3 | 127.7 |
| 22 F-E | 6:14: 2.5 | 6:14: 1.7 | 9.0 | 0.0 | 107.1 | 479.5 | 389.3 | 147.4 |
| 23 F-W | 6:16:47.0 | 6:16:46.5 | -41.0 | -0.3 | 77.3 | 495.5 | 576.8 | 120.0 |
| 24 F-E | 6:19: 3.0 | 6:19: 7.4 | -112.2 | -0.6 | 103.5 | 479.5 | 669.9 | 136.0 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C2-8 (CONT)

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 23, 1980
S76

FAA/AEE 120
DEC 13, 1980

MIC #1H CENTERLINE CENTER, 33FT

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|--------|---------------|---------------|---------|-------------|----------|--------|-------|------------|
| 25 F-W | 6:26:35.0 | 6:26:34.5 | 15.3 | 0.1 | 143.3 | 505.3 | 559.7 | 115.5 |
| 26 F-E | 6:29: 9.5 | 6:29: 9.0 | -99.7 | -0.3 | 176.9 | 519.6 | 626.6 | 124.0 |
| 27 F-W | 6:31:43.0 | 6:31:42.6 | -48.7 | -0.2 | 149.5 | 454.8 | 516.3 | 118.3 |
| 28 F-E | 6:33:59.0 | 6:33:58.4 | -82.7 | -0.3 | 177.6 | 473.6 | 641.9 | 132.4 |
| 29 F-W | 6:36:50.0 | 6:36:49.5 | -41.3 | -0.2 | 95.2 | 463.8 | 576.0 | 126.4 |
| 30 F-E | 6:38:47.0 | 6:38:46.5 | 33.2 | 0.2 | 123.7 | 491.4 | 587.0 | 123.2 |
| 31 F-W | 6:41:34.5 | 6:41:34.0 | -206.7 | -1.2 | 97.2 | 487.6 | 556.3 | 118.8 |
| 32 F-E | 6:43:41.5 | 6:43:40.9 | 232.0 | 1.1 | 119.3 | 512.8 | 640.2 | 126.3 |
| 33 DEP | 7:21:48.5 | 7:21:48.1 | 1601.5 | 10.9 | 81.8 | 489.4 | 494.8 | 81.5 |
| 34 ARR | 7:24:40.0 | 7:24:39.6 | -831.7 | -7.5 | 62.5 | 392.0 | 411.1 | 72.5 |
| 35 DEP | 7:28:49.0 | 7:28:48.6 | 1951.8 | 13.4 | 81.1 | 453.3 | 477.8 | 73.8 |
| 36 ARR | 7:31:32.0 | 7:31:31.7 | -614.0 | -5.6 | 61.5 | 354.9 | 391.4 | 114.9 |
| 37 DEP | 7:33:54.0 | 7:33:53.6 | 1723.8 | 11.6 | 83.1 | 451.1 | 451.6 | 92.7 |
| 39 DEP | 7:38:46.0 | 7:38:45.6 | 1684.3 | 11.4 | 82.4 | 443.2 | 443.3 | 91.4 |
| 40 ARR | 7:41:32.0 | 7:41:31.6 | -689.5 | -6.1 | 63.6 | 366.3 | 411.7 | 117.1 |
| 41 DEP | 7:46: 5.0 | 7:46: 4.6 | 1535.7 | 10.3 | 83.4 | 415.5 | 417.2 | 95.2 |
| 42 ARR | 7:49:11.5 | 7:49:11.1 | -592.3 | -5.3 | 63.4 | 375.4 | 437.4 | 120.9 |
| 43 DEP | 7:51:47.5 | 7:51:47.1 | 1537.0 | 10.5 | 82.0 | 431.2 | 434.5 | 83.0 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C2-8 (CONT)

| | | POSITION DATA HELICOPTER NOISE MEASUREMENT PROGRAM | | | | | | | FAA/AEE 120 DEC 13, 1980 | |
|--------------------------|---------------|---|-----------|-------------|----------|--------|--------|------------|-----------------------------|--|
| TEST DATE: JUNE 23, 1980 | | MIC #1H CENTERLINE CENTER, 33FT | | | | | | | | |
| S76 | | ***** | | | | | | | | |
| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG | | |
| 44 | ARR | 7:54:52.5 | 7:54:52.2 | -686.0 | -6.3 | 61.6 | 368.2 | 368.4 | 88.3 | |
| 45 | F-E | 8:00:15.0 | 8:00:14.0 | -354.2 | -1.3 | 151.4 | 928.9 | 1157.5 | 121.3 | |
| 46 | F-W | 8:02:59.5 | 8:02:58.4 | 125.5 | 0.5 | 137.7 | 1010.5 | 1204.6 | 123.0 | |
| 47 | F-E | 8:05:14.0 | 8:05:12.8 | 238.2 | 1.1 | 152.6 | 998.5 | 1375.3 | 133.4 | |
| 48 | F-W | 8:08:29.5 | 8:08:28.5 | -127.3 | -0.5 | 139.8 | 984.9 | 1118.0 | 118.2 | |
| 49 | F-E | 8:10:36.5 | 8:10:36.0 | -163.7 | -0.7 | 136.9 | 477.4 | 577.7 | 124.3 | |
| 50 | F-W | 8:13:29.5 | 8:13:29.1 | -50.2 | -0.2 | 115.9 | 434.5 | 515.1 | 122.5 | |
| 51 | F-E | 8:15:59.5 | 8:15:59.0 | 127.5 | 0.5 | 131.5 | 496.7 | 629.1 | 127.9 | |
| 52 | F-W | 8:19:13.5 | 8:19:12.9 | -178.8 | -0.9 | 117.4 | 519.4 | 661.2 | 122.2 | |
| 53 | DEP | 8:22:17.5 | 8:22:17.1 | 1907.9 | 13.2 | 80.3 | 475.7 | 476.5 | 93.2 | |
| 54 | ARR | 8:25:49.0 | 8:25:48.6 | -685.0 | -6.2 | 61.9 | 360.6 | 472.1 | 130.2 | |
| 55 | DEP | 8:28:22.5 | 8:28:22.1 | 1776.7 | 13.5 | 73.2 | 469.7 | 470.1 | 92.2 | |
| 56 | ARR | 8:41:05.0 | 8:41:04.6 | -521.8 | -4.7 | 62.5 | 361.9 | 444.0 | 125.4 | |
| 57 | F-E | 8:45:34.0 | 8:45:33.0 | -28.0 | -0.1 | 157.0 | 554.4 | 797.5 | 136.0 | |
| 58 | F-W | 8:48:30.0 | 8:48:29.3 | -171.8 | -0.7 | 138.5 | 503.7 | 757.6 | 138.3 | |
| 59 | F-E | 8:50:39.5 | 8:50:38.0 | -336.0 | -1.2 | 153.0 | 502.4 | 698.2 | 134.0 | |
| 60 | F-W | 8:53:28.0 | 8:53:27.4 | 394.3 | 1.6 | 136.2 | 521.3 | 664.0 | 128.0 | |
| 61 | F-E | 8:57:58.5 | 8:57:57.9 | 16.8 | 0.1 | 100.2 | 524.0 | 677.0 | 129.3 | |
| 62 | F-W | 9:00:58.0 | 9:00:57.0 | -173.7 | -1.1 | 87.5 | 480.0 | 517.0 | 117.2 | |
| 63 | F-E | 9:07:39.5 | 9:07:38.9 | 46.7 | 0.3 | 160.8 | 565.4 | 653.9 | 120.2 | |
| 64 | F-W | 9:10:14.5 | 9:10:14.0 | -147.0 | -0.9 | 88.9 | 493.6 | 572.2 | 120.4 | |
| 66 | F-W | 9:16:13.5 | 9:16:12.9 | 38.7 | 0.1 | 156.1 | 436.1 | 720.3 | 137.6 | |
| 67 | F-E | 9:18:36.0 | 9:18:35.5 | 347.3 | 1.2 | 166.8 | 492.6 | 601.6 | 125.0 | |
| 68 | F-W | 9:21:05.5 | 9:21:04.9 | 29.0 | 0.1 | 155.9 | 501.9 | 659.2 | 130.4 | |
| 69 | ARR | 9:26:28.5 | 9:26:28.1 | -720.5 | -5.9 | 69.7 | 353.7 | 434.1 | 125.4 | |
| 70 | ARR | 9:30:41.0 | 9:30:40.7 | -550.0 | -4.3 | 73.0 | 357.0 | 381.4 | 110.6 | |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C2-9

TEST DATE: JUNE 23, 1980
S76

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

FAA/AEE 120
DEC 13, 1980

MIC #5G SIDELINE SOUTH, GROUND

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|---------|---------------|---------------|---------|-------------|----------|--------|--------|------------|
| 5 F-W | 5:28: 8.5 | 5:28: 6.0 | 90.7 | 0.4 | 132.6 | 1695.3 | 1788.4 | 108.6 |
| 6 F-FE | 5:30:37.0 | 5:30:35.5 | -98.0 | -0.3 | 159.8 | 1638.1 | 1691.5 | 104.4 |
| 7 F-FE | 5:33:12.0 | 5:33:11.0 | 286.2 | 1.4 | 113.7 | 929.6 | 1084.6 | 121.0 |
| 12 F-FE | 5:35:29.5 | 5:35:28.5 | -250.8 | -0.8 | 171.0 | 1043.8 | 1193.0 | 119.0 |
| 13 F-FE | 5:45:57.5 | 5:45:55.7 | 64.8 | 0.2 | 158.9 | 1580.2 | 2034.4 | 129.0 |
| 14 F-FE | 5:48:59.5 | 5:48:58.7 | -152.3 | -0.7 | 122.0 | 919.2 | 939.6 | 103.6 |
| 15 F-FE | 5:51:27.5 | 5:51:26.5 | -399.2 | -1.3 | 170.9 | 898.6 | 1100.6 | 125.3 |
| 16 F-FE | 5:54:13.5 | 5:54:13.0 | -164.7 | -0.7 | 124.6 | 579.9 | 580.7 | 92.9 |
| 17 F-FE | 5:56:29.0 | 5:56:28.4 | 173.5 | 0.6 | 160.2 | 603.2 | 659.1 | 113.8 |
| 18 F-FE | 5:59: 8.0 | 5:59: 7.3 | 4.3 | 0.0 | 130.5 | 791.0 | 792.7 | 93.7 |
| 19 F-FE | 6: 4:13.5 | 6: 4:12.8 | -351.2 | -1.2 | 167.8 | 701.3 | 805.1 | 119.4 |
| 20 F-FE | 6: 6:29.5 | 6: 6:27.8 | -13.2 | -0.1 | 124.3 | 769.7 | 823.9 | 110.8 |
| 21 F-FE | 6: 8:34.5 | 6: 8:33.8 | 203.3 | 0.7 | 182.7 | 749.0 | 810.9 | 112.5 |
| 22 F-FE | 6:11:49.5 | 6:11:49.0 | 32.2 | 0.2 | 73.7 | 725.0 | 777.0 | 111.1 |
| 23 F-FE | 6:14: 2.5 | 6:14: 1.6 | 9.0 | 0.0 | 107.1 | 708.9 | 1076.0 | 138.9 |
| 24 F-FE | 6:16:47.5 | 6:16:46.7 | 3.7 | 0.0 | 77.6 | 839.9 | 871.3 | 107.0 |
| 25 F-FE | 6:19: 8.5 | 6:19: 7.7 | -125.3 | -0.7 | 103.2 | 722.7 | 923.8 | 122.1 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C2-9 (CONT)

| | | POSITION DATA | | | | | | | | |
|--------------------------------|---------------|--------------------------------------|-----------|-------------|----------|--------|-------|------------|--------------|--|
| TEST DATE: JUNE 23, 1980 | | HELICOPTER NOISE MEASUREMENT PROGRAM | | | | | | | FAA/AEE 120 | |
| S76 | | | | | | | | | DEC 13, 1980 | |
| MIC #5G SIDELINE SOUTH, GROUND | | | | | | | | | | |
| ***** | | | | | | | | | | |
| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG | | |
| 25 | F-W | 6:26:34.5 | 6:26:33.8 | 35.5 | 0.1 | 143.0 | 669.3 | 795.6 | 122.7 | |
| 26 | F-E | 6:29:10.0 | 6:29:9.2 | -80.7 | -0.3 | 176.3 | 819.7 | 862.9 | 108.1 | |
| 27 | F-W | 6:31:43.0 | 6:31:42.3 | -48.7 | -0.2 | 149.5 | 743.1 | 895.9 | 112.8 | |
| 28 | F-E | 6:33:59.5 | 6:33:58.8 | -29.5 | -0.1 | 177.9 | 775.4 | 849.1 | 114.0 | |
| 29 | F-W | 6:36:51.5 | 6:36:50.9 | -44.3 | -0.3 | 95.2 | 706.8 | 711.0 | 99.7 | |
| 30 | F-E | 6:38:48.0 | 6:38:47.3 | 74.2 | 0.3 | 122.8 | 775.9 | 790.7 | 101.1 | |
| 31 | F-W | 6:41:35.5 | 6:41:34.8 | -244.7 | -1.5 | 95.4 | 726.7 | 740.0 | 100.9 | |
| 32 | F-E | 6:43:41.5 | 6:43:40.8 | 232.0 | 1.1 | 119.3 | 711.7 | 840.7 | 122.2 | |
| 33 | DEP | 7:21:50.5 | 7:21:49.8 | 1203.7 | 7.8 | 86.3 | 777.4 | 853.0 | 65.7 | |
| 34 | ARR | 7:24:40.5 | 7:24:39.9 | -323.2 | -7.5 | 62.1 | 738.9 | 712.7 | 80.5 | |
| 35 | DEP | 7:28:50.5 | 7:28:49.8 | 1958.3 | 13.3 | 82.1 | 730.4 | 810.8 | 64.9 | |
| 36 | ARR | 7:31:34.0 | 7:31:33.4 | -531.5 | -4.9 | 61.3 | 681.1 | 681.7 | 92.5 | |
| 37 | DEP | 7:33:55.0 | 7:33:55.3 | 1746.0 | 11.6 | 84.0 | 747.6 | 789.2 | 71.9 | |
| 38 | DEP | 7:38:48.0 | 7:38:47.3 | 1750.5 | 11.5 | 85.1 | 714.1 | 758.5 | 70.9 | |
| 40 | ARR | 7:41:33.0 | 7:41:32.4 | -711.2 | -6.3 | 63.1 | 663.9 | 681.2 | 100.9 | |
| 41 | DEP | 7:46:7.0 | 7:46:6.3 | 1733.7 | 11.3 | 85.8 | 702.6 | 747.1 | 70.1 | |
| 42 | ARR | 7:49:12.5 | 7:49:11.9 | -601.2 | -5.9 | 63.7 | 683.2 | 764.1 | 102.2 | |
| 43 | DEP | 7:51:49.0 | 7:51:48.3 | 1714.0 | 11.6 | 82.4 | 726.5 | 764.9 | 70.4 | |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C2-9 (CONT)

TEST DATE: JUNE 23, 1980
 S76
 MIC #5G SIDELINE SOUTH, GROUND
 POSITION DATA
 HELICOPTER NOISE MEASUREMENT PROGRAM
 FAA/AEE 120
 DEC 13, 1980

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|-------|---------------|---------------|-----------|-------------|----------|--------|--------|------------|
| 44 | ARR | 7:54:53.0 | 7:54:52.4 | -682.5 | -6.2 | 61.6 | 665.1 | 665.3 |
| 45 | F-E | 8:0:16.0 | 8:0:14.9 | -330.8 | -1.2 | 151.3 | 1129.9 | 1200.0 |
| 46 | F-W | 8:2:50.5 | 8:2:58.3 | 125.5 | 0.5 | 137.7 | 1141.4 | 1334.6 |
| 47 | F-E | 8:5:15.5 | 8:5:14.4 | 253.8 | 0.9 | 151.4 | 1146.5 | 1264.9 |
| 48 | F-W | 8:8:28.5 | 8:8:27.2 | -179.7 | -0.7 | 139.4 | 1158.7 | 1430.0 |
| 49 | F-E | 8:10:36.5 | 8:10:35.8 | -163.7 | -0.7 | 136.3 | 720.8 | 816.3 |
| 50 | F-W | 8:13:29.5 | 8:13:28.8 | -50.2 | -0.2 | 115.9 | 666.3 | 738.9 |
| 51 | F-E | 8:16:1.5 | 8:16:0.8 | 125.8 | 0.5 | 131.2 | 748.0 | 748.2 |
| 52 | F-W | 8:19:13.5 | 8:19:12.8 | -178.8 | -0.9 | 117.4 | 741.4 | 859.0 |
| 53 | DEP | 8:22:10.0 | 8:22:18.0 | 1781.0 | 12.0 | 82.4 | 727.4 | 750.3 |
| 54 | ARR | 8:25:50.5 | 8:25:49.9 | -604.8 | -5.4 | 63.3 | 647.2 | 673.7 |
| 55 | DEP | 8:28:25.5 | 8:28:24.8 | 1418.2 | 10.2 | 77.4 | 723.6 | 793.8 |
| 56 | ARR | 8:41:7.0 | 8:41:6.5 | -541.7 | -4.9 | 63.0 | 623.1 | 627.3 |
| 57 | F-E | 8:45:35.0 | 8:45:34.3 | -12.3 | -0.6 | 157.2 | 776.1 | 841.8 |
| 58 | F-W | 8:48:30.5 | 8:48:29.8 | -176.7 | -0.7 | 138.4 | 717.2 | 859.3 |
| 59 | F-E | 8:50:40.0 | 8:50:39.3 | -294.5 | -1.1 | 153.0 | 727.7 | 832.2 |
| 60 | F-W | 8:53:28.5 | 8:53:27.8 | 373.2 | 1.6 | 135.6 | 769.6 | 806.5 |
| 61 | F-E | 8:57:59.5 | 8:57:58.8 | -90.0 | -0.5 | 100.6 | 728.6 | 733.9 |
| 62 | F-W | 9:0:58.5 | 9:0:57.8 | -185.9 | -0.8 | 87.4 | 714.8 | 740.9 |
| 63 | F-E | 9:7:40.0 | 9:7:39.3 | 58.0 | 0.3 | 100.8 | 792.8 | 834.0 |
| 64 | F-W | 9:10:13.5 | 9:10:12.7 | -92.0 | -0.6 | 88.0 | 727.8 | 884.4 |
| 65 | F-E | 9:13:46.0 | 9:13:45.3 | 419.5 | 1.4 | 165.1 | 752.5 | 798.3 |
| 66 | F-W | 9:16:13.0 | 9:16:12.1 | 19.0 | 0.1 | 155.6 | 747.2 | 1053.8 |
| 67 | F-E | 9:18:36.0 | 9:18:35.3 | 347.3 | 1.2 | 166.8 | 736.1 | 845.3 |
| 68 | F-W | 9:21:5.0 | 9:21:4.2 | 36.0 | 0.1 | 155.5 | 721.6 | 968.0 |
| 69 | ARR | 9:26:30.0 | 9:26:29.4 | -731.8 | -5.9 | 70.2 | 648.1 | 653.9 |
| 70 | ARR | 9:30:42.0 | 9:30:41.5 | -544.0 | -4.2 | 72.9 | 611.8 | 612.9 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

Sub-Appendix C3 Summary
A-109 June 24, 1980
Flight Path Tracking Plots and Position Data

1. FLIGHT PATH TRACKING PLOTS

| <u>Event No.</u> | <u>Plot Fig. No.</u> | <u>Operation</u> | | |
|------------------|----------------------|------------------|---------|--------------|
| 2 | C3-1 | 1000 Ft. LFO | 130 kts | Target Speed |
| 3 | " | " | " | " |
| 4 | " | " | " | " |
| 5 | C3-2 | 1500 Ft. LFO | | |
| 6 | " | " | " | " |
| 11 | " | " | " | " |
| 12 | " | " | " | " |
| 7 | C3-3 | 700 Ft. LFO | | |
| 8 | " | " | " | " |
| 13 | " | " | " | " |
| 14 | " | " | " | " |
| 9 | C3-4 | 300 Ft. LFO | | |
| 10 | " | " | " | " |
| 15 | " | " | " | " |
| 16 | " | " | " | " |
| 17 | C3-5 | 500 Ft. LFO | 130 kts | Target Speed |
| 18 | " | " | 130 kts | " |
| 19 | " | " | 130 kts | " |
| 21 | " | " | 87 kts | Target Speed |
| 22 | " | " | 87 kts | " |
| 23 | C3-6 | Takeoff | | |
| 25 | " | " | | |
| 27 | " | " | | |
| 29 | " | " | | |
| 31 | " | " | | |
| 33 | " | " | | |

| <u>Event No.</u> | <u>Plot Fig. No.</u> | <u>Operation</u> | | |
|------------------|----------------------|------------------|---------------------|--------------|
| 24 | C3-7 | | | |
| 26 | " | Approach | | |
| 28 | " | " | | |
| 30 | " | " | | |
| 32 | " | " | | |
| 34 | " | " | | |
| 35 | C3-8 | Takeoff | | |
| 37 | " | " | | |
| 39 | " | " | | |
| 41 | " | " | | |
| 36 | C3-9 | Approach | | |
| 38 | " | " | | |
| 40 | " | " | | |
| 64 | " | " | | |
| 42 | C3-10 | 1000 Ft. LFO | 0.9 V _{NE} | Target Speed |
| 43 | " | " | | |
| 44 | " | " | | |
| 45 | " | " | | |
| 46 | C3-11 | 500 Ft. LFO | 87 kt | Target Speed |
| 47 | " | " | 87 kt | " |
| 48 | " | " | 145 kt | " |
| 49 | " | " | 145 kt | " |
| 50 | " | " | 145 kt | " |
| 51 | " | " | 102 kt | " |
| 52 | C3-12 | 500 Ft. LFO | 102 kt | Target Speed |
| 53 | " | " | 102 kt | " |
| 54 | " | " | 116 kt | " |
| 55 | " | " | 116 kt | " |
| 56 | " | " | 102 kt | " |
| 57 | " | " | 116 kt | " |

| <u>Event No.</u> | <u>Plot Fig. No</u> | <u>Operation</u> | | |
|------------------|---------------------|------------------|--------|--------------|
| 58 | C3-13 | 500 Ft. LFO | 116 kt | Target Speed |
| 59 | " | " | 145 kt | " |
| 60 | " | " | 145 kt | " |
| 61 | " | " | 145 kt | " |
| 62 | " | " | 130 kt | " |
| 63 | " | " | 130 kt | " |

2. POSITION DATA TABLES

| <u>Table No.</u> | <u>Microphone</u> |
|------------------|------------------------------------|
| C3-1 | Mic. 1, Centerline Center, 4 ft. |
| C3-2 | Mic. 2, Centerline West, 4 ft. |
| C3-3 | Mic. 3, Centerline East, 4 ft. |
| C3-4 | Mic. 4, Sideline North, 4 ft. |
| C3-5 | Mic. 5, Sideline South, 4 ft. |
| C3-6 | Mic. 6, Sideline North, 4 ft. |
| C3-7 | Mic. 1G, Centerline Center, Ground |
| C3-8 | Mic. 1H, Centerline Center, 33 ft. |
| C3-9 | Mic. 5G, Sideline South, Ground |

FIGURE C3-1

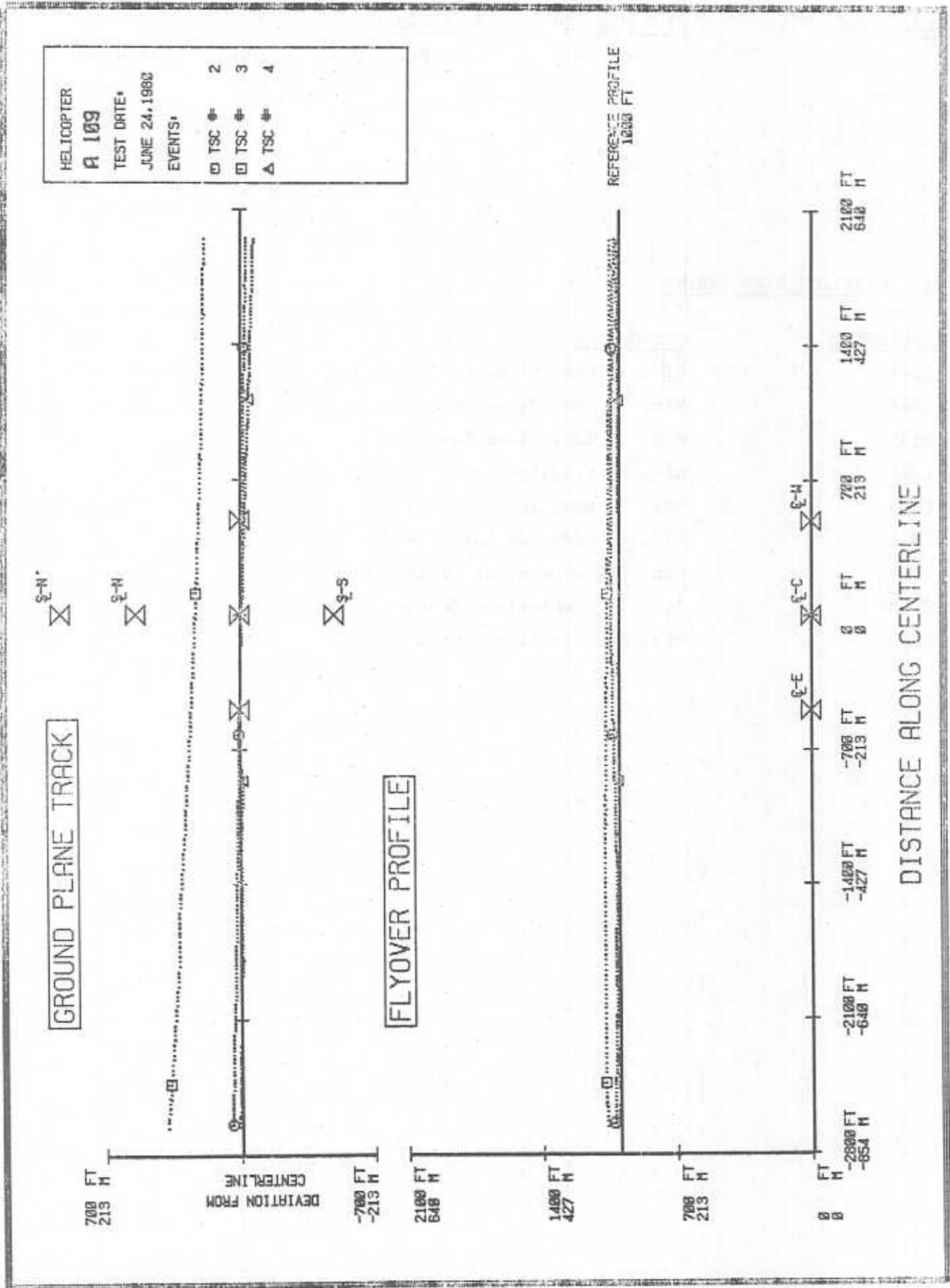


FIGURE C3-2

HELICOPTER
A 109
 TEST DATE:
 JUNE 24, 1980
 EVENTS:
 ○ TSC # 5
 □ TSC # 6
 △ TSC # 11
 ◇ TSC # 12

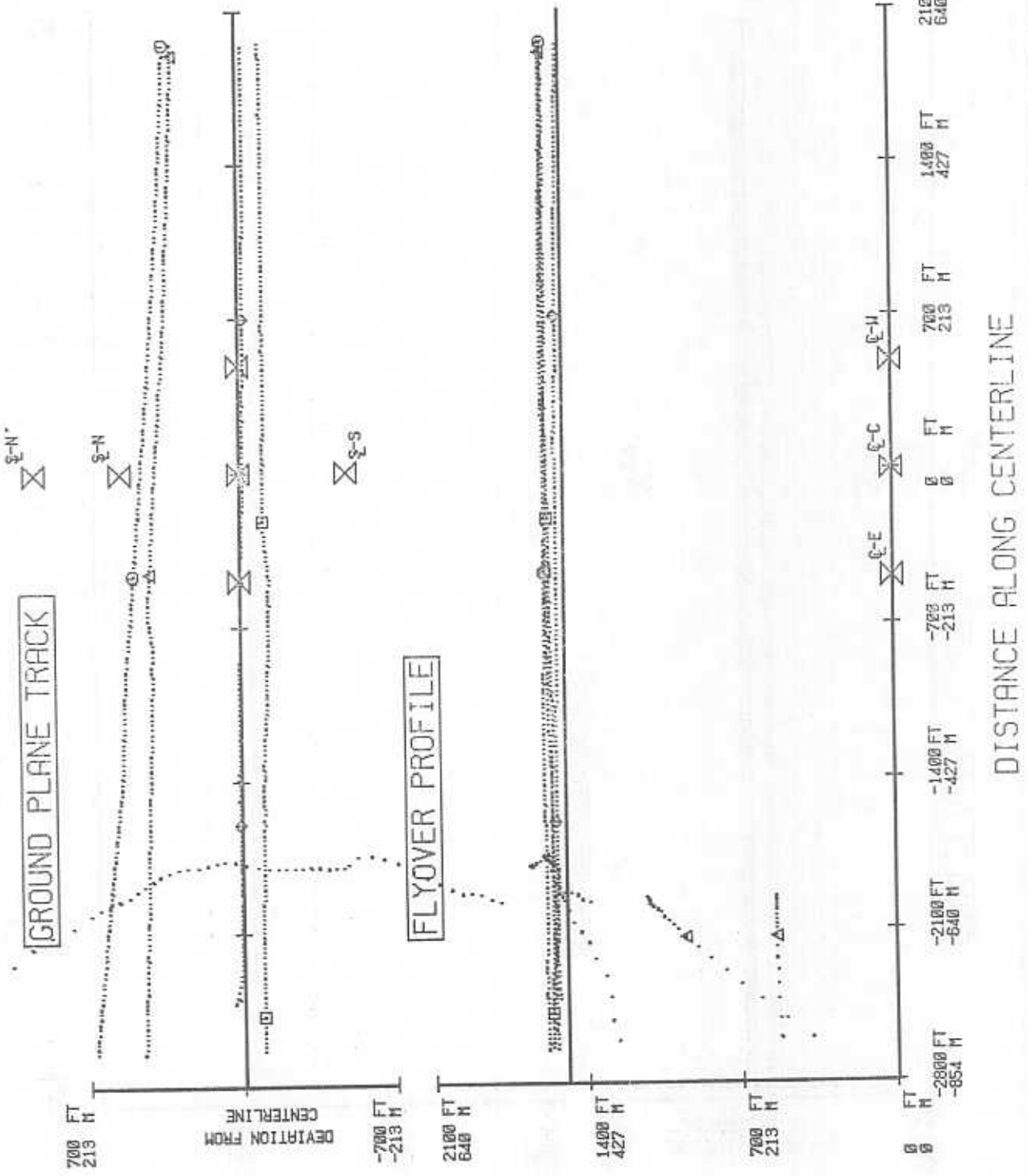


FIGURE C3-3

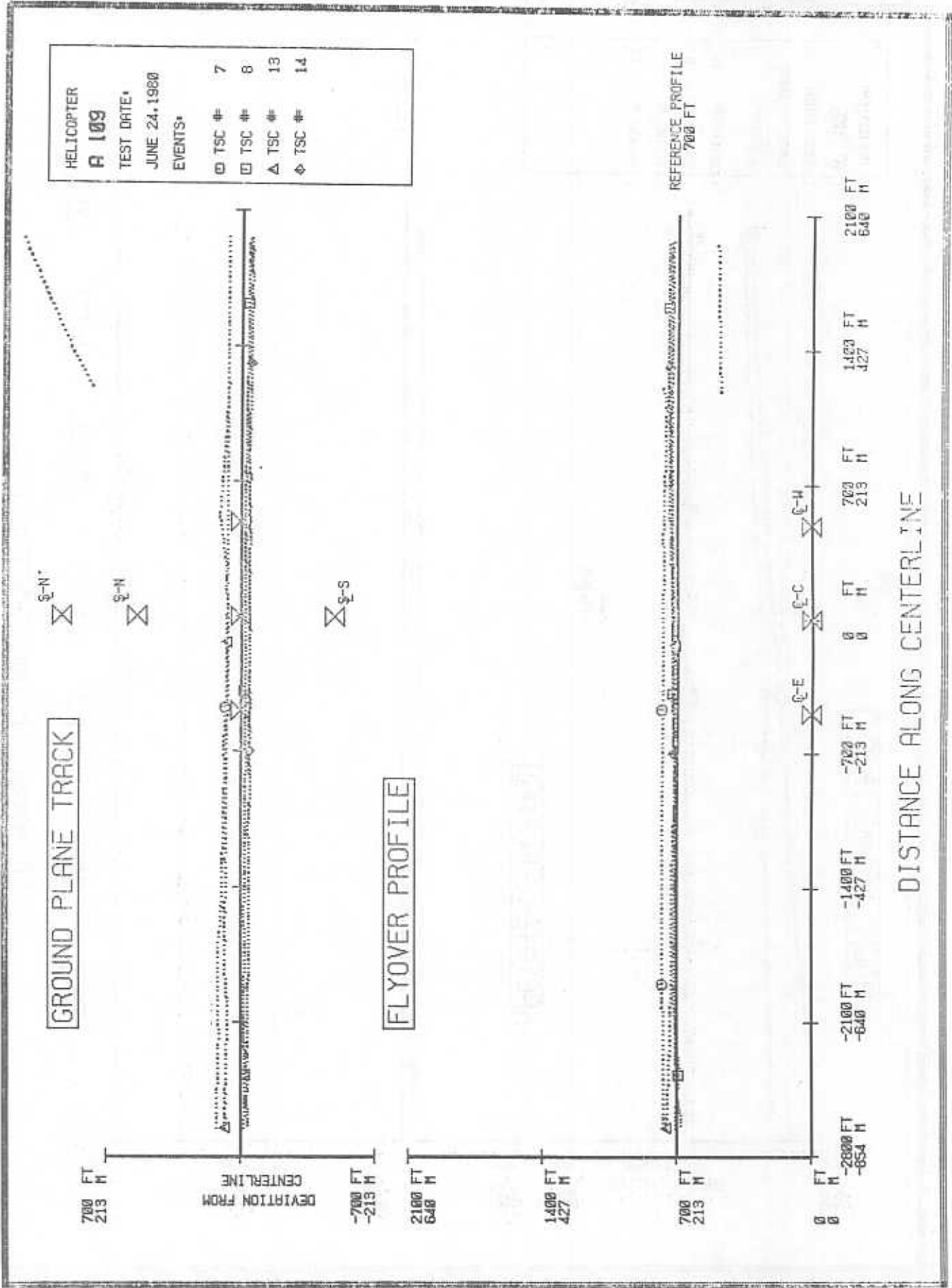


FIGURE C3-4

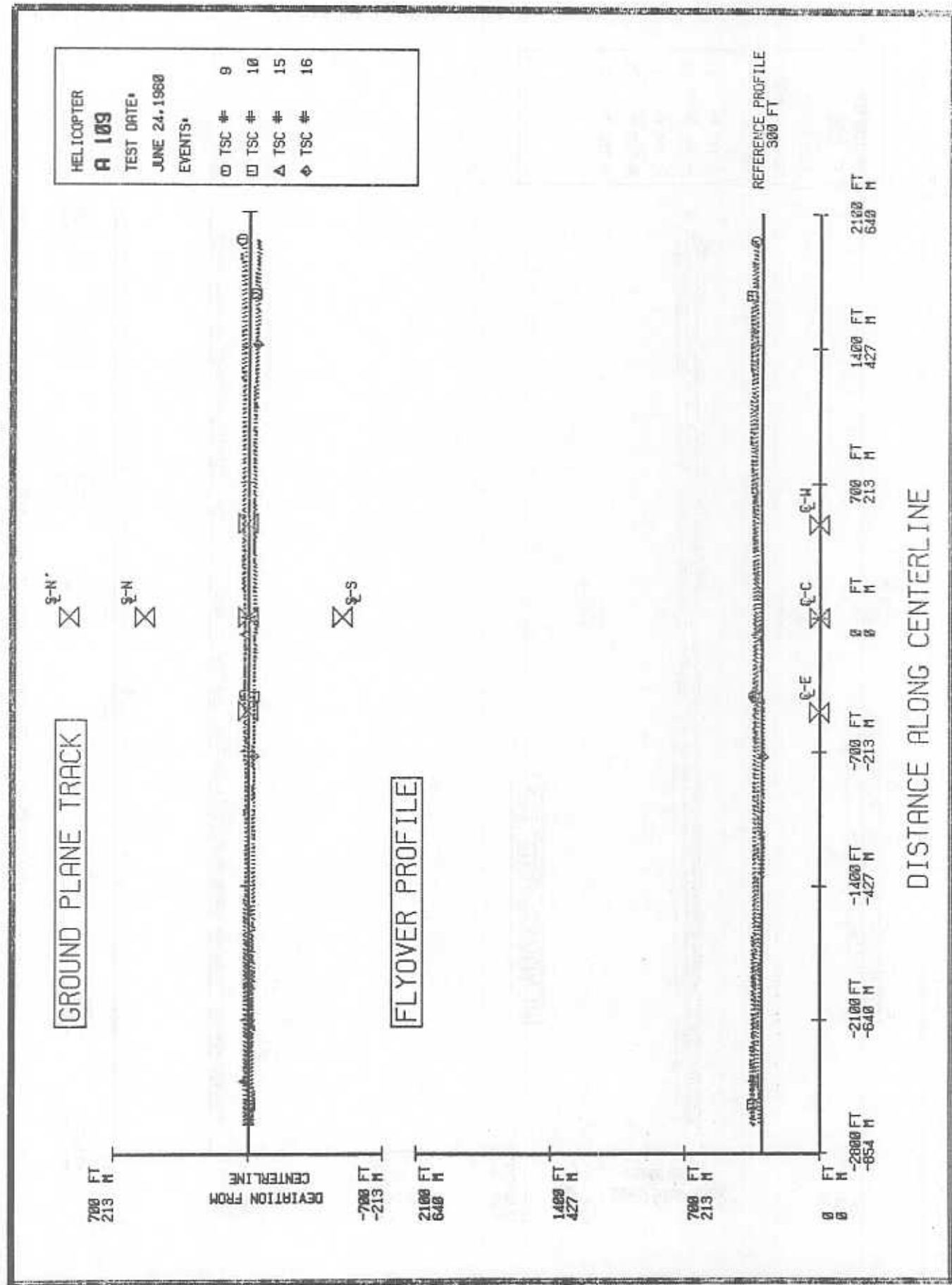
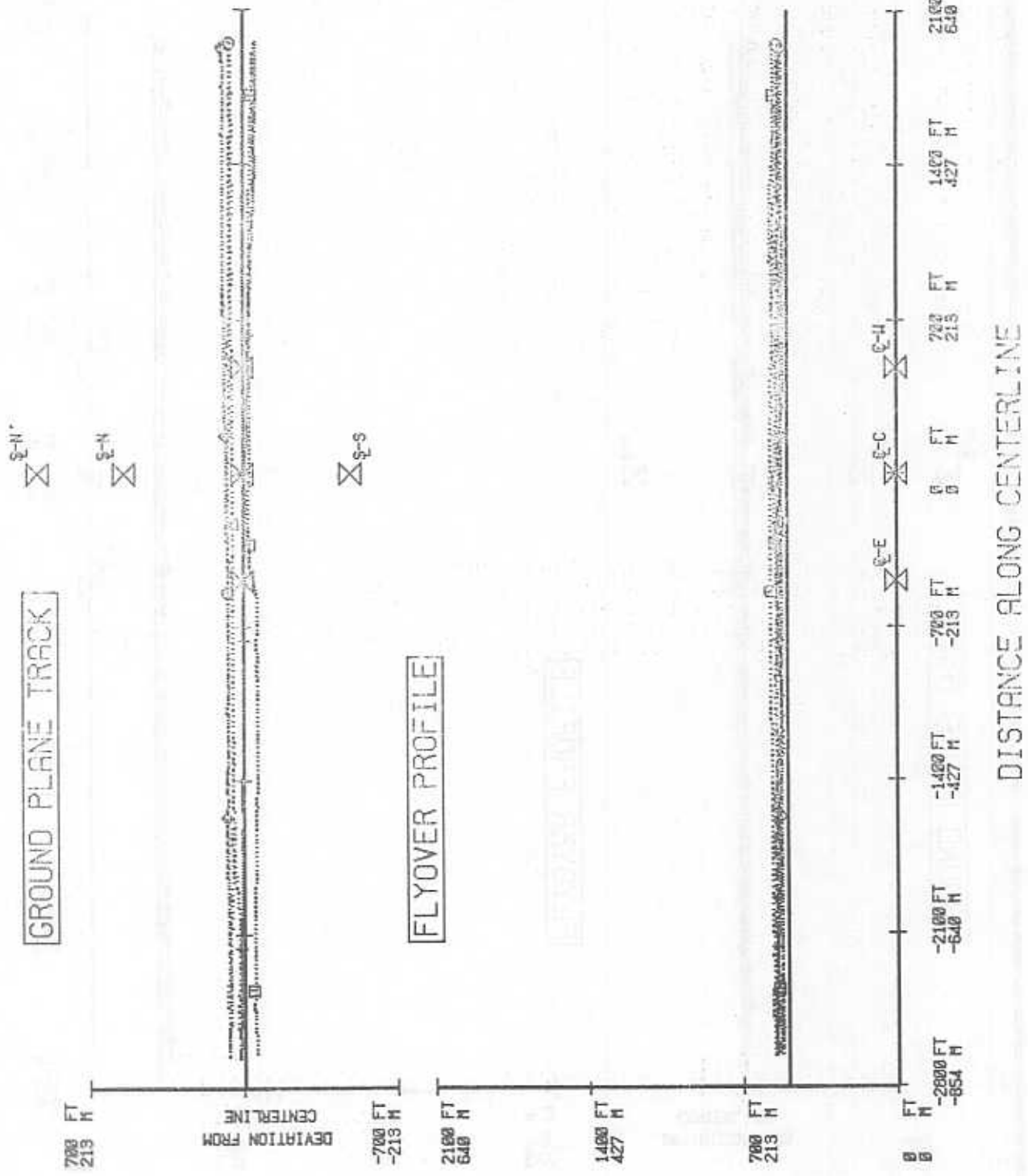


FIGURE C3-5

HELICOPTER
 R 109
 TEST DATE
 JUNE 24, 1988
 EVENTS

| | |
|---------|----|
| □ TSC # | 17 |
| □ TSC # | 18 |
| △ TSC # | 19 |
| ◇ TSC # | 21 |
| + TSC # | 22 |



GROUND PLANE TRACK

FLYOVER PROFILE

DISTANCE ALONG CENTERLINE

REFERENCE PROFILE
 500 FT

FIGURE C3-6

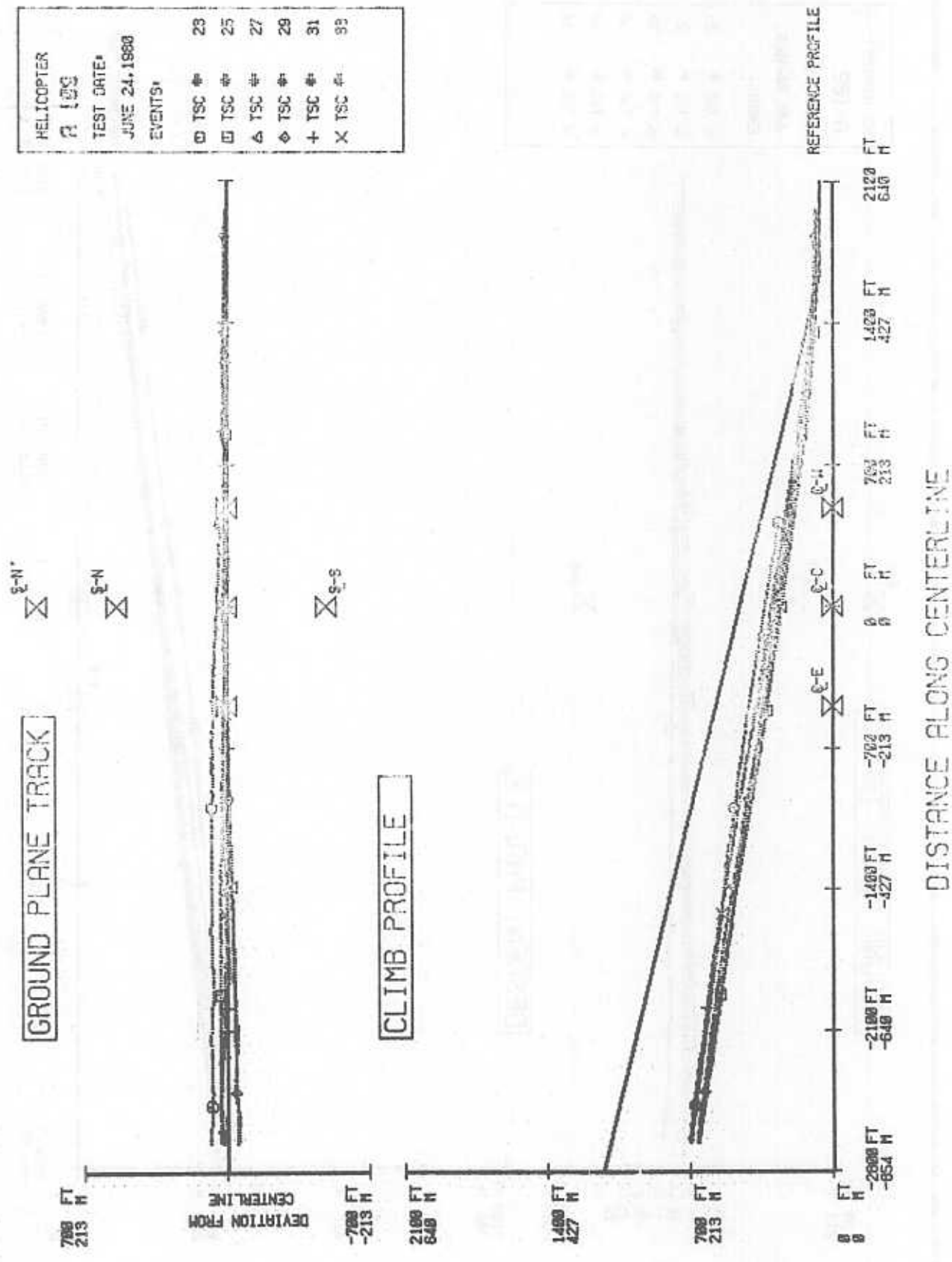


FIGURE C3-7

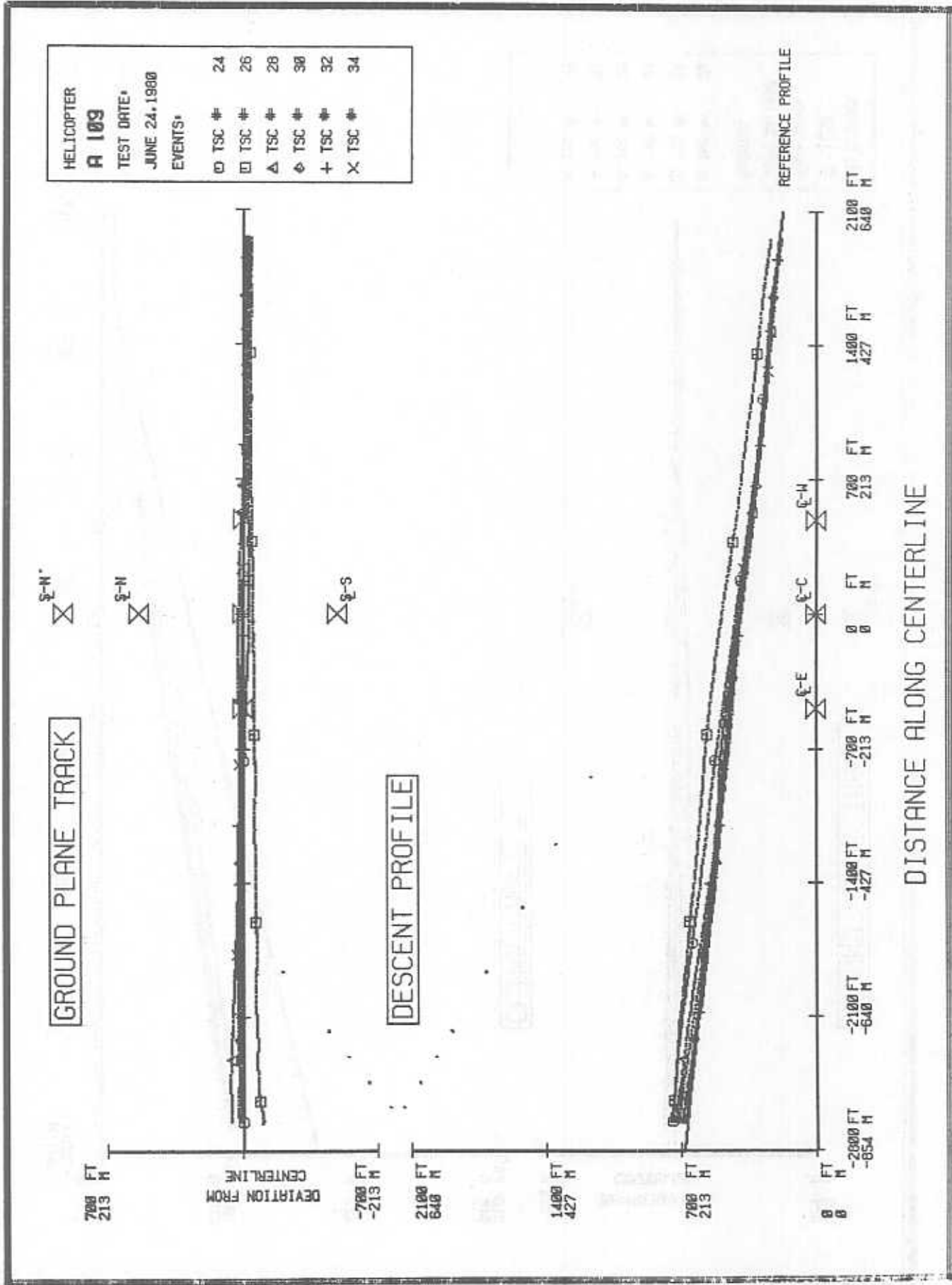


FIGURE C3-8

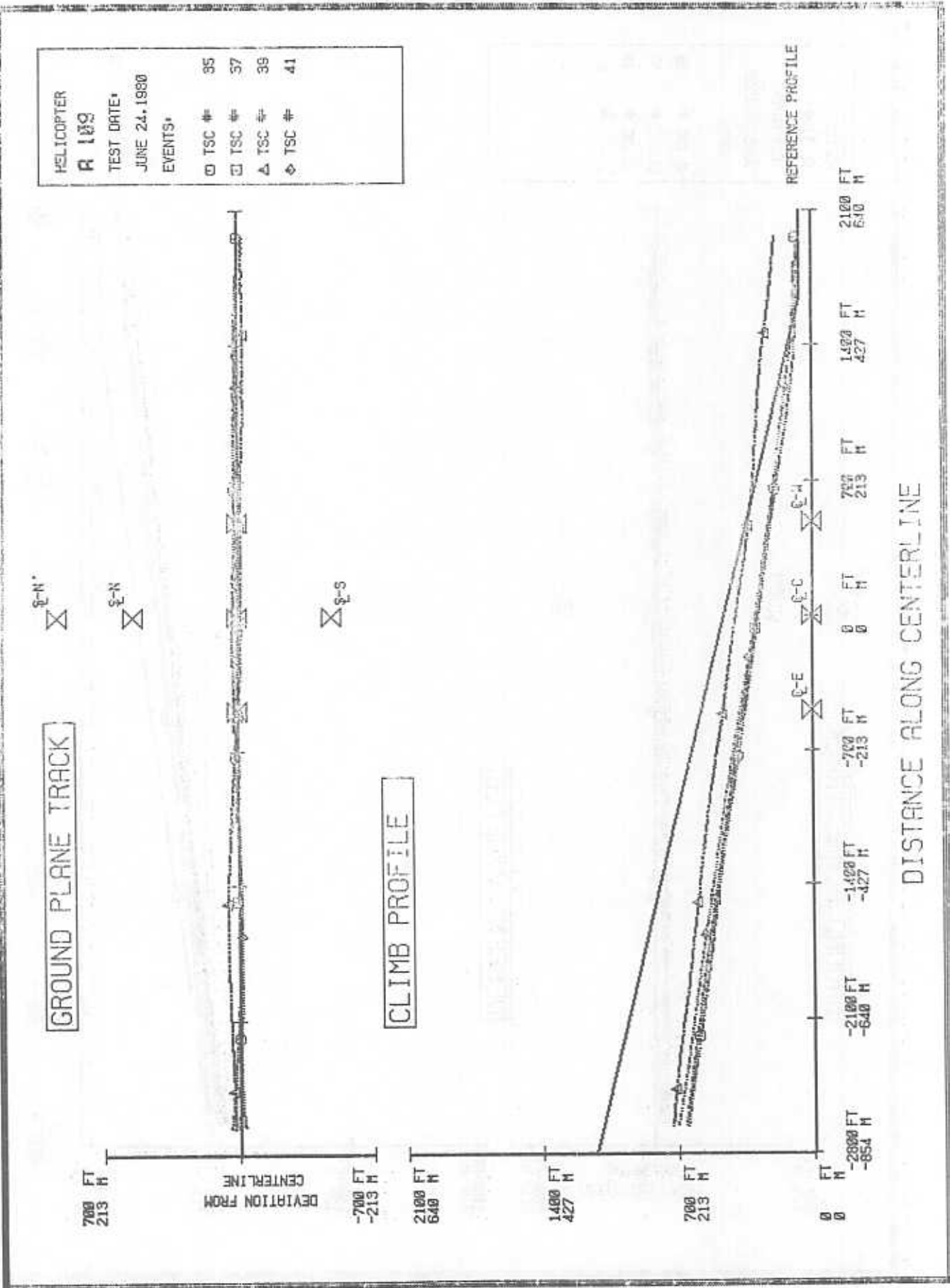


FIGURE C3-9

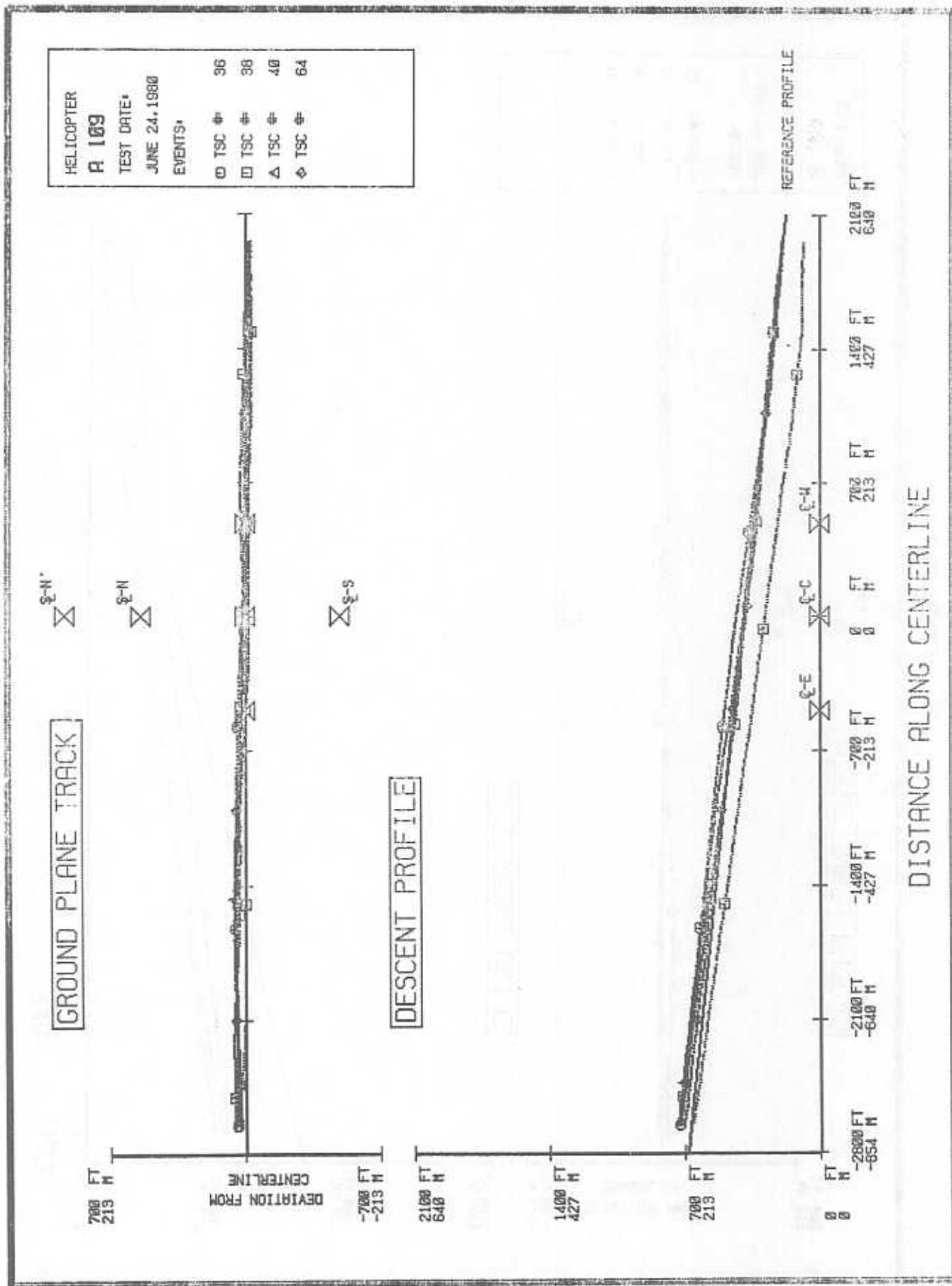


FIGURE C3-10

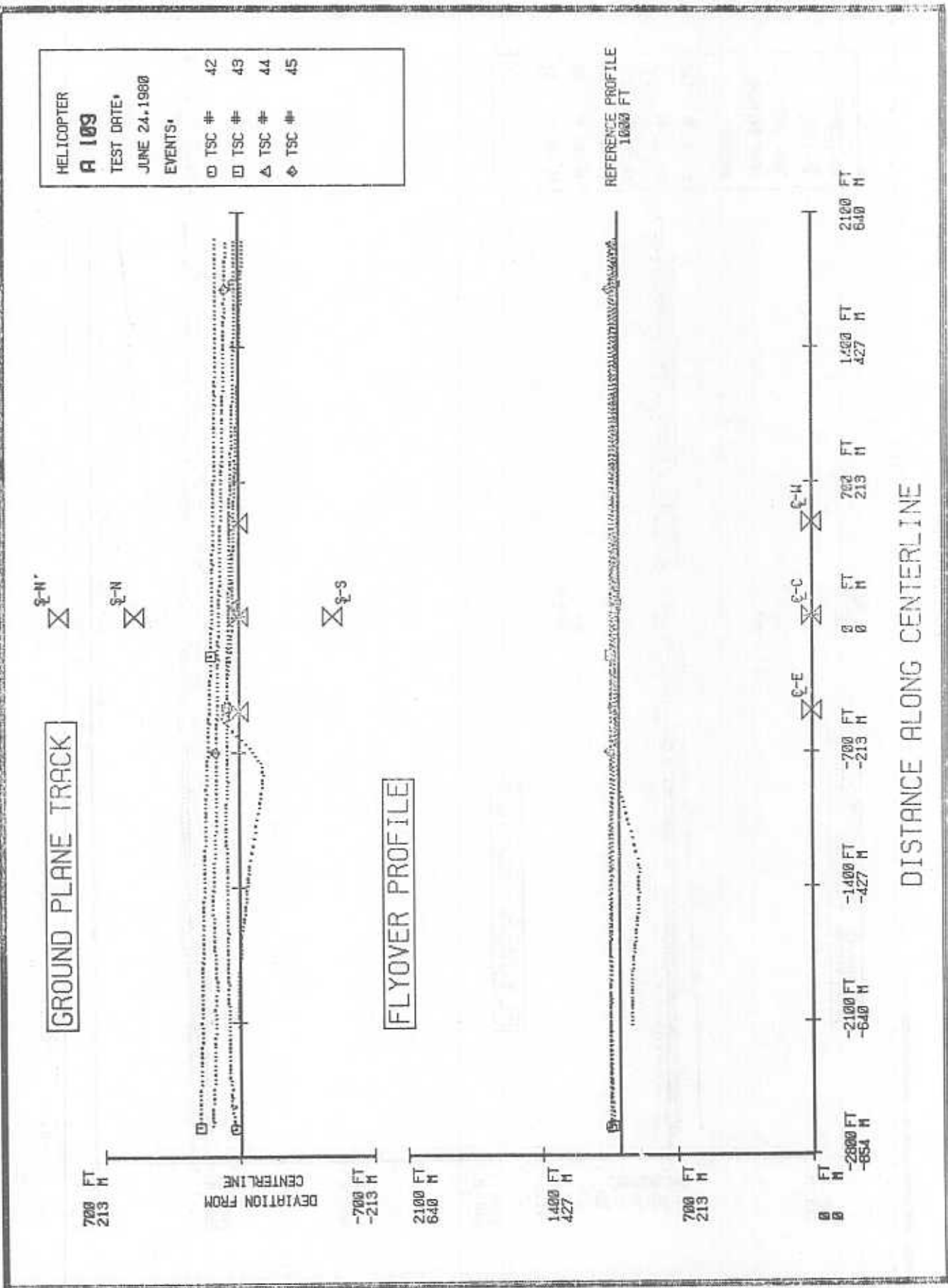


FIGURE C3-11

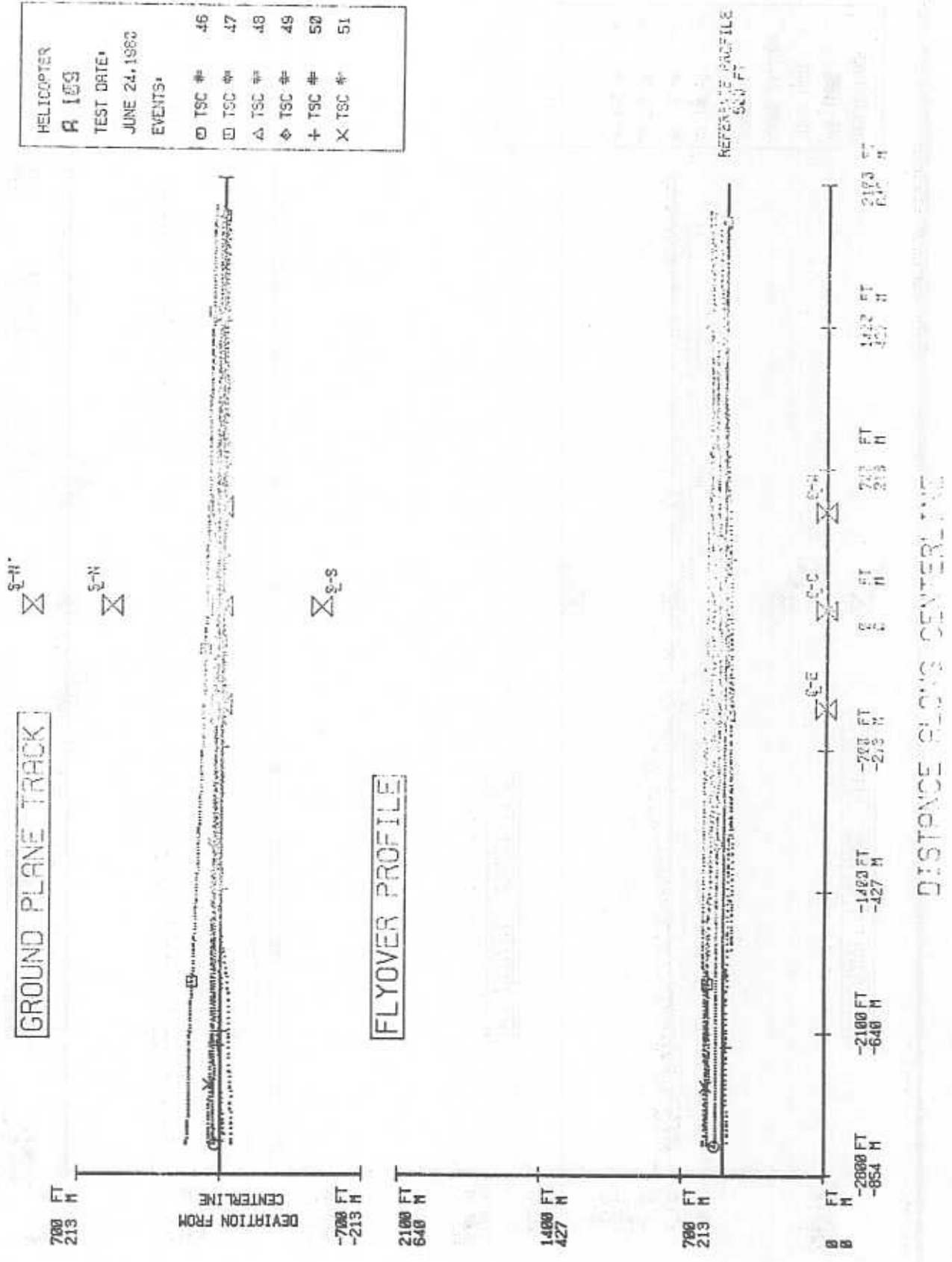


FIGURE C3-12

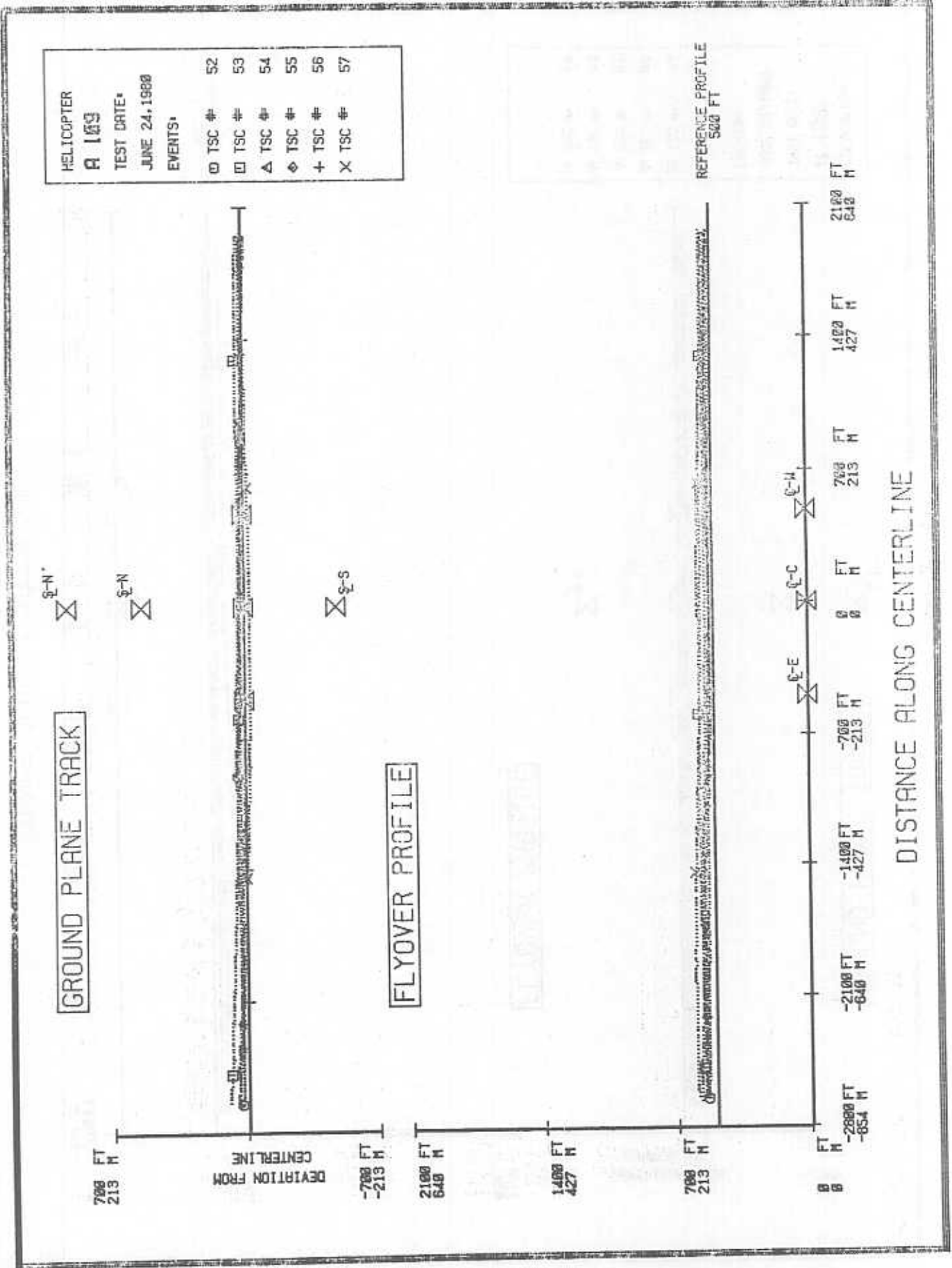


FIGURE C3-13

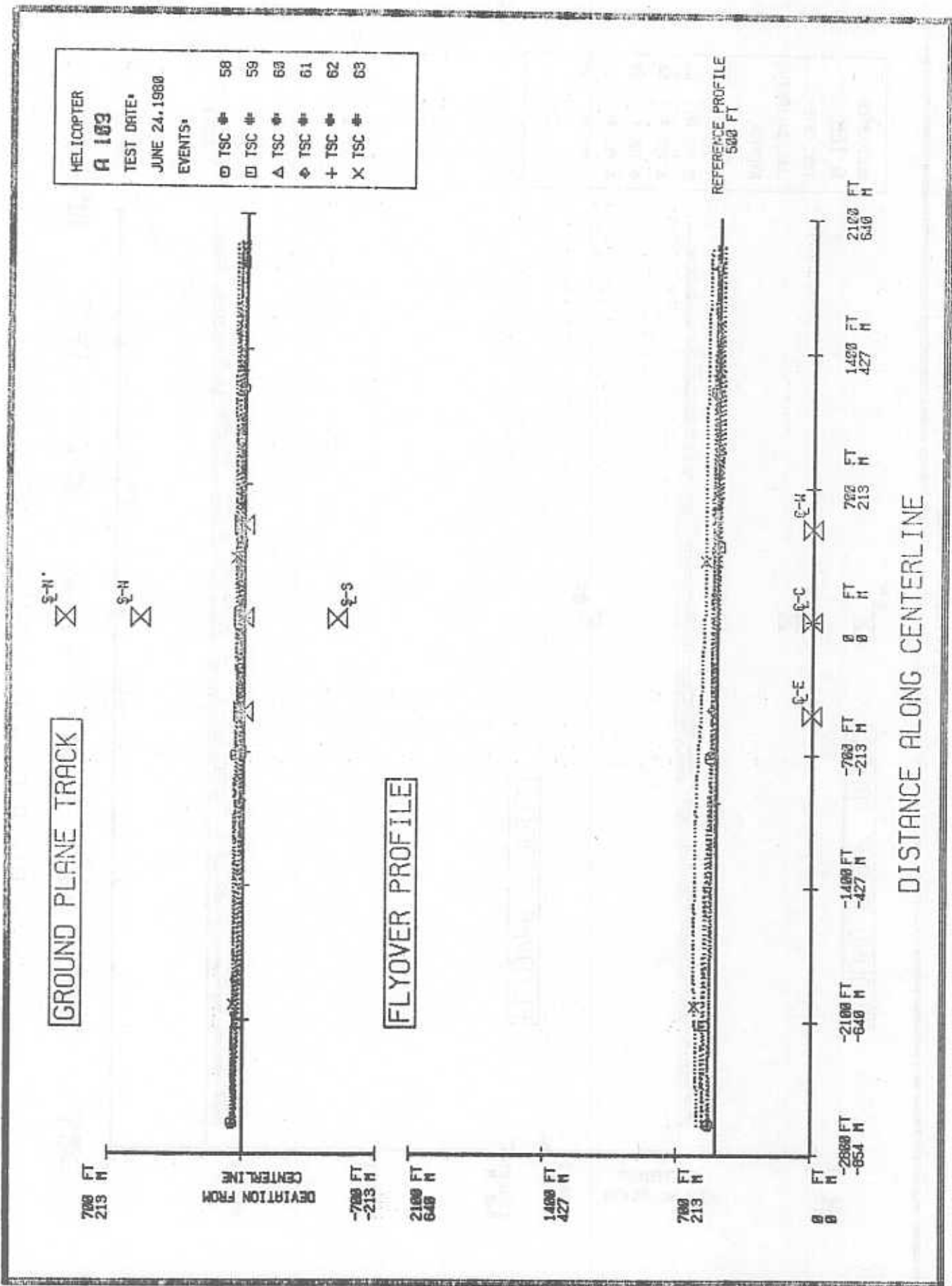


TABLE C3-1

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 24, 1980

FAA/AEE 120

A109

MAR 12, 1981

MIC # 1 CENTERLINE CENTER, 4 FT

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|-------|---------------|---------------|---------|-------------|----------|--------|--------|------------|
| 00 | 6:17:49.0 | 6:17:47.4 | 159.0 | 0.7 | 120.1 | 1036.4 | 1818.0 | 145.2 |
| 01 | 6:21:03.0 | 6:21:01.4 | 135.0 | 0.5 | 153.2 | 1089.4 | 1847.6 | 144.1 |
| 04 | 6:23:40.5 | 6:23:39.5 | 8.0 | 0.0 | 118.0 | 996.7 | 1083.0 | 113.0 |
| 05 | 6:26:32.5 | 6:26:30.9 | 64.0 | 0.3 | 144.2 | 1637.6 | 1848.2 | 117.6 |
| 06 | 6:29:08.5 | 6:29:07.0 | 205.7 | 0.9 | 130.1 | 1574.2 | 1731.5 | 114.6 |
| 07 | 6:34:13.5 | 6:34:12.8 | 113.0 | 0.5 | 119.1 | 721.8 | 801.7 | 115.8 |
| 08 | 6:36:31.5 | 6:36:31.0 | -61.0 | -0.2 | 140.0 | 327.5 | 528.0 | 140.3 |
| 10 | 6:38:26.0 | 6:38:25.6 | 218.5 | 1.0 | 125.8 | 322.1 | 502.4 | 138.6 |
| 11 | 6:41:00.0 | 6:40:57.1 | 69.0 | 0.3 | 141.1 | 1630.1 | 3275.6 | 150.0 |
| 13 | 6:47:00.0 | 6:46:58.0 | 63.5 | 0.3 | 149.2 | 716.1 | 2253.7 | 161.5 |
| 14 | 6:49:33.0 | 6:49:31.0 | 207.0 | 1.0 | 119.7 | 729.3 | 1266.9 | 145.2 |
| 15 | 6:51:52.0 | 6:51:51.0 | -20.7 | -0.1 | 140.2 | 365.3 | 1104.7 | 162.9 |
| 16 | 6:53:59.5 | 6:53:59.2 | 435.0 | 1.9 | 125.9 | 309.7 | 358.4 | 120.2 |
| 17 | 6:56:17.0 | 6:56:15.5 | 247.7 | 0.9 | 147.6 | 570.4 | 1718.5 | 160.6 |
| 18 | 6:58:39.5 | 6:58:38.5 | 59.0 | 0.3 | 119.4 | 550.5 | 1083.4 | 149.5 |
| 19 | 7:02:24.0 | 7:02:23.3 | -27.0 | -0.1 | 146.4 | 539.1 | 642.4 | 140.3 |
| 001 | 7:13:36.0 | 7:13:34.3 | -23.7 | -0.1 | 104.7 | 557.0 | 1914.7 | 164.0 |
| 002 | 7:16:28.5 | 7:16:28.0 | -105.2 | -0.7 | 82.5 | 529.5 | 596.0 | 117.3 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C3-1 (CONT)

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 24, 1980

FAA/AEE 120

A109

MAR 12, 1981

MIC # 1 CENTERLINE CENTER, 4 FT

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|--------|---------------|---------------|---------|-------------|----------|--------|--------|------------|
| 24 ARR | 7:48:46.0 | 7:48:45.6 | -763.0 | -7.8 | 54.8 | 408.4 | 476.9 | 121.1 |
| 25 DEP | 7:52:57.5 | 7:52:57.3 | 971.8 | 6.7 | 31.7 | 253.1 | 275.1 | 113.1 |
| 26 ARR | 7:55:18.0 | 7:55:17.5 | -796.3 | -7.6 | 59.3 | 481.5 | 561.0 | 120.9 |
| 27 DEP | 7:58:15.0 | 7:58:14.8 | 1148.0 | 7.8 | 33.1 | 240.7 | 272.2 | 117.8 |
| 28 ARR | 8:0:37.0 | 8:0:36.6 | -801.0 | -7.7 | 58.4 | 392.8 | 456.9 | 120.7 |
| 29 DEP | 8:2:41.0 | 8:2:40.7 | 1114.0 | 7.5 | 33.9 | 267.0 | 309.7 | 120.4 |
| 31 DEP | 8:7:27.5 | 8:7:27.2 | 1220.8 | 8.1 | 35.0 | 282.7 | 326.0 | 120.0 |
| 32 ARR | 8:9:48.5 | 8:9:48.1 | -522.3 | -5.1 | 58.2 | 335.7 | 435.8 | 127.4 |
| 33 DEP | 8:11:48.0 | 8:11:47.7 | 1262.7 | 8.7 | 31.7 | 291.5 | 323.5 | 115.7 |
| 34 ARR | 8:14:11.0 | 8:14:10.6 | -773.0 | -7.1 | 60.9 | 352.6 | 405.5 | 104.5 |
| 35 DEP | 8:17:46.0 | 8:17:45.7 | 1090.5 | 7.5 | 31.3 | 272.1 | 331.7 | 124.0 |
| 36 ARR | 8:19:52.5 | 8:19:51.9 | -742.3 | -6.8 | 31.5 | 423.0 | 650.7 | 139.5 |
| 37 DEP | 8:21:55.5 | 8:21:55.2 | 1182.5 | 8.2 | 31.0 | 278.9 | 305.9 | 114.3 |
| 38 ARR | 8:24:14.0 | 8:24:13.4 | -619.0 | -5.8 | 59.9 | 368.0 | 638.0 | 142.5 |
| 40 ARR | 8:28:17.5 | 8:28:17.1 | -798.5 | -7.8 | 57.7 | 336.2 | 475.1 | 125.6 |
| 41 DEP | 8:30:15.0 | 8:30:14.7 | 1177.8 | 7.9 | 34.3 | 284.5 | 351.4 | 125.9 |
| 42 F-W | 8:32:40.0 | 8:32:38.6 | -248.5 | -1.1 | 130.1 | 1010.7 | 1644.3 | 142.1 |
| 43 F-E | 8:35:15.0 | 8:35:12.6 | 134.0 | 0.5 | 144.0 | 1040.8 | 2679.4 | 157.1 |
| 44 F-W | 8:37:27.5 | 8:37:26.1 | 1524.7 | 6.1 | 141.6 | 1010.9 | 1586.5 | 140.4 |
| 45 F-E | 8:39:53.5 | 8:39:51.3 | -79.7 | -0.3 | 141.9 | 1042.7 | 2508.6 | 155.4 |
| 46 F-W | 8:42:38.5 | 8:42:36.0 | 19.2 | 0.1 | 89.2 | 518.0 | 576.7 | 116.1 |
| 47 F-E | 8:44:55.0 | 8:44:54.5 | -53.8 | -0.3 | 97.6 | 561.0 | 609.5 | 112.6 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C3-2

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 24, 1980

FAA/AEE 120

A109

MAR 12, 1981

MIC # 2 CENTERLINE WEST, 4 FT

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|--------|---------------|---------------|---------|-------------|----------|--------|--------|------------|
| 2 F-W | 6:17:56.0 | 6:17:55.0 | 24.8 | 0.1 | 118.9 | 1027.8 | 1139.7 | 114.4 |
| 3 F-E | 6:21:00.0 | 6:20:58.1 | -3.5 | -0.0 | 153.9 | 1074.7 | 2150.9 | 150.0 |
| 4 F-E | 6:23:43.0 | 6:23:42.0 | 60.7 | 0.3 | 117.6 | 997.9 | 1083.0 | 112.9 |
| 5 F-E | 6:26:31.0 | 6:26:29.4 | 24.0 | 0.1 | 143.4 | 1625.3 | 1779.6 | 114.0 |
| 6 F-W | 6:29:06.0 | 6:29:03.0 | 85.5 | 0.4 | 134.4 | 1531.3 | 2499.7 | 140.8 |
| 8 F-W | 6:34:13.5 | 6:34:12.5 | 113.0 | 0.5 | 119.1 | 732.2 | 1157.1 | 140.7 |
| 9 F-E | 6:36:28.5 | 6:36:27.8 | 56.7 | 0.2 | 140.6 | 339.3 | 751.2 | 153.1 |
| 10 F-W | 6:38:29.0 | 6:38:28.6 | 229.3 | 1.0 | 124.5 | 339.1 | 495.4 | 123.2 |
| 11 F-E | 6:40:59.5 | 6:40:56.9 | 41.3 | 0.2 | 141.1 | 1627.5 | 2889.5 | 145.7 |
| 13 F-E | 6:46:58.5 | 6:46:54.1 | 156.2 | 0.6 | 149.5 | 724.5 | 2717.9 | 164.5 |
| 14 F-W | 6:49:38.5 | 6:49:37.8 | 99.8 | 0.5 | 119.4 | 726.1 | 692.4 | 115.8 |
| 15 F-E | 6:51:50.5 | 6:51:49.7 | -95.7 | -0.4 | 140.0 | 322.2 | 941.3 | 150.0 |
| 16 F-E | 6:54:00.5 | 6:53:59.0 | 331.0 | 1.5 | 126.5 | 322.0 | 599.6 | 147.6 |
| 17 F-E | 6:56:17.5 | 6:56:16.6 | 272.7 | 1.0 | 147.5 | 568.7 | 1019.2 | 146.1 |
| 18 F-E | 6:58:46.0 | 6:58:44.5 | 145.5 | 0.7 | 120.7 | 549.2 | 586.0 | 110.6 |
| 19 F-E | 7:01:19.0 | 7:01:17.5 | -10.5 | -0.0 | 146.3 | 540.7 | 1359.6 | 161.0 |
| 20 F-E | 7:13:33.0 | 7:13:31.3 | -73.0 | -0.4 | 104.3 | 520.3 | 1959.0 | 164.6 |
| 22 F-E | 7:16:32.0 | 7:16:31.5 | -56.8 | -0.4 | 82.8 | 527.4 | 588.2 | 116.4 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C3-2 (CONT)

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 24, 1980

FAA/AEE 120
MAR 12, 1981

A109

MIC # 2 CENTERLINE WEST, 4 FT

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|--------|---------------|---------------|---------|-------------|----------|--------|--------|------------|
| 24 ARR | 7:48:51.0 | 7:48:50.6 | -747.2 | -7.6 | 55.0 | 342.5 | 432.8 | 127.7 |
| 25 DEP | 7:52:54.0 | 7:52:53.8 | 1034.2 | 7.4 | 78.7 | 194.2 | 214.6 | 115.2 |
| 26 ARR | 7:55:23.5 | 7:55:23.1 | -816.0 | -7.8 | 58.6 | 409.5 | 459.6 | 117.0 |
| 27 DEP | 7:58:11.5 | 7:58:11.0 | 1079.0 | 7.5 | 81.2 | 178.4 | 212.1 | 122.8 |
| 28 ARR | 8:0:42.5 | 8:0:42.2 | -821.2 | -8.0 | 58.0 | 327.7 | 369.0 | 117.6 |
| 29 DEP | 8:2:38.0 | 8:2:37.8 | 1076.5 | 7.5 | 80.2 | 203.6 | 216.8 | 110.1 |
| 30 ARR | 8:5:26.0 | 8:5:25.7 | -637.7 | -6.6 | 52.7 | 323.7 | 391.1 | 124.1 |
| 31 DEP | 8:7:24.5 | 8:7:24.0 | 1175.2 | 8.0 | 82.0 | 214.2 | 229.3 | 110.9 |
| 32 ARR | 8:9:51.0 | 8:9:50.4 | -503.0 | -4.9 | 52.0 | 332.5 | 649.5 | 142.6 |
| 33 DEP | 8:11:45.0 | 8:11:44.8 | 1178.7 | 8.0 | 80.2 | 218.0 | 227.4 | 105.7 |
| 34 ARR | 8:14:14.0 | 8:14:13.6 | -726.3 | -6.6 | 61.6 | 336.7 | 432.8 | 122.9 |
| 35 DEP | 8:17:43.5 | 8:17:43.3 | 1108.5 | 7.8 | 79.5 | 207.3 | 200.0 | 97.2 |
| 36 ARR | 8:20:00.5 | 8:20:00.2 | -855.0 | -8.1 | 59.1 | 351.8 | 378.9 | 111.8 |
| 37 DEP | 8:21:52.0 | 8:21:51.8 | 1213.5 | 8.5 | 79.7 | 209.3 | 235.6 | 117.0 |
| 38 ARR | 8:24:21.5 | 8:24:21.2 | -676.5 | -6.0 | 60.9 | 336.3 | 403.2 | 123.5 |
| 40 ARR | 8:28:23.0 | 8:28:22.7 | -753.3 | -7.3 | 52.1 | 321.4 | 381.7 | 122.6 |
| 41 DEP | 8:30:12.0 | 8:30:11.8 | 1088.0 | 7.4 | 82.5 | 217.1 | 252.1 | 120.5 |
| 42 F-W | 8:32:42.0 | 8:32:40.5 | -252.5 | -1.1 | 131.7 | 1005.1 | 1688.4 | 143.5 |
| 43 F-E | 8:35:12.5 | 8:35:10.0 | 202.2 | 0.8 | 143.6 | 1031.0 | 2808.4 | 158.5 |
| 44 F-W | 8:37:29.5 | 8:37:28.1 | 592.3 | 2.6 | 130.4 | 1023.5 | 1609.3 | 140.5 |
| 45 F-E | 8:39:53.5 | 8:39:51.8 | -79.7 | -0.3 | 141.9 | 1040.0 | 1976.1 | 142.2 |
| 46 F-W | 8:42:40.0 | 8:42:39.5 | 133.2 | 0.8 | 89.2 | 524.0 | 564.1 | 111.7 |
| 47 F-E | 8:44:50.5 | 8:44:49.0 | 83.0 | 0.5 | 98.1 | 564.7 | 748.2 | 131.0 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C3-2 (CONT)

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 24, 1980
A109

FAA/AEE 120
MAR 12, 1981

MIC # 2 CENTERLINE WEST, 4 FT

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|--------|---------------|---------------|---------|-------------|----------|--------|--------|------------|
| 48 F-W | 0:53:26.5 | 0:53:25.1 | 372.0 | 1.5 | 138.2 | 492.8 | 1560.8 | 161.6 |
| 49 F-W | 0:55:38.5 | 0:55:36.6 | 263.5 | 1.0 | 153.1 | 554.1 | 2138.5 | 165.0 |
| 50 F-W | 0:57:57.5 | 0:57:56.0 | -101.0 | -0.4 | 143.2 | 472.4 | 1665.9 | 163.5 |
| 51 F-W | 0:0:13.0 | 0:0:12.5 | 225.2 | 1.1 | 112.9 | 570.6 | 595.8 | 106.7 |
| 52 F-W | 0:2:34.0 | 0:2:33.5 | 151.5 | 0.8 | 104.6 | 521.0 | 586.0 | 117.2 |
| 53 F-W | 0:5:53.0 | 0:5:53.0 | 293.2 | 1.5 | 111.4 | 567.5 | 628.3 | 115.4 |
| 54 F-W | 0:8:7.0 | 0:8:7.0 | -66.8 | -0.3 | 122.7 | 511.2 | 569.6 | 116.2 |
| 55 F-W | 0:10:23.5 | 0:10:22.9 | 29.3 | 0.1 | 122.9 | 533.8 | 631.6 | 122.3 |
| 56 F-W | 0:12:30.5 | 0:12:30.0 | 26.3 | 0.1 | 105.7 | 513.3 | 573.3 | 116.5 |
| 57 F-W | 0:14:45.0 | 0:14:44.2 | 107.3 | 0.5 | 123.2 | 554.3 | 919.5 | 142.9 |
| 58 F-W | 0:17:11.0 | 0:17:10.5 | -34.8 | -0.2 | 114.2 | 511.6 | 557.2 | 115.6 |
| 59 F-W | 0:19:22.5 | 0:19:21.4 | -81.2 | -0.3 | 150.0 | 477.3 | 1305.4 | 153.6 |
| 60 F-W | 0:21:35.5 | 0:21:34.5 | -102.2 | -0.4 | 149.8 | 515.6 | 1193.2 | 154.4 |
| 61 F-W | 0:23:33.0 | 0:23:32.1 | -136.8 | -0.5 | 150.3 | 483.2 | 1037.7 | 152.2 |
| 62 F-W | 0:27:48.5 | 0:27:47.6 | 156.7 | 0.6 | 139.3 | 555.2 | 976.1 | 145.3 |
| 64 ARR | 0:30:3.0 | 0:30:2.6 | -620.3 | -5.8 | 60.4 | 326.6 | 424.2 | 129.7 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C3-3

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 24, 1980

A109

MIC # 3 CENTERLINE EAST, 4 FT

FAA/AEE 120

MAR 12, 1981

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|--------|---------------|---------------|---------|-------------|----------|--------|--------|------------|
| 2 F-W | 6:17:47.0 | 6:17:45.5 | 60.8 | 0.3 | 120.1 | 1029.0 | 1739.0 | 143.7 |
| 3 F-E | 6:21:11.0 | 6:20:58.4 | 54.2 | 0.2 | 153.6 | 1093.6 | 2981.7 | 158.5 |
| 4 F-W | 6:23:35.0 | 6:23:33.7 | -53.2 | -0.3 | 117.2 | 996.2 | 1472.3 | 137.4 |
| 5 F-E | 6:26:27.0 | 6:26:23.9 | -40.2 | -0.2 | 144.0 | 1654.2 | 3457.2 | 151.4 |
| 6 F-W | 6:29:03.0 | 6:29:01.0 | -99.2 | -0.4 | 135.5 | 1565.1 | 2234.5 | 135.5 |
| 8 F-W | 6:34:04.0 | 6:34:02.1 | 247.7 | 1.2 | 116.3 | 719.0 | 2100.5 | 160.0 |
| 9 F-E | 6:36:33.5 | 6:36:33.0 | -37.7 | -0.2 | 140.5 | 934.7 | 547.9 | 142.4 |
| 10 F-W | 6:38:22.0 | 6:38:21.2 | 43.2 | 0.2 | 126.1 | 921.0 | 870.7 | 158.4 |
| 11 F-E | 6:41:01.5 | 6:40:58.5 | 108.3 | 0.4 | 140.6 | 1027.0 | 3420.6 | 151.6 |
| 13 F-E | 6:47:05.0 | 6:47:03.8 | -249.7 | -0.9 | 149.4 | 710.2 | 1976.8 | 148.9 |
| 14 F-E | 6:49:31.0 | 6:49:30.0 | 102.3 | 0.9 | 120.1 | 714.9 | 1181.4 | 142.8 |
| 15 F-E | 6:51:56.5 | 6:51:56.1 | 110.3 | 0.5 | 138.7 | 927.6 | 481.5 | 137.1 |
| 16 F-E | 6:53:56.0 | 6:53:55.5 | 51.8 | 0.2 | 127.8 | 892.1 | 576.1 | 149.5 |
| 17 F-E | 6:56:21.5 | 6:56:20.6 | 67.5 | 0.3 | 147.9 | 572.9 | 1018.7 | 145.8 |
| 18 F-E | 6:58:39.5 | 6:58:37.8 | 1.0 | 0.0 | 123.8 | 539.7 | 811.8 | 138.3 |
| 19 F-E | 7:02:23.5 | 7:02:22.2 | -15.2 | -0.1 | 146.4 | 597.3 | 1505.7 | 159.1 |
| 20 F-E | 7:13:29.5 | 7:13:27.9 | -60.2 | -0.3 | 103.5 | 521.6 | 1772.8 | 162.9 |
| 22 F-E | 7:16:26.0 | 7:16:25.5 | 112.0 | 0.2 | 22.3 | 536.6 | 543.9 | 99.3 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C3-3 (CONT)

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 24, 1980

FAA/AEE 120
MAR 12, 1981

A109
MIC # 3 CENTERLINE EAST, 4 FT

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|--------|---------------|---------------|---------|-------------|----------|--------|--------|------------|
| 24 ARR | 7:48:44.0 | 7:48:43.6 | -814.5 | -8.3 | 55.0 | 475.2 | 477.5 | 84.4 |
| 25 DEP | 7:53:00.5 | 7:53:00.2 | 1095.5 | 7.3 | 93.9 | 312.3 | 361.9 | 120.4 |
| 26 ARR | 7:55:16.5 | 7:55:16.0 | -743.3 | -7.1 | 58.7 | 546.7 | 549.4 | 84.3 |
| 27 DEP | 7:58:17.5 | 7:58:17.1 | 1401.0 | 9.4 | 83.3 | 319.0 | 412.9 | 129.4 |
| 28 ARR | 8:00:33.5 | 8:00:33.1 | -758.8 | -7.4 | 57.8 | 458.0 | 468.1 | 101.4 |
| 29 DEP | 8:02:44.0 | 8:02:43.7 | 1197.5 | 7.9 | 85.0 | 333.9 | 399.9 | 123.4 |
| 30 ARR | 8:05:16.0 | 8:05:15.8 | -451.0 | -4.4 | 58.0 | 441.5 | 500.2 | 118.0 |
| 31 DEP | 8:07:31.0 | 8:07:30.7 | 1474.8 | 9.3 | 84.4 | 357.2 | 381.1 | 110.4 |
| 32 ARR | 8:09:44.5 | 8:09:44.1 | -577.8 | -5.5 | 59.1 | 428.8 | 474.3 | 115.3 |
| 33 DEP | 8:11:52.5 | 8:11:52.2 | 1341.3 | 9.1 | 82.6 | 366.5 | 368.7 | 91.9 |
| 34 ARR | 8:14:04.5 | 8:14:04.0 | -531.0 | -5.5 | 60.0 | 447.4 | 522.3 | 121.1 |
| 35 DEP | 8:17:49.5 | 8:17:49.2 | 1189.2 | 8.6 | 83.3 | 349.2 | 389.3 | 119.2 |
| 36 ARR | 8:19:52.0 | 8:19:51.6 | -750.3 | -8.0 | 61.3 | 435.8 | 488.4 | 95.9 |
| 37 DEP | 8:22:00.0 | 8:21:59.7 | 1299.5 | 8.7 | 82.0 | 351.7 | 352.1 | 87.3 |
| 38 ARR | 8:24:11.5 | 8:24:11.1 | -913.9 | -7.6 | 60.2 | 430.3 | 514.6 | 124.3 |
| 40 ARR | 8:28:14.5 | 8:28:14.1 | -869.7 | -8.4 | 58.0 | 452.1 | 460.0 | 100.7 |
| 41 DEP | 8:30:13.0 | 8:30:17.6 | 1402.0 | 9.3 | 85.0 | 353.3 | 444.4 | 125.8 |
| 42 F-W | 8:32:37.0 | 8:32:35.4 | -214.3 | -0.9 | 136.4 | 1629.6 | 1513.6 | 145.3 |
| 43 F-W | 8:35:16.5 | 8:35:14.0 | 88.5 | 0.3 | 144.3 | 1646.6 | 2691.0 | 158.3 |
| 45 F-W | 8:39:56.5 | 8:39:54.5 | -62.3 | -0.2 | 142.1 | 1644.3 | 2254.2 | 152.4 |
| 46 F-W | 8:42:34.0 | 8:42:33.5 | -63.0 | -0.4 | 89.9 | 517.1 | 534.6 | 104.7 |
| 47 F-W | 8:44:58.5 | 8:44:58.0 | 117.3 | 0.7 | 97.8 | 559.2 | 581.4 | 101.8 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C3-3 (CONT)

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 24, 1980
A109

FAA/AEE 120
MAR 12, 1981

MIC # 3 CENTERLINE EAST, 4 FT

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|--------|---------------|---------------|---------|-------------|----------|--------|--------|------------|
| 49 F-E | 8:55:46.5 | 8:55:45.7 | -106.5 | -0.4 | 150.0 | 546.9 | 897.6 | 142.5 |
| 50 F-W | 8:57:55.5 | 8:57:54.6 | -150.3 | -0.5 | 145.0 | 459.8 | 1069.0 | 154.5 |
| 51 F-E | 9:0:18.0 | 9:0:17.5 | 55.5 | 0.3 | 111.3 | 536.0 | 627.9 | 111.0 |
| 52 F-W | 9:2:29.0 | 9:2:28.5 | -136.2 | -0.7 | 104.6 | 511.7 | 545.0 | 110.1 |
| 53 F-E | 9:5:59.5 | 9:5:59.0 | -43.7 | -0.2 | 111.4 | 571.0 | 586.1 | 103.0 |
| 55 F-E | 9:10:29.0 | 9:10:28.5 | 164.6 | 0.8 | 123.2 | 533.1 | 585.9 | 108.0 |
| 56 F-W | 9:12:34.5 | 9:12:34.0 | -255.0 | -1.4 | 106.0 | 523.9 | 551.4 | 102.3 |
| 57 F-E | 9:14:49.5 | 9:14:48.6 | 131.0 | 0.6 | 122.7 | 568.1 | 971.0 | 144.2 |
| 58 F-W | 9:17:06.0 | 9:17:05.5 | -55.0 | -0.3 | 112.9 | 521.9 | 562.5 | 111.0 |
| 59 F-E | 9:19:26.5 | 9:19:25.4 | 343.8 | 1.3 | 150.9 | 501.1 | 1267.3 | 156.7 |
| 60 F-W | 9:21:30.0 | 9:21:28.5 | -132.0 | -0.5 | 149.0 | 519.1 | 1663.7 | 161.0 |
| 61 F-E | 9:23:37.0 | 9:23:36.1 | 424.2 | 1.6 | 149.7 | 515.5 | 1007.8 | 149.2 |
| 63 F-E | 9:27:53.0 | 9:27:52.2 | 329.3 | 1.3 | 139.1 | 577.9 | 908.6 | 140.5 |
| 64 ARR | 9:29:55.5 | 9:29:55.1 | -226.2 | -0.2 | 62.8 | 443.3 | 453.1 | 101.9 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C3-4

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 24, 1980

FAA/AEE 120
MAR 12, 1981

A109

MIC # 4 SIDELINE NORTH, 4 FT

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|--------|---------------|---------------|---------|-------------|----------|--------|--------|------------|
| 2 F-W | 6:17:44.5 | 6:17:42.0 | -164.7 | -0.8 | 120.3 | 1170.2 | 2844.9 | 155.7 |
| 3 F-W | 6:21:5.0 | 6:21:3.8 | 134.2 | 0.5 | 152.6 | 1089.5 | 1410.0 | 129.4 |
| 4 F-W | 6:23:32.0 | 6:23:29.7 | 6.7 | 0.0 | 118.2 | 1115.6 | 2624.1 | 154.8 |
| 5 F-W | 6:26:30.5 | 6:26:28.6 | -1.7 | -0.0 | 143.5 | 1576.8 | 2136.6 | 132.4 |
| 6 F-W | 6:29:0.0 | 6:28:57.0 | -162.5 | -0.7 | 134.1 | 1680.8 | 3447.3 | 150.8 |
| 8 F-W | 6:34:9.5 | 6:34:8.1 | 100.7 | 0.5 | 119.4 | 836.5 | 1560.3 | 145.4 |
| 9 F-W | 6:36:33.0 | 6:36:32.5 | -47.0 | -0.2 | 139.6 | 579.0 | 582.3 | 96.1 |
| 10 F-W | 6:38:27.5 | 6:38:27.0 | 215.5 | 1.0 | 124.5 | 620.3 | 626.3 | 98.0 |
| 11 F-W | 6:41:4.5 | 6:41:2.5 | 73.7 | 0.3 | 139.6 | 1588.0 | 2235.0 | 134.7 |
| 13 F-W | 6:47:5.0 | 6:47:4.1 | -249.7 | -0.9 | 149.4 | 827.9 | 1028.5 | 126.4 |
| 14 F-W | 6:49:24.5 | 6:49:21.6 | 121.8 | 0.6 | 117.3 | 900.5 | 3245.0 | 163.9 |
| 15 F-W | 6:51:48.5 | 6:51:46.6 | -145.2 | -0.6 | 140.6 | 574.8 | 2192.0 | 164.8 |
| 16 F-W | 6:53:55.5 | 6:53:54.3 | -40.3 | -0.2 | 127.8 | 605.2 | 1385.3 | 154.1 |
| 17 F-W | 6:56:16.0 | 6:56:14.2 | 267.2 | 1.0 | 147.9 | 708.0 | 2076.3 | 160.1 |
| 18 F-W | 6:58:36.0 | 6:58:34.3 | 0.7 | 0.0 | 121.2 | 756.9 | 1971.2 | 157.4 |
| 19 F-W | 7:2:24.5 | 7:2:23.7 | -34.0 | -0.1 | 145.8 | 696.0 | 375.4 | 127.3 |
| 20 F-W | 7:13:37.5 | 7:13:36.0 | -62.5 | -0.3 | 104.3 | 667.1 | 1671.7 | 156.5 |
| 22 F-W | 7:16:27.5 | 7:16:26.8 | -57.8 | -0.4 | 83.0 | 728.5 | 846.0 | 120.5 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C3-4 (CONT)

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 24, 1980

FAA/AEE 120

A109

MAR 12, 1981

MIC # 4 SIDELINE NORTH, 4 FT

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|--------|---------------|---------------|---------|-------------|----------|--------|--------|------------|
| 24 ARR | 7:48:43.5 | 7:48:42.7 | -815.5 | -8.3 | 55.1 | 698.7 | 860.5 | 125.7 |
| 25 DEP | 7:52:56.5 | 7:52:56.0 | 973.8 | 6.8 | 80.8 | 546.1 | 618.5 | 118.0 |
| 26 ARR | 7:55:18.5 | 7:55:17.8 | -820.2 | -7.8 | 59.4 | 723.8 | 769.7 | 109.9 |
| 27 DEP | 7:58:14.5 | 7:58:14.0 | 1105.3 | 7.5 | 83.1 | 540.9 | 589.0 | 113.3 |
| 28 ARR | 8:00:40.5 | 8:00:40.0 | -759.3 | -7.4 | 58.0 | 611.7 | 622.2 | 79.4 |
| 29 DEP | 8:02:40.5 | 8:02:40.0 | 1113.8 | 7.5 | 83.1 | 557.0 | 625.5 | 117.1 |
| 30 ARR | 8:05:24.0 | 8:05:23.5 | -793.0 | -7.5 | 59.4 | 621.2 | 622.3 | 86.6 |
| 31 DEP | 8:07:26.0 | 8:07:25.4 | 1223.5 | 8.2 | 84.0 | 561.7 | 701.0 | 126.7 |
| 32 ARR | 8:09:51.0 | 8:09:50.5 | -503.0 | -4.9 | 58.0 | 621.7 | 623.8 | 94.8 |
| 33 DEP | 8:11:47.0 | 8:11:46.4 | 1232.2 | 8.5 | 81.7 | 557.4 | 648.1 | 120.7 |
| 34 ARR | 8:14:13.0 | 8:14:12.4 | -751.0 | -6.9 | 61.3 | 626.5 | 634.6 | 80.9 |
| 35 DEP | 8:17:45.0 | 8:17:44.4 | 1083.7 | 7.5 | 81.0 | 540.5 | 653.3 | 124.2 |
| 36 ARR | 8:19:52.5 | 8:19:51.8 | -742.3 | -6.8 | 61.5 | 639.9 | 803.0 | 127.2 |
| 37 DEP | 8:21:54.5 | 8:21:53.9 | 1169.7 | 8.1 | 80.9 | 565.0 | 634.1 | 117.0 |
| 38 ARR | 8:24:13.0 | 8:24:12.2 | -739.2 | -7.0 | 59.8 | 620.4 | 680.4 | 135.2 |
| 40 ARR | 8:28:16.0 | 8:28:15.3 | -797.0 | -7.7 | 58.3 | 636.8 | 773.8 | 124.6 |
| 41 DEP | 8:30:14.5 | 8:30:13.9 | 1177.8 | 7.9 | 83.8 | 588.3 | 648.5 | 118.8 |
| 43 F-E | 8:35:20.5 | 8:35:19.3 | 126.0 | 0.7 | 144.1 | 1089.6 | 1386.7 | 128.2 |
| 45 F-E | 8:39:53.0 | 8:39:56.7 | -11.5 | -0.0 | 142.5 | 1107.6 | 1488.7 | 131.0 |
| 46 F-W | 8:42:35.5 | 8:42:34.8 | 13.2 | 0.1 | 89.3 | 703.4 | 825.7 | 121.6 |
| 47 F-E | 8:44:50.0 | 8:44:48.8 | 87.0 | 0.5 | 98.5 | 693.9 | 1359.2 | 149.3 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C3-4 (CONT)

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 24, 1980

FAA/AEE 120

A109

MAR 12, 1981

MIC # 4 SIDELINE NORTH, 4 FT

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|--------|---------------|---------------|---------|-------------|----------|--------|--------|------------|
| 49 F-E | 8:55:39.5 | 8:55:37.3 | 234.3 | 0.9 | 152.9 | 748.4 | 2495.9 | 162.6 |
| 50 F-W | 8:57:57.0 | 8:57:55.8 | -138.5 | -0.5 | 143.3 | 682.4 | 1332.0 | 149.2 |
| 51 F-E | 9:0:12.0 | 9:0:10.9 | 135.2 | 0.7 | 112.5 | 748.4 | 1216.0 | 142.0 |
| 53 F-E | 9:5:55.0 | 9:5:54.2 | 158.5 | 0.8 | 111.1 | 740.8 | 908.9 | 125.4 |
| 55 F-E | 9:10:25.0 | 9:10:24.2 | 53.2 | 0.2 | 122.9 | 724.5 | 922.0 | 128.0 |
| 56 F-W | 9:12:36.0 | 9:12:35.3 | -214.2 | -1.1 | 105.9 | 699.2 | 821.2 | 121.6 |
| 57 F-E | 9:14:48.0 | 9:14:47.1 | 105.2 | 0.5 | 120.2 | 724.7 | 976.0 | 128.4 |
| 58 F-W | 9:17:7.5 | 9:17:6.8 | -119.7 | -0.6 | 112.8 | 621.6 | 830.0 | 123.6 |
| 59 F-E | 9:19:27.0 | 9:19:26.2 | 351.7 | 1.0 | 150.8 | 685.1 | 913.0 | 122.7 |
| 60 F-W | 9:21:30.5 | 9:21:29.6 | -73.3 | -0.2 | 142.6 | 714.8 | 2172.7 | 160.8 |
| 61 F-E | 9:23:36.5 | 9:23:35.8 | 358.2 | 1.4 | 149.9 | 677.7 | 813.4 | 123.9 |
| 63 F-E | 9:27:53.0 | 9:27:52.4 | 329.2 | 1.3 | 139.1 | 718.9 | 740.7 | 102.9 |
| 64 ARR | 9:29:59.0 | 9:29:58.4 | -261.7 | -2.2 | 82.0 | 214.2 | 656.5 | 110.5 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C3-5

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 24, 1980
A109

FAA/AEE 120
MAR 12, 1981

MIC # 5 SIDELINE SOUTH, 4 FT

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|--------|---------------|---------------|---------|-------------|----------|--------|--------|------------|
| 2 F-W | 6:17:51.5 | 6:17:50.2 | 269.5 | 1.3 | 119.4 | 1145.2 | 1476.4 | 129.1 |
| 3 F-W | 6:21:1.0 | 6:20:58.8 | 54.2 | 0.2 | 153.6 | 1282.2 | 2517.7 | 149.4 |
| 4 F-W | 6:23:38.0 | 6:23:36.7 | -1.3 | -0.0 | 116.4 | 1107.2 | 1478.4 | 131.5 |
| 5 F-W | 6:26:22.5 | 6:26:18.8 | -166.5 | -0.7 | 143.6 | 1832.6 | 4209.1 | 154.2 |
| 6 F-W | 6:29:8.5 | 6:29:6.0 | 265.7 | 0.9 | 132.1 | 1617.2 | 1767.7 | 113.8 |
| 8 F-W | 6:34:12.0 | 6:34:11.0 | 258.0 | 1.2 | 118.8 | 260.4 | 1102.6 | 128.7 |
| 9 F-W | 6:36:29.0 | 6:36:27.3 | 20.8 | 0.1 | 140.4 | 613.9 | 1318.2 | 152.2 |
| 10 F-W | 6:38:27.0 | 6:38:26.5 | 243.3 | 1.1 | 124.8 | 565.7 | 597.0 | 108.6 |
| 11 F-W | 6:41:2.5 | 6:41:0.0 | 169.2 | 0.7 | 141.2 | 1809.4 | 2783.2 | 139.4 |
| 13 F-W | 6:46:50.0 | 6:46:56.7 | 79.0 | 0.3 | 149.0 | 907.9 | 2630.0 | 159.8 |
| 14 F-W | 6:49:34.5 | 6:49:33.5 | 165.0 | 0.8 | 119.5 | 848.2 | 1105.1 | 129.9 |
| 15 F-W | 6:51:52.0 | 6:51:50.0 | -20.7 | -0.1 | 140.2 | 604.4 | 1241.8 | 150.9 |
| 16 F-W | 6:53:58.5 | 6:53:57.9 | 347.3 | 1.5 | 127.5 | 556.4 | 725.6 | 129.9 |
| 17 F-W | 6:56:13.5 | 6:56:17.2 | 259.5 | 1.0 | 147.6 | 796.0 | 1423.1 | 146.0 |
| 18 F-W | 6:58:34.5 | 6:58:32.5 | -53.3 | -0.2 | 122.3 | 719.3 | 2289.5 | 161.7 |
| 19 F-W | 7:2:22.5 | 7:2:21.3 | 87.0 | 0.3 | 146.7 | 760.7 | 1364.3 | 146.1 |
| 21 F-W | 7:13:36.0 | 7:13:34.2 | -23.7 | -0.1 | 104.7 | 771.5 | 2016.0 | 157.5 |
| 22 F-W | 7:16:30.5 | 7:16:29.0 | -40.2 | -0.3 | 82.8 | 716.8 | 716.8 | 89.8 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C3-5 (CONT)

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 24, 1980
A109

FAA/AEE 120
MAR 12, 1981

MIC # 5 SIDELINE SOUTH, 4 FT

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|--------|------------------|------------------|------------|----------------|-------------|-----------|----------|---------------|
| 24 ARR | 7:48:48.0 | 7:48:47.5 | -742.0 | -7.6 | 55.0 | 617.1 | 622.5 | 97.5 |
| 25 DEP | 7:52:58.0 | 7:52:57.5 | 960.5 | 6.6 | 82.1 | 560.4 | 565.0 | 97.4 |
| 26 ARR | 7:55:11.5 | 7:55:10.5 | -473.5 | -4.6 | 52.2 | 651.2 | 1165.8 | 146.0 |
| 27 DEP | 7:58:14.0 | 7:58:13.4 | 1086.7 | 7.4 | 82.8 | 554.4 | 638.8 | 119.8 |
| 28 ARR | 8:00:35.0 | 8:00:34.3 | -806.2 | -7.8 | 58.2 | 647.0 | 797.7 | 125.8 |
| 29 DEP | 8:02:39.5 | 8:02:38.9 | 1090.8 | 7.4 | 82.6 | 562.4 | 699.7 | 126.9 |
| 30 ARR | 8:05:16.0 | 8:05:15.1 | -451.0 | -4.4 | 58.0 | 624.6 | 1006.4 | 141.6 |
| 31 DEP | 8:07:29.0 | 8:07:28.5 | 1271.2 | 8.3 | 85.7 | 573.1 | 574.2 | 86.5 |
| 32 ARR | 8:09:46.5 | 8:09:45.8 | -530.8 | -5.1 | 58.9 | 628.3 | 823.5 | 130.3 |
| 33 DEP | 8:11:49.0 | 8:11:48.5 | 1270.9 | 8.7 | 81.9 | 586.1 | 586.6 | 92.5 |
| 34 ARR | 8:14:06.0 | 8:14:05.2 | -520.0 | -4.9 | 60.1 | 632.3 | 910.9 | 136.0 |
| 35 DEP | 8:17:47.0 | 8:17:46.5 | 1127.0 | 7.7 | 82.0 | 583.2 | 588.5 | 97.7 |
| 36 ARR | 8:19:53.5 | 8:19:52.0 | -762.8 | -7.0 | 61.3 | 656.3 | 783.6 | 123.1 |
| 37 DEP | 8:21:56.0 | 8:21:55.5 | 1213.7 | 8.4 | 81.3 | 566.1 | 574.8 | 100.0 |
| 38 ARR | 8:24:14.5 | 8:24:13.8 | -565.3 | -5.3 | 59.7 | 632.4 | 795.0 | 127.0 |
| 40 ARR | 8:28:21.0 | 8:28:20.5 | -831.7 | -8.0 | 58.3 | 613.8 | 616.3 | 84.9 |
| 41 DEP | 8:30:16.5 | 8:30:16.0 | 1260.7 | 8.3 | 85.5 | 538.4 | 568.5 | 91.0 |
| 42 F-E | 8:32:39.5 | 8:32:37.0 | -272.3 | -1.2 | 130.8 | 1147.5 | 1343.9 | 141.5 |
| 43 F-E | 8:35:08.0 | 8:35:03.8 | 834.0 | 0.9 | 143.6 | 1210.9 | 4768.0 | 165.0 |
| 44 F-W | 8:37:30.0 | 8:37:28.9 | 225.8 | 1.0 | 127.9 | 1137.4 | 1277.2 | 117.1 |
| 45 F-E | 8:39:51.0 | 8:39:48.1 | -162.0 | -0.4 | 141.6 | 1198.2 | 3854.5 | 158.4 |
| 46 F-W | 8:42:36.0 | 8:42:35.3 | 6.3 | 0.0 | 89.4 | 725.2 | 813.6 | 116.9 |
| 47 F-E | 8:44:55.0 | 8:44:54.3 | -53.8 | -0.3 | 97.6 | 796.3 | 834.4 | 107.4 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C3-5 (CONT)

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 24, 1980

FAA/AEE 120
MAR 12, 1981

A109

MIC # 5 SIDELINE SOUTH, 4 FT

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|--------|---------------|---------------|---------|-------------|----------|--------|--------|------------|
| 49 F-E | 8:55:42.0 | 8:55:40.5 | -25.7 | -0.1 | 152.1 | 755.1 | 1732.6 | 154.2 |
| 50 F-W | 8:57:55.5 | 8:57:54.0 | -159.3 | -0.6 | 145.3 | 669.5 | 1747.4 | 157.5 |
| 51 F-E | 9:0:15.0 | 9:0:14.3 | 235.5 | 1.2 | 112.1 | 776.0 | 838.9 | 112.9 |
| 52 F-W | 9:2:29.5 | 9:2:28.6 | -71.8 | -0.4 | 105.1 | 725.9 | 982.5 | 132.4 |
| 53 F-E | 9:5:59.0 | 9:5:55.0 | 82.7 | 0.4 | 111.4 | 770.5 | 840.1 | 113.5 |
| 54 F-W | 9:8:4.0 | 9:8:3.2 | -151.2 | -0.7 | 119.8 | 733.3 | 913.7 | 126.6 |
| 55 F-E | 9:10:25.0 | 9:10:24.2 | 53.8 | 0.2 | 122.0 | 722.2 | 932.2 | 128.6 |
| 56 F-W | 9:12:35.0 | 9:12:34.2 | -225.5 | -1.2 | 136.0 | 724.0 | 966.8 | 131.5 |
| 57 F-E | 9:14:44.0 | 9:14:42.5 | 77.2 | 0.4 | 123.4 | 726.8 | 1753.1 | 155.5 |
| 58 F-W | 9:17:7.0 | 9:17:6.2 | -112.7 | -0.6 | 113.0 | 731.0 | 938.5 | 128.8 |
| 59 F-E | 9:19:25.0 | 9:19:23.9 | 225.5 | 0.3 | 150.4 | 698.9 | 1269.9 | 146.6 |
| 60 F-W | 9:21:31.5 | 9:21:29.8 | -99.5 | -0.3 | 149.4 | 714.0 | 1894.4 | 157.9 |
| 61 F-E | 9:23:33.0 | 9:23:31.5 | -136.8 | -0.5 | 150.9 | 718.1 | 1719.0 | 155.3 |
| 63 F-E | 9:27:49.5 | 9:27:48.9 | 95.5 | 0.4 | 139.2 | 771.7 | 1379.4 | 146.0 |
| 64 ARR | 9:30:1.5 | 9:30:1.0 | -759.2 | -7.6 | 69.9 | 623.0 | 624.3 | 86.2 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C3-6

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 24, 1980

FAA/AEE 120

A109

MAR 12, 1981

MIC # 6 SIDELINE NORTH, 4 FT

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|--------|---------------|---------------|---------|-------------|----------|--------|--------|------------|
| 2 F-W | 6:17:45.0 | 6:17:42.5 | -123.2 | -0.6 | 120.6 | 1396.1 | 2854.2 | 150.7 |
| 3 F-E | 6:20:54.5 | 6:20:50.5 | -157.5 | -0.6 | 154.2 | 1267.6 | 4525.9 | 163.7 |
| 4 F-W | 6:23:42.0 | 6:23:40.8 | -17.0 | -0.1 | 117.7 | 1370.1 | 1379.8 | 96.8 |
| 5 F-E | 6:26:30.5 | 6:26:28.5 | -1.7 | -0.0 | 143.5 | 1648.9 | 2220.8 | 132.1 |
| 6 F-W | 6:28:56.5 | 6:28:52.6 | -115.2 | -0.5 | 135.1 | 1822.4 | 4418.7 | 154.8 |
| 8 F-W | 6:34:13.0 | 6:34:11.8 | 174.3 | 0.8 | 118.6 | 1196.1 | 1309.7 | 114.0 |
| 9 F-E | 6:36:33.5 | 6:36:32.6 | -37.7 | -0.2 | 140.5 | 970.2 | 970.3 | 91.0 |
| 10 F-W | 6:38:27.5 | 6:38:26.6 | 215.5 | 1.0 | 124.5 | 1019.0 | 1031.4 | 92.9 |
| 11 F-E | 6:40:58.5 | 6:40:55.2 | -70.5 | -0.3 | 141.1 | 1675.8 | 3730.2 | 153.3 |
| 13 F-E | 6:47:5.0 | 6:47:3.8 | -249.7 | -0.9 | 149.4 | 1117.2 | 1303.9 | 121.0 |
| 14 F-W | 6:49:27.5 | 6:49:25.1 | 13.5 | 0.1 | 121.6 | 1215.1 | 2703.0 | 153.3 |
| 15 F-E | 6:51:55.5 | 6:51:54.6 | 75.5 | 0.3 | 139.5 | 969.3 | 988.3 | 101.2 |
| 16 F-W | 6:53:53.5 | 6:53:51.7 | -241.0 | -1.1 | 128.1 | 1008.0 | 2076.0 | 151.0 |
| 17 F-E | 6:56:13.0 | 6:56:10.2 | 287.3 | 1.1 | 148.8 | 1032.9 | 3112.1 | 160.6 |
| 18 F-W | 6:58:37.0 | 6:58:35.3 | -22.7 | -0.1 | 122.3 | 1105.3 | 1965.0 | 145.3 |
| 19 F-E | 7:02:25.0 | 7:02:24.0 | -60.7 | -0.2 | 146.0 | 1032.9 | 1132.7 | 114.2 |
| 22 F-W | 7:16:23.5 | 7:16:27.5 | -105.2 | -0.7 | 82.5 | 1078.3 | 1124.6 | 106.5 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C3-6 (CONT)

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 24, 1980
A109

FAA/AEE 120
MAR 12, 1981

MIC # 6 SIDELINE NORTH, 4 FT

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|--------|------------------|------------------|------------|----------------|-------------|-----------|----------|---------------|
| 24 ARR | 7:48:47.0 | 7:49:46.1 | -741.7 | -7.6 | 55.0 | 1042.4 | 1059.8 | 100.4 |
| 25 DEP | 7:52:53.5 | 7:52:52.4 | 1025.7 | 7.4 | 78.2 | 957.0 | 1228.9 | 122.9 |
| 26 ARR | 7:55:20.5 | 7:55:19.5 | -910.3 | -8.6 | 59.6 | 1092.3 | 1096.7 | 95.1 |
| 27 DEP | 7:58:13.5 | 7:58:12.6 | 1079.7 | 7.4 | 82.1 | 954.2 | 1044.1 | 113.9 |
| 28 ARR | 8:00:37.5 | 8:00:36.6 | -777.0 | -7.5 | 58.5 | 989.3 | 1013.1 | 102.4 |
| 29 DEP | 8:02:42.5 | 8:02:41.7 | 1131.7 | 7.5 | 84.8 | 965.5 | 966.0 | 91.8 |
| 30 ARR | 8:05:26.5 | 8:05:25.6 | -654.8 | -6.3 | 58.5 | 1004.4 | 1037.6 | 75.4 |
| 31 DEP | 8:07:27.0 | 8:07:26.1 | 1200.3 | 7.9 | 85.4 | 966.6 | 1015.1 | 107.8 |
| 32 ARR | 8:09:45.5 | 8:09:44.4 | -541.0 | -5.2 | 52.8 | 1003.5 | 1192.7 | 122.7 |
| 33 DEP | 8:11:47.0 | 8:11:46.1 | 1232.2 | 8.5 | 81.7 | 959.6 | 1033.1 | 111.7 |
| 34 ARR | 8:14:11.0 | 8:14:10.1 | -773.0 | -7.1 | 60.9 | 1007.0 | 1017.1 | 98.1 |
| 35 DEP | 8:17:45.0 | 8:17:44.1 | 1083.7 | 7.5 | 81.0 | 948.3 | 1033.2 | 113.7 |
| 36 ARR | 8:19:56.5 | 8:19:55.6 | -877.7 | -8.2 | 60.2 | 1011.0 | 1012.4 | 92.9 |
| 37 DEP | 8:21:53.5 | 8:21:52.5 | 1196.8 | 8.4 | 80.3 | 971.2 | 1081.2 | 116.1 |
| 38 ARR | 8:24:07.0 | 8:24:05.6 | -903.2 | -8.7 | 58.3 | 1000.7 | 1043.1 | 142.5 |
| 40 ARR | 8:28:15.5 | 8:28:14.5 | -814.8 | -7.8 | 53.4 | 1021.3 | 1141.5 | 116.5 |
| 41 DEP | 8:30:15.0 | 8:30:14.1 | 1177.8 | 7.9 | 84.3 | 973.5 | 1016.2 | 106.7 |
| 43 F-E | 8:35:20.0 | 8:35:18.5 | 152.7 | 0.6 | 144.1 | 1299.3 | 1669.1 | 122.9 |
| 45 F-E | 8:39:47.5 | 8:39:43.7 | -2.0 | -0.0 | 141.1 | 1326.7 | 4304.7 | 162.0 |
| 46 F-U | 8:42:36.5 | 8:42:35.5 | 19.2 | 0.1 | 89.2 | 1051.5 | 1097.4 | 106.6 |
| 47 F-E | 8:44:50.0 | 8:44:48.6 | 87.0 | 0.5 | 98.5 | 1018.8 | 1583.4 | 140.0 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C3-6 (CONT)

| | | POSITION DATA | | | | | | | | |
|------------------------------|---------------|--------------------------------------|-----------|-------------|----------|--------|--------|------------|--------------|--|
| TEST DATE: JUNE 24, 1980 | | HELICOPTER NOISE MEASUREMENT PROGRAM | | | | | | | FAA/AEE 120 | |
| A109 | | | | | | | | | MAR 12, 1981 | |
| MIC # 6 SIDELINE NORTH, 4 FT | | | | | | | | | | |
| ***** | | | | | | | | | | |
| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG | | |
| 49 | F-E | 8:55:37.0 | 8:55:34.0 | 278.0 | 1.0 | 150.9 | 1055.7 | 3397.2 | 161.9 | |
| 50 | F-W | 8:57:53.0 | 8:57:50.7 | -127.5 | -0.5 | 151.6 | 1047.9 | 2660.3 | 156.8 | |
| 51 | F-E | 9:00:14.5 | 9:00:13.5 | 240.2 | 1.2 | 112.5 | 1079.7 | 1179.7 | 113.8 | |
| 52 | F-W | 9:02:32.5 | 9:02:31.6 | 137.5 | 0.7 | 105.0 | 1043.3 | 1048.5 | 95.7 | |
| 53 | F-E | 9:05:51.0 | 9:05:49.4 | 347.0 | 1.8 | 111.7 | 1074.0 | 1776.5 | 142.8 | |
| 55 | F-E | 9:10:24.5 | 9:10:23.4 | 34.7 | 0.2 | 123.1 | 1071.0 | 1301.7 | 124.6 | |
| 56 | F-W | 9:12:37.5 | 9:12:36.6 | -115.5 | -0.8 | 105.9 | 1047.4 | 1064.2 | 100.2 | |
| 57 | F-E | 9:14:48.5 | 9:14:47.4 | 54.3 | 0.2 | 123.0 | 1111.1 | 1236.1 | 116.0 | |
| 58 | F-W | 9:17:00.0 | 9:17:08.1 | -122.0 | -0.6 | 113.6 | 1038.2 | 1058.2 | 101.2 | |
| 59 | F-E | 9:19:27.5 | 9:19:26.5 | 360.8 | 1.4 | 149.7 | 1041.9 | 1107.7 | 109.8 | |
| 60 | F-W | 9:21:31.5 | 9:21:29.7 | -90.5 | -0.2 | 149.4 | 1065.6 | 2084.3 | 148.0 | |
| 61 | F-E | 9:23:35.5 | 9:23:34.3 | 230.8 | 0.9 | 150.2 | 1029.0 | 1314.8 | 122.5 | |
| 63 | F-E | 9:27:52.0 | 9:27:51.0 | 188.0 | 0.8 | 139.8 | 1051.8 | 1169.2 | 115.0 | |
| 64 | ARR | 9:30:00.0 | 9:29:59.1 | -829.5 | -7.5 | 61.9 | 992.8 | 1009.6 | 98.4 | |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C3-7

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 24, 1980
A109

FAA/AEE 120
MAR 12, 1981

MIC #1G CENTERLINE CENTER, GROUND

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|--------|---------------|---------------|---------|-------------|----------|--------|--------|------------|
| 2 F-W | 6:17:55.0 | 6:17:54.1 | 108.0 | 0.5 | 118.4 | 1040.4 | 1053.1 | 98.9 |
| 3 F-E | 6:21:5.0 | 6:21:3.8 | 134.2 | 0.5 | 152.6 | 1087.3 | 1396.5 | 128.9 |
| 4 F-W | 6:23:36.5 | 6:23:35.0 | -40.0 | -0.2 | 116.1 | 1000.7 | 1651.7 | 142.7 |
| 5 F-E | 6:26:31.0 | 6:26:29.2 | 24.0 | 0.1 | 143.4 | 1641.5 | 2077.6 | 127.8 |
| 6 F-W | 6:29:0.5 | 6:28:57.6 | -177.0 | -0.7 | 134.5 | 1578.2 | 3273.2 | 151.2 |
| 8 F-W | 6:34:11.0 | 6:34:10.0 | 209.3 | 1.0 | 119.2 | 725.8 | 1154.1 | 141.0 |
| 9 F-E | 6:36:31.5 | 6:36:31.0 | -61.8 | -0.2 | 140.0 | 341.5 | 532.4 | 140.1 |
| 10 F-W | 6:38:26.0 | 6:38:25.6 | 218.5 | 1.0 | 125.8 | 336.1 | 506.5 | 138.4 |
| 11 F-E | 6:41:1.5 | 6:40:58.9 | 108.3 | 0.4 | 140.6 | 1633.9 | 2905.8 | 145.8 |
| 12 F-E | 6:47:4.0 | 6:47:3.0 | -111.3 | -0.4 | 150.1 | 720.1 | 1142.0 | 140.9 |
| 14 F-W | 6:49:34.0 | 6:49:33.0 | 127.5 | 0.6 | 119.9 | 727.3 | 1084.1 | 137.9 |
| 15 F-E | 6:51:54.5 | 6:51:54.1 | 50.2 | 0.2 | 139.4 | 329.3 | 465.0 | 134.9 |
| 16 F-W | 6:53:58.5 | 6:53:58.0 | 347.2 | 1.5 | 127.5 | 313.6 | 530.4 | 143.7 |
| 17 F-E | 6:56:20.0 | 6:56:19.2 | 165.5 | 0.6 | 147.7 | 574.4 | 902.1 | 140.5 |
| 18 F-W | 6:58:40.5 | 6:58:39.7 | 70.5 | 0.0 | 118.9 | 554.5 | 879.7 | 140.9 |
| 19 F-E | 7:02:24.0 | 7:02:23.9 | -27.0 | -0.1 | 146.4 | 542.1 | 345.0 | 140.1 |
| 21 F-E | 7:13:25.5 | 7:13:33.7 | -45.7 | -0.2 | 104.8 | 531.3 | 2017.0 | 164.7 |
| 22 F-W | 7:16:23.5 | 7:16:22.0 | -105.2 | -0.7 | 82.5 | 533.5 | 599.6 | 117.2 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C3-7 (CONT)

| | | POSITION DATA HELICOPTER NOISE MEASUREMENT PROGRAM | | | | | | | FAA/AEE 120 MAR 12, 1981 | |
|--------------------------|---------------|---|-----------|-------------|----------|--------|--------|------------|-----------------------------|--|
| TEST DATE: JUNE 24, 1980 | | MIC #1G CENTERLINE CENTER, GROUND | | | | | | | | |
| A109 | | ***** | | | | | | | | |
| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG | | |
| 24 | ARR | 7:48:46.0 | 7:48:45.6 | -763.0 | -7.8 | 54.8 | 412.4 | 480.6 | 120.9 | |
| 25 | DEP | 7:52:57.0 | 7:52:56.7 | 989.7 | 6.9 | 80.8 | 257.0 | 316.4 | 125.7 | |
| 26 | ARR | 7:55:16.0 | 7:55:15.4 | -739.2 | -7.1 | 58.7 | 485.4 | 693.1 | 135.5 | |
| 27 | DEP | 7:58:15.0 | 7:58:14.8 | 1148.9 | 7.8 | 83.1 | 244.7 | 275.4 | 117.3 | |
| 28 | ARR | 8:00:37.0 | 8:00:36.6 | -801.9 | -7.7 | 58.4 | 396.8 | 461.1 | 120.6 | |
| 29 | DEP | 8:02:40.5 | 8:02:40.2 | 1113.8 | 7.5 | 83.1 | 271.0 | 360.3 | 131.2 | |
| 30 | ARR | 8:05:21.0 | 8:05:20.6 | -774.2 | -7.4 | 58.7 | 386.0 | 461.9 | 123.9 | |
| 31 | DEP | 8:07:27.5 | 8:07:27.2 | 1220.8 | 8.1 | 85.0 | 236.7 | 329.5 | 119.5 | |
| 32 | ARR | 8:09:45.5 | 8:09:44.9 | -541.0 | -5.2 | 58.8 | 389.7 | 728.5 | 147.7 | |
| 33 | DEP | 8:11:48.0 | 8:11:47.7 | 1268.7 | 8.7 | 81.7 | 295.4 | 327.4 | 115.5 | |
| 34 | ARR | 8:14:10.5 | 8:14:10.1 | -759.3 | -7.0 | 60.9 | 368.6 | 425.5 | 111.3 | |
| 35 | DEP | 8:17:46.5 | 8:17:46.2 | 1106.9 | 7.6 | 81.7 | 276.0 | 299.6 | 112.9 | |
| 36 | ARR | 8:19:53.0 | 8:19:52.5 | -743.3 | -8.9 | 61.3 | 426.9 | 612.1 | 135.8 | |
| 37 | DEP | 8:21:55.0 | 8:21:54.7 | 1156.5 | 8.0 | 81.2 | 262.3 | 344.5 | 124.8 | |
| 38 | ARR | 8:24:14.0 | 8:24:13.4 | -619.0 | -5.8 | 59.9 | 362.0 | 640.7 | 142.9 | |
| 40 | ARR | 8:28:17.5 | 8:28:17.1 | -798.5 | -7.8 | 57.7 | 360.1 | 478.6 | 125.4 | |
| 41 | DEP | 8:30:15.0 | 8:30:14.7 | 1177.8 | 7.9 | 84.3 | 283.5 | 354.9 | 125.5 | |
| 42 | F-W | 8:32:40.5 | 8:32:39.1 | -243.2 | -1.1 | 130.9 | 1014.7 | 1549.0 | 139.1 | |
| 43 | F-E | 8:35:15.0 | 8:35:12.6 | 134.0 | 0.5 | 144.0 | 1044.8 | 2680.9 | 157.1 | |
| 44 | F-W | 8:37:27.5 | 8:37:26.1 | 1524.7 | 6.1 | 141.6 | 1014.9 | 1592.3 | 140.3 | |
| 45 | F-E | 8:39:57.0 | 8:39:55.6 | -69.7 | -0.3 | 142.4 | 1046.7 | 1634.5 | 140.2 | |
| 46 | F-W | 8:42:35.5 | 8:42:34.9 | 13.2 | 0.1 | 89.3 | 522.0 | 667.5 | 123.6 | |
| 47 | F-E | 8:44:54.5 | 8:44:53.9 | -105.8 | -0.6 | 97.3 | 565.9 | 646.6 | 118.9 | |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C3-7

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 24, 1980

FAA/AEE 120

A109

MAR 12, 1981

MIC #1G CENTERLINE CENTER, GROUND

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|--------|---------------|---------------|---------|-------------|----------|--------|--------|------------|
| 48 F-W | 0:53:26.5 | 0:53:25.6 | 372.0 | 1.5 | 138.2 | 485.3 | 1001.2 | 151.0 |
| 49 F-E | 0:55:43.0 | 0:55:41.8 | -125.7 | -0.5 | 154.4 | 551.9 | 1339.0 | 155.7 |
| 50 F-U | 0:57:58.0 | 0:57:57.2 | -64.3 | -0.3 | 143.5 | 467.8 | 939.4 | 150.1 |
| 51 F-E | 0:0:15.0 | 0:0:14.4 | 235.5 | 1.2 | 112.1 | 536.4 | 653.4 | 116.2 |
| 52 F-W | 0:2:30.5 | 0:2:29.9 | -2.2 | -0.0 | 105.1 | 517.4 | 665.0 | 128.9 |
| 53 F-E | 0:5:55.0 | 0:5:54.3 | 152.5 | 0.8 | 111.1 | 577.7 | 767.3 | 131.2 |
| 54 F-R | 0:10:25.5 | 0:10:24.9 | 53.2 | 0.2 | 123.3 | 538.4 | 690.6 | 128.8 |
| 55 F-W | 0:12:36.0 | 0:12:35.4 | -214.8 | -1.1 | 105.9 | 518.4 | 661.1 | 128.4 |
| 56 F-E | 0:14:47.5 | 0:14:46.7 | 101.8 | 0.5 | 123.2 | 564.8 | 902.8 | 141.3 |
| 57 F-W | 0:17:06.5 | 0:17:05.8 | -91.5 | -0.5 | 113.1 | 518.2 | 937.7 | 141.8 |
| 58 F-E | 0:19:25.0 | 0:19:24.0 | 225.5 | 0.8 | 150.4 | 496.6 | 1134.2 | 154.4 |
| 59 F-E | 0:21:04.5 | 0:21:03.7 | -52.7 | -0.2 | 150.7 | 522.1 | 937.3 | 146.2 |
| 60 F-E | 0:23:34.5 | 0:23:33.5 | 166.2 | 0.4 | 150.1 | 499.4 | 1164.0 | 154.6 |
| 61 F-R | 0:27:51.0 | 0:27:50.2 | 84.0 | 0.3 | 139.8 | 564.4 | 891.6 | 140.7 |
| 62 F-R | 0:30:00.0 | 0:29:59.7 | -829.5 | -7.5 | 61.9 | 379.5 | 395.1 | 106.2 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C3-8

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 24, 1980

FAA/AEE 120

A109

MAR 12, 1981

MIC #1H CENTERLINE CENTER, 33FT

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|--------|------------------|------------------|------------|----------------|-------------|-----------|----------|---------------|
| 2 F-W | 6:17:50.0 | 6:17:48.6 | 239.2 | 1.1 | 119.0 | 1007.4 | 1605.4 | 141.1 |
| 3 F-E | 6:21:4.5 | 6:21:3.2 | 146.7 | 0.5 | 152.5 | 1055.1 | 1469.2 | 134.1 |
| 4 F-W | 6:23:36.5 | 6:23:35.1 | -40.0 | -0.2 | 116.1 | 967.7 | 1628.7 | 143.5 |
| 5 F-E | 6:26:25.5 | 6:26:22.6 | -15.5 | -0.1 | 144.0 | 1609.8 | 3302.4 | 150.8 |
| 6 F-W | 6:29:1.5 | 6:28:58.8 | -84.2 | -0.4 | 134.5 | 1545.3 | 3009.9 | 149.1 |
| 8 F-W | 6:34:12.5 | 6:34:11.7 | 210.5 | 1.0 | 118.4 | 692.9 | 892.7 | 129.1 |
| 9 F-E | 6:36:32.0 | 6:36:31.6 | -69.5 | -0.3 | 140.0 | 908.5 | 409.5 | 131.1 |
| 11 F-E | 6:41:0.5 | 6:40:57.7 | 87.9 | 0.4 | 141.1 | 1601.9 | 3129.7 | 149.2 |
| 13 F-E | 6:47:5.0 | 6:47:4.2 | -249.7 | -0.9 | 149.4 | 637.3 | 900.5 | 130.2 |
| 14 F-W | 6:49:33.5 | 6:49:32.5 | 174.5 | 0.2 | 119.9 | 694.4 | 1150.9 | 142.9 |
| 15 F-E | 6:51:54.5 | 6:51:54.1 | 50.2 | 0.2 | 139.4 | 296.3 | 438.7 | 137.5 |
| 16 F-W | 6:53:56.0 | 6:53:55.0 | 51.8 | 0.2 | 127.8 | 280.8 | 1126.9 | 165.6 |
| 17 F-E | 6:56:16.5 | 6:56:14.9 | 244.3 | 0.9 | 147.7 | 541.7 | 1854.7 | 163.0 |
| 18 F-W | 6:58:40.5 | 6:58:39.7 | 70.5 | 0.3 | 113.9 | 521.6 | 856.4 | 142.5 |
| 19 F-E | 7:02:24.5 | 7:02:23.9 | -34.0 | -0.1 | 145.8 | 509.2 | 712.2 | 134.4 |
| 21 F-E | 7:13:35.5 | 7:13:33.7 | -45.7 | -0.2 | 104.8 | 493.7 | 2007.0 | 165.6 |
| 22 F-W | 7:16:28.5 | 7:16:28.0 | -105.2 | -0.7 | 82.5 | 500.5 | 567.7 | 118.2 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C3-8 (CONT)

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 24, 1980

FAA/AEE 120

A109

MAR 12, 1981

MIC #1H CENTERLINE CENTER, 33FT

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|--------|---------------|---------------|---------|-------------|----------|--------|--------|------------|
| 24 ARR | 7:48:46.0 | 7:48:45.6 | -763.0 | -7.8 | 54.8 | 379.7 | 449.6 | 122.4 |
| 25 DEP | 7:52:57.5 | 7:52:57.3 | 971.8 | 6.7 | 81.7 | 224.2 | 249.2 | 115.9 |
| 26 ARR | 7:55:16.0 | 7:55:15.4 | -739.2 | -7.1 | 58.7 | 453.1 | 666.2 | 137.1 |
| 27 DEP | 7:58:15.0 | 7:58:14.8 | 1148.8 | 7.8 | 83.1 | 211.9 | 247.6 | 121.1 |
| 28 ARR | 8:0:37.0 | 8:0:36.6 | -801.3 | -7.7 | 58.4 | 364.1 | 429.3 | 122.0 |
| 29 DEP | 8:2:41.0 | 8:2:40.8 | 1114.0 | 7.5 | 83.9 | 238.3 | 285.7 | 123.5 |
| 31 DEP | 8:7:27.5 | 8:7:27.2 | 1220.8 | 8.1 | 85.0 | 254.0 | 301.4 | 122.6 |
| 32 ARR | 8:9:50.0 | 8:9:49.7 | -506.3 | -4.9 | 58.3 | 356.8 | 381.3 | 110.6 |
| 33 DEP | 8:11:48.5 | 8:11:48.3 | 1276.2 | 8.8 | 81.9 | 263.0 | 272.4 | 105.1 |
| 34 ARR | 8:14:10.5 | 8:14:10.2 | -759.2 | -7.0 | 60.9 | 363.9 | 392.3 | 111.9 |
| 35 DEP | 8:17:46.5 | 8:17:46.3 | 1106.8 | 7.6 | 81.7 | 243.5 | 270.5 | 115.9 |
| 36 ARR | 8:19:53.0 | 8:19:52.5 | -748.3 | -6.9 | 61.3 | 394.4 | 584.3 | 137.6 |
| 37 DEP | 8:21:55.5 | 8:21:55.3 | 1182.5 | 8.2 | 81.0 | 250.1 | 280.5 | 116.9 |
| 38 ARR | 8:24:14.0 | 8:24:13.5 | -619.0 | -5.8 | 59.9 | 359.1 | 617.3 | 144.4 |
| 40 ARR | 8:28:17.5 | 8:28:17.1 | -798.5 | -7.8 | 57.7 | 367.4 | 447.8 | 127.1 |
| 41 DEP | 8:30:15.0 | 8:30:14.7 | 1177.8 | 7.9 | 84.3 | 255.8 | 329.4 | 129.1 |
| 42 F-W | 8:32:39.5 | 8:32:38.0 | -272.3 | -1.2 | 130.8 | 981.7 | 1722.7 | 145.3 |
| 43 F-E | 8:35:20.5 | 8:35:19.3 | 186.0 | 0.7 | 144.1 | 1012.1 | 1310.4 | 129.4 |
| 44 F-W | 8:37:29.0 | 8:37:27.9 | 941.5 | 4.0 | 133.6 | 981.9 | 1267.7 | 129.2 |
| 45 F-E | 8:40:3.0 | 8:40:2.1 | 45.5 | 0.2 | 141.4 | 1013.9 | 1061.4 | 72.8 |
| 46 F-W | 8:42:35.5 | 8:42:34.9 | 13.2 | 0.1 | 89.3 | 409.0 | 639.3 | 130.1 |
| 47 F-E | 8:44:55.0 | 8:44:54.5 | -53.8 | -0.3 | 97.6 | 533.2 | 580.4 | 113.3 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C3-8 (CONT)

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 24, 1980
A109

FAA/AEE 120
MAR 12, 1981

MIC #1H CENTERLINE CENTER, 33FT

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|--------|---------------|---------------|---------|-------------|----------|--------|--------|------------|
| 49 F-E | 8:55:45.5 | 8:55:44.9 | -169.7 | -0.6 | 151.5 | 518.9 | 662.0 | 122.4 |
| 50 F-W | 8:57:58.0 | 8:57:57.2 | -64.3 | -0.3 | 143.5 | 434.8 | 919.4 | 151.8 |
| 51 F-E | 9:0:14.0 | 9:0:13.3 | 234.7 | 1.2 | 112.8 | 553.5 | 741.8 | 131.7 |
| 52 F-W | 9:2:30.5 | 9:2:29.9 | -2.2 | -0.0 | 105.1 | 484.4 | 637.6 | 130.6 |
| 53 F-E | 9:5:55.0 | 9:5:54.3 | 158.5 | 0.8 | 111.1 | 544.7 | 740.5 | 132.6 |
| 54 F-W | 9:8:4.5 | 9:8:4.0 | -133.8 | -0.6 | 120.0 | 485.7 | 620.3 | 128.5 |
| 55 F-E | 9:10:25.5 | 9:10:24.9 | 53.2 | 0.2 | 123.3 | 505.4 | 662.5 | 130.3 |
| 56 F-W | 9:12:36.0 | 9:12:35.4 | -214.8 | -1.1 | 105.9 | 485.4 | 631.6 | 129.8 |
| 57 F-E | 9:14:48.5 | 9:14:47.9 | 54.3 | 0.2 | 123.0 | 531.8 | 700.7 | 130.6 |
| 58 F-W | 9:17:8.0 | 9:17:7.5 | -131.2 | -0.7 | 112.5 | 485.2 | 587.7 | 124.4 |
| 59 F-E | 9:19:24.0 | 9:19:22.7 | 112.3 | 0.4 | 151.2 | 457.6 | 1422.3 | 161.2 |
| 60 F-W | 9:21:33.5 | 9:21:32.5 | -48.8 | -0.2 | 148.7 | 489.1 | 1193.1 | 155.8 |
| 61 F-E | 9:23:33.0 | 9:23:31.6 | -136.8 | -0.5 | 150.3 | 466.5 | 1604.7 | 163.1 |
| 63 F-E | 9:27:51.5 | 9:27:50.8 | 143.8 | 0.6 | 140.1 | 531.5 | 759.5 | 135.6 |
| 64 ARR | 9:29:59.5 | 9:29:59.2 | -835.7 | -7.6 | 62.0 | 346.7 | 389.5 | 114.3 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C3-9

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 24, 1980
A109

FAA/AEE 120
MAR 12, 1981

MIC #5G SIDELINE SOUTH, GROUND

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|--------|---------------|---------------|---------|-------------|----------|--------|--------|------------|
| 2 F-W | 6:17:51.5 | 6:17:50.2 | 269.5 | 1.3 | 119.4 | 1148.8 | 1480.5 | 129.1 |
| 3 F-E | 6:21:00.5 | 6:20:58.1 | 18.2 | 0.1 | 153.8 | 1285.5 | 2663.6 | 151.1 |
| 4 F-W | 6:23:36.5 | 6:23:35.0 | -40.0 | -0.2 | 116.1 | 1110.8 | 1732.9 | 140.1 |
| 5 F-E | 6:26:31.0 | 6:26:29.0 | 24.0 | 0.1 | 143.4 | 1836.1 | 2234.6 | 124.7 |
| 6 F-W | 6:29:02.5 | 6:29:04.7 | 150.2 | 0.6 | 133.4 | 1621.1 | 2034.1 | 127.2 |
| 8 F-W | 6:34:12.5 | 6:34:11.6 | 210.5 | 1.0 | 118.4 | 863.8 | 1045.7 | 124.3 |
| 9 F-E | 6:36:30.5 | 6:36:29.7 | 2.5 | 0.0 | 140.3 | 616.1 | 963.4 | 140.2 |
| 10 F-W | 6:38:27.0 | 6:38:26.5 | 243.3 | 1.1 | 124.8 | 568.0 | 599.3 | 108.6 |
| 11 F-E | 6:41:02.5 | 6:41:00.0 | 169.2 | 0.7 | 141.2 | 1812.9 | 2787.3 | 139.4 |
| 13 F-E | 6:47:03.0 | 6:47:01.7 | -78.7 | -0.3 | 150.0 | 911.1 | 1525.2 | 143.3 |
| 14 F-W | 6:49:33.0 | 6:49:31.8 | 207.9 | 1.0 | 119.7 | 851.6 | 1359.2 | 141.2 |
| 15 F-E | 6:51:52.5 | 6:51:51.5 | 0.2 | 0.0 | 139.9 | 606.5 | 1120.0 | 147.2 |
| 16 F-W | 6:53:59.0 | 6:53:58.4 | 395.2 | 1.8 | 127.5 | 558.7 | 656.5 | 121.7 |
| 17 F-E | 6:56:19.5 | 6:56:18.5 | 211.8 | 0.2 | 147.7 | 798.8 | 1187.3 | 137.7 |
| 18 F-W | 6:58:42.0 | 6:58:41.3 | 93.7 | 0.4 | 119.1 | 722.4 | 812.7 | 117.3 |
| 19 F-E | 7:02:22.0 | 7:02:20.7 | 54.8 | 0.2 | 149.5 | 763.6 | 1494.6 | 149.3 |
| 21 F-E | 7:13:36.5 | 7:13:34.8 | -39.3 | -0.2 | 104.5 | 774.2 | 1922.1 | 156.2 |
| 22 F-W | 7:16:29.0 | 7:16:28.3 | -120.2 | -0.8 | 82.9 | 719.7 | 752.8 | 107.1 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C3-9 (CONT)

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 24, 1980

FAA/AEE 120

A109

MAR 12, 1981

MIC #5G SIDELINE SOUTH, GROUND

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|--------|---------------|---------------|---------|-------------|----------|--------|--------|------------|
| 24 ARR | 7:48:46.0 | 7:48:45.4 | -763.0 | -7.8 | 54.8 | 619.7 | 676.4 | 113.6 |
| 25 DEP | 7:52:56.5 | 7:52:55.9 | 973.8 | 6.8 | 80.8 | 562.2 | 631.8 | 117.2 |
| 26 ARR | 7:55:11.5 | 7:55:10.5 | -473.5 | -4.6 | 50.2 | 654.1 | 1167.9 | 145.9 |
| 27 DEP | 7:58:14.0 | 7:58:13.4 | 1036.7 | 7.4 | 82.8 | 556.2 | 640.0 | 119.7 |
| 28 ARR | 8:0:35.0 | 8:0:34.3 | -806.2 | -7.8 | 58.2 | 649.4 | 800.0 | 125.7 |
| 29 DEP | 8:2:40.5 | 8:2:40.0 | 1113.8 | 7.5 | 63.1 | 564.3 | 619.4 | 114.4 |
| 30 ARR | 8:5:16.5 | 8:5:15.7 | -455.3 | -4.4 | 53.1 | 627.0 | 964.5 | 139.5 |
| 31 DEP | 8:7:27.0 | 8:7:26.4 | 1200.3 | 7.9 | 85.4 | 575.1 | 636.1 | 115.3 |
| 32 ARR | 8:9:47.0 | 8:9:46.3 | -530.0 | -5.1 | 59.0 | 630.7 | 792.5 | 127.3 |
| 33 DEP | 8:11:47.0 | 8:11:46.4 | 1232.8 | 8.5 | 81.7 | 538.0 | 669.1 | 118.5 |
| 34 ARR | 8:14:4.5 | 8:14:3.6 | -581.0 | -5.5 | 60.0 | 634.8 | 1036.7 | 142.2 |
| 35 DEP | 8:17:45.5 | 8:17:44.9 | 1101.2 | 7.7 | 80.9 | 585.1 | 653.1 | 116.4 |
| 36 ARR | 8:19:52.5 | 8:19:51.3 | -742.3 | -6.8 | 61.5 | 658.8 | 851.0 | 129.3 |
| 37 DEP | 8:21:55.0 | 8:21:54.5 | 1150.5 | 8.0 | 81.2 | 568.1 | 616.7 | 112.9 |
| 38 ARR | 8:24:14.5 | 8:24:13.3 | -565.3 | -5.0 | 59.7 | 604.9 | 797.1 | 127.2 |
| 40 ARR | 8:28:20.5 | 8:28:20.0 | -244.2 | -8.2 | 57.6 | 616.3 | 616.6 | 88.4 |
| 41 DEP | 8:30:15.0 | 8:30:14.5 | 1177.8 | 7.9 | 84.3 | 570.4 | 615.8 | 112.1 |
| 42 F-W | 8:32:39.5 | 8:32:37.0 | -272.3 | -1.2 | 130.8 | 1151.0 | 1846.2 | 141.4 |
| 43 F-E | 8:35:12.0 | 8:35:8.0 | 194.3 | 0.8 | 143.6 | 1213.1 | 3599.0 | 160.3 |
| 44 F-W | 8:37:29.0 | 8:37:27.8 | 941.5 | 4.0 | 133.6 | 1141.0 | 1348.3 | 122.0 |
| 45 F-E | 8:39:51.0 | 8:39:48.1 | -162.0 | -0.4 | 141.6 | 1199.6 | 3255.8 | 158.4 |
| 46 F-U | 8:42:36.0 | 8:42:35.3 | 6.3 | 0.0 | 89.4 | 788.1 | 815.6 | 116.8 |
| 47 F-E | 8:44:55.0 | 8:44:54.3 | -53.6 | -0.3 | 97.6 | 799.1 | 837.1 | 107.3 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C3-9 (CONT)

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 24, 1980

FAA/AEE 120

A109

MAR 12, 1981

MIC #5G SIDELINE SOUTH, GROUND

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG | |
|-------|---------------|---------------|-----------|-------------|----------|--------|-------|------------|-------|
| 48 | F-W | 8:53:27.5 | 8:53:26.7 | 394.7 | 1.5 | 144.5 | 709.0 | 947.2 | 131.5 |
| 49 | F-E | 8:55:42.5 | 8:55:41.1 | -86.8 | -0.3 | 153.8 | 758.0 | 1596.8 | 151.7 |
| 50 | F-W | 8:57:59.5 | 8:57:58.8 | 84.0 | 0.3 | 139.8 | 672.3 | 772.4 | 119.5 |
| 51 | F-E | 9:0:15.0 | 9:0:14.3 | 235.5 | 1.2 | 112.1 | 779.0 | 841.7 | 112.2 |
| 52 | F-W | 9:2:29.5 | 9:2:28.8 | -71.8 | -0.4 | 105.1 | 728.7 | 984.6 | 132.3 |
| 53 | F-E | 9:5:56.5 | 9:5:55.8 | 50.8 | 0.3 | 111.0 | 773.5 | 812.3 | 107.8 |
| 55 | F-E | 9:10:26.5 | 9:10:25.8 | 51.0 | 0.2 | 123.0 | 731.2 | 767.7 | 107.7 |
| 56 | F-U | 9:12:35.5 | 9:12:34.7 | -209.8 | -1.1 | 106.0 | 736.8 | 907.5 | 126.8 |
| 57 | F-E | 9:14:50.0 | 9:14:49.4 | 165.7 | 0.8 | 123.5 | 729.9 | 744.2 | 101.3 |
| 58 | F-U | 9:17:8.0 | 9:17:7.3 | -131.2 | -0.7 | 112.5 | 733.8 | 825.6 | 117.3 |
| 59 | F-E | 9:19:25.5 | 9:19:24.5 | 273.3 | 1.0 | 150.4 | 701.7 | 1146.6 | 142.3 |
| 60 | F-U | 9:21:34.5 | 9:21:33.5 | -52.7 | -0.2 | 150.7 | 716.9 | 1087.6 | 138.8 |
| 61 | F-E | 9:23:33.6 | 9:23:31.5 | -136.8 | -0.5 | 150.3 | 720.8 | 1730.2 | 155.2 |
| 63 | F-E | 9:27:49.0 | 9:27:47.7 | 110.8 | 0.4 | 139.6 | 774.6 | 1502.9 | 149.0 |
| 64 | ARR | 9:30:1.5 | 9:30:1.0 | -759.8 | -7.0 | 60.9 | 625.4 | 626.7 | 86.3 |

REC. TIME: TIME PNLTM WAS RECORDED. RAD. TIME: TIME PNLTM WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

Sub-Appendix C4 Summary
 S76 June 25, 1980
 Flight Path Tracking Plots and Position Data

Notes: 107% Main Rotor RPM

1. FLIGHT PATH TRACKING PLOTS

| Event No. | Plot Fig No. | Operation | | | |
|-----------|--------------|--------------|---------|--------|-------|
| 10 | C4-1 | 300 Ft. LFO | 140 kts | Target | Speed |
| 11 | " | " | " | " | " |
| 16 | " | " | " | " | " |
| 18 | C4-2 | 500 Ft. LFO | 109 kts | Target | Speed |
| 19 | " | " | " | " | " |
| 21 | " | " | " | " | " |
| 22 | " | " | " | " | " |
| 23 | " | " | " | " | " |
| 25 | " | " | 124 kts | " | " |
| 26 | C4-3 | 500 Ft. LFO | 124 kts | Target | Speed |
| 27 | " | " | " | " | " |
| 28 | " | " | " | " | " |
| 29 | " | " | " | " | " |
| 31 | C4-4 | 2500 Ft. LFO | 140 kts | Target | Speed |
| 32 | " | " | " | " | " |
| 33 | " | " | " | " | " |
| 34 | C4-5 | 2000 Ft. LFO | 140 kts | Target | Speed |
| 35 | " | " | " | " | " |
| 36 | " | " | " | " | " |
| 37 | " | " | " | " | " |
| 52 | C4-6 | 1000 Ft. LFO | 140 kts | Target | Speed |
| 53 | " | " | " | " | " |
| 54 | " | " | " | " | " |
| 55 | " | " | " | " | " |

| Event No. | Plot Fig No. | Operation | | | |
|-----------|--------------|--------------|---------|--------|-------|
| 40 | C4-7 | Approach | | | |
| 42 | " | " | | | |
| 44 | " | " | | | |
| 46 | " | " | | | |
| 48 | " | " | | | |
| 41 | C4-8 | Takeoff | | | |
| 43 | " | " | | | |
| 47 | " | " | | | |
| 49 | " | " | | | |
| 51 | " | " | | | |
| 1 | C4-9 | 1000 Ft. LFO | 140 kts | Target | Speed |
| 2 | " | " | " | " | " |
| 3 | " | " | " | " | " |
| 4 | " | " | " | " | " |
| 5 | C4-10 | 1500 Ft. LFO | 140 kts | Target | Speed |
| 7 | " | " | " | " | " |
| 13 | " | " | " | " | " |
| 38 | " | " | " | " | " |
| 39 | " | " | " | " | " |
| 8 | C4-11 | 700 Ft. LFO | 140 kts | Target | Speed |
| 9 | " | " | " | " | " |
| 14 | " | " | " | " | " |
| 15 | " | " | " | " | " |

2. POSITION DATA TABLES

| Table No. | Microphone |
|-----------|---------------------------------------|
| C4-1 | Mic. 1, Centerline Center, 4 ft. |
| C4-2 | Mic. 2, Centerline 150m West 4 ft. |
| C4-3 | Mic. 3, Centerline 150m East 4 ft. |
| C4-4 | Mic. 4, Sideline 164m North 4 ft. |
| C4-5 | Mic. 5, Sideline 150m South 4 ft. |
| C4-6 | Mic. 6, Sideline 284m North 4 ft. |
| C4-7 | Mic. 1G, Centerline Center (Ground) |
| C4-8 | Mic. 1H, Centerline Center 33 ft. |
| C4-9 | Mic. 5G, Sideline 150m South (Ground) |

FIGURE C4-1

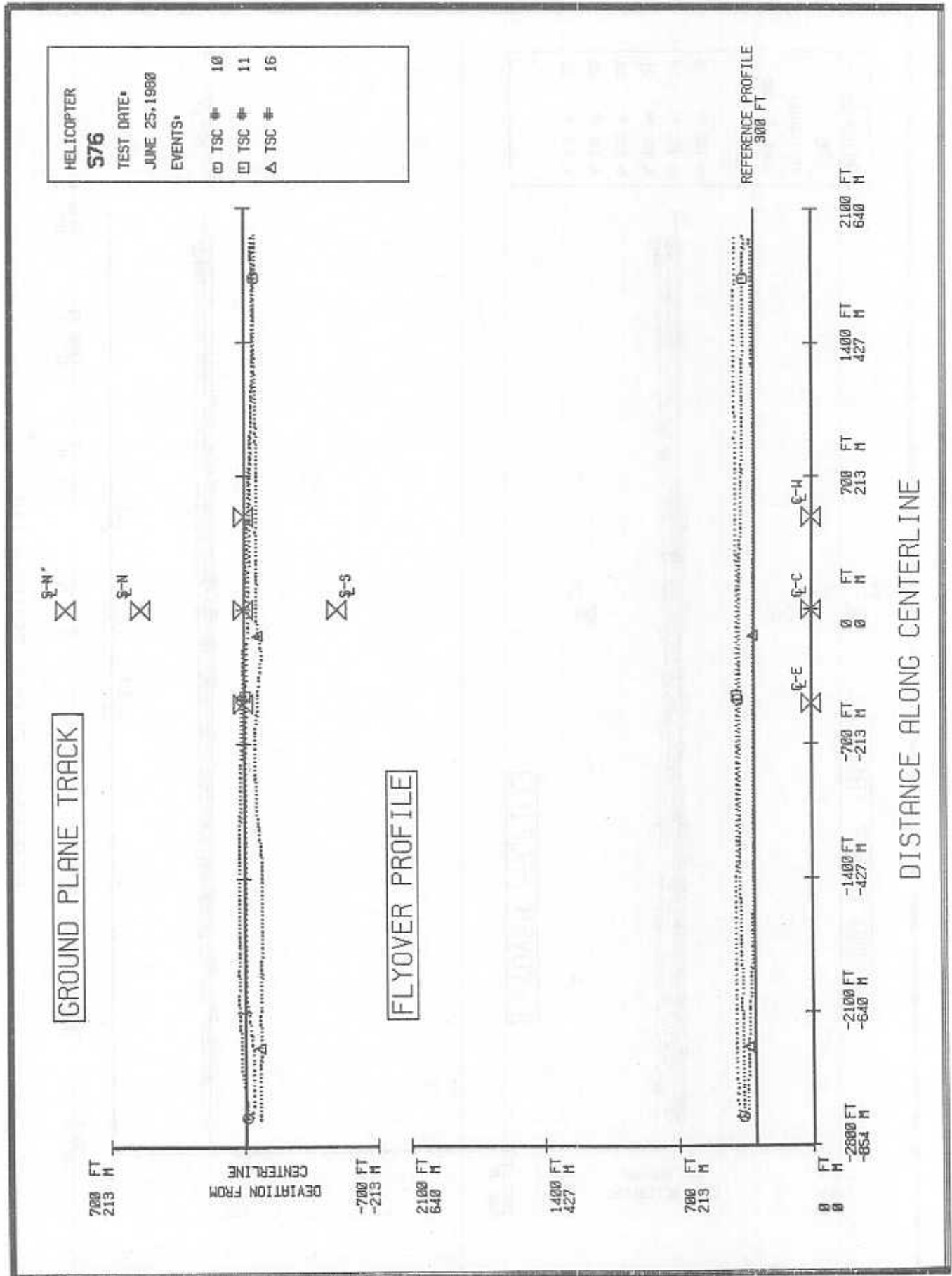


TABLE C4-2

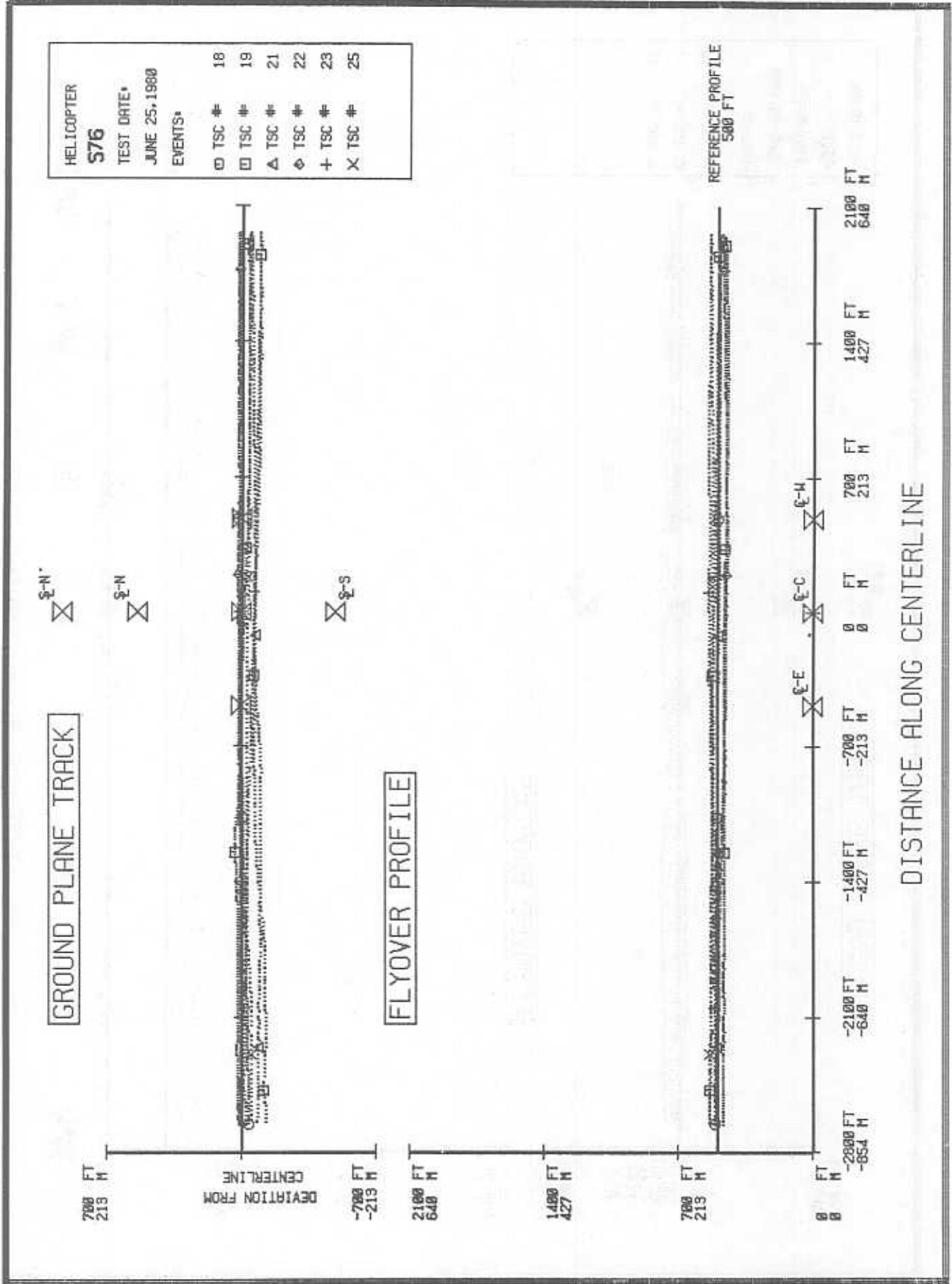


FIGURE C4-4

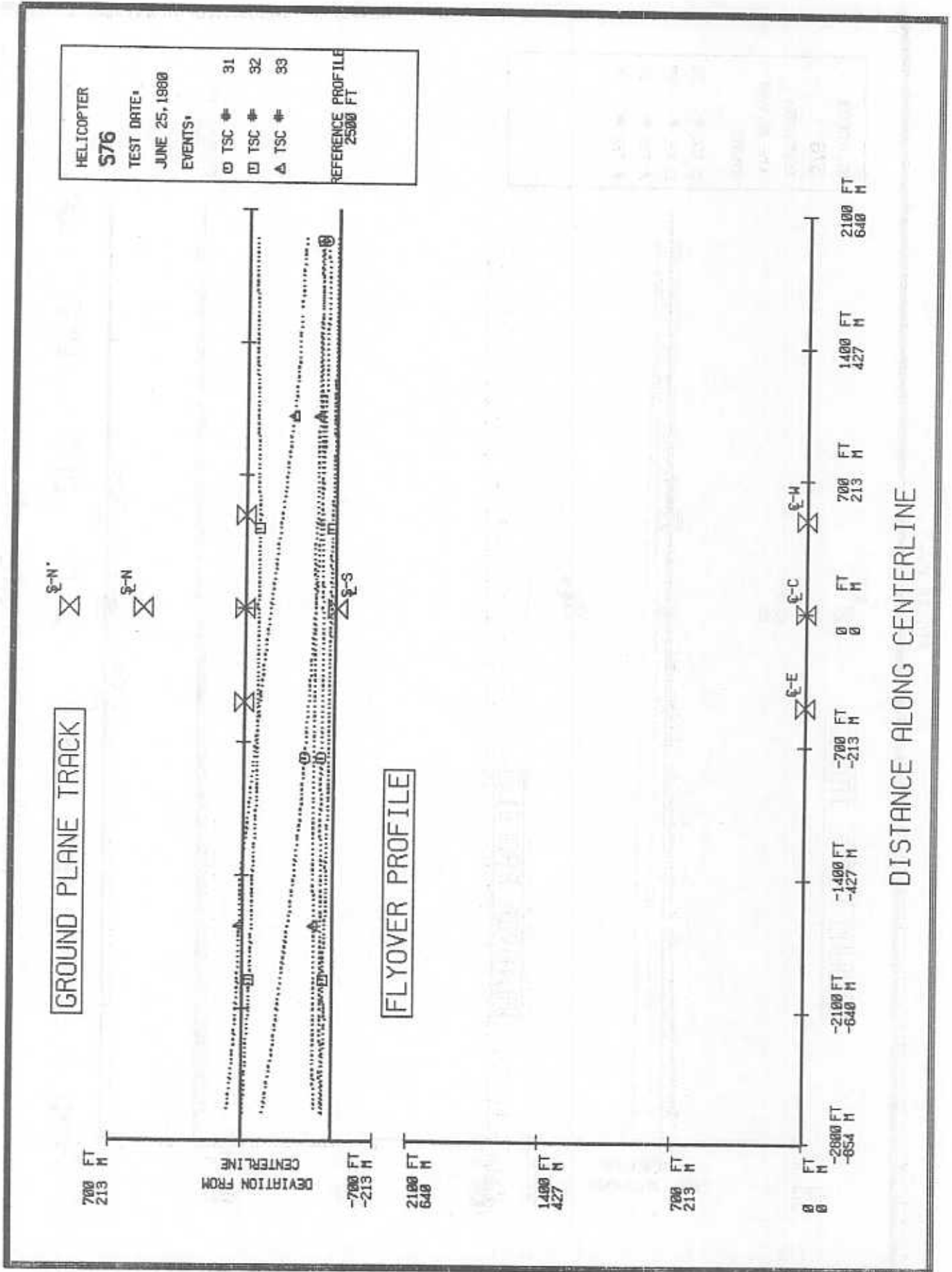


FIGURE C4-5

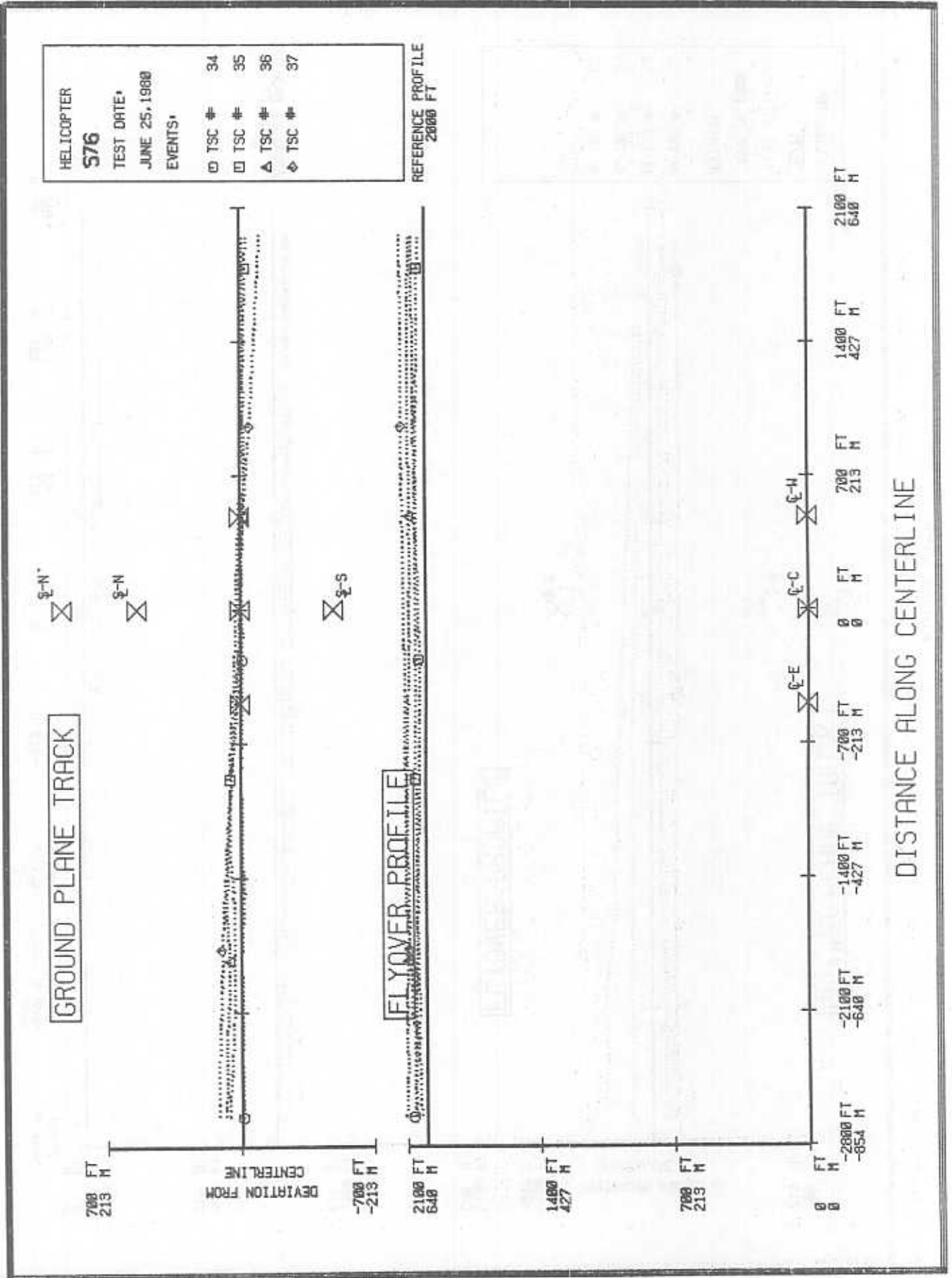
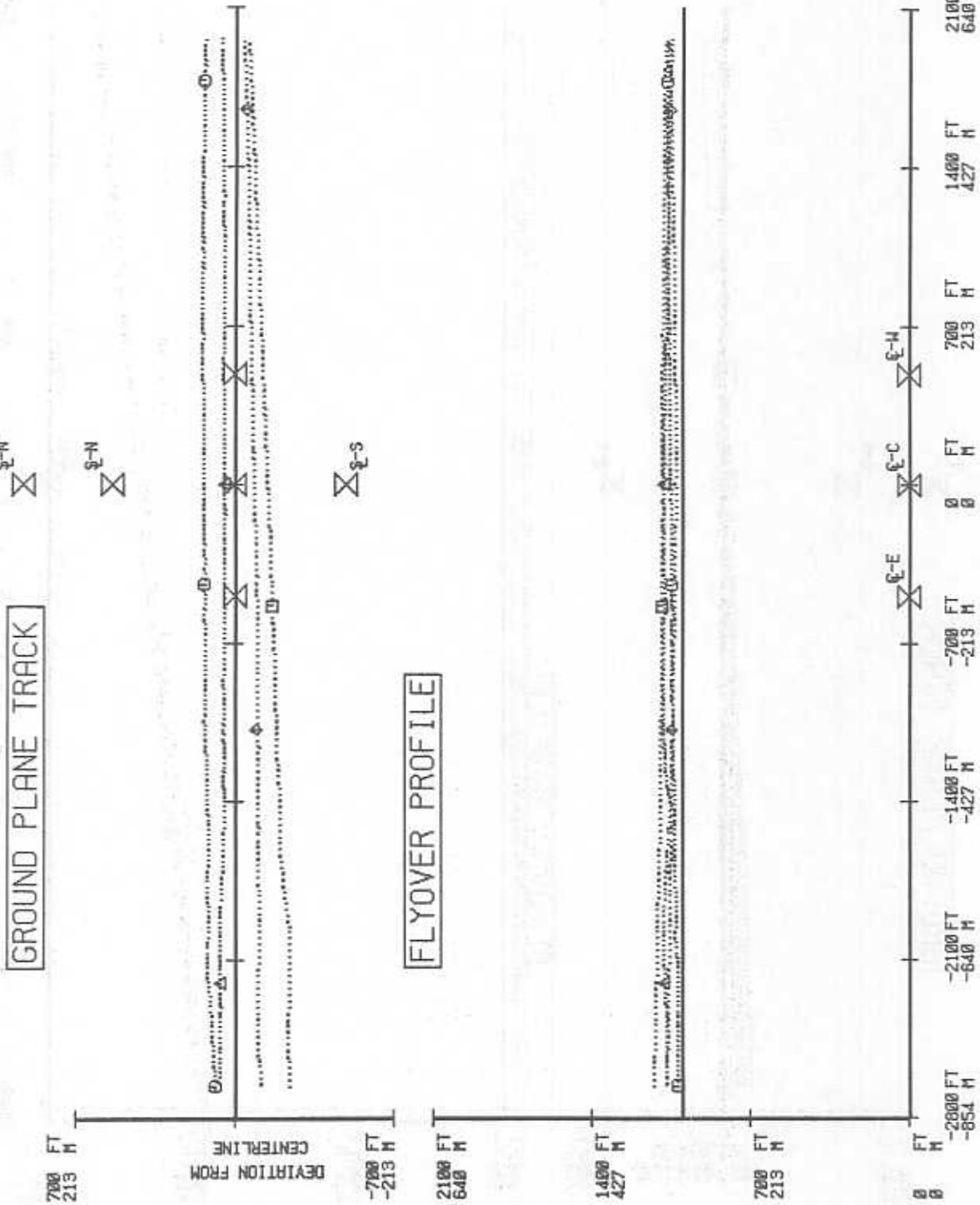


FIGURE C4-6

| | |
|------------|--|
| HELICOPTER | S76 |
| TEST DATE | JUNE 25, 1980 |
| EVENTS | <ul style="list-style-type: none"> □ TSC # 52 □ TSC # 53 △ TSC # 54 ◇ TSC # 55 |



REFERENCE PROFILE
1000 FT

DISTANCE ALONG CENTERLINE

FIGURE C4-7

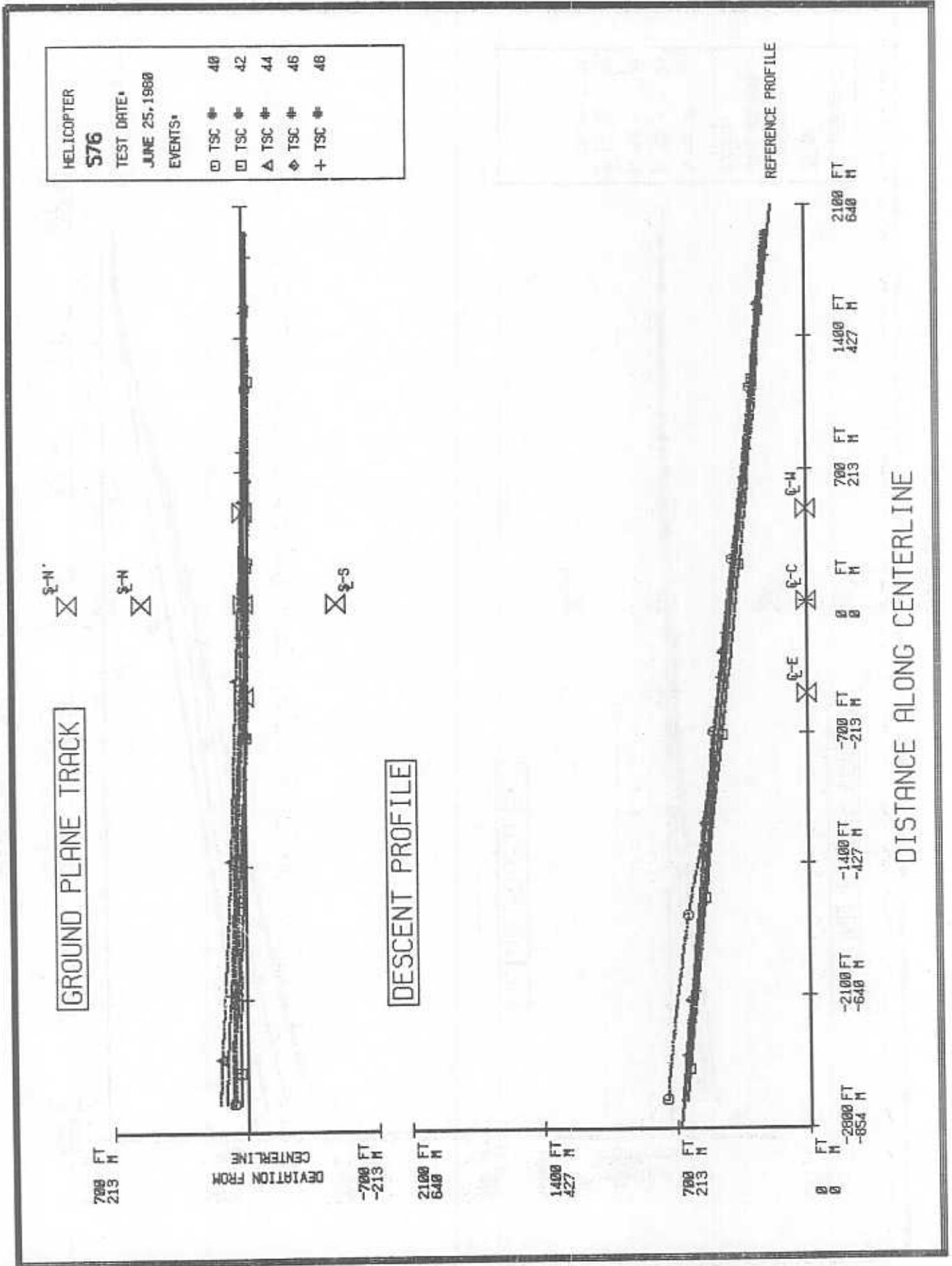


FIGURE C4-8

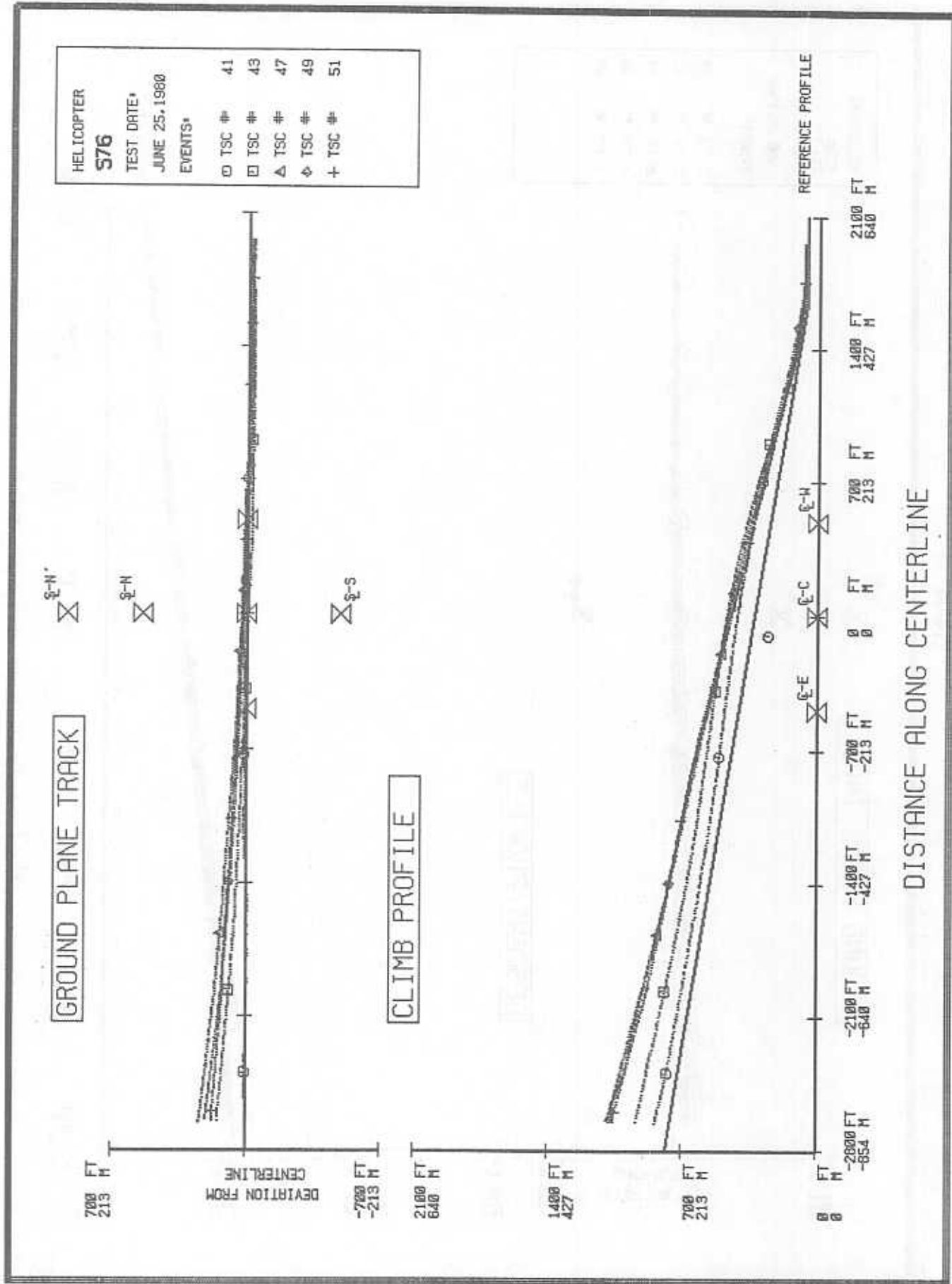


FIGURE C4-9

HELICOPTER
576
 TEST DATE
 JUNE 25, 1980
 EVENTS
 □ TSC # 1
 □ TSC # 2
 ▲ TSC # 3
 ◆ TSC # 4

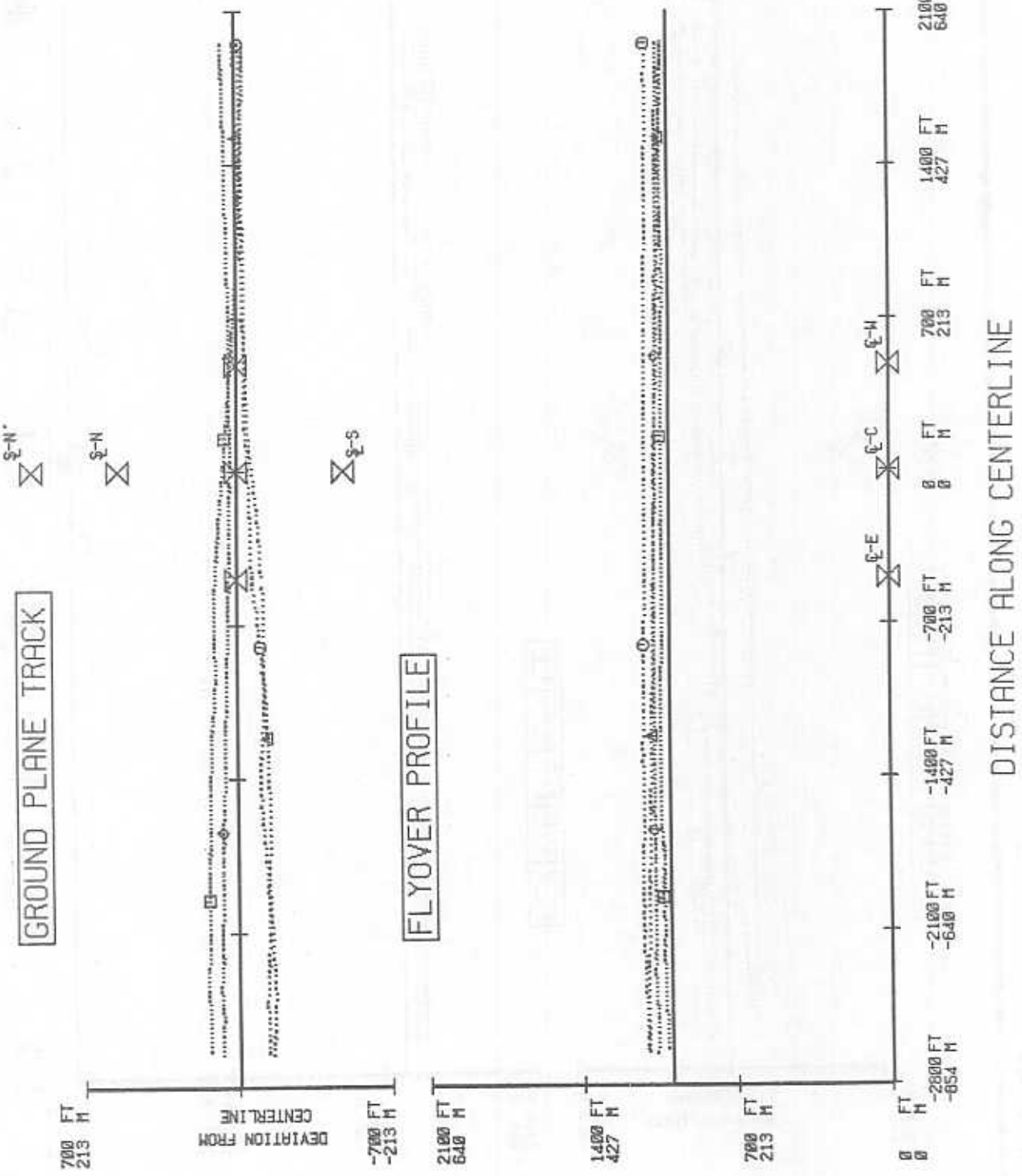


FIGURE C4-10

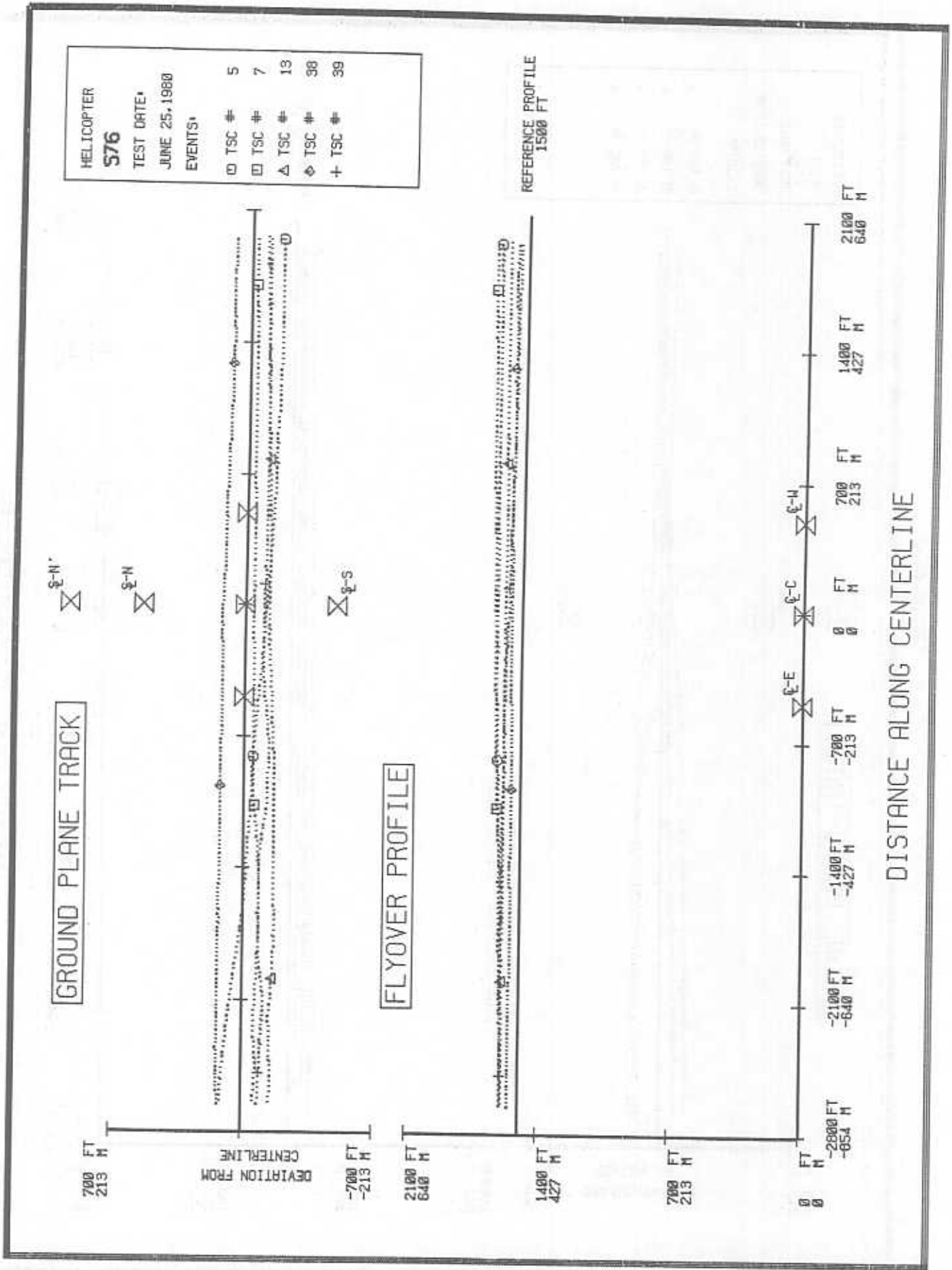


TABLE C4-1

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 25, 1980

FAA/AEE 120
FEB 6, 1981

S76

MIC # 1 CENTERLINE CENTER, 4 FT

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|--------|---------------|---------------|---------|-------------|----------|--------|--------|------------|
| 1 F-E | 5: 3:46.5 | 5: 3:45.3 | 81.5 | 0.3 | 163.9 | 1109.1 | 1392.6 | 127.2 |
| 2 F-E | 5: 6:21.5 | 5: 6:20.2 | -106.2 | -0.5 | 124.2 | 1034.4 | 1481.5 | 135.7 |
| 3 F-E | 5: 8:29.0 | 5: 8:27.7 | 312.7 | 1.1 | 163.5 | 1063.3 | 1513.9 | 135.4 |
| 4 F-E | 5:11:20.5 | 5:11:19.3 | -73.0 | -0.3 | 128.6 | 1063.0 | 1336.9 | 127.3 |
| 5 F-E | 5:13:54.5 | 5:13:52.1 | -79.5 | -0.3 | 163.5 | 1627.9 | 2668.0 | 142.4 |
| 7 F-E | 5:19: 5.0 | 5:19: 3.4 | -292.2 | -1.0 | 163.0 | 1636.4 | 1849.9 | 117.8 |
| 8 F-E | 5:22: 4.0 | 5:22: 3.1 | -269.8 | -1.2 | 127.8 | 721.2 | 1006.3 | 134.2 |
| 9 F-E | 5:24:14.5 | 5:24:13.6 | 306.2 | 1.1 | 164.6 | 785.5 | 993.6 | 127.8 |
| 10 F-E | 5:26:42.5 | 5:26:42.5 | -48.0 | -0.2 | 129.3 | 372.3 | 531.9 | 135.6 |
| 11 F-E | 5:28:37.5 | 5:28:37.0 | -169.2 | -0.6 | 160.0 | 357.2 | 553.5 | 135.6 |
| 13 F-E | 5:33:19.0 | 5:33:17.1 | -118.0 | -0.4 | 159.1 | 1588.1 | 2128.0 | 131.7 |
| 14 F-E | 5:36: 3.0 | 5:36: 2.1 | -25.8 | -0.4 | 126.1 | 736.6 | 1007.0 | 133.0 |
| 15 F-E | 5:38: 7.0 | 5:38: 6.0 | 152.5 | 0.5 | 162.0 | 753.9 | 1104.5 | 137.0 |
| 16 F-E | 5:40:32.5 | 5:40:32.1 | -29.3 | -0.1 | 127.0 | 309.8 | 419.8 | 128.3 |
| 18 F-E | 5:46:42.0 | 5:46:41.3 | -7.7 | -0.0 | 92.8 | 491.8 | 745.7 | 133.7 |
| 19 F-E | 5:48:40.0 | 5:48:39.4 | 131.8 | 0.2 | 129.7 | 514.3 | 680.6 | 130.9 |
| 20 F-E | 5:53:44.0 | 5:53:43.4 | 0.7 | 0.0 | 122.2 | 469.0 | 798.9 | 138.5 |
| 22 F-E | 5:56:50.5 | 5:56:50.0 | -92.3 | -0.6 | 94.9 | 447.8 | 592.2 | 130.8 |
| 23 F-E | 5:59:16.0 | 5:59:15.3 | -46.8 | -0.2 | 126.9 | 541.4 | 759.4 | 134.5 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C4-1 (CONT)

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 25, 1980
S76

FAA/AEE 120
FEB 6, 1981

MIC # 1 CENTERLINE CENTER, 4 FT

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|--------|---------------|---------------|---------|-------------|----------|--------|--------|------------|
| 25 F-E | 6: 21: 2.5 | 6: 21: 1.8 | -39.7 | -0.2 | 147.0 | 520.4 | 738.0 | 135.2 |
| 26 F-W | 6: 11: 12.0 | 6: 11: 11.5 | -211.0 | -1.1 | 106.3 | 478.2 | 625.9 | 130.2 |
| 27 F-E | 6: 13: 30.5 | 6: 13: 29.9 | 222.3 | 0.9 | 145.1 | 497.3 | 662.0 | 131.3 |
| 28 F-W | 6: 16: 46.5 | 6: 16: 46.1 | -138.7 | -1.0 | 106.9 | 474.4 | 479.7 | 81.5 |
| 29 F-E | 6: 19: 9.0 | 6: 19: 8.4 | 253.0 | 1.0 | 144.7 | 526.5 | 702.1 | 131.4 |
| 31 F-E | 6: 25: 58.0 | 6: 25: 55.3 | -242.8 | -0.9 | 161.1 | 2525.8 | 3040.8 | 121.7 |
| 32 F-W | 6: 29: 24.5 | 6: 29: 21.5 | -299.2 | -1.2 | 141.6 | 2518.3 | 3277.8 | 131.8 |
| 33 F-E | 6: 33: 4.0 | 6: 33: 0.3 | 178.3 | 0.6 | 161.0 | 2604.1 | 4233.2 | 142.0 |
| 34 F-W | 6: 39: 9.5 | 6: 39: 7.4 | -13.0 | -0.1 | 141.8 | 2037.0 | 2374.9 | 120.9 |
| 35 F-E | 6: 42: 46.5 | 6: 42: 44.0 | 192.0 | 0.7 | 157.6 | 2052.3 | 2786.0 | 122.5 |
| 36 F-E | 6: 46: 32.5 | 6: 46: 36.0 | 34.2 | 0.1 | 136.8 | 2035.0 | 2776.8 | 131.3 |
| 37 F-E | 6: 50: 8.5 | 6: 50: 9.3 | -167.5 | -0.6 | 160.3 | 2115.4 | 3622.5 | 144.3 |
| 38 F-W | 6: 54: 1.0 | 6: 53: 59.1 | -42.8 | -0.2 | 134.1 | 1554.3 | 2114.1 | 132.7 |
| 39 F-E | 6: 56: 57.5 | 6: 56: 55.2 | 199.0 | 0.7 | 155.4 | 1568.0 | 2582.1 | 142.6 |
| 40 ARR | 7: 0: 45.0 | 7: 0: 44.6 | -622.0 | -6.6 | 52.3 | 410.0 | 410.5 | 87.3 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C4-1 (CONT)

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 25, 1980

FAA/AEE 120
FEB 6, 1981

S76

MIC # 1 CENTERLINE CENTER, 4 FT

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|--------|---------------|---------------|---------|-------------|----------|--------|--------|------------|
| 41 DEP | 7:26:56.5 | 7:26:56.0 | 1446.0 | 10.1 | 80.1 | 408.4 | 547.0 | 131.7 |
| 42 ARR | 7:30:41.5 | 7:30:41.0 | -618.0 | -6.5 | 53.3 | 366.7 | 580.0 | 140.9 |
| 43 DEP | 7:33:5.0 | 7:33:4.6 | 1292.7 | 8.7 | 83.5 | 458.7 | 505.0 | 65.0 |
| 44 ARR | 7:36:42.0 | 7:36:41.6 | -676.8 | -6.8 | 56.0 | 397.1 | 440.0 | 115.6 |
| 46 ARR | 7:43:23.0 | 7:43:22.7 | -700.7 | -7.3 | 54.2 | 402.1 | 402.9 | 93.5 |
| 47 DEP | 7:45:34.5 | 7:45:34.0 | 2042.0 | 13.8 | 82.3 | 497.3 | 584.1 | 131.5 |
| 48 ARR | 7:49:35.0 | 7:49:34.6 | -759.8 | -7.6 | 56.0 | 394.7 | 467.7 | 122.4 |
| 49 DEP | 7:52:2.0 | 7:52:1.5 | 1965.3 | 12.0 | 84.5 | 449.0 | 593.8 | 130.9 |
| 51 DEP | 7:58:7.5 | 7:58:7.0 | 1950.5 | 12.8 | 84.8 | 450.4 | 557.5 | 129.5 |
| 52 F-U | 8:1:0.5 | 8:0:59.4 | 90.5 | 0.4 | 131.9 | 1057.4 | 1241.9 | 121.6 |
| 53 F-E | 8:3:29.5 | 8:3:28.1 | 67.5 | 0.2 | 150.9 | 1092.9 | 1606.0 | 137.1 |
| 54 F-U | 8:6:21.5 | 8:6:18.7 | 228.0 | 1.0 | 123.2 | 1110.1 | 3163.0 | 159.5 |
| 55 F-E | 8:8:27.0 | 8:8:25.7 | -172.8 | -0.6 | 102.1 | 1030.4 | 1425.0 | 133.7 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C4-2

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 25, 1980

FAA/AEE 120

S76

FEB 6, 1981

MIC # 2 CENTERLINE WEST, 4 FT

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|--------|---------------|---------------|---------|-------------|----------|--------|--------|------------|
| 1 F-E | 5: 3:43.5 | 5: 3:42.0 | 137.5 | 0.5 | 164.8 | 1106.1 | 1669.1 | 138.5 |
| 2 F-W | 5: 6:26.5 | 5: 6:25.5 | -70.7 | -0.3 | 127.2 | 1030.0 | 1117.1 | 112.8 |
| 3 F-E | 5: 8:28.5 | 5: 8:27.4 | 296.7 | 1.0 | 163.3 | 1053.7 | 1241.3 | 121.9 |
| 4 F-W | 5:11:23.5 | 5:11:22.4 | -83.5 | -0.4 | 129.0 | 1053.7 | 1231.0 | 120.7 |
| 5 F-E | 5:13:56.0 | 5:13:54.3 | -73.5 | -0.3 | 163.4 | 1635.9 | 1933.2 | 122.2 |
| 7 F-E | 5:19: 3.5 | 5:19: 1.9 | -238.8 | -0.8 | 164.0 | 1644.6 | 1316.0 | 115.1 |
| 8 F-W | 5:22: 7.0 | 5:22: 6.2 | -133.8 | -0.6 | 128.2 | 717.3 | 880.1 | 125.4 |
| 9 F-E | 5:24:12.5 | 5:24:11.6 | 293.3 | 1.0 | 165.8 | 776.5 | 1036.1 | 131.5 |
| 10 F-W | 5:26:45.5 | 5:26:45.1 | -145.3 | -0.6 | 130.7 | 363.0 | 485.0 | 130.6 |
| 11 F-E | 5:28:35.5 | 5:28:35.0 | -148.8 | -0.5 | 159.4 | 395.2 | 597.0 | 138.5 |
| 13 F-E | 5:33:18.5 | 5:33:16.8 | -94.0 | -0.3 | 162.8 | 1589.6 | 1878.6 | 122.2 |
| 14 F-W | 5:36: 5.5 | 5:36: 4.6 | -65.3 | -0.3 | 125.9 | 735.7 | 975.6 | 131.1 |
| 15 F-E | 5:38: 6.0 | 5:38: 5.2 | 174.0 | 0.6 | 162.5 | 743.3 | 923.7 | 126.3 |
| 16 F-W | 5:40:35.0 | 5:40:34.7 | -38.5 | -0.2 | 126.9 | 307.6 | 389.5 | 127.9 |
| 18 F-W | 5:46:47.0 | 5:46:46.5 | 16.0 | 0.1 | 91.2 | 492.3 | 550.9 | 116.7 |
| 19 F-E | 5:48:38.0 | 5:48:37.4 | 124.3 | 0.5 | 128.8 | 508.9 | 638.1 | 127.1 |
| 21 F-E | 5:53:42.5 | 5:53:42.0 | -59.3 | -0.3 | 128.6 | 438.3 | 610.0 | 126.8 |
| 22 F-W | 5:56:43.5 | 5:56:46.1 | -223.0 | -1.3 | 94.6 | 446.3 | 1561.0 | 163.4 |
| 23 F-E | 5:59:14.5 | 5:59:13.9 | -23.8 | -0.1 | 127.4 | 542.2 | 640.9 | 122.2 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C4-2 (CONT)

TEST DATE: JUNE 25, 1980
 576
 MIC # 2 CENTERLINE WEST, 4 FT
 POSITION DATA
 HELICOPTER NOISE MEASUREMENT PROGRAM
 FAA/AEE 120
 FEB 6, 1981

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|--------|---------------|---------------|---------|-------------|----------|--------|--------|------------|
| 25 F-E | 6: 8: 1.0 | 6: 8: 0.4 | -58.7 | -0.2 | 146.8 | 522.9 | 646.0 | 126.0 |
| 26 F-E | 6:11:15.5 | 6:11:15.0 | -183.3 | -1.0 | 106.4 | 471.5 | 537.5 | 118.7 |
| 27 F-E | 6:13:28.0 | 6:13:27.3 | 123.0 | 0.5 | 146.5 | 490.8 | 759.8 | 139.8 |
| 28 F-E | 6:16:47.0 | 6:16:46.5 | -165.3 | -0.9 | 106.8 | 467.2 | 580.0 | 126.5 |
| 29 F-E | 6:19: 7.5 | 6:19: 7.0 | 211.8 | 0.8 | 145.5 | 514.9 | 607.9 | 122.1 |
| 30 F-E | 6:25:52.0 | 6:25:48.6 | -69.0 | -0.2 | 159.1 | 2596.8 | 3887.8 | 138.1 |
| 31 F-E | 6:29:31.5 | 6:29:29.1 | -180.2 | -0.7 | 140.9 | 2513.7 | 2693.3 | 111.0 |
| 32 F-E | 6:33: 7.5 | 6:33: 4.8 | 172.5 | 0.6 | 158.6 | 2600.3 | 3059.0 | 121.8 |
| 33 F-E | 6:39: 9.0 | 6:39: 6.5 | -98.5 | -0.4 | 142.2 | 2048.4 | 2795.2 | 122.0 |
| 34 F-E | 6:42:46.0 | 6:42:43.8 | 180.2 | 0.6 | 156.9 | 2050.5 | 2517.1 | 125.5 |
| 35 F-E | 6:46:44.0 | 6:46:42.0 | -108.2 | -0.4 | 138.8 | 2083.4 | 2295.4 | 114.8 |
| 36 F-E | 6:50: 9.5 | 6:50: 7.3 | -90.5 | -0.3 | 160.9 | 2119.0 | 2530.6 | 123.1 |
| 37 F-E | 6:54: 4.5 | 6:54: 2.8 | 115.2 | 0.5 | 133.0 | 1581.5 | 1892.6 | 124.4 |
| 38 F-E | 6:56:58.5 | 6:56:56.8 | 233.0 | 0.9 | 155.1 | 1559.3 | 1935.6 | 126.3 |
| 40 ARR | 7: 0:48.5 | 7: 0:48.8 | -669.3 | -0.9 | 52.4 | 351.2 | 382.2 | 113.2 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C4-2 (CONT)

| | | POSITION DATA HELICOPTER NOISE MEASUREMENT PROGRAM | | | | | | | |
|-------------------------------|---------------|---|---------|-------------|----------|--------|--------|-------------|--|
| TEST DATE: JUNE 25, 1980 | | | | | | | | FAA/AEE 120 | |
| 576 | | | | | | | | FEB 6, 1981 | |
| MIC # 2 CENTERLINE WEST, 4 FT | | ***** | | | | | | | |
| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG | |
| 41 DEP | 7:26:56.5 | 7:26:56.2 | 1446.0 | 10.1 | 80.1 | 325.0 | 357.4 | 65.4 | |
| 42 ARR | 7:30:48.5 | 7:30:48.1 | -615.5 | -6.2 | 56.1 | 315.6 | 423.9 | 131.9 | |
| 43 DEP | 7:33:1.0 | 7:33:0.7 | 1885.2 | 12.3 | 75.3 | 354.1 | 423.4 | 61.4 | |
| 44 ARR | 7:36:46.5 | 7:36:46.1 | -724.5 | -7.2 | 56.5 | 333.7 | 422.6 | 127.9 | |
| 46 ARR | 7:43:27.5 | 7:43:27.2 | -711.2 | -7.4 | 54.2 | 338.5 | 349.4 | 105.6 | |
| 47 DEP | 7:45:34.5 | 7:45:34.2 | 2042.2 | 13.8 | 82.3 | 320.0 | 340.6 | 70.0 | |
| 48 ARR | 7:49:39.5 | 7:49:39.1 | -744.0 | -7.2 | 58.3 | 333.3 | 449.5 | 132.1 | |
| 49 DEP | 7:52:2.0 | 7:52:1.7 | 1966.3 | 12.9 | 84.5 | 336.6 | 358.9 | 69.7 | |
| 51 DEP | 7:58:7.5 | 7:58:7.2 | 1950.5 | 12.8 | 84.8 | 323.0 | 356.7 | 64.9 | |
| 52 F-W | 8:1:3.5 | 8:1:2.5 | 132.2 | 0.6 | 131.4 | 1063.7 | 1157.8 | 113.3 | |
| 53 F-E | 8:3:27.5 | 8:3:26.0 | 71.0 | 0.2 | 161.6 | 1090.4 | 1650.7 | 138.7 | |
| 54 F-W | 8:6:25.5 | 8:6:23.1 | 11.0 | 0.0 | 132.1 | 1073.4 | 2735.2 | 156.9 | |
| 55 F-E | 8:8:25.0 | 8:8:23.7 | -309.0 | -1.1 | 162.6 | 1030.4 | 1484.3 | 136.0 | |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C4-3

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 25, 1980

FAA/AEE 120

S76

FEB 6, 1981

MIC # 3 CENTERLINE EAST, 4 FT

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|--------|---------------|---------------|---------|-------------|----------|--------|--------|------------|
| 1 F-E | 5: 3:46.0 | 5: 3:44.3 | 102.3 | 0.4 | 163.7 | 1112.7 | 1958.7 | 145.4 |
| 2 F-E | 5: 6:21.0 | 5: 6:19.9 | -123.8 | -0.6 | 123.7 | 1036.1 | 1212.7 | 121.3 |
| 3 F-E | 5: 8:31.5 | 5: 8:30.3 | 269.4 | 0.9 | 162.3 | 1074.3 | 1364.8 | 128.1 |
| 4 F-E | 5:11:18.0 | 5:11:16.8 | -39.0 | -0.2 | 128.4 | 1065.8 | 1373.1 | 129.1 |
| 5 F-E | 5:13:55.0 | 5:13:52.3 | -95.8 | -0.3 | 162.9 | 1623.6 | 3031.3 | 147.6 |
| 7 F-E | 5:19: 5.5 | 5:19: 3.7 | -301.0 | -1.0 | 164.2 | 1627.8 | 2664.7 | 128.0 |
| 8 F-E | 5:22: 2.0 | 5:22: 1.2 | -210.8 | -0.9 | 127.0 | 732.3 | 966.0 | 130.7 |
| 9 F-E | 5:24:16.5 | 5:24:15.7 | 299.3 | 1.0 | 164.9 | 795.3 | 954.7 | 123.6 |
| 10 F-E | 5:26:40.5 | 5:26:40.0 | -11.7 | -0.1 | 131.4 | 375.2 | 589.4 | 140.5 |
| 11 F-E | 5:28:39.0 | 5:28:38.5 | -111.7 | -0.4 | 160.3 | 385.4 | 626.6 | 142.0 |
| 13 F-E | 5:33:22.0 | 5:33:20.3 | -64.5 | -0.2 | 163.3 | 1587.6 | 1887.7 | 122.8 |
| 14 F-E | 5:36: 1.0 | 5:36: 0.2 | -127.5 | -0.6 | 126.6 | 739.9 | 962.6 | 129.8 |
| 15 F-E | 5:38: 9.5 | 5:38: 8.7 | 139.8 | 0.5 | 162.8 | 758.8 | 954.1 | 127.3 |
| 16 F-E | 5:40:30.0 | 5:40:29.6 | 56.7 | 0.3 | 128.1 | 311.7 | 461.7 | 137.5 |
| 18 F-E | 5:46:39.5 | 5:46:38.9 | -70.2 | -0.4 | 93.5 | 490.4 | 666.6 | 132.6 |
| 19 F-E | 5:48:42.0 | 5:48:41.4 | 157.2 | 0.7 | 128.1 | 521.8 | 727.8 | 134.2 |
| 21 F-E | 5:53:46.0 | 5:53:45.3 | 75.3 | 0.3 | 127.6 | 495.2 | 794.1 | 141.4 |
| 22 F-E | 5:56:47.5 | 5:56:47.0 | -223.0 | -1.3 | 94.6 | 452.2 | 587.8 | 129.7 |
| 23 F-E | 5:59:19.0 | 5:59:18.4 | -183.0 | -0.8 | 125.7 | 531.5 | 648.3 | 124.9 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C4-3 (CONT)

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 25, 1980

FAA/AEE 120

S76

FEB 6, 1981

MIC # 3 CENTERLINE EAST, 4 FT

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|--------|---------------|---------------|---------|-------------|----------|--------|--------|------------|
| 25 F-E | 6: 8: 4.5 | 6: 8: 3.8 | -86.7 | -0.3 | 147.5 | 517.6 | 733.8 | 135.1 |
| 26 F-W | 6:11: 9.5 | 6:11: 9.0 | -319.3 | -1.7 | 105.9 | 487.2 | 608.0 | 126.8 |
| 27 F-E | 6:13:32.5 | 6:13:31.9 | 220.2 | 0.9 | 144.3 | 506.0 | 669.7 | 130.9 |
| 28 F-W | 6:16:41.0 | 6:16:40.4 | -247.0 | -1.3 | 107.2 | 434.5 | 669.5 | 133.6 |
| 29 F-E | 6:19:11.5 | 6:19:10.9 | 274.3 | 1.1 | 142.5 | 538.5 | 632.7 | 121.7 |
| 31 F-E | 6:26: 1.0 | 6:25:58.5 | -127.0 | -0.4 | 162.0 | 2380.3 | 2359.3 | 115.5 |
| 32 F-W | 6:29:24.0 | 6:29:21.2 | -130.0 | -0.5 | 139.2 | 2523.0 | 3117.0 | 126.0 |
| 33 F-E | 6:33: 6.5 | 6:33: 2.9 | 139.0 | 0.5 | 159.2 | 2601.0 | 4049.3 | 140.0 |
| 34 F-W | 6:39: 6.5 | 6:39: 4.0 | -254.8 | -1.0 | 141.4 | 2030.1 | 2629.3 | 126.6 |
| 35 F-E | 6:42:39.5 | 6:42:34.8 | 44.5 | 0.2 | 159.1 | 2316.5 | 5271.6 | 153.9 |
| 36 F-W | 6:46:38.0 | 6:46:35.8 | 24.2 | 0.1 | 135.9 | 2091.5 | 2519.3 | 123.9 |
| 37 F-E | 6:50:15.5 | 6:50:13.5 | -197.2 | -0.7 | 160.6 | 2108.2 | 2212.4 | 107.7 |
| 38 F-W | 6:54: 0.0 | 6:53:58.3 | 26.3 | 0.1 | 134.3 | 1549.3 | 1915.2 | 126.0 |
| 39 F-E | 6:57: 1.5 | 6:56:59.7 | 317.7 | 1.2 | 154.7 | 1582.8 | 2091.3 | 130.8 |
| 40 ARR | 7: 0:35.5 | 7: 0:35.0 | -558.2 | -5.7 | 56.7 | 463.2 | 610.5 | 130.6 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C4-3 (CONT)

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 25, 1980

FAA/AEE 120
FEB 6, 1981

S76

MIC # 3 CENTERLINE EAST, 4 FT

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|--------|---------------|---------------|---------|-------------|----------|--------|--------|------------|
| 41 DEP | 7:27:11.0 | 7:27:00.5 | 1144.7 | 7.2 | 89.8 | 473.1 | 524.1 | 115.5 |
| 42 ARR | 7:30:37.5 | 7:30:37.0 | -574.2 | -6.2 | 52.0 | 418.8 | 524.7 | 127.1 |
| 43 DEP | 7:33:08.5 | 7:33:08.0 | 1232.0 | 7.6 | 91.5 | 534.8 | 573.3 | 68.9 |
| 44 ARR | 7:36:35.0 | 7:36:34.5 | -569.3 | -5.7 | 56.0 | 458.7 | 601.9 | 130.3 |
| 46 ARR | 7:43:15.5 | 7:43:15.0 | -641.5 | -6.6 | 54.7 | 457.6 | 519.1 | 118.2 |
| 47 DEP | 7:45:37.0 | 7:45:36.3 | 2118.8 | 14.1 | 83.4 | 558.9 | 766.4 | 133.2 |
| 48 ARR | 7:49:28.0 | 7:49:27.5 | -380.7 | -3.9 | 55.7 | 459.7 | 616.6 | 131.8 |
| 49 DEP | 7:52:04.0 | 7:52:03.3 | 1962.8 | 12.7 | 86.0 | 553.1 | 825.1 | 137.9 |
| 51 DEP | 7:58:09.5 | 7:58:08.8 | 2028.8 | 13.1 | 85.9 | 548.6 | 783.1 | 135.5 |
| 52 F-W | 8:00:59.0 | 8:00:58.0 | 121.5 | 0.5 | 131.6 | 1051.0 | 1155.4 | 114.5 |
| 53 F-E | 8:03:33.5 | 8:03:32.4 | 40.8 | 0.1 | 161.2 | 1097.1 | 1198.1 | 113.7 |
| 54 F-W | 8:06:19.5 | 8:06:16.8 | -44.3 | -0.2 | 131.7 | 1100.0 | 3104.6 | 159.2 |
| 55 F-E | 8:08:30.0 | 8:08:29.0 | 137.0 | 0.5 | 161.6 | 1037.3 | 1198.1 | 119.2 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C4-4

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 25, 1980
S76

FAA/AEE 120
FEB 6, 1981

NIC # 4 SIDELINE NORTH, 4 FT

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|-------|---------------|---------------|---------|-------------|----------|--------|--------|------------|
| 1 | 5: 3:46.0 | 5: 3:44.6 | 102.3 | 0.4 | 163.7 | 1254.0 | 1622.0 | 129.4 |
| 02 | 5: 6:22.5 | 5: 6:21.3 | -60.2 | -0.3 | 124.0 | 1117.0 | 1378.2 | 125.0 |
| 4 | 5: 8:29.5 | 5: 8:28.2 | 314.2 | 1.1 | 163.5 | 1197.6 | 1510.3 | 127.5 |
| 5 | 5:11:19.5 | 5:11:18.1 | -45.8 | -0.2 | 129.1 | 1158.8 | 1571.7 | 132.5 |
| 7 | 5:13:58.5 | 5:13:56.8 | -118.7 | -0.4 | 163.1 | 1792.1 | 1935.2 | 116.5 |
| 00 | 5:19: 5.5 | 5:19: 3.8 | -301.0 | -1.0 | 164.2 | 1721.8 | 1869.3 | 112.6 |
| 09 | 5:22: 5.5 | 5:22: 4.7 | -236.3 | -1.0 | 127.6 | 880.1 | 951.4 | 112.3 |
| 10 | 5:24:14.5 | 5:24:13.5 | 305.2 | 1.1 | 164.6 | 993.7 | 1183.8 | 123.2 |
| 11 | 5:26:44.0 | 5:26:43.4 | -93.5 | -0.4 | 130.0 | 618.8 | 641.0 | 105.1 |
| 13 | 5:28:37.0 | 5:28:36.2 | -175.8 | -0.6 | 159.8 | 643.2 | 890.4 | 130.8 |
| 14 | 5:33:21.0 | 5:33:19.3 | -119.0 | -0.4 | 153.8 | 1766.2 | 1878.3 | 115.2 |
| 15 | 5:36: 3.5 | 5:36: 2.6 | -79.5 | -0.4 | 125.8 | 862.4 | 1042.7 | 124.2 |
| 16 | 5:38: 7.5 | 5:38: 6.5 | 143.5 | 0.5 | 152.2 | 929.6 | 1153.5 | 126.4 |
| 18 | 5:40:32.0 | 5:40:31.3 | -2.7 | -0.0 | 127.5 | 634.0 | 790.6 | 125.7 |
| 19 | 5:46:42.0 | 5:46:41.2 | -7.7 | -0.0 | 92.0 | 627.9 | 906.5 | 130.6 |
| 01 | 5:48:41.0 | 5:48:40.3 | 193.3 | 0.8 | 122.4 | 755.8 | 798.2 | 122.6 |
| 02 | 5:53:45.0 | 5:53:44.3 | 66.5 | 0.3 | 123.1 | 742.5 | 821.6 | 115.4 |
| 03 | 5:56:40.5 | 5:56:40.7 | -144.5 | -0.9 | 94.5 | 652.9 | 882.0 | 132.2 |
| 03 | 5:59:18.5 | 5:59:15.7 | -45.3 | -0.2 | 127.0 | 776.0 | 902.7 | 120.7 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C4-4 (CONT)

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 25, 1980
S76

FAA/AEE 120
FEB 6, 1981

MIC # 4 SIDELINE NORTH, 4 FT

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|--------|---------------|---------------|---------|-------------|----------|--------|--------|------------|
| 25 F-E | 6: 8: 3.5 | 6: 8: 2.8 | -66.5 | -0.3 | 147.2 | 772.7 | 829.0 | 111.2 |
| 26 F-W | 6:11:11.5 | 6:11:10.7 | -220.5 | -1.2 | 105.6 | 675.5 | 859.0 | 128.1 |
| 27 F-E | 6:13:31.0 | 6:13:30.3 | 228.3 | 0.9 | 144.9 | 741.5 | 819.1 | 115.1 |
| 28 F-W | 6:16:43.5 | 6:16:42.8 | -227.3 | -1.2 | 108.1 | 674.2 | 846.8 | 127.2 |
| 29 F-E | 6:19: 9.5 | 6:19: 8.7 | 255.2 | 1.0 | 144.3 | 801.1 | 880.1 | 114.5 |
| 31 F-E | 6:25:55.0 | 6:25:51.7 | -220.2 | -0.8 | 180.7 | 2700.1 | 3726.2 | 133.6 |
| 32 F-W | 6:29:29.0 | 6:29:26.5 | -80.3 | -0.2 | 139.2 | 2579.0 | 2788.5 | 112.4 |
| 33 F-E | 6:33: 2.0 | 6:32:57.7 | 166.7 | 0.6 | 161.9 | 2704.4 | 4875.9 | 146.3 |
| 34 F-W | 6:39:10.0 | 6:39: 7.9 | 32.2 | 0.1 | 142.7 | 2097.5 | 2365.9 | 117.6 |
| 35 F-E | 6:42:44.5 | 6:42:41.6 | 216.2 | 0.8 | 158.2 | 2106.5 | 3313.2 | 140.5 |
| 36 F-W | 6:46:43.0 | 6:46:41.0 | -162.5 | -0.7 | 138.6 | 2142.6 | 2247.3 | 107.6 |
| 37 F-E | 6:50:12.5 | 6:50:10.4 | -121.7 | -0.4 | 180.9 | 2170.5 | 2415.2 | 116.0 |
| 38 F-W | 6:54: 5.0 | 6:54: 3.5 | 202.8 | 0.9 | 132.6 | 1593.2 | 1650.0 | 105.1 |
| 39 F-E | 6:57: 0.5 | 6:56:58.7 | 283.3 | 1.0 | 155.4 | 1673.8 | 2018.1 | 124.0 |
| 40 ARR | 7: 0:40.0 | 7: 0:39.3 | -533.3 | -6.1 | 54.9 | 655.8 | 802.1 | 125.2 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C4-4 (CONT)

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 25, 1980 FAA/AEE 120
 S78 FEB 8, 1981
 MIC # 4 SIDELINE NORTH, 4 FT

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|--------|---------------|---------------|---------|-------------|----------|--------|--------|------------|
| 41 DEP | 7:26:56.5 | 7:26:55.8 | 1446.0 | 10.1 | 80.1 | 657.9 | 781.0 | 121.2 |
| 42 ARR | 7:30:37.0 | 7:30:36.0 | -590.8 | -6.4 | 51.6 | 624.6 | 1086.2 | 144.9 |
| 43 DEP | 7:33:11.5 | 7:33:08.8 | 1610.5 | 11.8 | 76.4 | 678.3 | 740.0 | 113.6 |
| 44 ARR | 7:36:39.5 | 7:36:38.8 | -734.3 | -7.3 | 56.8 | 611.3 | 752.2 | 125.6 |
| 46 ARR | 7:43:19.0 | 7:43:18.3 | -622.2 | -6.4 | 54.7 | 648.1 | 764.7 | 122.0 |
| 47 DEP | 7:45:35.5 | 7:45:34.9 | 2071.5 | 13.8 | 83.0 | 639.9 | 693.8 | 112.7 |
| 48 ARR | 7:49:33.5 | 7:49:32.8 | -749.3 | -7.6 | 55.5 | 621.3 | 741.9 | 123.1 |
| 49 DEP | 7:52:04.0 | 7:52:03.4 | 1962.8 | 12.7 | 86.0 | 654.6 | 664.3 | 99.8 |
| 51 DEP | 7:58:08.0 | 7:58:07.4 | 1954.8 | 12.8 | 84.9 | 638.5 | 713.7 | 116.5 |
| 52 F-W | 8:11:20.0 | 8:11:10.0 | 146.2 | 0.6 | 131.0 | 1107.0 | 1145.4 | 104.9 |
| 53 F-E | 8:31:31.5 | 8:31:30.3 | 43.5 | 0.2 | 160.8 | 1256.2 | 1375.5 | 114.0 |
| 54 F-W | 8:6:24.0 | 8:6:21.7 | -165.3 | -0.7 | 132.7 | 1166.8 | 2574.9 | 153.1 |
| 55 F-E | 8:8:27.5 | 8:8:26.2 | -108.0 | -0.4 | 162.0 | 1177.7 | 1445.7 | 125.5 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C4-5 (CONT)

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 25, 1980

FAA/AEE 120

S76

FEB 6, 1981

MIC # 5 SIDELINE SOUTH, 4 FT

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|--------|---------------|---------------|---------|-------------|----------|--------|--------|------------|
| 25 F-E | 6:08:4.0 | 6:08:3.4 | -74.3 | -0.3 | 147.3 | 693.0 | 708.0 | 101.8 |
| 26 F-E | 6:11:12.5 | 6:11:11.8 | -192.0 | -1.0 | 106.3 | 696.5 | 775.1 | 116.0 |
| 27 F-E | 6:13:30.5 | 6:13:29.8 | 222.3 | 0.9 | 145.1 | 654.9 | 806.7 | 125.7 |
| 28 F-E | 6:16:45.0 | 6:16:44.3 | -189.2 | -1.0 | 106.7 | 692.6 | 742.0 | 111.0 |
| 29 F-E | 6:19:9.0 | 6:19:8.3 | 258.0 | 1.0 | 144.7 | 629.4 | 805.0 | 128.6 |
| 30 F-E | 6:26:0.0 | 6:25:57.6 | -194.0 | -0.7 | 161.6 | 2562.3 | 2738.4 | 110.7 |
| 31 F-E | 6:29:27.0 | 6:29:24.3 | -121.3 | -0.5 | 140.4 | 2552.7 | 2614.8 | 122.1 |
| 32 F-E | 6:33:10.5 | 6:33:8.0 | 234.5 | 0.8 | 158.8 | 2625.4 | 2884.2 | 114.5 |
| 33 F-E | 6:39:8.5 | 6:39:6.2 | -104.3 | -0.4 | 141.1 | 2093.7 | 2571.2 | 125.5 |
| 34 F-E | 6:42:48.0 | 6:42:45.8 | 236.8 | 0.9 | 157.6 | 2116.0 | 2543.5 | 123.7 |
| 35 F-E | 6:46:42.0 | 6:46:39.0 | -145.8 | -0.6 | 132.4 | 2141.0 | 2356.9 | 114.7 |
| 36 F-E | 6:50:10.0 | 6:50:7.5 | -99.3 | -0.3 | 160.9 | 2173.1 | 2806.2 | 129.2 |
| 37 F-E | 6:54:1.5 | 6:53:59.6 | 16.2 | 0.1 | 193.4 | 1626.5 | 2125.4 | 128.4 |
| 38 F-E | 6:56:59.5 | 6:56:57.6 | 237.0 | 0.9 | 155.4 | 1612.4 | 2151.8 | 131.5 |
| 40 ARR | 7:0:38.5 | 7:0:37.7 | -610.2 | -6.2 | 55.0 | 624.3 | 335.1 | 135.1 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C4-5 (CONT)

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 25, 1980

FAA/AEE 120
FEB 6, 1981

S76

MIC # 5 SIDELINE SOUTH, 4 FT

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|--------|---------------|---------------|---------|-------------|----------|--------|--------|------------|
| 41 DEP | 7:26:58.5 | 7:26:57.0 | 1274.5 | 8.5 | 84.3 | 647.3 | 653.7 | 98.0 |
| 42 ARR | 7:30:40.5 | 7:30:39.8 | -624.0 | -6.6 | 52.9 | 602.1 | 825.7 | 133.2 |
| 43 DEP | 7:33:2.5 | 7:33:1.0 | 1528.5 | 10.0 | 78.3 | 666.1 | 677.7 | 100.6 |
| 44 ARR | 7:36:44.5 | 7:36:43.9 | -666.5 | -6.7 | 55.8 | 652.4 | 652.4 | 90.7 |
| 46 ARR | 7:43:24.0 | 7:43:23.5 | -738.7 | -7.6 | 54.8 | 621.4 | 622.4 | 86.7 |
| 47 DEP | 7:45:36.0 | 7:45:35.4 | 2086.2 | 13.9 | 83.1 | 675.9 | 698.8 | 104.7 |
| 48 ARR | 7:49:25.5 | 7:49:24.3 | -330.2 | -3.4 | 55.7 | 677.8 | 1378.5 | 150.5 |
| 49 DEP | 7:52:4.0 | 7:52:3.4 | 1962.0 | 12.7 | 86.0 | 676.8 | 684.6 | 98.7 |
| 51 DEP | 7:58:9.0 | 7:58:8.4 | 2003.8 | 13.0 | 85.6 | 668.2 | 681.8 | 101.5 |
| 52 F-W | 8:1:1.0 | 8:0:50.8 | 107.2 | 0.5 | 131.0 | 1222.6 | 1343.2 | 114.5 |
| 53 F-E | 8:3:29.5 | 8:3:28.0 | 67.5 | 0.2 | 160.9 | 1137.6 | 1663.1 | 136.8 |
| 54 F-W | 8:6:21.0 | 8:6:18.0 | 238.5 | 1.0 | 128.7 | 1259.6 | 3345.9 | 157.9 |
| 55 F-E | 8:8:28.0 | 8:8:26.8 | -30.7 | -0.1 | 161.7 | 1104.3 | 1303.0 | 122.1 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C4-6

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 25, 1980

FAA/AEE 120

S76

FEB 6, 1981

MIC # 8 SIDELINE NORTH, 4 FT

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|--------|------------------|------------------|------------|----------------|-------------|-----------|----------|---------------|
| 11 F-E | 5:28:38.0 | 5:28:37.0 | -142.3 | -0.5 | 160.1 | 1028.4 | 1108.0 | 111.9 |
| 13 F-E | 5:33:19.5 | 5:33:17.5 | -93.2 | -0.3 | 163.6 | 1964.9 | 2309.9 | 124.4 |
| 14 F-U | 5:36:2.5 | 5:36:1.2 | -88.5 | -0.4 | 125.7 | 1154.2 | 1449.6 | 127.2 |
| 15 F-E | 5:38:7.0 | 5:38:5.6 | 152.5 | 0.5 | 162.0 | 1238.2 | 1539.6 | 126.5 |
| 16 F-U | 5:40:39.5 | 5:40:32.6 | -42.6 | -0.2 | 126.6 | 1041.0 | 1077.7 | 105.0 |
| 18 F-U | 5:46:43.0 | 5:46:42.0 | 44.7 | 0.3 | 92.8 | 1043.2 | 1147.6 | 114.6 |
| 19 F-E | 5:48:37.5 | 5:48:36.1 | 112.5 | 0.5 | 123.6 | 1119.6 | 1633.8 | 136.7 |
| 20 F-E | 5:53:43.0 | 5:53:41.7 | -56.3 | -0.2 | 122.5 | 1112.7 | 1426.7 | 128.7 |
| 22 F-E | 5:56:52.5 | 5:56:51.6 | -76.2 | -0.5 | 94.7 | 1018.1 | 1626.5 | 97.4 |
| 23 F-E | 5:59:16.5 | 5:59:15.4 | -45.3 | -0.2 | 127.0 | 1134.3 | 1256.7 | 115.5 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C4-6 (CONT)

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 25, 1980

FAA/AEE 120

S76

FEB 5, 1981

MIC # 6 SIDELINE NORTH, 4 FT

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|--------|---------------|---------------|---------|-------------|----------|--------|--------|------------|
| 25 F-E | 6:08:25.5 | 6:08:14.4 | -39.7 | -0.2 | 147.0 | 1095.1 | 1269.0 | 120.3 |
| 26 F-W | 6:11:13.5 | 6:11:12.6 | -160.5 | -0.9 | 105.5 | 1093.5 | 1053.2 | 101.1 |
| 27 F-E | 6:13:31.0 | 6:13:30.0 | 226.3 | 0.9 | 144.9 | 1108.4 | 1157.3 | 111.0 |
| 28 F-W | 6:16:45.0 | 6:16:44.1 | -189.2 | -1.0 | 106.7 | 1093.3 | 1066.3 | 104.3 |
| 29 F-E | 6:19:09.0 | 6:19:07.8 | 258.0 | 1.0 | 144.7 | 1172.9 | 1303.3 | 115.9 |
| 31 F-E | 6:25:57.5 | 6:25:54.5 | -220.8 | -0.8 | 160.8 | 2270.2 | 3415.5 | 122.2 |
| 32 F-W | 6:29:31.5 | 6:29:29.1 | -180.2 | -0.7 | 140.3 | 2702.6 | 2753.6 | 100.4 |
| 33 F-E | 6:32:59.5 | 6:32:54.4 | -40.2 | -0.1 | 162.5 | 3066.3 | 5732.2 | 148.4 |
| 34 F-W | 6:39:12.5 | 6:39:10.5 | 254.7 | 1.0 | 141.6 | 2243.1 | 2228.2 | 101.4 |
| 35 F-E | 6:42:50.5 | 6:42:48.4 | 54.2 | 0.2 | 157.2 | 2245.8 | 2371.9 | 108.8 |
| 36 F-W | 6:46:43.0 | 6:46:40.9 | -162.5 | -0.7 | 138.6 | 2283.8 | 2382.0 | 106.5 |
| 37 F-E | 6:50:11.0 | 6:50:08.5 | -118.7 | -0.4 | 161.1 | 2368.7 | 2798.2 | 124.4 |
| 38 F-W | 6:54:02.0 | 6:54:00.1 | 61.2 | 0.3 | 133.4 | 1745.3 | 2118.6 | 124.4 |
| 39 F-E | 6:57:03.5 | 6:57:01.2 | 330.3 | 1.2 | 153.3 | 1875.2 | 1903.6 | 99.0 |
| 40 ARR | 7:00:39.0 | 7:00:38.0 | -612.3 | -5.1 | 54.7 | 1095.5 | 1186.3 | 119.2 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C4-6 (CONT)

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 25, 1980

FAA/AEE 120
FEB 6, 1981

S76

MIC # 6 SIDELINE NORTH, 4 FT

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|--------|---------------|---------------|---------|-------------|----------|--------|--------|------------|
| 41 DEP | 7:27:2.0 | 7:27:1.1 | 1103.5 | 6.8 | 91.8 | 1007.0 | 1060.6 | 71.7 |
| 42 ARR | 7:30:36.0 | 7:30:34.8 | -618.2 | -6.7 | 52.1 | 1013.5 | 1418.5 | 134.4 |
| 43 DEP | 7:32:52.0 | 7:32:50.3 | 1366.3 | 10.1 | 75.8 | 1070.6 | 1917.2 | 146.1 |
| 44 ARR | 7:36:41.5 | 7:36:40.6 | -673.0 | -6.8 | 55.7 | 987.3 | 1018.7 | 104.3 |
| 46 ARR | 7:43:16.0 | 7:43:14.9 | -637.8 | -6.6 | 54.7 | 1028.6 | 1247.3 | 124.4 |
| 47 DEP | 7:45:35.0 | 7:45:34.0 | 2064.5 | 13.8 | 82.9 | 1006.3 | 1084.0 | 111.8 |
| 48 ARR | 7:49:35.0 | 7:49:34.1 | -759.8 | -7.6 | 56.0 | 1000.2 | 1039.0 | 105.7 |
| 49 DEP | 7:52:3.5 | 7:52:2.6 | 1970.7 | 12.8 | 85.5 | 1019.3 | 1048.6 | 103.6 |
| 51 DEP | 7:58:12.5 | 7:58:11.6 | 2266.0 | 14.3 | 85.4 | 1007.3 | 1049.3 | 73.7 |
| 52 F-U | 8:1:1.0 | 8:0:59.7 | 107.2 | 0.5 | 131.9 | 1315.3 | 1436.0 | 113.7 |
| 53 F-E | 8:3:32.0 | 8:3:30.6 | 35.0 | 0.1 | 161.1 | 1526.0 | 1592.5 | 106.6 |
| 54 F-U | 8:6:20.5 | 8:6:17.3 | 129.7 | 0.6 | 130.4 | 1471.9 | 3553.7 | 155.5 |
| 55 F-E | 8:8:23.0 | 8:8:20.5 | -390.7 | -1.4 | 161.3 | 1444.2 | 2799.0 | 148.9 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C4-7

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 25, 1980

FAA/AEE 120

S76

FEB 6, 1981

MIC #1G CENTERLINE CENTER, GROUND

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|--------|---------------|---------------|---------|-------------|----------|--------|--------|------------|
| 1 F-F | 5: 3:46.5 | 5: 3:45.3 | 81.5 | 0.3 | 163.9 | 1113.1 | 1397.4 | 127.2 |
| 2 F-F | 5: 6:21.5 | 5: 6:20.2 | -106.2 | -0.5 | 124.2 | 1038.4 | 1484.3 | 135.6 |
| 3 F-F | 5: 8:29.5 | 5: 8:28.3 | 314.2 | 1.1 | 163.5 | 1067.3 | 1409.6 | 130.5 |
| 4 F-F | 5:11:20.0 | 5:11:18.8 | -77.7 | -0.3 | 128.9 | 1067.0 | 1415.6 | 131.1 |
| 5 F-F | 5:13:59.0 | 5:13:54.0 | -73.5 | -0.3 | 163.4 | 1631.9 | 2295.2 | 134.7 |
| 7 F-F | 5:19: 3.5 | 5:19: 1.6 | -258.3 | -0.3 | 164.0 | 1640.4 | 2114.8 | 129.1 |
| 8 F-F | 5:22: 4.0 | 5:22: 3.1 | -269.8 | -1.2 | 127.8 | 725.2 | 1009.3 | 134.1 |
| 9 F-F | 5:24:14.5 | 5:24:13.6 | 306.2 | 1.1 | 164.6 | 789.4 | 998.6 | 127.6 |
| 10 F-F | 5:26:43.0 | 5:26:42.5 | -48.0 | -0.2 | 129.3 | 376.3 | 534.7 | 135.3 |
| 11 F-F | 5:28:37.5 | 5:28:37.0 | -163.3 | -0.6 | 160.0 | 391.2 | 556.4 | 135.3 |
| 13 F-F | 5:33:19.5 | 5:33:17.7 | -98.2 | -0.3 | 160.6 | 1582.1 | 2022.4 | 128.3 |
| 14 F-F | 5:36: 3.0 | 5:36: 2.1 | -85.2 | -0.4 | 166.1 | 740.6 | 1010.0 | 132.3 |
| 15 F-F | 5:38: 7.0 | 5:38: 6.0 | 152.5 | 0.5 | 162.0 | 757.9 | 1107.2 | 136.8 |
| 16 F-F | 5:40:32.5 | 5:40:32.1 | -29.3 | -0.1 | 127.0 | 313.7 | 421.7 | 131.9 |
| 18 F-F | 5:46:44.0 | 5:46:43.5 | 34.6 | 0.2 | 92.6 | 495.3 | 541.1 | 113.6 |
| 19 F-F | 5:48:39.5 | 5:48:38.8 | 137.5 | 0.6 | 129.3 | 518.2 | 772.3 | 137.9 |
| 21 F-F | 5:53:44.0 | 5:53:43.9 | 6.7 | 0.0 | 128.3 | 493.5 | 743.2 | 133.4 |
| 22 F-F | 5:56:50.5 | 5:56:50.0 | -92.9 | -0.2 | 94.0 | 451.2 | 595.1 | 130.6 |
| 23 F-F | 5:59:16.0 | 5:59:15.3 | -46.2 | -0.2 | 126.9 | 545.4 | 761.3 | 134.2 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C4-7 (CONT)

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 25, 1980

FAA/AEE 120

S76

FEB 6, 1981

MIC #1G CENTERLINE CENTER, GROUND

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|--------|---------------|---------------|---------|-------------|----------|--------|--------|------------|
| 25 F-E | 6: 8: 2.5 | 6: 8: 1.8 | -39.7 | -0.2 | 147.0 | 524.4 | 740.8 | 134.9 |
| 26 F-W | 6:11:12.5 | 6:11:12.0 | -192.0 | -1.0 | 106.3 | 482.2 | 570.1 | 122.2 |
| 27 F-E | 6:13:30.5 | 6:13:29.0 | 222.3 | 0.9 | 145.1 | 501.3 | 666.6 | 131.2 |
| 28 F-W | 6:16:45.0 | 6:16:44.5 | -189.2 | -1.0 | 106.7 | 478.4 | 523.9 | 114.1 |
| 29 F-E | 6:19: 0.0 | 6:19: 8.4 | 258.0 | 1.0 | 144.7 | 530.4 | 705.0 | 131.2 |
| 31 F-E | 6:25:56.5 | 6:25:53.6 | -166.5 | -0.6 | 160.8 | 2589.8 | 3313.2 | 128.6 |
| 32 F-W | 6:29:25.5 | 6:29:22.7 | -222.2 | -0.9 | 141.0 | 2522.3 | 3224.9 | 128.5 |
| 33 F-E | 6:33: 8.0 | 6:33: 5.1 | 188.0 | 0.7 | 158.2 | 2608.1 | 3299.5 | 127.8 |
| 34 F-W | 6:39: 8.5 | 6:39: 6.3 | -104.3 | -0.4 | 141.1 | 2041.0 | 2524.4 | 126.0 |
| 35 F-E | 6:42:47.0 | 6:42:44.6 | 193.2 | 0.7 | 157.2 | 2057.3 | 2687.0 | 130.0 |
| 36 F-W | 6:46:38.5 | 6:46:36.0 | 34.2 | 0.1 | 136.8 | 2089.0 | 2779.3 | 131.3 |
| 37 F-E | 6:50:12.0 | 6:50: 9.9 | -118.7 | -0.4 | 160.2 | 2119.4 | 2418.5 | 118.3 |
| 38 F-W | 6:54: 1.5 | 6:53:59.7 | 16.3 | 0.1 | 139.4 | 1558.3 | 2026.7 | 129.7 |
| 39 F-E | 6:57: 1.0 | 6:56:50.4 | 272.7 | 1.0 | 154.9 | 1572.0 | 1838.3 | 121.2 |
| 40 ARR | 7: 0:45.0 | 7: 0:44.6 | -623.0 | -6.6 | 53.3 | 414.0 | 414.4 | 87.4 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C4-7 (CONT)

| | | POSITION DATA | | | | | | | | |
|-----------------------------------|---------------|--------------------------------------|---------|-------------|----------|--------|--------|------------|-------------|--|
| TEST DATE: JUNE 25, 1980 | | HELICOPTER NOISE MEASUREMENT PROGRAM | | | | | | | FAA/AEE 120 | |
| S76 | | | | | | | | | FEB 6, 1981 | |
| MIC #1G CENTERLINE CENTER, GROUND | | | | | | | | | | |
| ***** | | | | | | | | | | |
| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG | | |
| 41 DEP | 7:26:57.5 | 7:26:57.1 | 1355.0 | 9.3 | 81.8 | 412.4 | 467.9 | 118.2 | | |
| 42 ARR | 7:30:42.0 | 7:30:41.5 | -613.2 | -6.5 | 53.3 | 370.6 | 547.4 | 137.4 | | |
| 43 DEP | 7:33:5.0 | 7:33:4.6 | 1292.7 | 8.7 | 83.5 | 462.6 | 508.5 | 65.5 | | |
| 44 ARR | 7:36:41.5 | 7:36:41.1 | -673.0 | -6.8 | 55.7 | 401.1 | 467.2 | 120.9 | | |
| 46 ARR | 7:43:23.0 | 7:43:22.6 | -700.7 | -7.3 | 54.2 | 406.1 | 406.9 | 93.7 | | |
| 47 DEP | 7:45:35.0 | 7:45:34.5 | 2064.5 | 13.8 | 82.9 | 441.2 | 536.4 | 124.7 | | |
| 48 ARR | 7:49:35.0 | 7:49:34.6 | -759.8 | -7.6 | 56.0 | 398.7 | 471.3 | 122.2 | | |
| 49 DEP | 7:52:3.5 | 7:52:3.1 | 1970.7 | 12.8 | 85.5 | 452.8 | 478.8 | 109.0 | | |
| 51 DEP | 7:58:8.5 | 7:58:8.1 | 1972.7 | 12.8 | 85.4 | 434.3 | 477.2 | 114.5 | | |
| 52 F-W | 8:1:1.5 | 8:1:0.5 | 146.3 | 0.6 | 130.8 | 1061.3 | 1134.8 | 110.7 | | |
| 53 F-E | 8:3:29.5 | 8:3:28.1 | 67.5 | 0.2 | 160.9 | 1096.8 | 1611.3 | 137.1 | | |
| 54 F-W | 8:6:21.5 | 8:6:18.7 | 228.3 | 1.0 | 128.2 | 1114.0 | 3164.6 | 159.4 | | |
| 55 F-E | 8:8:27.5 | 8:8:26.3 | -103.0 | -0.4 | 162.0 | 1034.4 | 1318.2 | 123.3 | | |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C4-8

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 25, 1980

FAA/AEE 120
FEB 6, 1981

576

MIC #1H CENTERLINE CENTER, 33FT

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|--------|---------------|---------------|---------|-------------|----------|--------|--------|------------|
| 1 F-F | 5:3:45.5 | 5:3:44.1 | 87.7 | 0.3 | 164.4 | 1080.1 | 1591.1 | 137.2 |
| 2 F-F | 5:6:20.0 | 5:6:20.0 | -68.0 | -0.3 | 123.9 | 1005.4 | 1370.4 | 132.8 |
| 3 F-F | 5:8:20.5 | 5:8:20.3 | 314.2 | 1.1 | 163.5 | 1034.2 | 1375.4 | 131.2 |
| 4 F-F | 5:11:20.0 | 5:11:18.8 | -77.7 | -0.3 | 129.9 | 1034.1 | 1387.9 | 131.3 |
| 5 F-F | 5:10:56.0 | 5:10:54.0 | -73.5 | -0.3 | 163.4 | 1559.0 | 2267.0 | 135.2 |
| 6 F-F | 5:19:3.5 | 5:19:1.7 | -238.8 | -0.3 | 164.0 | 1007.5 | 2085.5 | 129.6 |
| 7 F-F | 5:22:4.0 | 5:22:2.1 | -269.8 | -1.2 | 127.8 | 692.2 | 982.2 | 135.2 |
| 8 F-F | 5:24:14.5 | 5:24:13.6 | 306.2 | 1.1 | 164.6 | 756.2 | 966.2 | 123.6 |
| 9 F-F | 5:26:43.5 | 5:26:40.6 | -48.0 | -0.2 | 129.9 | 943.9 | 508.7 | 137.6 |
| 10 F-F | 5:28:37.0 | 5:28:36.4 | -175.0 | -0.6 | 159.2 | 352.0 | 552.4 | 147.0 |
| 11 F-F | 5:33:10.5 | 5:33:17.7 | -98.2 | -0.3 | 162.5 | 1559.2 | 1997.5 | 128.7 |
| 12 F-F | 5:36:9.5 | 5:36:2.1 | -85.2 | -0.4 | 123.1 | 707.6 | 982.2 | 134.0 |
| 13 F-F | 5:38:7.5 | 5:38:6.7 | 148.5 | 0.5 | 162.2 | 725.0 | 965.5 | 131.3 |
| 14 F-F | 5:40:32.0 | 5:40:31.6 | -2.7 | -0.0 | 127.5 | 281.5 | 495.9 | 145.4 |
| 15 F-F | 5:46:43.5 | 5:46:43.2 | 32.8 | 0.2 | 92.6 | 462.8 | 551.4 | 122.9 |
| 16 F-F | 5:48:40.5 | 5:48:39.4 | 131.8 | 0.6 | 122.7 | 485.5 | 656.2 | 132.9 |
| 17 F-F | 5:53:44.5 | 5:53:44.0 | -41.9 | 0.3 | 122.4 | 466.0 | 624.6 | 132.5 |
| 18 F-F | 5:56:50.5 | 5:56:50.0 | -92.9 | -0.6 | 94.9 | 418.9 | 568.0 | 122.5 |
| 19 F-F | 5:59:15.0 | 5:59:15.4 | -46.0 | -0.2 | 126.0 | 512.7 | 735.1 | 125.2 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C4-8 (CONT)

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 25, 1980
S76

FAA/AEE 120
FEB 6, 1981

MIC #1H CENTERLINE CENTER, 33FT

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|--------|---------------|---------------|---------|-------------|----------|--------|--------|------------|
| 25 F-E | 6:08:25.5 | 6:08:11.9 | -39.7 | -0.2 | 147.0 | 491.5 | 714.2 | 136.5 |
| 26 F-U | 6:11:12.0 | 6:11:11.5 | -211.8 | -1.1 | 106.3 | 449.2 | 601.3 | 131.7 |
| 27 F-E | 6:13:30.5 | 6:13:29.9 | 222.2 | 0.9 | 145.1 | 468.6 | 637.6 | 132.7 |
| 28 F-U | 6:16:44.5 | 6:16:44.0 | -193.3 | -1.0 | 106.7 | 445.5 | 540.4 | 124.5 |
| 29 F-E | 6:19:09.0 | 6:19:08.4 | 258.0 | 1.0 | 144.7 | 498.4 | 678.2 | 132.7 |
| 31 F-E | 6:25:55.5 | 6:25:52.4 | -215.2 | -0.8 | 160.7 | 2957.1 | 3485.4 | 132.8 |
| 32 F-U | 6:29:25.0 | 6:29:22.1 | -305.5 | -1.2 | 141.7 | 2439.3 | 3266.5 | 130.4 |
| 33 F-E | 6:33:07.0 | 6:33:03.9 | 153.7 | 0.5 | 158.8 | 2575.2 | 3474.7 | 132.2 |
| 34 F-U | 6:39:09.0 | 6:39:05.7 | -155.0 | -0.6 | 141.3 | 2008.0 | 2589.2 | 129.1 |
| 35 F-E | 6:42:40.5 | 6:42:44.1 | 193.0 | 0.7 | 157.6 | 2024.3 | 2761.2 | 132.9 |
| 36 F-U | 6:46:37.5 | 6:46:34.9 | -33.7 | -0.1 | 136.6 | 2056.0 | 2951.0 | 135.8 |
| 37 F-E | 6:50:09.5 | 6:50:07.0 | -99.5 | -0.3 | 130.9 | 2080.4 | 2857.5 | 133.1 |
| 38 F-U | 6:54:29.0 | 6:54:00.3 | 61.8 | 0.3 | 133.4 | 1925.4 | 1914.6 | 127.2 |
| 39 F-E | 6:57:09.5 | 6:56:58.8 | 293.3 | 1.0 | 155.4 | 1539.1 | 1891.1 | 125.5 |
| 40 ARR | 7:00:42.0 | 7:00:41.6 | -618.8 | -6.4 | 54.3 | 381.2 | 458.1 | 123.7 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C4-8 (CONT)

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 25, 1980
576

FAA/AEE 120
FEB 6, 1981

MIC #1H CENTERLINE CENTER, 33FT

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|--------|---------------|---------------|---------|-------------|----------|--------|--------|------------|
| 41 DEP | 7:26:57.0 | 7:26:56.6 | 1380.3 | 9.6 | 80.6 | 379.8 | 482.1 | 128.0 |
| 42 ARR | 7:30:42.5 | 7:30:42.1 | -595.7 | -6.3 | 53.4 | 337.8 | 484.3 | 135.0 |
| 43 DEP | 7:33:2.0 | 7:33:1.6 | 1560.7 | 11.3 | 77.5 | 430.2 | 470.1 | 113.8 |
| 44 ARR | 7:36:41.0 | 7:36:40.6 | -690.0 | -7.0 | 55.8 | 368.4 | 465.0 | 127.6 |
| 46 ARR | 7:43:23.0 | 7:43:22.7 | -700.7 | -7.3 | 54.2 | 373.4 | 373.8 | 92.8 |
| 47 DEP | 7:45:35.5 | 7:45:35.1 | 2071.5 | 13.8 | 83.0 | 409.2 | 472.8 | 120.1 |
| 48 ARR | 7:49:36.0 | 7:49:35.7 | -763.3 | -7.6 | 56.4 | 366.0 | 394.5 | 111.0 |
| 49 DEP | 7:52:2.0 | 7:52:1.5 | 1966.3 | 12.9 | 84.5 | 420.7 | 576.0 | 133.1 |
| 51 DEP | 7:58:3.5 | 7:58:2.1 | 1972.7 | 12.8 | 85.4 | 402.2 | 449.0 | 116.6 |
| 52 F-W | 8:1:0.0 | 8:0:58.9 | 104.5 | 0.4 | 131.7 | 1622.6 | 1290.7 | 127.2 |
| 53 F-E | 8:3:29.0 | 8:3:27.5 | 78.5 | 0.3 | 161.3 | 1064.1 | 1707.0 | 141.5 |
| 54 F-W | 8:6:21.0 | 8:6:18.1 | 233.5 | 1.0 | 123.7 | 1112.3 | 3277.2 | 160.2 |
| 55 F-E | 8:8:26.5 | 8:8:25.2 | -244.5 | -0.9 | 102.5 | 1001.5 | 1525.3 | 139.0 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C4-9

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 25, 1980

FAA/AEE 120
FEB 6, 1981

S76

MIC #GS SIDELINE SOUTH, GROUND

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|--------|---------------|---------------|---------|-------------|----------|--------|--------|------------|
| 1 F-E | 5:3:47.0 | 5:3:45.8 | 56.0 | 0.2 | 163.3 | 1196.3 | 1332.4 | 120.8 |
| 2 F-E | 5:6:24.5 | 5:6:23.4 | -0.8 | -0.0 | 127.0 | 1174.3 | 1249.8 | 119.0 |
| 3 F-E | 5:8:30.5 | 5:8:29.3 | 240.3 | 0.8 | 161.9 | 1144.2 | 1314.2 | 119.5 |
| 4 F-E | 5:11:20.5 | 5:11:19.2 | -73.0 | -0.3 | 128.6 | 1187.5 | 1455.6 | 125.3 |
| 5 F-E | 5:13:57.5 | 5:13:55.7 | -125.8 | -0.4 | 103.9 | 1671.9 | 2008.5 | 123.7 |
| 7 F-E | 5:19:5.0 | 5:19:3.9 | -292.2 | -1.0 | 163.0 | 1699.5 | 1915.9 | 117.5 |
| 8 F-E | 5:22:6.0 | 5:22:5.2 | -217.5 | -1.5 | 127.8 | 869.0 | 905.6 | 106.3 |
| 9 F-E | 5:24:15.0 | 5:24:14.1 | 319.7 | 1.1 | 164.0 | 861.8 | 979.0 | 118.3 |
| 10 F-E | 5:26:43.5 | 5:26:42.9 | -61.8 | -0.3 | 129.7 | 617.3 | 693.3 | 117.1 |
| 11 F-E | 5:28:37.5 | 5:28:36.8 | -169.3 | -0.6 | 160.0 | 611.0 | 747.0 | 125.2 |
| 13 F-E | 5:33:21.0 | 5:33:19.4 | -119.0 | -0.4 | 163.8 | 1627.9 | 1814.0 | 116.2 |
| 14 F-E | 5:36:3.5 | 5:36:2.5 | -79.5 | -0.4 | 125.3 | 911.7 | 1027.4 | 123.0 |
| 15 F-E | 5:38:7.5 | 5:38:6.6 | 148.5 | 0.5 | 163.2 | 874.5 | 1102.2 | 127.5 |
| 16 F-E | 5:40:32.0 | 5:40:31.4 | -2.7 | -0.0 | 127.5 | 525.9 | 621.6 | 129.5 |
| 18 F-E | 5:46:44.5 | 5:46:43.9 | 31.1 | 0.2 | 92.6 | 706.1 | 722.7 | 102.3 |
| 19 F-E | 5:48:39.5 | 5:48:38.7 | 137.5 | 0.6 | 129.3 | 667.9 | 891.0 | 131.4 |
| 21 F-E | 5:53:44.5 | 5:53:43.8 | 41.9 | 0.2 | 122.4 | 644.0 | 791.2 | 125.4 |
| 22 F-E | 5:56:52.0 | 5:56:51.4 | -99.3 | -0.6 | 94.8 | 620.1 | 697.1 | 102.7 |
| 23 F-E | 5:59:10.0 | 5:59:15.2 | -46.8 | -0.2 | 126.0 | 627.1 | 874.0 | 122.2 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C4-9 (CONT)

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 25, 1980
S76

FAA/AEE 120
FEB 6, 1981

MIC #5G SIDELINE SOUTH, GROUND

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|---------|---------------|---------------|---------|-------------|----------|--------|--------|------------|
| 25 F-1E | 6:08:33.5 | 6:08:22.8 | -66.5 | -0.3 | 147.2 | 696.0 | 748.4 | 111.6 |
| 26 F-1E | 6:11:13.5 | 6:11:12.0 | -169.5 | -0.9 | 105.5 | 699.2 | 717.6 | 103.0 |
| 27 F-1E | 6:13:31.0 | 6:13:30.3 | 226.3 | 0.9 | 144.9 | 657.9 | 736.6 | 116.7 |
| 28 F-1E | 6:16:45.5 | 6:16:44.0 | -215.8 | -1.1 | 106.9 | 695.3 | 715.7 | 103.7 |
| 29 F-1E | 6:19:09.0 | 6:19:08.3 | 253.0 | 1.0 | 144.7 | 632.7 | 807.5 | 128.4 |
| 30 F-1E | 6:25:00.0 | 6:25:57.3 | -194.0 | -0.7 | 161.6 | 2585.3 | 2742.2 | 110.6 |
| 32 F-1E | 6:29:26.0 | 6:29:23.2 | -153.8 | -0.8 | 140.2 | 2556.7 | 3181.2 | 126.5 |
| 33 F-1E | 6:33:10.0 | 6:33:07.4 | 247.5 | 0.9 | 152.7 | 2629.4 | 2952.2 | 117.0 |
| 34 F-1E | 6:39:09.0 | 6:39:05.6 | -155.0 | -0.6 | 141.3 | 2097.6 | 2670.3 | 128.2 |
| 35 F-1E | 6:42:47.0 | 6:42:44.6 | 192.2 | 0.7 | 157.2 | 2119.0 | 2732.9 | 129.1 |
| 36 F-1E | 6:46:38.5 | 6:46:36.0 | 34.2 | 0.1 | 136.8 | 2145.3 | 2841.7 | 131.0 |
| 37 F-1E | 6:50:14.0 | 6:50:12.0 | -157.5 | -0.6 | 160.3 | 2177.0 | 2247.9 | 104.4 |
| 38 F-1E | 6:54:04.0 | 6:54:02.4 | 105.7 | 0.4 | 133.0 | 1670.2 | 1802.6 | 112.1 |
| 39 F-1E | 6:57:00.0 | 6:56:58.2 | 259.0 | 0.9 | 155.6 | 1616.9 | 2056.5 | 128.2 |
| 40 ARR | 7:00:47.5 | 7:00:46.9 | -622.5 | -6.7 | 52.0 | 626.9 | 663.0 | 71.0 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C4-9 (CONT)

| | | POSITION DATA | | | | | | | |
|--------------------------------|---------------|--------------------------------------|---------|-------------|----------|--------|--------|-------------|--|
| TEST DATE: JUNE 25, 1980 | | HELICOPTER NOISE MEASUREMENT PROGRAM | | | | | | FAA/AEE 120 | |
| S76 | | | | | | | | FEB 6, 1981 | |
| MIC #5G SIDELINE SOUTH, GROUND | | ***** | | | | | | | |
| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG | |
| 41 DEP | 7:27:11.5 | 7:27:00.9 | 1117.5 | 6.9 | 90.6 | 649.7 | 724.0 | 63.7 | |
| 42 ARR | 7:30:45.5 | 7:30:45.0 | -565.7 | -5.9 | 54.4 | 694.6 | 612.1 | 99.0 | |
| 43 DEP | 7:33:06.0 | 7:33:05.3 | 1222.5 | 8.0 | 65.6 | 669.8 | 749.6 | 63.3 | |
| 44 ARR | 7:36:44.5 | 7:36:43.9 | -666.5 | -6.7 | 55.8 | 654.8 | 654.8 | 90.9 | |
| 46 ARR | 7:43:26.5 | 7:43:25.9 | -732.0 | -7.6 | 54.5 | 623.9 | 675.3 | 67.5 | |
| 47 DEP | 7:45:33.0 | 7:45:35.4 | 2086.2 | 13.9 | 83.1 | 678.4 | 701.3 | 104.7 | |
| 48 ARR | 7:49:37.0 | 7:49:36.4 | -779.2 | -7.7 | 56.5 | 642.3 | 648.1 | 97.6 | |
| 49 DEP | 7:52:05.0 | 7:52:04.4 | 1923.5 | 12.3 | 37.2 | 679.4 | 681.6 | 85.3 | |
| 52 F-W | 8:0:59.0 | 8:0:57.6 | 121.5 | 0.5 | 131.6 | 1226.0 | 1618.5 | 130.8 | |
| 53 F-E | 8:3:30.0 | 8:3:28.6 | 59.3 | 0.2 | 161.3 | 1141.5 | 1550.2 | 132.6 | |
| 54 F-W | 8:6:21.0 | 8:6:18.0 | 233.5 | 1.0 | 123.7 | 1263.0 | 3349.2 | 157.8 | |
| 55 F-E | 8:8:22.0 | 8:8:26.2 | -30.7 | -0.1 | 161.7 | 1103.0 | 1307.7 | 122.1 | |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

REPORT ON THE PROGRESS OF THE WORK

The work has been carried out in accordance with the programme of work approved by the Council at its meeting on 15th June 1954. The main items of work have been the study of the structure and properties of the various forms of the polymer, and the investigation of the mechanism of the reaction between the polymer and the various reagents used.

The results of the work carried out during the period from 1st July to 31st December 1954 are given in the following sections. The first section deals with the study of the structure and properties of the various forms of the polymer, and the second section deals with the investigation of the mechanism of the reaction between the polymer and the various reagents used.

The results of the work carried out during the period from 1st July to 31st December 1954 are given in the following sections. The first section deals with the study of the structure and properties of the various forms of the polymer, and the second section deals with the investigation of the mechanism of the reaction between the polymer and the various reagents used.

The results of the work carried out during the period from 1st July to 31st December 1954 are given in the following sections. The first section deals with the study of the structure and properties of the various forms of the polymer, and the second section deals with the investigation of the mechanism of the reaction between the polymer and the various reagents used.

Sub-Appendix C5 Summary
UH60A June 25, 1980
Flight Path Tracking Plots And Position Data

1. FLIGHT PATH TRACKING PLOTS

| Event No. | Plot Fig No. | Operation | | | |
|-----------|--------------|-----------|-----|---------|--------------|
| 56 | C5-1 | 300 Ft. | LFO | 152 kts | Target Speed |
| 57 | " | " | " | " | " |
| 58 | " | " | " | " | " |
| 59 | " | " | " | " | " |
| 60 | C5-2 | 700 Ft. | LFO | 152 kts | Target Speed |
| 62 | " | " | " | " | " |
| 63 | " | " | " | " | " |
| 64 | C5-3 | 1000 Ft. | LFO | 152 kts | Target Speed |
| 66 | " | " | " | " | " |
| 67 | " | " | " | " | " |
| 68 | C5-4 | 1500 Ft. | LFO | 152 kts | Target Speed |
| 69 | " | " | " | " | " |
| 70 | " | " | " | " | " |
| 71 | " | " | " | " | " |
| 73 | C5-5 | 2000 Ft. | LFO | 152 kts | Target Speed |
| 74 | " | " | " | " | " |
| 75 | " | " | " | " | " |
| 76 | C5-6 | 2500 Ft. | LFO | 152 kts | Target Speed |

2. POSITION DATA TABLES

| Table No. | Microphone |
|-----------|---------------------------------------|
| C5-1 | Mic. 1, Centerline Center 4 ft. |
| C5-2 | Mic. 2, Centerline 150m West 4 ft. |
| C5-3 | Mic. 3, Centerline 150m East 4 ft. |
| C5-4 | Mic. 4, Centerline 164m North 4 ft. |
| C5-5 | Mic. 5, Sideline 150m South 4 ft. |
| C5-6 | Mic. 6, Sideline 284m North 4 ft. |
| C5-7 | Mic. 1G, Centerline Center (Ground) |
| C5-8 | Mic. 1H, Centerline Center 33 ft. |
| C5-9 | Mic. 5G, Sideline 150m South (Ground) |

FIGURE C5-1

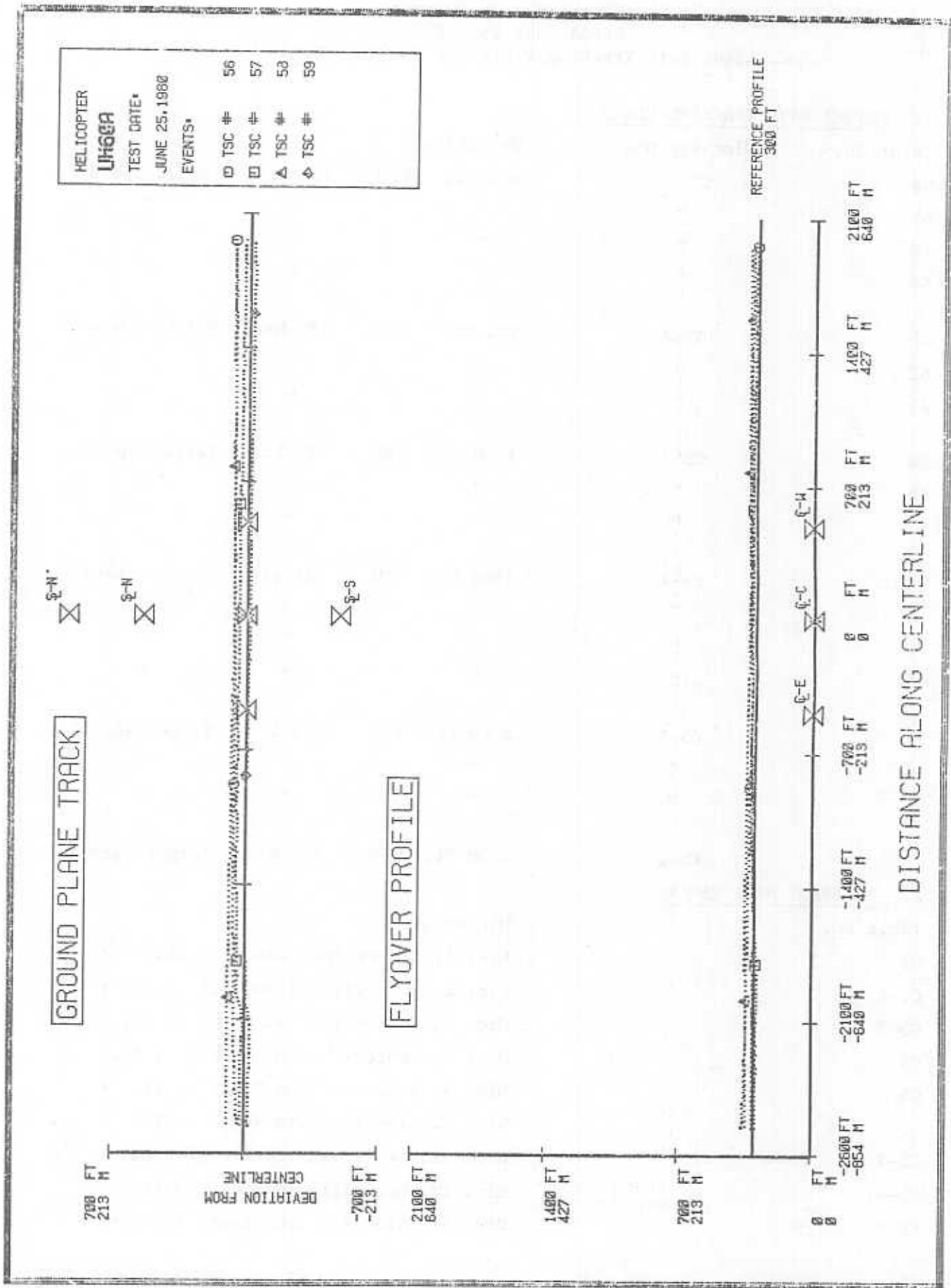


FIGURE C5-2

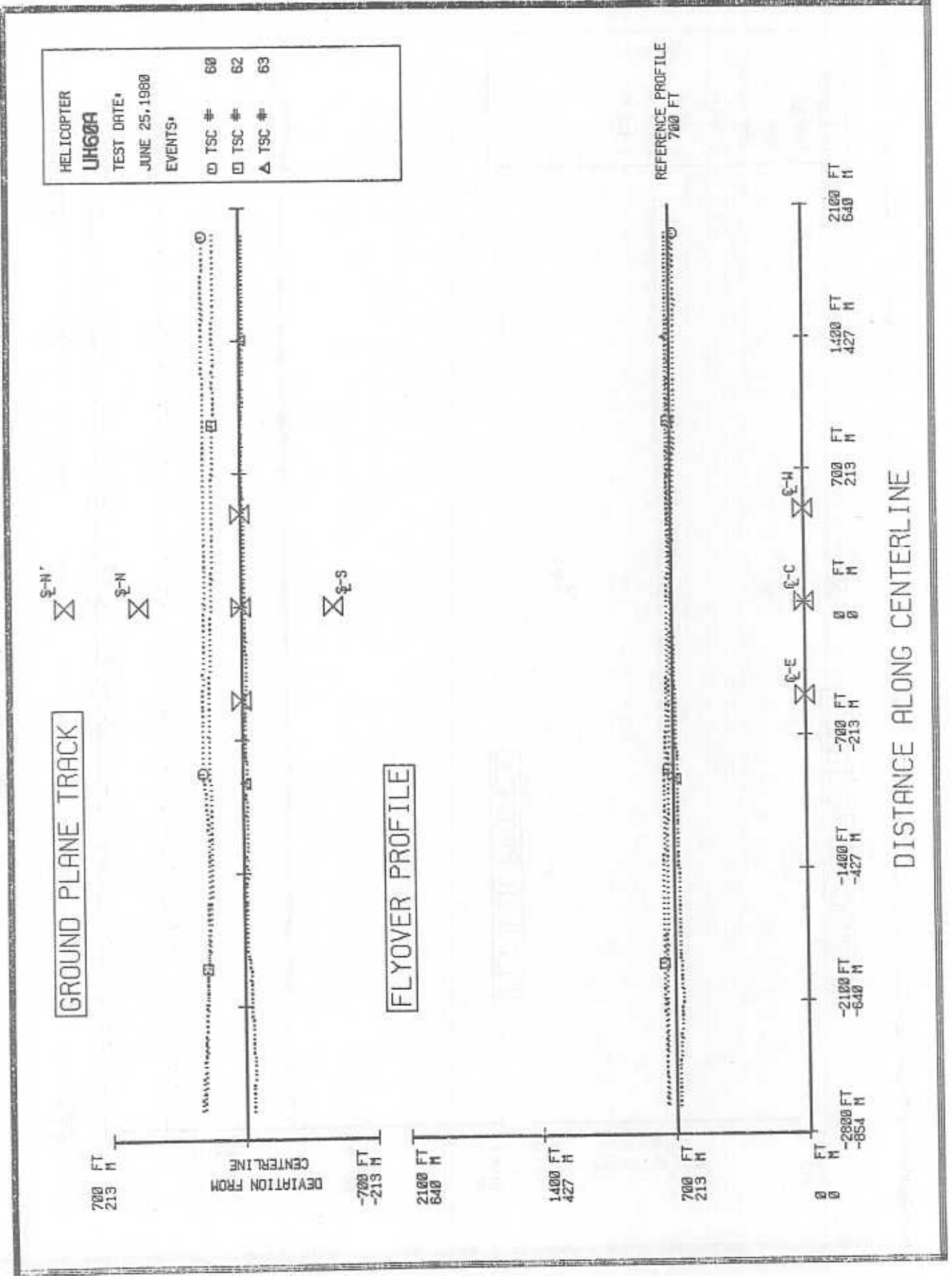


FIGURE C5-4

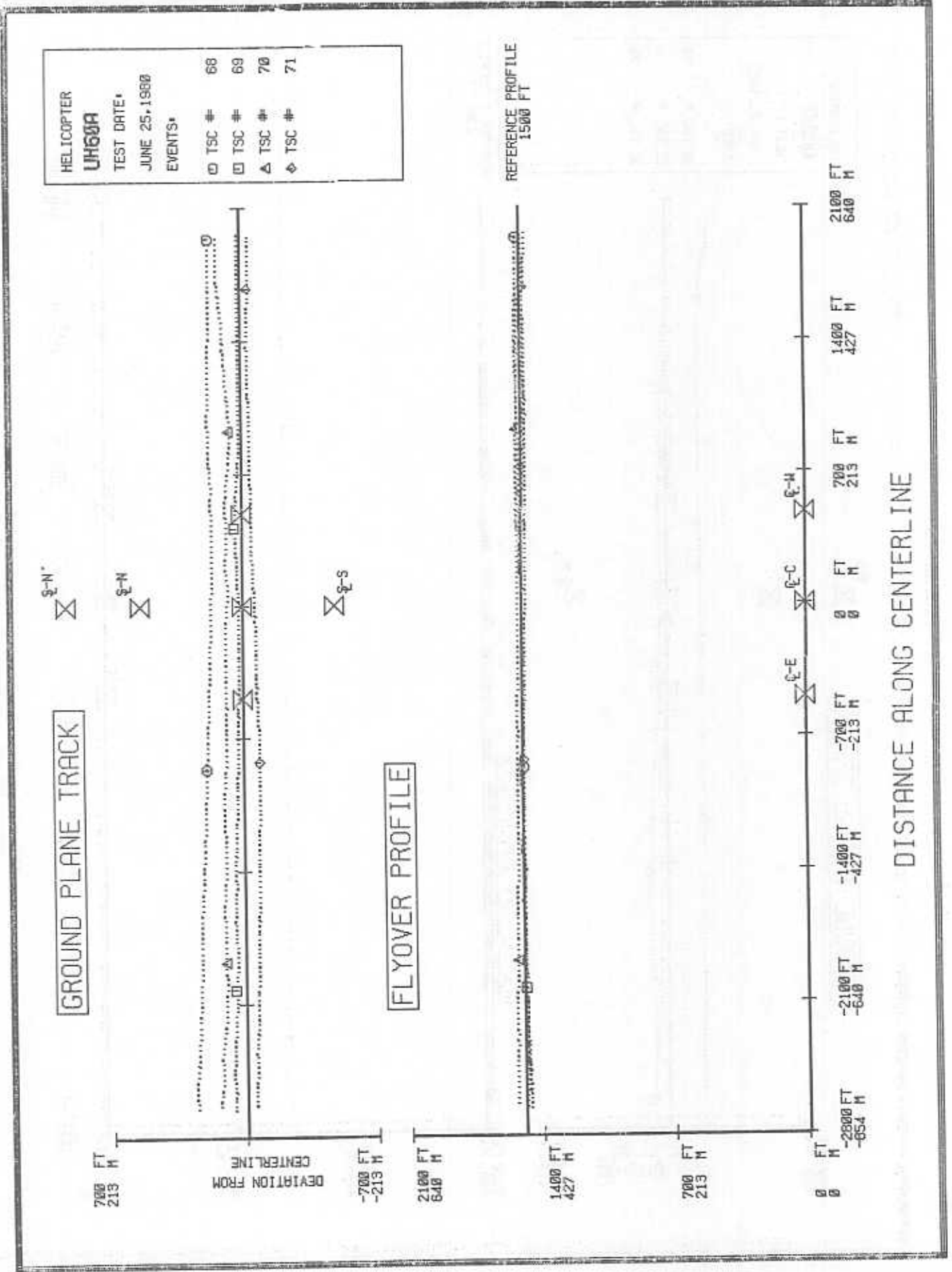


FIGURE C5-5

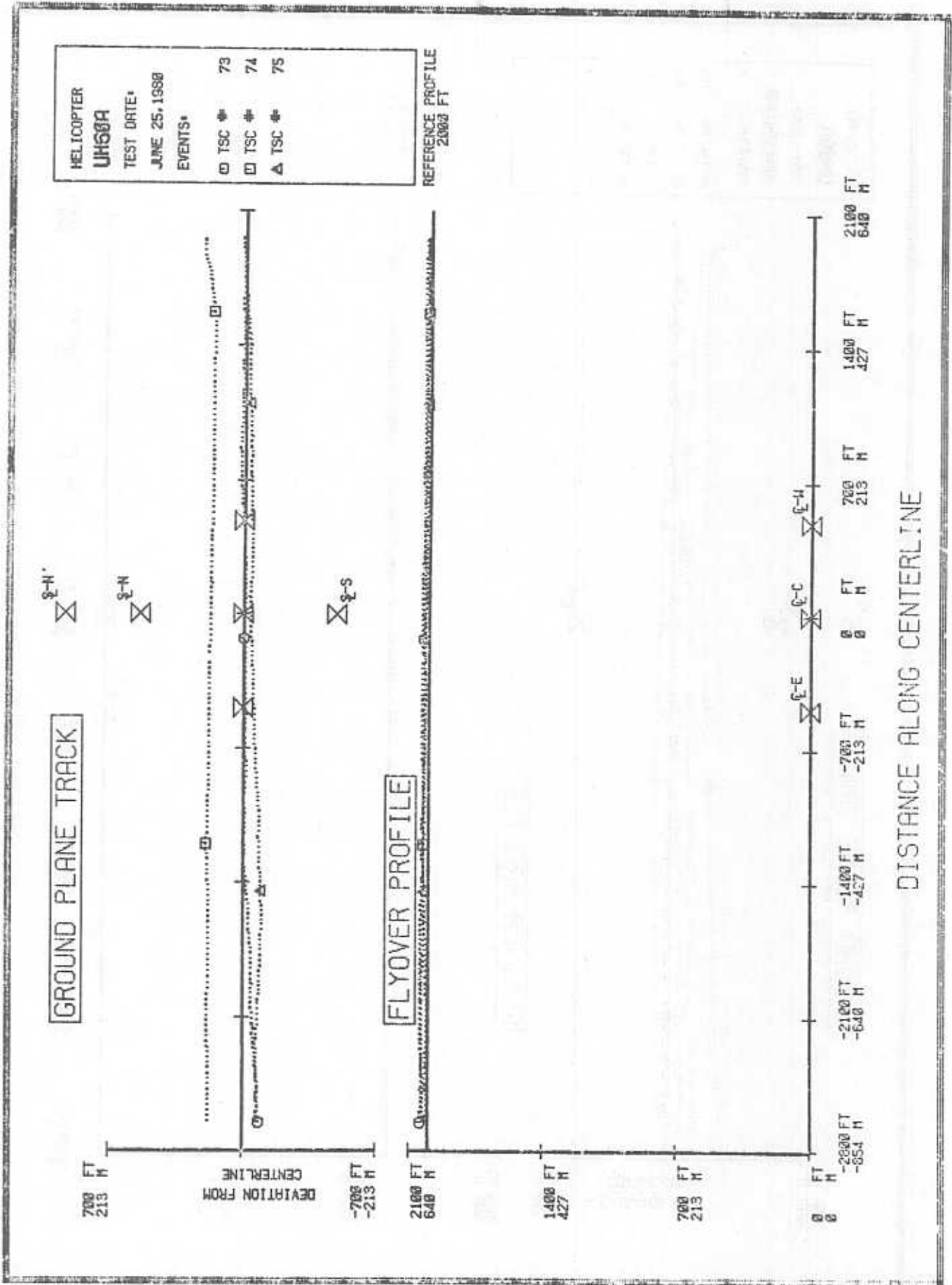


FIGURE C5-6

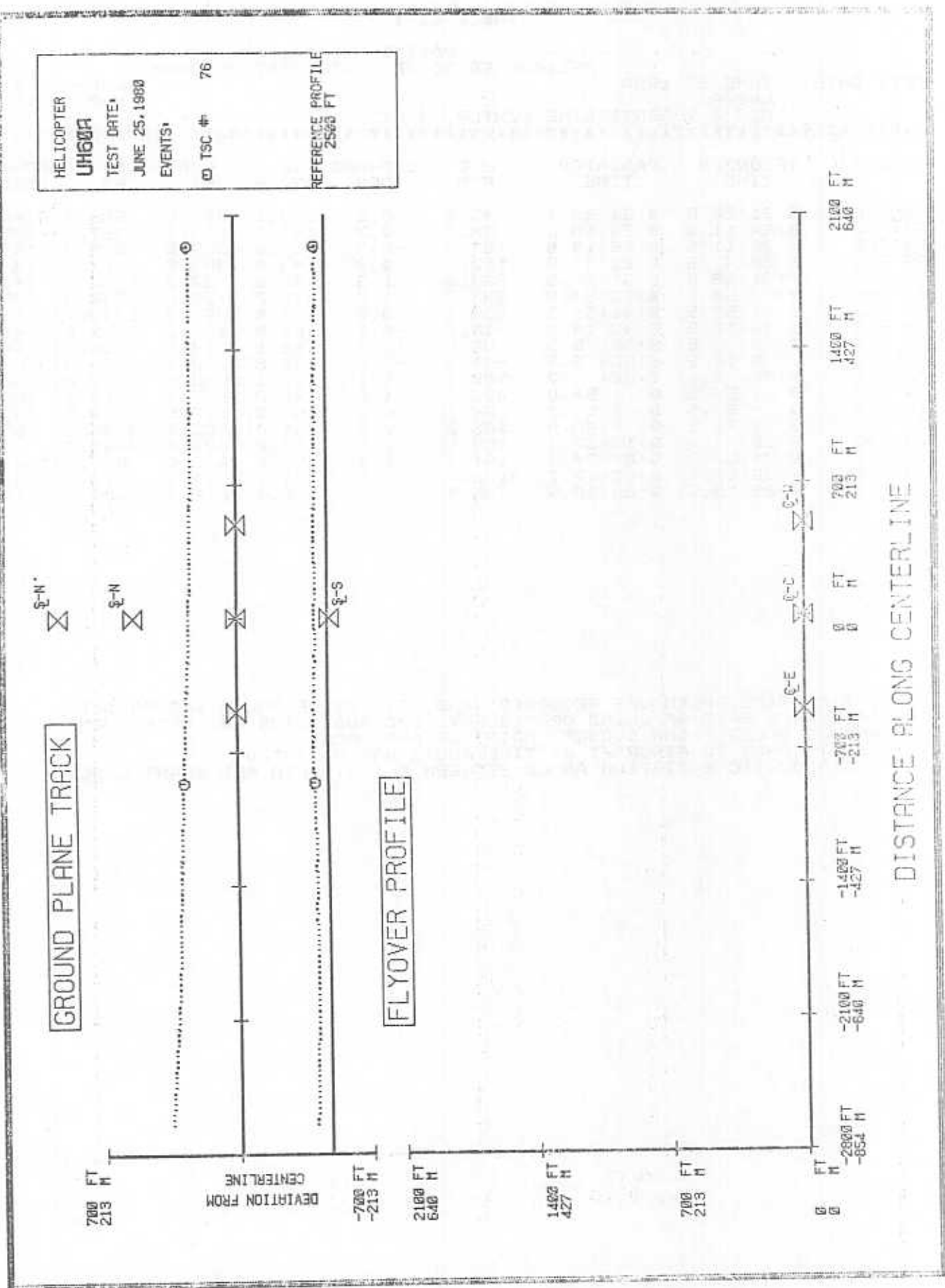


TABLE C5-1

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 25, 1980

UH60A

FAA/AEE 120

MAR 12, 1981

MIC # 1 CENTERLINE CENTER, 4 FT

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|--------|---------------|---------------|---------|-------------|----------|--------|--------|------------|
| 56 F-E | 8:21:20.5 | 8:21:20.1 | 45.8 | 0.2 | 168.1 | 322.5 | 502.3 | 140.1 |
| 57 F-E | 8:24:11.0 | 8:24:10.6 | 78.2 | 0.3 | 141.6 | 323.7 | 457.8 | 135.0 |
| 58 F-E | 8:26:11.5 | 8:26:10.8 | -87.8 | -0.3 | 164.0 | 337.6 | 833.3 | 156.1 |
| 59 F-E | 8:28:47.5 | 8:28:47.0 | 182.7 | 0.7 | 143.4 | 327.6 | 567.7 | 144.8 |
| 60 F-E | 8:31:28.5 | 8:31:27.5 | 369.0 | 1.3 | 166.8 | 727.3 | 1139.5 | 140.3 |
| 62 F-E | 8:33:54.0 | 8:33:53.3 | 293.7 | 1.0 | 170.2 | 739.0 | 749.0 | 99.4 |
| 63 F-E | 8:41:53.5 | 8:41:51.0 | 224.3 | 0.9 | 139.6 | 697.3 | 1343.7 | 143.7 |
| 64 F-E | 8:46:16.5 | 8:46:14.9 | -18.5 | -0.1 | 168.8 | 934.9 | 1798.6 | 146.8 |
| 66 F-E | 8:52:13.5 | 8:52:12.5 | -198.5 | -0.7 | 165.1 | 998.1 | 1100.1 | 114.9 |
| 67 F-E | 8:55:16.5 | 8:55:19.3 | -41.0 | -0.2 | 138.8 | 990.5 | 1300.5 | 130.4 |
| 68 F-E | 8:58:16.0 | 8:58:22.7 | 325.8 | 1.1 | 166.1 | 1502.4 | 3737.0 | 156.3 |
| 69 F-E | 9:1:55.5 | 9:1:51.9 | 403.0 | 1.6 | 146.2 | 1605.3 | 4110.2 | 157.0 |
| 70 F-E | 9:4:56.5 | 9:4:54.0 | 94.7 | 0.3 | 162.9 | 1517.5 | 2789.2 | 147.0 |
| 71 F-E | 9:8:46.5 | 9:8:42.9 | 163.2 | 0.8 | 151.4 | 1568.4 | 4085.5 | 157.4 |
| 73 F-E | 9:18:41.0 | 9:18:37.5 | 152.2 | 0.8 | 153.2 | 2024.9 | 3945.5 | 149.1 |
| 74 F-E | 9:21:33.0 | 9:21:34.0 | 191.0 | 0.4 | 154.9 | 2638.0 | 3639.0 | 145.9 |
| 75 F-E | 9:25:19.5 | 9:25:17.7 | -122.7 | -0.5 | 151.1 | 2014.6 | 2017.9 | 93.3 |
| 76 F-E | 9:28:19.5 | 9:28:16.9 | 95.7 | 0.3 | 165.3 | 2572.8 | 2908.1 | 117.2 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C5-2

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 25, 1980
UH60A
MIC # 2 CENTERLINE WEST, 4 FT

FAA/AEE 120
MAR 12, 1981

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG | |
|-------|------------------|------------------|------------|----------------|-------------|-----------|----------|---------------|-------|
| 56 | F-E | 8:21:19.0 | 8:21:17.3 | 92.7 | 0.3 | 168.0 | 323.4 | 735.5 | 153.9 |
| 57 | F-W | 8:24:13.5 | 8:24:13.2 | -81.5 | -0.3 | 141.7 | 319.1 | 379.2 | 122.7 |
| 58 | F-E | 8:26:11.5 | 8:26:11.2 | -87.6 | -0.3 | 164.0 | 332.5 | 367.3 | 114.8 |
| 59 | F-W | 8:28:50.0 | 8:28:49.6 | 117.2 | 0.5 | 141.9 | 328.5 | 472.5 | 136.0 |
| 60 | F-E | 8:31:23.0 | 8:31:20.9 | -234.0 | -0.8 | 170.1 | 712.4 | 2402.8 | 162.8 |
| 62 | F-E | 8:38:52.0 | 8:38:51.3 | 240.0 | 0.8 | 170.4 | 720.2 | 760.7 | 106.6 |
| 63 | F-W | 8:41:56.0 | 8:41:55.1 | 393.0 | 1.0 | 138.0 | 700.4 | 1031.0 | 136.5 |
| 64 | F-E | 8:46:13.5 | 8:46:11.5 | -158.5 | -0.5 | 169.3 | 979.7 | 2211.2 | 153.7 |
| 66 | F-E | 8:51:58.5 | 8:51:56.0 | 295.5 | 1.0 | 166.5 | 1005.6 | 1832.7 | 146.7 |
| 67 | F-W | 8:55:13.0 | 8:55:11.9 | -96.0 | -0.4 | 140.4 | 533.0 | 1230.7 | 126.6 |
| 68 | F-E | 8:58:4.5 | 8:58:1.0 | 387.5 | 1.3 | 163.1 | 1509.1 | 3654.6 | 155.6 |
| 69 | F-W | 9:0:6.5 | 9:0:4.3 | 44.2 | 0.2 | 143.5 | 1492.5 | 1263.9 | 126.8 |
| 70 | F-E | 9:4:52.5 | 9:4:49.4 | 336.5 | 1.1 | 166.4 | 1519.7 | 3487.9 | 154.2 |
| 71 | F-W | 9:8:55.0 | 9:8:53.0 | -221.3 | -0.8 | 148.3 | 1474.2 | 2313.0 | 140.4 |
| 73 | F-W | 9:18:46.5 | 9:18:43.8 | -254.8 | -1.0 | 147.4 | 2023.3 | 3044.0 | 138.3 |
| 74 | F-E | 9:21:44.0 | 9:21:42.1 | 163.8 | 0.6 | 162.2 | 2630.7 | 2104.0 | 105.2 |
| 75 | F-W | 9:25:14.0 | 9:25:11.3 | -121.2 | -0.5 | 152.1 | 2003.2 | 2998.9 | 138.0 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C5-3

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 25, 1980

FAA/AEE 120

UH60A

MAR 12, 1981

MIC # 3 CENTERLINE EAST, 4 FT

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|--------|---------------|---------------|---------|-------------|----------|--------|--------|------------|
| 56 F-E | 8:21:21.5 | 8:21:20.9 | 44.7 | 0.1 | 169.0 | 324.7 | 725.3 | 153.4 |
| 57 F-W | 8:24:09.5 | 8:24:09.2 | 196.8 | 0.8 | 141.0 | 319.6 | 360.3 | 117.5 |
| 58 F-E | 8:26:13.0 | 8:26:10.2 | 111.2 | 0.4 | 163.5 | 343.7 | 925.5 | 158.2 |
| 59 F-W | 8:28:45.5 | 8:28:45.0 | 226.8 | 0.9 | 143.9 | 316.1 | 556.0 | 145.3 |
| 60 F-E | 8:31:27.5 | 8:31:25.7 | 284.2 | 1.0 | 167.7 | 742.8 | 2012.9 | 158.3 |
| 62 F-E | 8:38:55.5 | 8:38:54.8 | 337.5 | 1.1 | 167.6 | 748.2 | 772.9 | 104.3 |
| 63 F-W | 8:41:47.5 | 8:41:45.6 | -93.2 | -0.4 | 139.5 | 682.6 | 2133.7 | 161.3 |
| 64 F-E | 8:46:17.5 | 8:46:15.7 | 54.7 | 0.2 | 163.5 | 992.1 | 2022.9 | 150.6 |
| 66 F-E | 8:52:06.0 | 8:52:05.1 | -54.5 | -0.2 | 165.4 | 995.0 | 1018.8 | 102.4 |
| 67 F-W | 8:55:00.0 | 8:55:04.4 | -313.0 | -1.3 | 138.6 | 994.1 | 1787.4 | 146.2 |
| 68 F-E | 8:58:16.5 | 8:58:15.1 | -143.5 | -0.5 | 163.9 | 1407.9 | 1588.9 | 107.1 |
| 69 F-E | 9:01:57.0 | 9:01:54.3 | 418.0 | 1.3 | 144.9 | 1495.4 | 3080.4 | 151.0 |
| 70 F-E | 9:04:57.0 | 9:04:54.2 | 84.5 | 0.3 | 162.5 | 1519.5 | 3175.1 | 151.4 |
| 71 F-W | 9:08:46.0 | 9:08:45.0 | 323.7 | 1.2 | 150.4 | 1483.5 | 3677.0 | 151.2 |
| 73 F-E | 9:18:46.0 | 9:18:43.9 | -249.0 | -1.0 | 147.9 | 2015.8 | 2393.5 | 122.5 |
| 74 F-E | 9:21:39.0 | 9:21:35.6 | 41.2 | 0.2 | 153.9 | 2039.0 | 3829.7 | 148.2 |
| 75 F-W | 9:25:03.5 | 9:24:59.3 | -11.3 | -0.0 | 151.5 | 2183.3 | 4793.7 | 152.9 |
| 76 F-E | 9:28:13.0 | 9:28:08.7 | 2.8 | 0.0 | 181.2 | 2582.5 | 4862.7 | 147.5 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C5-4

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 25, 1980

FAA/AEE 120

UH60A

MAR 12, 1981

MIC # 4 SIDELINE NORTH, 4 FT

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|--------|---------------|---------------|---------|-------------|----------|--------|--------|------------|
| 56 F-T | 0:21:21.0 | 0:21:20.4 | 47.8 | 0.2 | 168.7 | 569.1 | 633.4 | 116.0 |
| 57 F-T | 0:24:11.5 | 0:24:11.0 | 31.0 | 0.1 | 141.7 | 553.3 | 599.9 | 112.7 |
| 58 F-T | 0:26:12.0 | 0:26:11.0 | -43.3 | -0.1 | 164.2 | 536.0 | 814.1 | 138.8 |
| 59 F-T | 0:28:49.0 | 0:28:48.5 | 173.5 | 0.7 | 142.1 | 601.4 | 612.0 | 100.7 |
| 60 F-T | 0:31:23.5 | 0:31:21.0 | -158.2 | -0.5 | 169.9 | 759.2 | 2856.6 | 164.6 |
| 62 F-T | 0:38:54.0 | 0:38:53.3 | 293.7 | 1.0 | 170.2 | 793.7 | 807.9 | 100.8 |
| 63 F-T | 0:41:54.5 | 0:41:53.6 | 377.7 | 1.6 | 137.7 | 862.2 | 1059.6 | 125.5 |
| 64 F-T | 0:46:17.0 | 0:46:15.6 | 19.2 | 0.1 | 168.6 | 1072.5 | 1707.0 | 141.1 |
| 66 F-T | 0:52:4.5 | 0:52:3.5 | -123.3 | -0.4 | 165.3 | 1070.8 | 1089.7 | 100.7 |
| 67 F-T | 0:55:14.5 | 0:55:13.5 | -98.0 | -0.4 | 140.8 | 1110.4 | 1118.1 | 83.3 |
| 68 F-T | 0:58:16.0 | 0:58:13.6 | -223.9 | -0.8 | 167.1 | 1527.7 | 1581.9 | 105.0 |
| 69 F-T | 0:1:56.0 | 0:1:52.5 | 396.0 | 1.5 | 146.4 | 1634.5 | 3973.8 | 155.7 |
| 70 F-T | 0:5:4.0 | 0:5:2.6 | 50.5 | 0.2 | 167.0 | 1569.6 | 1570.0 | 89.1 |
| 71 F-T | 0:8:53.5 | 0:8:51.5 | -74.0 | -0.3 | 148.5 | 1576.0 | 2287.1 | 136.4 |
| 73 F-T | 0:18:47.0 | 0:18:44.7 | -229.2 | -0.9 | 147.8 | 2032.8 | 2605.5 | 126.0 |
| 74 F-T | 0:21:33.5 | 0:21:35.4 | 59.3 | 0.2 | 153.6 | 2055.5 | 3503.3 | 144.1 |
| 75 F-T | 0:25:17.5 | 0:25:15.6 | -123.7 | -0.5 | 151.6 | 2032.0 | 2187.3 | 107.9 |
| 76 F-T | 0:28:24.0 | 0:28:21.7 | -9.5 | -0.0 | 166.6 | 2572.4 | 2572.3 | 90.0 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C5-5

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 25, 1980
UH60A

FAA/AEE 120
MAR 12, 1981

MIC # 5 SIDELINE SOUTH, 4 FT

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|--------|---------------|---------------|---------|-------------|----------|--------|--------|------------|
| 56 F-E | 8:21:21.5 | 8:21:20.9 | 44.7 | 0.1 | 169.0 | 640.7 | 655.6 | 102.2 |
| 57 F-W | 8:24:12.0 | 8:24:11.4 | -1.9 | -0.0 | 141.6 | 622.6 | 634.4 | 101.1 |
| 58 F-E | 8:26:13.5 | 8:26:12.9 | 149.7 | 0.5 | 163.7 | 651.7 | 670.2 | 103.5 |
| 59 F-W | 8:28:47.0 | 8:28:46.2 | 259.3 | 1.0 | 142.9 | 580.6 | 874.3 | 138.4 |
| 60 F-E | 8:31:29.0 | 8:31:27.9 | 430.3 | 1.5 | 167.1 | 982.6 | 1241.0 | 127.6 |
| 62 F-E | 8:38:54.0 | 8:38:53.1 | 293.7 | 1.0 | 170.2 | 972.6 | 987.8 | 100.0 |
| 63 F-W | 8:41:56.5 | 8:41:55.8 | 360.7 | 1.5 | 137.7 | 844.1 | 848.2 | 95.6 |
| 66 F-E | 8:52:5.0 | 8:52:4.0 | -105.5 | -0.4 | 165.4 | 1152.8 | 1153.3 | 91.7 |
| 67 F-W | 8:55:14.5 | 8:55:13.5 | -98.8 | -0.4 | 140.8 | 1101.7 | 1107.9 | 83.9 |
| 68 F-E | 8:58:14.0 | 8:58:12.4 | -312.3 | -1.1 | 165.7 | 1632.2 | 1789.7 | 114.2 |
| 69 F-W | 9:0:2:7.5 | 9:0:2:6.1 | -41.5 | -0.2 | 144.5 | 1579.7 | 1610.9 | 101.3 |
| 70 F-E | 9:0:5:1.5 | 9:0:4:59.9 | -43.5 | -0.2 | 167.0 | 1619.6 | 1772.7 | 114.0 |
| 71 F-W | 9:0:8:53.5 | 9:0:8:52.1 | -145.0 | -0.6 | 149.1 | 1535.6 | 1553.4 | 98.7 |
| 72 F-E | 9:0:18:42.5 | 9:0:18:39.3 | 5.7 | 0.0 | 149.3 | 2079.0 | 3579.0 | 144.5 |
| 74 F-E | 9:0:21:38.0 | 9:0:21:34.7 | 101.0 | 0.4 | 154.9 | 2136.9 | 3717.9 | 144.9 |
| 75 F-W | 9:0:25:10.0 | 9:0:25:17.2 | -95.2 | -0.4 | 149.9 | 2085.4 | 2077.3 | 96.1 |
| 76 F-E | 9:0:28:13.5 | 9:0:28:15.7 | 173.3 | 0.6 | 166.3 | 2665.7 | 3153.5 | 122.3 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C5-6

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 25, 1980

FAA/AEE 120

UH60A

MAR 12, 1981

MIC # 6 SIDELINE NORTH, 4 FT

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|--------|---------------|---------------|---------|-------------|----------|--------|--------|------------|
| 56 F-E | 8:21:20.0 | 8:21:19.0 | 58.2 | 0.2 | 168.1 | 921.3 | 1148.6 | 126.7 |
| 57 F-W | 8:24:9.0 | 8:24:7.9 | 202.2 | 0.9 | 140.6 | 945.7 | 1366.2 | 136.2 |
| 58 F-E | 8:26:12.0 | 8:26:11.0 | -43.3 | -0.1 | 164.2 | 922.4 | 1156.4 | 127.1 |
| 59 F-W | 8:28:46.0 | 8:28:44.8 | 239.7 | 0.9 | 143.6 | 998.7 | 1413.2 | 135.0 |
| 60 F-E | 8:31:28.0 | 8:31:26.7 | 327.5 | 1.1 | 167.0 | 1013.6 | 1503.5 | 137.6 |
| 62 F-E | 8:38:52.0 | 8:38:50.8 | 240.0 | 0.8 | 170.4 | 1055.0 | 1371.1 | 129.7 |
| 63 F-W | 8:41:54.0 | 8:41:52.7 | 335.0 | 1.4 | 139.0 | 1175.4 | 1426.4 | 124.5 |
| 64 F-E | 8:46:17.0 | 8:46:15.3 | 19.2 | 0.1 | 163.6 | 1311.4 | 1896.1 | 136.2 |
| 66 F-E | 8:52:1.0 | 8:51:59.3 | 62.7 | 0.2 | 166.0 | 1299.7 | 1872.2 | 136.0 |
| 67 F-W | 8:55:14.5 | 8:55:13.3 | -93.8 | -0.4 | 140.8 | 1366.1 | 1369.4 | 86.0 |
| 68 F-E | 8:58:11.0 | 8:58:8.9 | -140.2 | -0.5 | 165.0 | 1676.5 | 2395.9 | 135.6 |
| 69 F-W | 9:2:9.0 | 9:2:7.5 | -126.2 | -0.5 | 146.0 | 1749.4 | 1749.4 | 90.0 |
| 70 F-E | 9:4:53.0 | 9:4:49.5 | 356.0 | 1.2 | 166.0 | 1736.5 | 4004.6 | 154.3 |
| 71 F-W | 9:8:58.5 | 9:8:56.9 | -145.0 | -0.6 | 149.1 | 1778.5 | 1809.7 | 100.7 |
| 73 F-W | 9:18:53.0 | 9:18:51.0 | 46.0 | 0.2 | 143.6 | 2228.8 | 2229.5 | 88.5 |
| 74 F-E | 9:21:38.5 | 9:21:35.3 | 59.3 | 0.2 | 153.6 | 2167.4 | 3578.3 | 142.7 |
| 75 F-W | 9:25:11.5 | 9:25:8.6 | -123.3 | -0.5 | 152.4 | 2233.8 | 3320.0 | 137.7 |
| 76 F-E | 9:28:23.5 | 9:28:21.2 | 24.7 | 0.1 | 165.1 | 2649.9 | 2656.3 | 94.0 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE CS-7

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 25, 1980

FAA/AEE 120

UH60A

MAR 12, 1981

MIC #1G CENTERLINE CENTER, GROUND

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|-------|---------------|---------------|---------|-------------|----------|--------|--------|------------|
| 56 | 0:21:21.0 | 0:21:20.7 | 47.8 | 0.2 | 168.7 | 326.4 | 391.2 | 123.5 |
| 57 | 0:24:11.0 | 0:24:10.6 | 78.2 | 0.3 | 141.6 | 327.7 | 462.2 | 134.9 |
| 58 | 0:26:12.0 | 0:26:11.4 | -43.3 | -0.1 | 164.2 | 341.5 | 670.6 | 149.4 |
| 59 | 0:28:47.5 | 0:28:47.0 | 182.7 | 0.7 | 143.4 | 331.6 | 570.0 | 144.4 |
| 60 | 0:31:31.0 | 0:31:30.3 | 451.8 | 1.5 | 165.6 | 731.1 | 734.0 | 95.1 |
| 61 | 0:33:54.0 | 0:33:53.3 | 293.7 | 1.0 | 170.2 | 742.0 | 752.9 | 99.3 |
| 62 | 0:41:52.5 | 0:41:51.3 | 224.3 | 0.9 | 109.6 | 731.3 | 1345.7 | 148.6 |
| 63 | 0:46:17.5 | 0:46:16.2 | 54.7 | 0.2 | 168.5 | 933.9 | 1513.0 | 139.2 |
| 64 | 0:52:3.0 | 0:52:2.6 | -223.3 | -0.8 | 165.3 | 1332.0 | 1179.0 | 121.6 |
| 65 | 0:55:19.0 | 0:55:18.0 | 4.0 | 0.0 | 138.6 | 994.5 | 1391.3 | 134.4 |
| 66 | 0:58:13.0 | 0:58:11.4 | -276.5 | -0.9 | 164.8 | 1536.4 | 1617.4 | 124.0 |
| 67 | 0:1:55.5 | 0:1:51.0 | 463.0 | 1.6 | 146.2 | 1639.0 | 4111.7 | 157.0 |
| 70 | 0:1:5:9.5 | 0:1:4:50.0 | 6.7 | 0.0 | 165.5 | 1531.4 | 1827.5 | 123.0 |
| 71 | 0:1:8:50.0 | 0:1:8:47.0 | 280.2 | 1.1 | 149.4 | 1430.2 | 3674.0 | 151.2 |
| 73 | 0:13:46.5 | 0:13:44.2 | -254.2 | -1.0 | 147.4 | 2026.0 | 2642.6 | 129.9 |
| 74 | 0:21:38.0 | 0:21:34.0 | 101.9 | 0.4 | 154.8 | 2332.0 | 3841.2 | 145.9 |
| 75 | 0:25:13.5 | 0:25:11.1 | -193.3 | -0.4 | 156.8 | 2318.6 | 2704.4 | 131.7 |
| 76 | 0:28:23.5 | 0:28:21.0 | 24.7 | 0.1 | 163.1 | 2576.8 | 2580.3 | 93.2 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C5-2

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 25, 1980
UH60A

FAA/AEE 120
MAR 12, 1981

MIC #1H CENTERLINE CENTER, 33FT

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG | |
|-------|---------------|---------------|-----------|-------------|----------|--------|--------|------------|-------|
| 55 | F-E | 0:21:20.0 | 0:21:19.4 | 58.2 | 0.2 | 162.1 | 294.1 | 633.2 | 152.3 |
| 57 | F-W | 0:24:11.0 | 0:24:10.6 | 78.2 | 0.3 | 141.6 | 295.0 | 434.4 | 137.2 |
| 58 | F-E | 0:26:12.0 | 0:26:11.4 | -43.2 | -0.1 | 164.2 | 309.2 | 650.1 | 151.6 |
| 59 | F-W | 0:28:47.5 | 0:28:47.0 | 182.7 | 0.7 | 143.4 | 293.7 | 547.8 | 147.0 |
| 60 | F-E | 0:31:29.0 | 0:31:28.1 | 430.2 | 1.5 | 167.1 | 690.4 | 985.3 | 134.8 |
| 62 | F-W | 0:33:54.0 | 0:33:53.4 | 293.7 | 1.0 | 170.2 | 710.7 | 719.3 | 99.1 |
| 63 | F-W | 0:41:52.5 | 0:41:51.3 | 224.3 | 0.9 | 139.6 | 662.4 | 1325.3 | 149.7 |
| 64 | F-E | 0:46:13.0 | 0:46:16.2 | 87.5 | 0.3 | 127.8 | 952.0 | 1356.9 | 135.2 |
| 66 | F-E | 0:52:3.5 | 0:52:2.6 | -198.5 | -0.7 | 165.1 | 969.2 | 1071.4 | 115.2 |
| 67 | F-W | 0:55:10.5 | 0:55:9.4 | -41.6 | -0.2 | 138.8 | 961.6 | 1275.4 | 131.1 |
| 68 | F-E | 0:58:11.5 | 0:58:9.6 | -164.7 | -0.6 | 165.2 | 1473.6 | 2102.9 | 135.5 |
| 69 | F-W | 0:1:56.5 | 0:1:56.9 | 282.5 | 1.1 | 144.9 | 1465.2 | 2945.2 | 150.2 |
| 70 | F-E | 0:4:56.0 | 0:4:53.4 | 202.7 | 0.7 | 163.1 | 1483.5 | 2929.2 | 149.4 |
| 71 | F-W | 0:8:54.5 | 0:8:52.8 | -142.2 | -0.5 | 142.6 | 1447.2 | 1975.6 | 132.9 |
| 72 | F-E | 0:18:41.0 | 0:18:37.5 | 152.2 | 0.6 | 153.2 | 1995.0 | 3926.2 | 149.5 |
| 74 | F-E | 0:21:38.5 | 0:21:35.4 | 59.2 | 0.2 | 153.6 | 2002.1 | 3479.7 | 144.7 |
| 75 | F-E | 0:25:13.5 | 0:25:11.1 | -108.2 | -0.4 | 150.8 | 1985.6 | 2674.0 | 132.1 |
| 76 | F-E | 0:26:22.0 | 0:26:20.7 | 60.2 | 0.2 | 166.1 | 2544.0 | 2562.4 | 96.9 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C5-9

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 25, 1980

FAA/AEE 120

UH60A

MAR 12, 1981

MIC #5G SIDELINE SOUTH, GROUND

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|--------|---------------|---------------|---------|-------------|----------|--------|--------|------------|
| 56 F-E | 8:21:21.5 | 8:21:20.9 | 44.7 | 0.1 | 169.0 | 642.7 | 657.5 | 102.2 |
| 57 F-E | 8:24:10.5 | 8:24:9.8 | 122.5 | 0.5 | 141.5 | 624.7 | 814.0 | 129.9 |
| 58 F-E | 8:26:13.5 | 8:26:12.9 | 149.7 | 0.5 | 163.7 | 653.7 | 672.2 | 103.5 |
| 59 F-E | 8:28:47.5 | 8:28:46.8 | 188.7 | 0.7 | 143.4 | 582.8 | 775.9 | 131.3 |
| 60 F-E | 8:31:29.0 | 8:31:27.9 | 430.3 | 1.5 | 167.1 | 985.5 | 1243.2 | 127.6 |
| 62 F-E | 8:38:53.0 | 8:38:52.0 | 219.2 | 0.7 | 169.8 | 975.6 | 1091.8 | 116.7 |
| 63 F-E | 8:41:56.0 | 8:41:55.2 | 393.0 | 1.6 | 138.0 | 847.4 | 874.5 | 104.3 |
| 64 F-E | 8:46:17.0 | 8:46:15.4 | 19.2 | 0.1 | 162.6 | 1132.1 | 1771.2 | 140.3 |
| 66 F-E | 8:52:4.0 | 8:52:2.9 | -143.0 | -0.5 | 165.1 | 1156.2 | 1208.4 | 106.9 |
| 67 F-E | 8:55:14.0 | 8:55:13.0 | -89.3 | -0.4 | 140.2 | 1105.3 | 1105.3 | 90.1 |
| 68 F-E | 8:58:13.5 | 8:58:11.8 | -312.5 | -1.1 | 165.1 | 1635.9 | 1864.3 | 118.7 |
| 69 F-E | 9:02:7.5 | 9:02:6.1 | -41.5 | -0.2 | 144.5 | 1583.4 | 1614.7 | 101.3 |
| 70 F-E | 9:05:1.0 | 9:04:59.4 | -59.2 | -0.2 | 166.4 | 1623.4 | 1842.3 | 112.2 |
| 71 F-E | 9:08:58.5 | 9:08:57.1 | -145.3 | -0.6 | 149.1 | 1539.4 | 1557.2 | 98.7 |
| 73 F-E | 9:18:51.5 | 9:18:49.6 | 128.2 | 0.5 | 145.2 | 2082.2 | 2102.3 | 97.2 |
| 74 F-E | 9:21:38.0 | 9:21:34.7 | 101.0 | 0.4 | 154.9 | 2140.7 | 3720.0 | 144.9 |
| 75 F-E | 9:25:21.0 | 9:25:19.2 | -1.8 | -0.0 | 148.3 | 2069.3 | 2094.0 | 83.2 |
| 76 F-E | 9:28:22.0 | 9:28:19.6 | 116.5 | 0.4 | 167.5 | 2669.6 | 2740.6 | 103.1 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

Sub-Appendix C6 Summary
 Bell 206-L June 26, 1981
 Flight Path Tracking Plots and Position Data

1. FLIGHT PATH TRACKING PLOTS

| Event No. | Plot Fig No. | Operation | | | |
|-----------|--------------|-----------|-----|---------|--------------|
| 1 | C6-1 | 300 Ft. | LFO | 115 kts | Target Speed |
| 2 | " | " | | " | " |
| 3 | " | " | | " | " |
| 4 | " | " | | " | " |
| 5 | C6-2 | 700 Ft. | LFO | 115 kts | Target Speed |
| 6 | " | " | | " | " |
| 7 | " | " | | " | " |
| 8 | " | " | | " | " |
| 9 | C6-3 | 1000 Ft. | LFO | 115 kts | Target Speed |
| 10 | " | " | | " | " |
| 11 | " | " | | " | " |
| 12 | " | " | | " | " |
| 13 | C6-4 | 1500 Ft. | LFO | 115 kts | Target Speed |
| 14 | " | " | | " | " |
| 15 | " | " | | " | " |
| 16 | " | " | | " | " |
| 18 | C6-5 | 2000 Ft. | LFO | 115 kts | Target Speed |
| 19 | " | " | | " | " |

2. POSITION DATA TABLES

| Table No. | Microphone |
|-----------|---------------------------------------|
| C6-1 | Mic. 1, Centerline Center 4 ft. |
| C6-2 | Mic. 2, Centerline 150m West 4 ft. |
| C6-3 | Mic. 3, Centerline 150m East 4 ft. |
| C6-4 | Mic. 4, Sideline 164m North 4 ft. |
| C6-5 | Mic. 5, Sideline 150m South 4 ft. |
| C6-6 | Mic. 6, Sideline 284m North 4 ft. |
| C6-7 | Mic. 1G, Centerline Center (Ground) |
| C6-8 | Mic. 1H, Centerline Center 33 ft. |
| C6-9 | Mic. 5G, Sideline 150m South (Ground) |

FIGURE C6-1

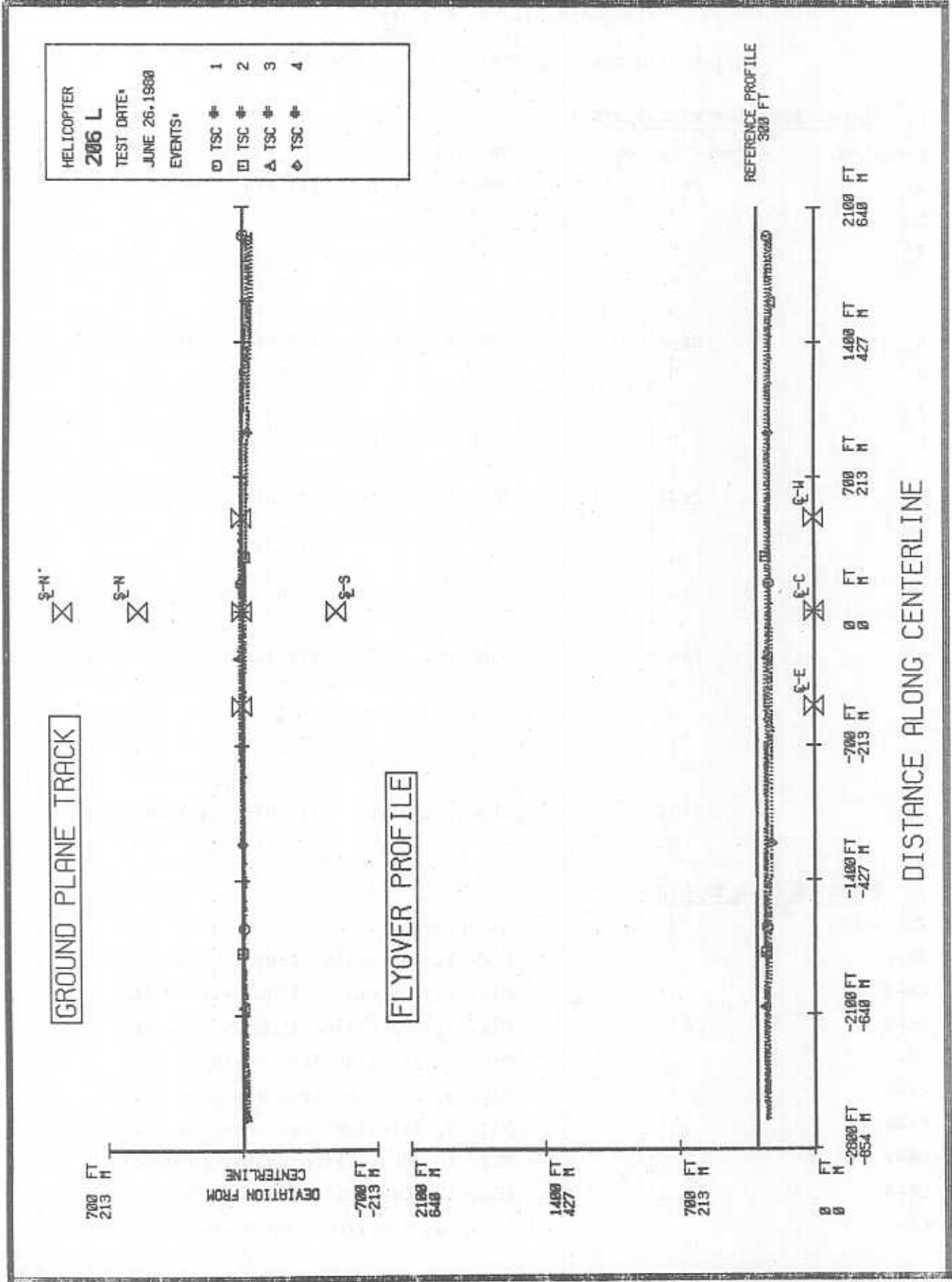


FIGURE C6--2

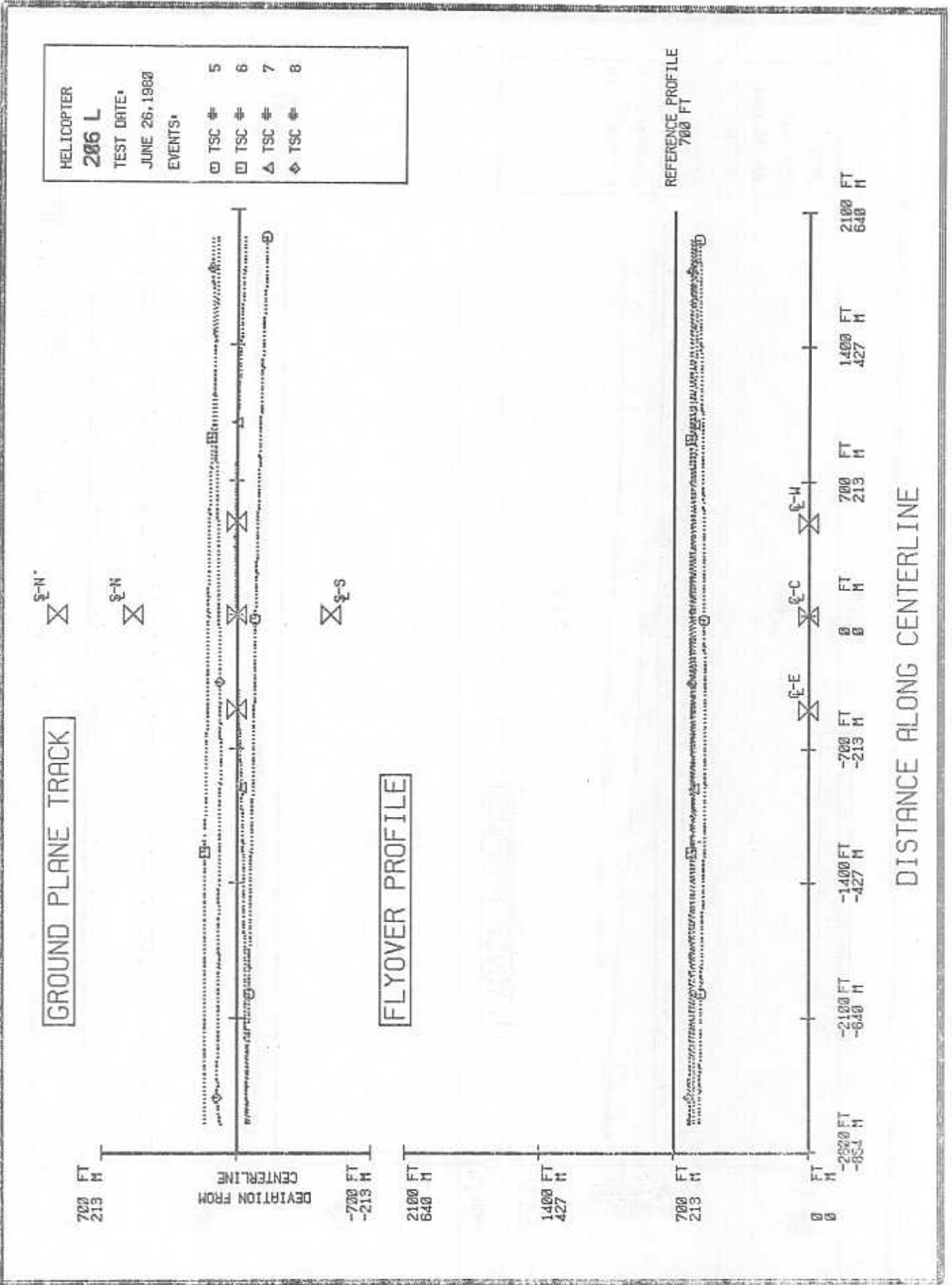
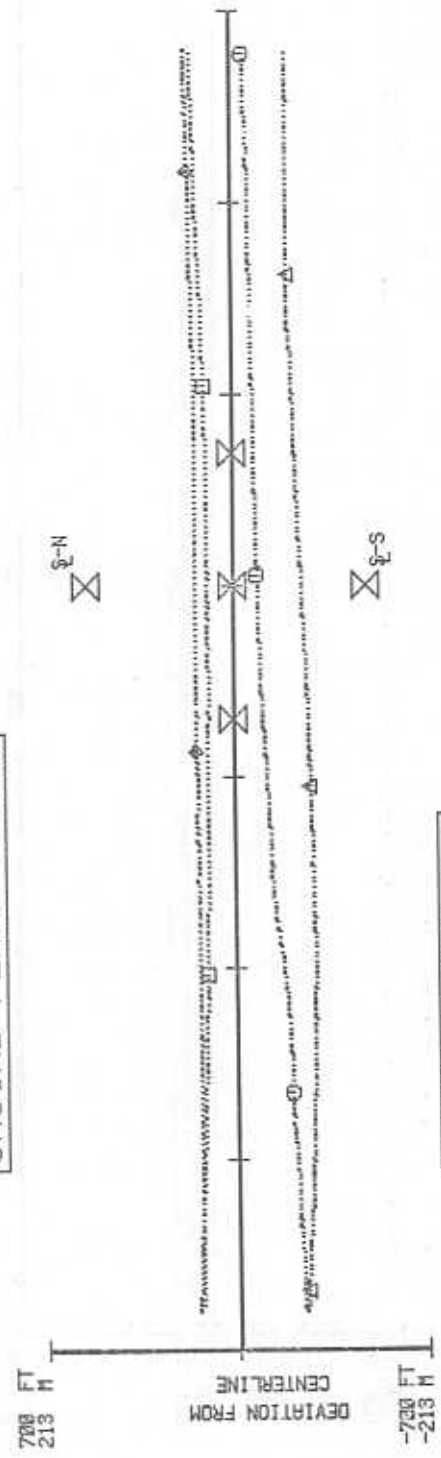


FIGURE C6-3

HELICOPTER
236 L
 TEST DATE
 JUNE 26, 1986
 EVENTS
 □ TSC # 9
 □ TSC # 10
 △ TSC # 11
 ◆ TSC # 12

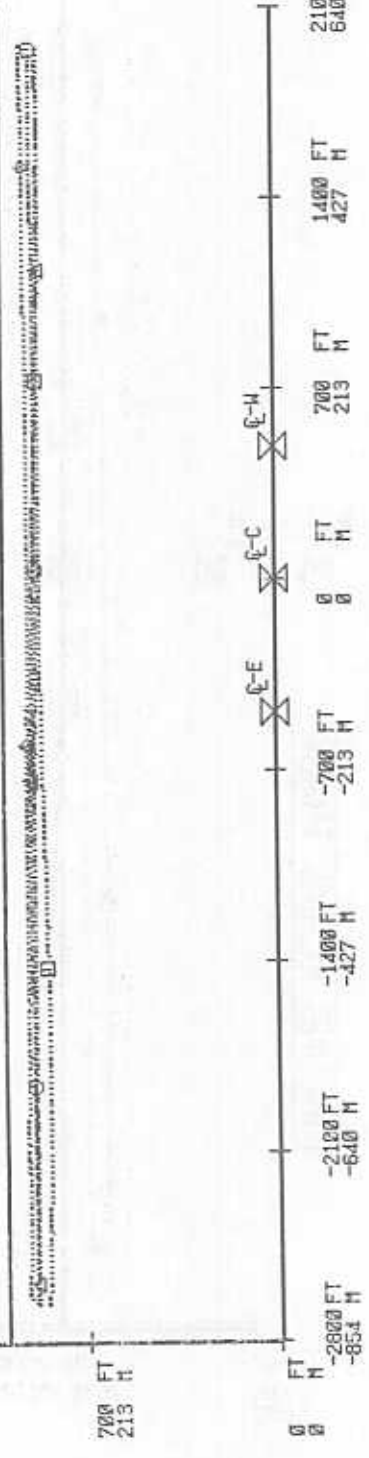
GROUND PLANE TRACK

⊗ E-N
 ⊗ E-N



FLYOVER PROFILE

REFERENCE PROFILE
 1600 FT



DISTANCE ALONG CENTERLINE

FIGURE C6-4

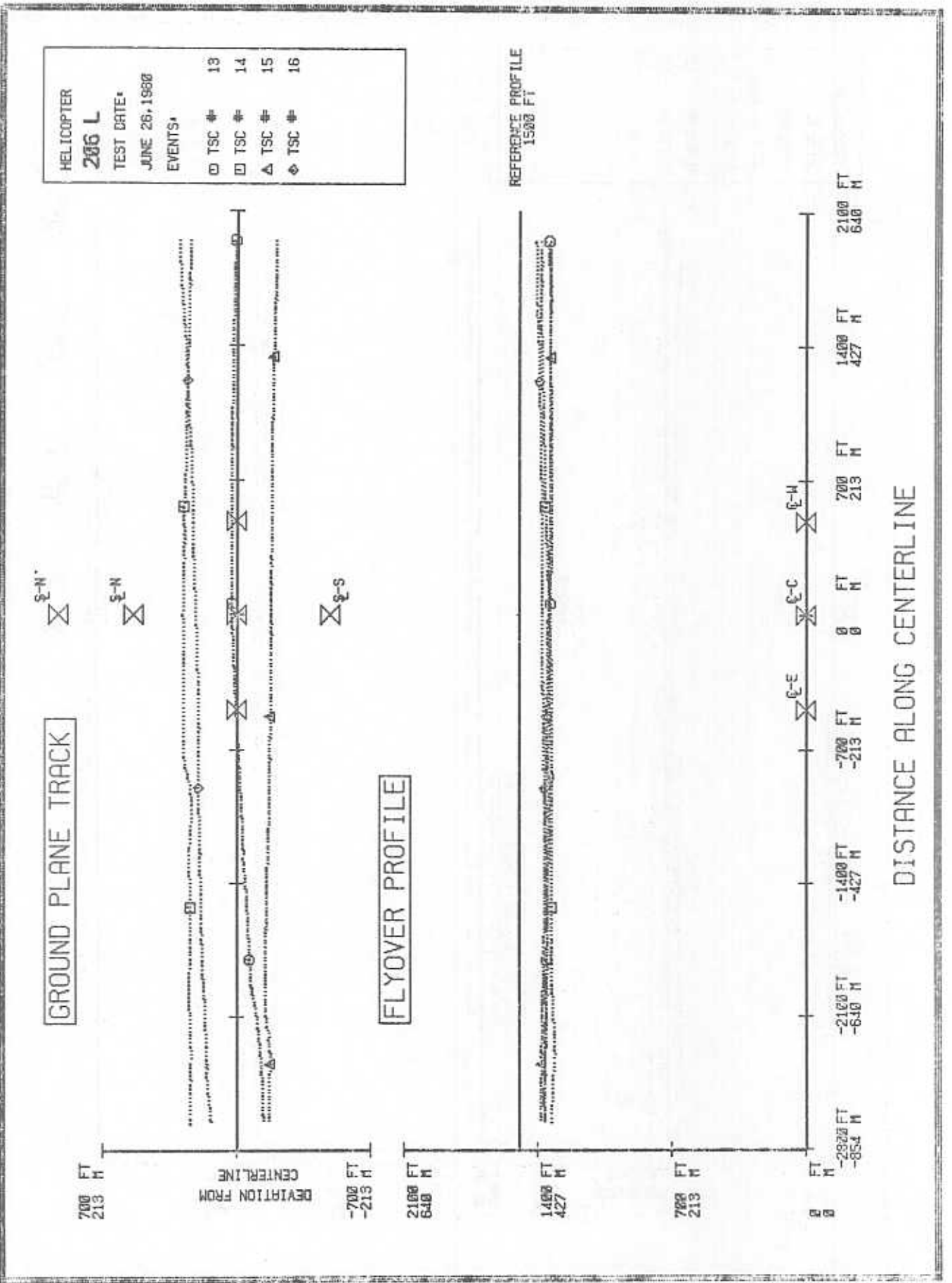
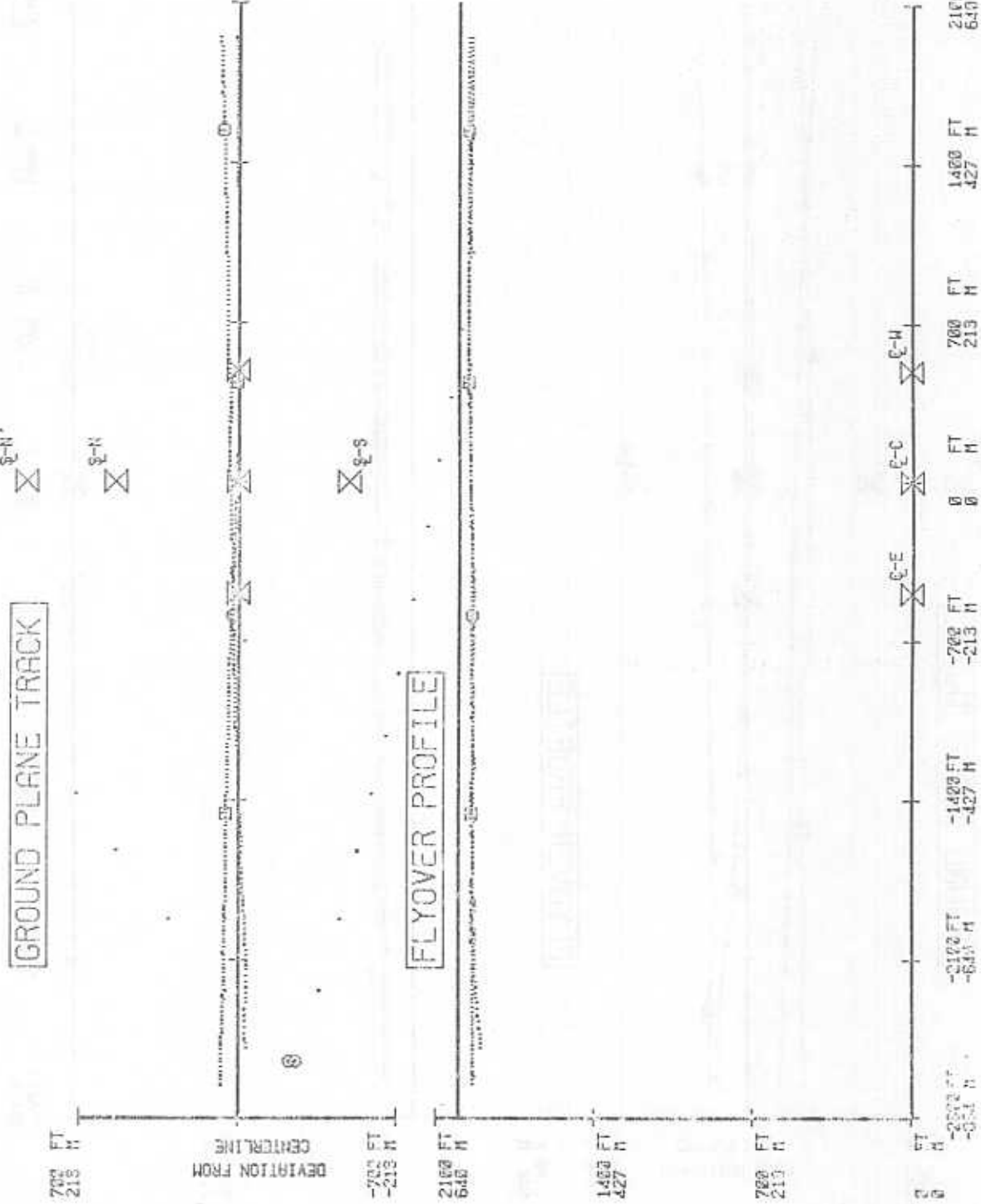


FIGURE C6-5

HELICOPTER
2E5 L
TEST DATE
JUNE 26, 1958
EVENTS
□ TSC # 18
□ TSC # 19

REFERENCE PROFILE
2019 FT



DISTANCE ALONG CENTERLINE

TABLE C6-1

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 26, 1980
206L
MIC # 1 CENTERLINE CENTER, 4 FT

FAA/AEE 120
MAR 12, 1981

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|--------|---------------|---------------|---------|-------------|----------|--------|--------|------------|
| 1 F-E | 5:41:48.5 | 5:41:48.3 | 30.3 | 0.2 | 106.5 | 231.6 | 257.6 | 116.0 |
| 2 F-W | 5:44:7.0 | 5:44:6.8 | -97.2 | -0.5 | 121.9 | 248.6 | 266.2 | 110.9 |
| 3 F-E | 5:46:57.0 | 5:46:56.7 | 154.3 | 0.8 | 108.7 | 232.4 | 338.1 | 136.6 |
| 4 F-W | 5:49:18.5 | 5:49:18.2 | 132.7 | 0.6 | 127.1 | 222.8 | 342.0 | 139.3 |
| 5 F-E | 5:52:30.5 | 5:52:29.9 | -102.5 | -0.5 | 117.4 | 546.8 | 678.7 | 126.3 |
| 6 F-W | 5:55:25.5 | 5:55:24.8 | 115.2 | 0.5 | 127.5 | 625.9 | 777.8 | 126.4 |
| 7 F-E | 5:58:43.0 | 5:58:47.5 | -38.0 | -0.2 | 113.0 | 588.0 | 614.2 | 106.5 |
| 8 F-W | 6:1:34.0 | 6:1:33.1 | 32.3 | 0.2 | 122.5 | 608.5 | 996.7 | 142.4 |
| 9 F-E | 6:7:14.5 | 6:7:13.7 | 29.5 | 0.1 | 112.8 | 332.5 | 909.4 | 104.0 |
| 10 F-W | 6:10:9.5 | 6:10:8.1 | 303.2 | 1.3 | 122.8 | 868.7 | 1581.7 | 146.7 |
| 11 F-E | 6:14:2.0 | 6:14:1.1 | 275.7 | 1.4 | 111.2 | 921.1 | 991.3 | 111.7 |
| 12 F-W | 6:18:11.0 | 6:18:10.2 | -32.3 | -0.2 | 125.7 | 914.5 | 920.1 | 96.3 |
| 13 F-E | 6:22:23.5 | 6:22:22.2 | 113.5 | 0.6 | 111.6 | 1331.3 | 1456.2 | 113.9 |
| 14 F-W | 6:26:23.0 | 6:26:21.6 | 111.8 | 0.5 | 122.5 | 1366.8 | 1634.5 | 121.6 |
| 15 F-E | 6:32:14.0 | 6:32:12.7 | 174.2 | 0.9 | 110.6 | 1353.4 | 1490.3 | 114.7 |
| 16 F-W | 6:36:13.0 | 6:36:11.6 | 163.7 | 0.7 | 126.8 | 1358.6 | 1572.8 | 118.0 |
| 18 F-W | 6:45:20.0 | 6:45:18.3 | 115.2 | 0.5 | 127.0 | 1946.8 | 1947.2 | 89.6 |
| 19 F-E | 6:49:31.0 | 6:49:28.9 | 71.5 | 0.4 | 111.3 | 1945.5 | 2328.7 | 123.3 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C.6-2

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 26, 1980

FAA/AEE 120

206L

MAR 12, 1981

MIC # 2 CENTERLINE WEST, 4 FT

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|--------|---------------|---------------|---------|-------------|----------|--------|--------|------------|
| 1 F-E | 5:41:46.0 | 5:41:45.8 | 3.5 | 0.0 | 106.7 | 230.3 | 240.5 | 106.7 |
| 2 F-E | 5:44:09.0 | 5:44:08.7 | 0.3 | 0.0 | 121.6 | 247.2 | 308.3 | 126.8 |
| 3 F-E | 5:46:55.0 | 5:46:54.8 | 41.7 | 0.2 | 108.9 | 225.9 | 251.0 | 115.9 |
| 4 F-E | 5:49:21.5 | 5:49:21.3 | 90.0 | 0.4 | 126.5 | 227.9 | 246.7 | 112.5 |
| 5 F-E | 5:52:29.0 | 5:52:28.5 | -143.0 | -0.7 | 116.8 | 553.3 | 586.6 | 109.4 |
| 6 F-E | 5:55:29.5 | 5:55:29.0 | 8.2 | 0.0 | 128.4 | 622.7 | 625.8 | 95.7 |
| 7 F-E | 5:58:45.0 | 5:58:44.4 | 50.5 | 0.3 | 112.5 | 590.0 | 640.3 | 112.9 |
| 8 F-E | 6:01:37.0 | 6:01:36.2 | -9.8 | -0.0 | 127.6 | 608.0 | 863.2 | 135.6 |
| 9 F-E | 6:07:11.0 | 6:07:10.1 | -5.0 | -0.0 | 113.1 | 381.2 | 970.7 | 114.8 |
| 10 F-E | 6:10:16.0 | 6:10:15.2 | 43.2 | 0.2 | 126.8 | 860.2 | 917.8 | 103.7 |
| 11 F-E | 6:13:59.0 | 6:13:58.1 | 273.5 | 1.4 | 111.6 | 902.9 | 1004.0 | 115.9 |
| 12 F-E | 6:18:11.5 | 6:18:10.6 | -32.7 | -0.1 | 126.2 | 915.0 | 1048.2 | 119.2 |
| 13 F-E | 6:22:20.0 | 6:22:19.6 | -79.7 | -0.4 | 112.0 | 1326.6 | 1545.2 | 120.8 |
| 14 F-E | 6:26:25.5 | 6:26:24.1 | 351.2 | 1.6 | 123.4 | 1381.3 | 1598.2 | 120.2 |
| 15 F-E | 6:32:11.0 | 6:32:09.7 | 12.2 | 0.1 | 111.4 | 1343.1 | 1526.1 | 118.0 |
| 16 F-E | 6:36:12.0 | 6:36:10.2 | 282.0 | 1.3 | 126.4 | 1392.7 | 2066.0 | 137.6 |
| 18 F-E | 6:45:20.0 | 6:45:18.2 | 115.2 | 0.5 | 127.0 | 1951.0 | 2012.3 | 104.2 |
| 19 F-E | 6:49:29.0 | 6:49:27.0 | 179.3 | 0.9 | 111.5 | 1952.3 | 2257.2 | 120.1 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C6-3

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 26, 1980
206L

FAA/AEE 120
MAR 12, 1981

MIC # 3 CENTERLINE EAST, 4 FT

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|-------|---------------|---------------|---------|-------------|----------|--------|--------|------------|
| 1 | 5:41:52.5 | 5:41:52.3 | 104.7 | 0.6 | 105.8 | 232.9 | 259.9 | 63.6 |
| 2 | 5:44: 5.5 | 5:44: 5.3 | -70.7 | -0.3 | 122.1 | 251.6 | 268.2 | 69.8 |
| 3 | 5:47: 1.5 | 5:47: 1.3 | 141.5 | 0.7 | 107.9 | 241.9 | 260.6 | 68.2 |
| 4 | 5:49:17.5 | 5:49:17.3 | 83.0 | 0.4 | 127.0 | 216.7 | 220.7 | 79.1 |
| 5 | 5:52:36.0 | 5:52:35.5 | 30.5 | 0.1 | 117.0 | 540.9 | 580.5 | 68.7 |
| 6 | 5:55:26.0 | 5:55:25.4 | 74.0 | 0.3 | 123.0 | 624.5 | 648.0 | 74.5 |
| 7 | 5:58:52.5 | 5:58:52.0 | 23.5 | 0.1 | 113.1 | 587.3 | 620.1 | 71.3 |
| 8 | 6: 1:34.0 | 6: 1:33.4 | 33.3 | 0.2 | 128.5 | 606.5 | 649.3 | 111.0 |
| 9 | 6: 7:18.0 | 6: 7:17.2 | 61.3 | 0.3 | 112.1 | 836.5 | 887.0 | 91.9 |
| 11 | 6:14: 8.0 | 6:14: 7.2 | 32.5 | 0.2 | 109.9 | 934.8 | 966.8 | 75.2 |
| 12 | 6:18:10.0 | 6:18: 9.2 | -45.2 | -0.2 | 126.0 | 918.3 | 934.0 | 70.5 |
| 13 | 6:22:29.0 | 6:22:27.0 | 84.7 | 0.4 | 110.7 | 1308.8 | 1338.9 | 90.7 |
| 14 | 6:26:29.0 | 6:26:23.2 | 277.0 | 1.3 | 124.6 | 1355.0 | 1356.8 | 87.1 |
| 15 | 6:32:23.0 | 6:32:21.7 | 78.8 | 0.4 | 102.0 | 1561.2 | 1466.2 | 68.2 |
| 16 | 6:36: 9.5 | 6:36:59.7 | -238.0 | -1.1 | 128.1 | 1383.4 | 3138.9 | 153.8 |
| 18 | 6:45:18.5 | 6:45:16.0 | 137.3 | 0.6 | 126.3 | 1940.2 | 1940.8 | 84.3 |
| 19 | 6:49:41.0 | 6:49:39.3 | 56.5 | 0.3 | 112.7 | 1935.9 | 1943.5 | 84.9 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C6-4

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 26, 1980

FAA/AEE 120

206L

MAR 12, 1981

MIC # 4 SIDELINE NORTH, 4 FT

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG | |
|-------|---------------|---------------|-----------|-------------|----------|--------|--------|------------|-------|
| 1 | F-E | 5:41:48.5 | 5:41:48.0 | 30.3 | 0.2 | 109.5 | 586.6 | 608.3 | 105.5 |
| 2 | F-W | 5:44: 7.5 | 5:44: 7.0 | -97.3 | -0.5 | 121.6 | 565.1 | 566.5 | 94.1 |
| 3 | F-E | 5:46:58.5 | 5:46:58.0 | 205.7 | 1.1 | 108.2 | 532.2 | 532.2 | 90.5 |
| 4 | F-W | 5:49:18.0 | 5:49:17.4 | 106.8 | 0.5 | 127.2 | 551.7 | 699.4 | 127.9 |
| 5 | F-E | 5:52:30.5 | 5:52:29.7 | -103.5 | -0.5 | 117.4 | 795.8 | 918.0 | 119.9 |
| 6 | F-W | 5:55:25.0 | 5:55:24.2 | 133.3 | 0.6 | 127.7 | 697.3 | 911.1 | 130.1 |
| 7 | F-E | 5:58:48.0 | 5:58:47.3 | -38.0 | -0.2 | 113.3 | 766.0 | 789.3 | 104.0 |
| 8 | F-W | 6: 1:38.0 | 6: 1:37.4 | -7.2 | -0.0 | 127.9 | 721.0 | 729.7 | 81.1 |
| 9 | F-E | 6: 7:13.5 | 6: 7:12.5 | 32.8 | 0.2 | 112.7 | 1053.4 | 1142.2 | 112.7 |
| 10 | F-W | 6:10:15.0 | 6:10:14.2 | 49.5 | 0.2 | 127.0 | 950.4 | 951.0 | 91.9 |
| 11 | F-E | 6:14: 1.5 | 6:14: 0.4 | 290.2 | 1.5 | 111.3 | 1156.3 | 1251.3 | 112.5 |
| 12 | F-W | 6:18:11.5 | 6:18:10.6 | -32.7 | -0.1 | 128.2 | 970.6 | 970.8 | 91.2 |
| 13 | F-E | 6:22:22.5 | 6:22:21.1 | 81.0 | 0.4 | 112.3 | 1410.4 | 1626.9 | 119.9 |
| 14 | F-W | 6:26:25.5 | 6:26:24.3 | 351.2 | 1.6 | 123.4 | 1254.0 | 1379.6 | 101.1 |
| 15 | F-E | 6:32:12.5 | 6:32:10.9 | 105.8 | 0.5 | 110.7 | 1500.1 | 1782.7 | 122.7 |
| 16 | F-W | 6:36:16.5 | 6:36:15.3 | 73.0 | 0.3 | 125.2 | 1399.1 | 1399.1 | 89.6 |
| 18 | F-E | 6:45:18.5 | 6:45:16.7 | 137.3 | 0.6 | 126.3 | 1999.4 | 2024.5 | 99.0 |
| 19 | F-W | 6:49:31.0 | 6:49:28.9 | 71.5 | 0.4 | 111.3 | 2605.2 | 2383.5 | 122.7 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C6-5

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 26, 1980
206L

FAA/AEE 120
MAR 12, 1981

MIC # 5 SIDELINE SOUTH, 4 FT

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|--------|---------------|---------------|---------|-------------|----------|--------|--------|------------|
| 1 F-E | 5:41:49.5 | 5:41:49.0 | 11.8 | 0.1 | 106.4 | 543.6 | 543.6 | 89.1 |
| 3 F-E | 5:46:58.5 | 5:46:58.0 | 205.7 | 1.1 | 108.2 | 555.8 | 555.3 | 90.0 |
| 4 F-W | 5:49:19.0 | 5:49:18.5 | 139.3 | 0.6 | 127.0 | 528.1 | 566.4 | 111.2 |
| 5 F-E | 5:52:33.0 | 5:52:32.4 | -103.0 | -0.5 | 117.5 | 609.1 | 677.9 | 80.8 |
| 6 F-W | 5:55:25.0 | 5:55:25.1 | 74.0 | 0.3 | 122.0 | 834.0 | 968.2 | 114.1 |
| 7 F-E | 5:58:49.5 | 5:58:48.8 | -30.0 | -0.2 | 113.1 | 762.5 | 772.0 | 84.5 |
| 8 F-W | 6:1:36.0 | 6:1:35.2 | 11.8 | 0.1 | 127.4 | 830.5 | 905.5 | 112.0 |
| 9 F-E | 6:7:15.0 | 6:7:15.2 | 67.7 | 0.3 | 113.3 | 965.5 | 967.1 | 86.7 |
| 10 F-W | 6:10:16.5 | 6:10:15.6 | 23.7 | 0.1 | 126.9 | 1044.0 | 1078.7 | 75.4 |
| 11 F-E | 6:14:3.5 | 6:14:2.7 | 218.0 | 1.1 | 110.3 | 918.4 | 924.4 | 95.5 |
| 12 F-W | 6:18:9.5 | 6:18:8.4 | -56.2 | -0.3 | 125.7 | 1102.2 | 1201.0 | 113.4 |
| 13 F-E | 6:22:26.5 | 6:22:25.2 | 150.8 | 0.8 | 110.6 | 1427.9 | 1428.3 | 91.3 |
| 14 F-W | 6:26:24.0 | 6:26:22.5 | 250.0 | 1.1 | 124.3 | 1545.0 | 1622.6 | 113.3 |
| 15 F-E | 6:32:19.0 | 6:32:11.6 | 147.8 | 0.8 | 111.0 | 1377.5 | 1611.3 | 121.3 |
| 16 F-W | 6:36:14.0 | 6:36:12.6 | 45.2 | 0.2 | 126.1 | 1543.5 | 1629.7 | 108.7 |
| 18 F-W | 6:45:17.0 | 6:45:15.1 | 166.5 | 0.7 | 126.4 | 2016.6 | 2115.6 | 107.6 |
| 19 F-E | 6:49:37.0 | 6:49:35.2 | -107.7 | -1.0 | 112.5 | 2026.2 | 2010.0 | 93.0 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C6-6

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 26, 1980
206L

FAA/AEE 120
MAR 12, 1981

MIC # 6 SIDELINE NORTH, 4 FT

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|--------|---------------|---------------|---------|-------------|----------|--------|--------|------------|
| 1 F-E | 5:41:47.5 | 5:41:46.6 | 25.7 | 0.1 | 106.9 | 959.2 | 1038.5 | 112.5 |
| 2 F-E | 5:44:08.0 | 5:44:07.1 | -70.0 | -0.3 | 121.9 | 978.6 | 978.6 | 90.2 |
| 3 F-E | 5:46:56.5 | 5:46:55.6 | 134.2 | 0.7 | 109.0 | 946.8 | 1055.3 | 116.2 |
| 4 F-E | 5:49:18.5 | 5:49:17.6 | 132.7 | 0.6 | 127.1 | 969.6 | 1041.9 | 111.5 |
| 5 F-E | 5:52:30.5 | 5:52:29.4 | -108.5 | -0.5 | 117.4 | 1157.6 | 1275.0 | 114.8 |
| 6 F-E | 5:55:27.5 | 5:55:26.6 | -50.7 | -0.2 | 127.6 | 939.5 | 991.6 | 93.7 |
| 7 F-E | 5:58:46.5 | 5:58:45.4 | 7.2 | 0.0 | 112.9 | 1009.8 | 1232.2 | 116.8 |
| 8 F-E | 6:01:38.0 | 6:01:37.1 | -7.2 | -0.0 | 127.3 | 1030.5 | 1031.8 | 87.1 |
| 9 F-E | 6:07:13.5 | 6:07:12.2 | 32.8 | 0.2 | 112.7 | 1246.5 | 1428.9 | 109.6 |
| 10 F-E | 6:10:15.0 | 6:10:13.9 | 49.5 | 0.2 | 127.0 | 1202.0 | 1204.3 | 93.9 |
| 11 F-E | 6:14:02.5 | 6:14:01.2 | 246.5 | 1.3 | 111.4 | 1476.9 | 1509.3 | 101.9 |
| 12 F-E | 6:18:11.5 | 6:18:10.4 | -32.7 | -0.1 | 126.2 | 1202.0 | 1204.0 | 93.3 |
| 13 F-E | 6:22:29.5 | 6:22:24.1 | 161.0 | 0.8 | 111.1 | 1609.5 | 1625.4 | 98.0 |
| 14 F-E | 6:26:26.0 | 6:26:24.7 | 421.3 | 1.9 | 123.0 | 1486.9 | 1498.7 | 97.2 |
| 15 F-E | 6:32:16.0 | 6:32:14.4 | 201.5 | 1.0 | 109.7 | 1741.3 | 1766.5 | 99.7 |
| 16 F-E | 6:36:16.5 | 6:36:15.1 | 73.0 | 0.3 | 125.2 | 1546.6 | 1547.2 | 91.6 |
| 17 F-E | 6:45:19.0 | 6:45:17.1 | 178.3 | 0.8 | 127.1 | 2142.7 | 2156.5 | 96.5 |
| 18 F-E | 6:49:31.5 | 6:49:29.3 | 40.0 | 0.2 | 111.5 | 2153.6 | 2473.4 | 119.5 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C6-7

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 26, 1980
206L

FAA/AEE 120
MAR 12, 1981

MIC #1G CENTERLINE CENTER, GROUND

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|--------|---------------|---------------|---------|-------------|----------|--------|--------|------------|
| 1 F-E | 5:41:48.5 | 5:41:48.3 | 30.3 | 0.2 | 106.5 | 235.6 | 261.2 | 115.6 |
| 2 F-W | 5:44:7.0 | 5:44:6.8 | -97.2 | -0.5 | 121.9 | 252.6 | 270.7 | 111.1 |
| 3 F-E | 5:46:57.0 | 5:46:56.7 | 154.3 | 0.8 | 108.7 | 236.4 | 340.8 | 136.1 |
| 4 F-W | 5:49:18.5 | 5:49:18.2 | 132.7 | 0.6 | 127.1 | 226.8 | 344.6 | 138.8 |
| 5 F-E | 5:52:30.5 | 5:52:29.9 | -103.5 | -0.5 | 117.4 | 550.7 | 681.3 | 126.1 |
| 6 F-W | 5:55:20.5 | 5:55:25.9 | 29.2 | 0.1 | 122.1 | 629.8 | 670.4 | 119.1 |
| 7 F-E | 5:58:46.5 | 5:58:45.8 | 7.2 | 0.0 | 112.9 | 592.9 | 765.4 | 129.2 |
| 8 F-W | 6:1:35.5 | 6:1:34.8 | 20.0 | 0.1 | 127.1 | 612.5 | 745.8 | 124.3 |
| 9 F-E | 6:7:14.5 | 6:7:13.7 | 29.5 | 0.1 | 112.8 | 886.5 | 913.7 | 104.0 |
| 10 F-W | 6:10:9.0 | 6:10:7.5 | 315.5 | 1.4 | 123.6 | 872.6 | 1094.8 | 149.0 |
| 11 F-E | 6:14:1.5 | 6:14:0.6 | 290.2 | 1.5 | 111.3 | 925.0 | 1036.0 | 116.8 |
| 12 F-W | 6:18:9.0 | 6:18:8.1 | -21.2 | -0.4 | 125.4 | 918.5 | 1076.4 | 121.4 |
| 13 F-E | 6:22:22.5 | 6:22:21.1 | 81.0 | 0.4 | 112.3 | 1335.3 | 1556.0 | 120.9 |
| 14 F-W | 6:26:23.5 | 6:26:22.1 | 330.7 | 1.1 | 122.6 | 1270.7 | 1559.5 | 118.5 |
| 15 F-E | 6:32:13.5 | 6:32:12.1 | 120.3 | 0.9 | 111.3 | 1357.4 | 1541.3 | 118.3 |
| 16 F-W | 6:36:8.5 | 6:36:6.4 | 61.0 | 0.3 | 122.3 | 1292.6 | 2316.9 | 143.1 |
| 18 F-E | 6:45:14.5 | 6:45:12.5 | 161.0 | 0.7 | 125.0 | 1950.8 | 2229.9 | 121.6 |
| 19 F-E | 6:49:32.0 | 6:49:30.0 | 21.3 | 0.1 | 111.5 | 1940.5 | 2228.5 | 119.0 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C6-8

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 26, 1980
206L

FAA/AEE 120
MAR 12, 1981

MIC #1H CENTERLINE CENTER, 33FT

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|--------|---------------|---------------|---------|-------------|----------|--------|--------|------------|
| 1 F-E | 5:41:49.0 | 5:41:48.8 | 16.0 | 0.1 | 106.7 | 202.6 | 203.2 | 94.4 |
| 2 F-E | 5:44:06.5 | 5:44:06.2 | -40.8 | -0.2 | 121.9 | 219.7 | 303.1 | 133.6 |
| 3 F-E | 5:46:57.0 | 5:46:56.7 | 154.3 | 0.8 | 108.7 | 203.5 | 316.6 | 140.0 |
| 4 F-E | 5:49:18.5 | 5:49:18.2 | 132.7 | 0.6 | 127.1 | 193.9 | 320.6 | 142.8 |
| 5 F-E | 5:52:30.5 | 5:52:29.9 | -108.5 | -0.5 | 117.4 | 518.3 | 653.4 | 127.5 |
| 6 F-E | 5:55:26.0 | 5:55:25.4 | 74.0 | 0.3 | 128.0 | 597.8 | 686.3 | 119.4 |
| 7 F-E | 5:58:47.5 | 5:58:47.0 | -42.5 | -0.2 | 112.9 | 559.9 | 620.9 | 115.6 |
| 8 F-E | 6:01:35.5 | 6:01:34.9 | 20.0 | 0.1 | 127.1 | 579.9 | 715.5 | 125.9 |
| 9 F-E | 6:07:13.5 | 6:07:12.7 | 32.8 | 0.2 | 112.7 | 853.7 | 951.6 | 116.2 |
| 10 F-E | 6:10:14.5 | 6:10:13.8 | 55.0 | 0.2 | 126.6 | 839.8 | 847.7 | 97.8 |
| 11 F-E | 6:14:01.5 | 6:14:00.6 | 299.2 | 1.5 | 111.3 | 893.3 | 1005.7 | 117.4 |
| 12 F-E | 6:18:09.5 | 6:18:08.6 | -56.2 | -0.3 | 125.7 | 885.0 | 987.7 | 116.2 |
| 13 F-E | 6:22:20.5 | 6:22:18.9 | -43.0 | -0.2 | 112.0 | 1302.3 | 1785.9 | 133.2 |
| 14 F-E | 6:26:23.0 | 6:26:21.6 | 111.8 | 0.5 | 122.5 | 1308.5 | 1578.5 | 122.0 |
| 15 F-E | 6:32:11.5 | 6:32:09.9 | 12.5 | 9.1 | 111.1 | 1324.7 | 1753.6 | 130.9 |
| 16 F-E | 6:36:12.5 | 6:36:11.1 | 240.7 | 1.1 | 126.5 | 1360.0 | 1602.2 | 121.0 |
| 18 F-E | 6:45:11.5 | 6:45:09.1 | 110.5 | 0.5 | 125.3 | 1917.0 | 2719.1 | 135.1 |
| 19 F-E | 6:49:29.0 | 6:49:26.7 | 179.5 | 0.9 | 111.5 | 1916.5 | 2554.7 | 131.4 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C6-9

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 26, 1980
206L

FAA/AEE 120
MAR 12, 1981

MIC #5G SIDELINE SOUTH, GROUND

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|--------|---------------|---------------|---------|-------------|----------|--------|--------|------------|
| 1 F-E | 5:41:49.0 | 5:41:48.5 | 16.0 | 0.1 | 106.7 | 545.3 | 551.9 | 98.9 |
| 2 F-W | 5:44:06.5 | 5:44:06.0 | -40.8 | -0.2 | 121.9 | 538.7 | 602.1 | 116.5 |
| 3 F-E | 5:46:58.5 | 5:46:58.0 | 205.7 | 1.1 | 108.2 | 557.4 | 557.4 | 90.0 |
| 4 F-W | 5:49:19.0 | 5:49:18.5 | 139.3 | 0.6 | 127.0 | 529.8 | 567.9 | 111.1 |
| 5 F-E | 5:52:33.0 | 5:52:32.4 | -109.0 | -0.5 | 117.5 | 672.4 | 681.0 | 80.3 |
| 6 F-W | 5:55:26.0 | 5:55:25.1 | 74.0 | 0.3 | 128.0 | 886.7 | 970.7 | 114.0 |
| 7 F-E | 5:58:49.5 | 5:58:48.8 | -30.0 | -0.2 | 113.1 | 771.6 | 775.1 | 84.6 |
| 8 F-W | 6:01:35.5 | 6:01:34.7 | 20.0 | 0.1 | 127.1 | 842.4 | 959.1 | 118.6 |
| 9 F-E | 6:07:17.5 | 6:07:16.6 | 58.8 | 0.3 | 111.8 | 969.1 | 1020.1 | 71.8 |
| 10 F-W | 6:10:09.0 | 6:10:07.4 | 315.5 | 1.4 | 128.6 | 1047.3 | 1810.8 | 144.7 |
| 11 F-E | 6:14:03.5 | 6:14:02.7 | 218.0 | 1.1 | 110.3 | 928.3 | 928.2 | 96.5 |
| 12 F-W | 6:18:09.5 | 6:18:08.4 | -56.2 | -0.3 | 125.7 | 1105.5 | 1204.9 | 113.4 |
| 13 F-E | 6:22:24.0 | 6:22:22.7 | 112.8 | 0.6 | 111.5 | 1431.6 | 1519.2 | 109.6 |
| 14 F-W | 6:26:24.0 | 6:26:22.5 | 250.0 | 1.1 | 124.3 | 1548.5 | 1685.7 | 113.3 |
| 15 F-E | 6:32:12.5 | 6:32:11.0 | 105.8 | 0.5 | 110.7 | 1981.4 | 1869.9 | 124.2 |
| 16 F-W | 6:36:09.0 | 6:36:06.9 | 177.8 | 0.8 | 126.9 | 1547.1 | 2312.0 | 138.1 |
| 18 F-W | 6:45:14.5 | 6:45:12.4 | 161.0 | 0.7 | 125.0 | 2020.5 | 2347.1 | 120.6 |
| 19 F-E | 6:49:30.0 | 6:49:27.8 | 155.7 | 0.2 | 111.2 | 2012.1 | 2504.4 | 126.5 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

1911

1912

1913

1914

1915

1916

1917

1918

1919

1920

Sub-Appendix C7 Summary

UH60A June 26, 1980

Flight Path Tracking Plots and Position Data

1. FLIGHT PATH TRACKING PLOTS

| Event No. | Plot Fig No. | Operation | | | | |
|-----------|--------------|-----------|-----|---------|--------|-----|
| 21 | C7-1 | Takeoff | | | | |
| 23 | " | " | | | | |
| 25 | " | " | | | | |
| 27 | " | " | | | | |
| 29 | " | " | | | | |
| 31 | " | " | | | | |
| 33 | C7-2 | Takeoff | | | | |
| 35 | " | " | | | | |
| 39 | " | " | | | | |
| 41 | " | " | | | | |
| 22 | C7-3 | Approach | | | | |
| 24 | " | " | | | | |
| 26 | " | " | | | | |
| 28 | " | " | | | | |
| 30 | " | " | | | | |
| 32 | " | " | | | | |
| 34 | C7-4 | Approach | | | | |
| 36 | " | " | | | | |
| 38 | " | " | | | | |
| 40 | " | " | | | | |
| 42 | " | " | | | | |
| 43 | C7-5 | 500 Ft. | LFO | 140 kts | Torque | 90% |
| 44 | " | " | | " | | |
| 45 | " | " | | " | | |
| 46 | " | " | | " | | |
| 47 | " | " | | " | | |

2. POSITION DATA TABLES

Table No.

| Table No. | Microphone |
|-----------|---------------------------------------|
| C7-1 | Mic. 1, Centerline Center 4 ft. |
| C7-2 | Mic. 1G, Centerline Center (Ground) |
| C7-3 | Mic. 1H, Centerline Center 33 ft. |
| C7-4 | Mic. 2, Centerline 150m West 4 ft. |
| C7-5 | Mic. 3, Centerline 150m East 4 ft. |
| C7-6 | Mic. 4, Sideline 164m North 4 ft. |
| C7-7 | Mic. 5, Sideline 150m South 4 ft. |
| C7-8 | Mic. 5G, Sideline 150m South (Ground) |
| C7-9 | Mic. 6, Sideline 284m North 4 ft. |

FIGURE C7-1

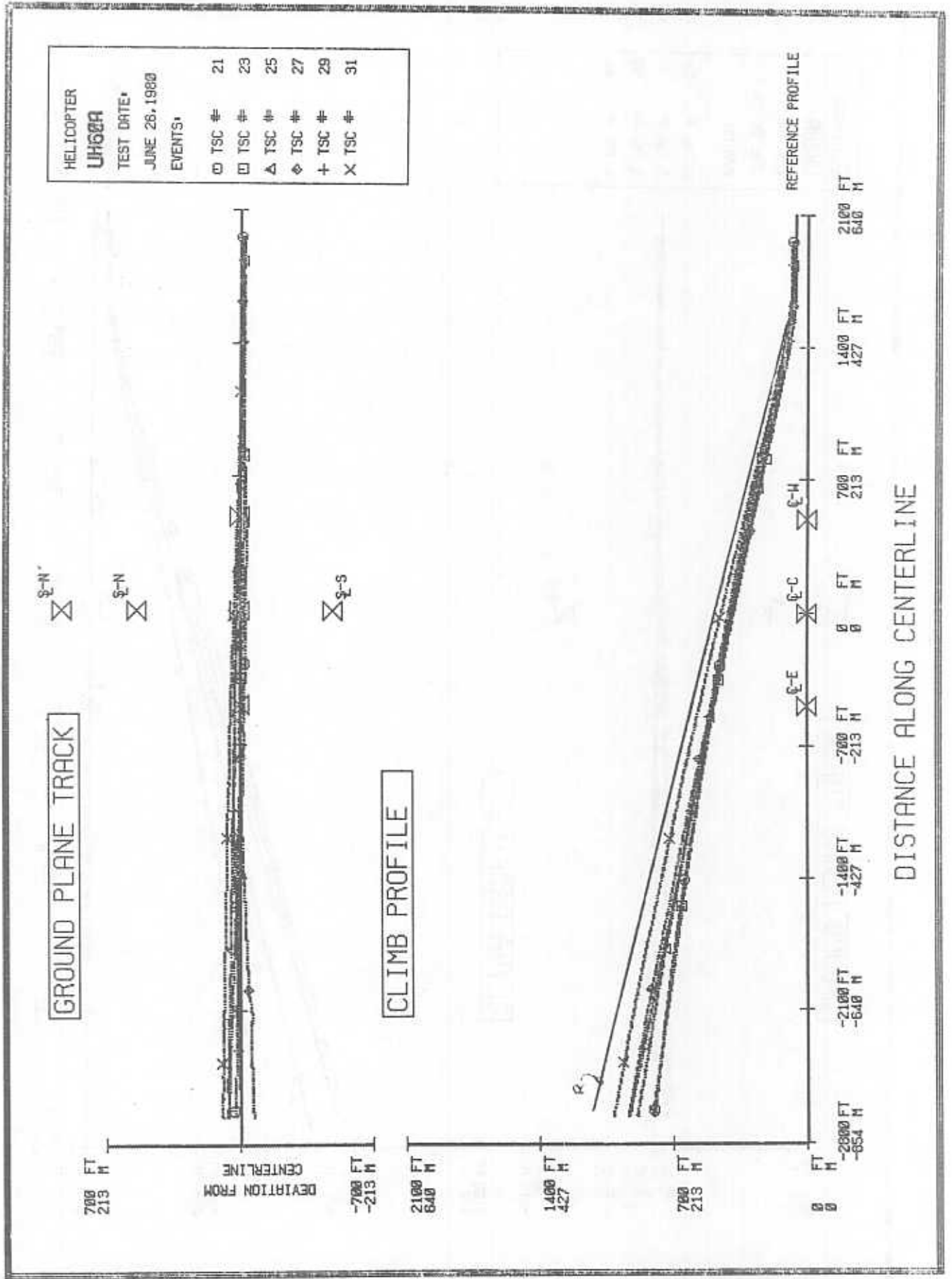


FIGURE C7-2

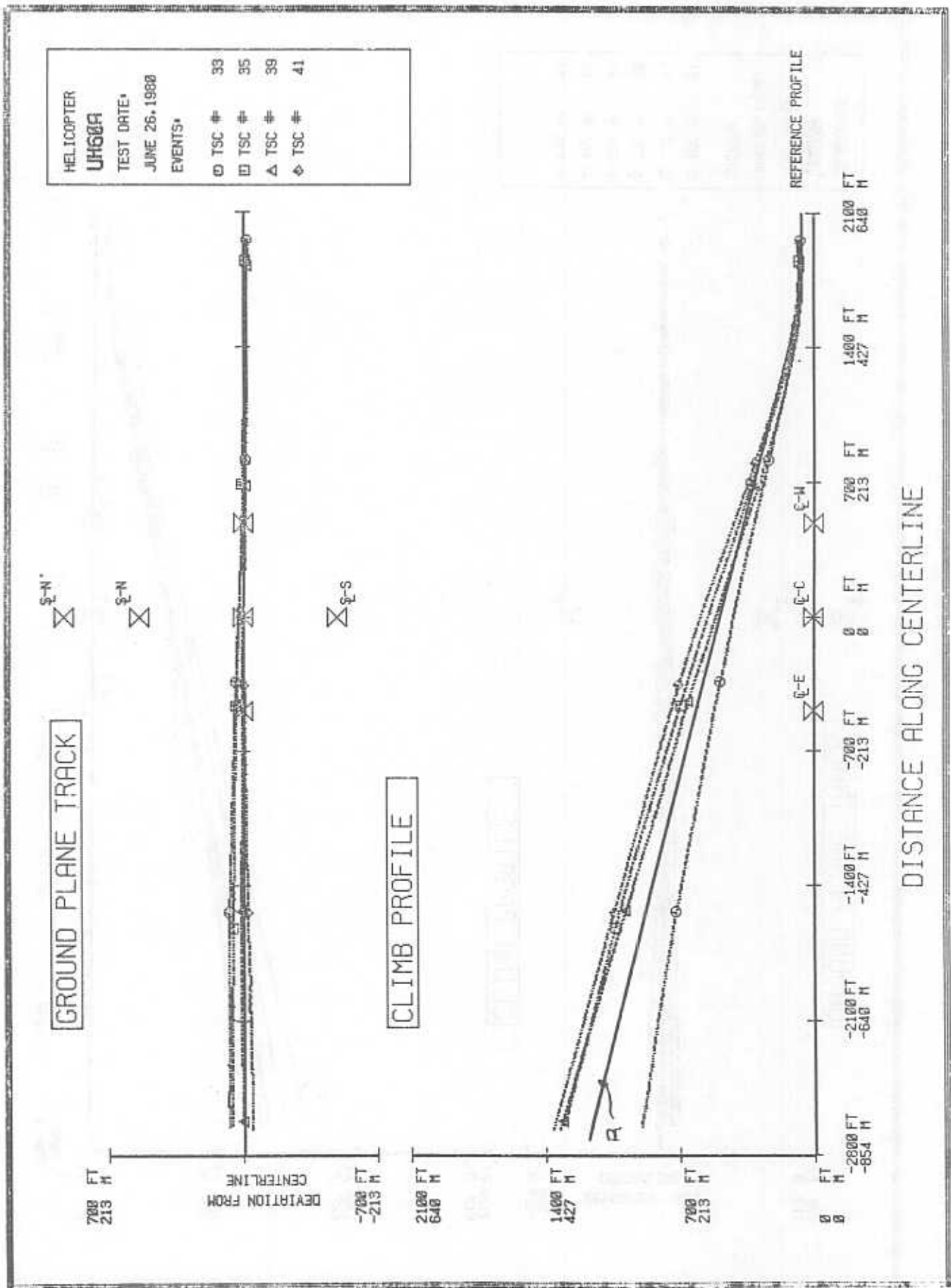


FIGURE C7-3

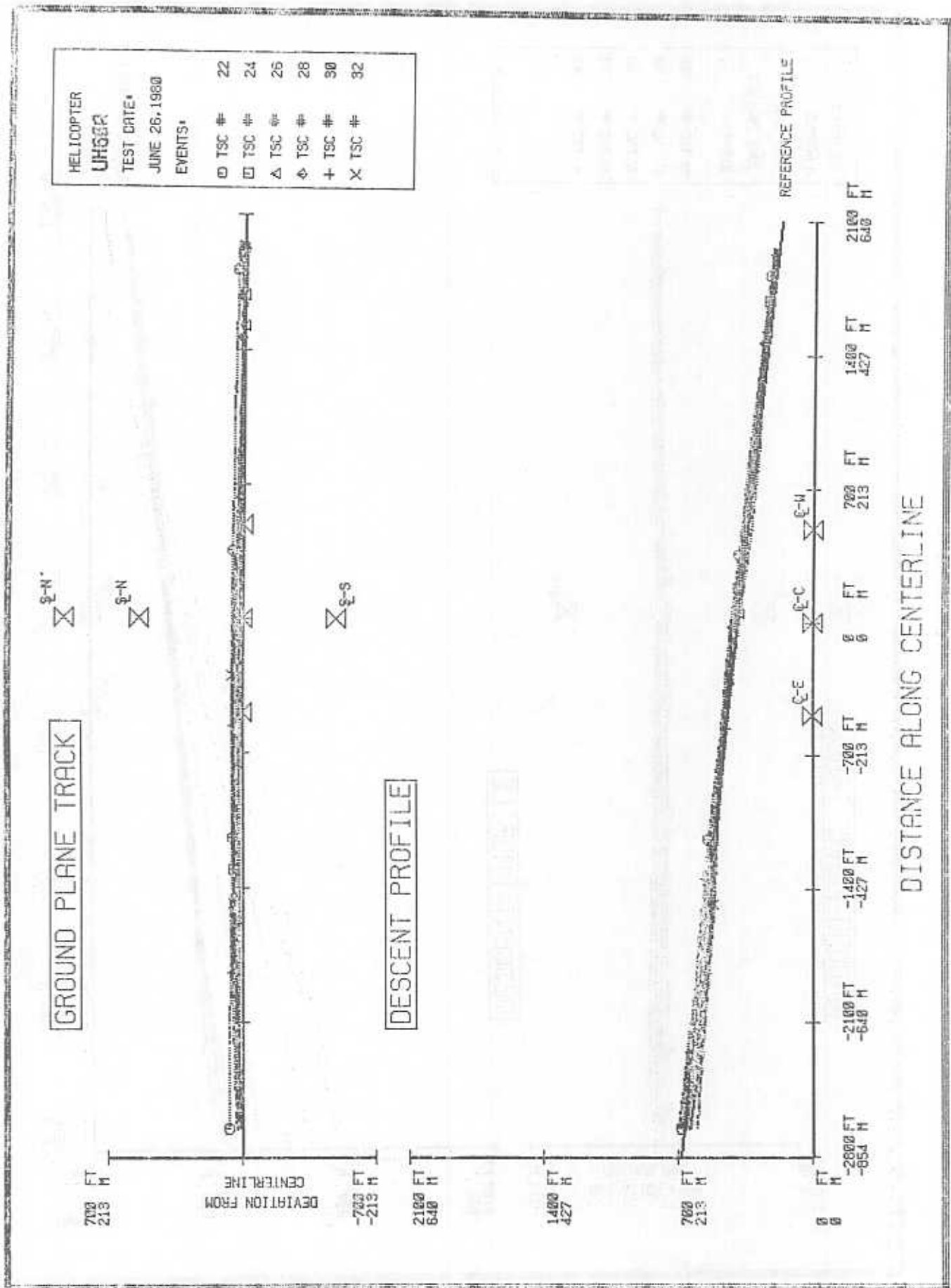


FIGURE C7-4

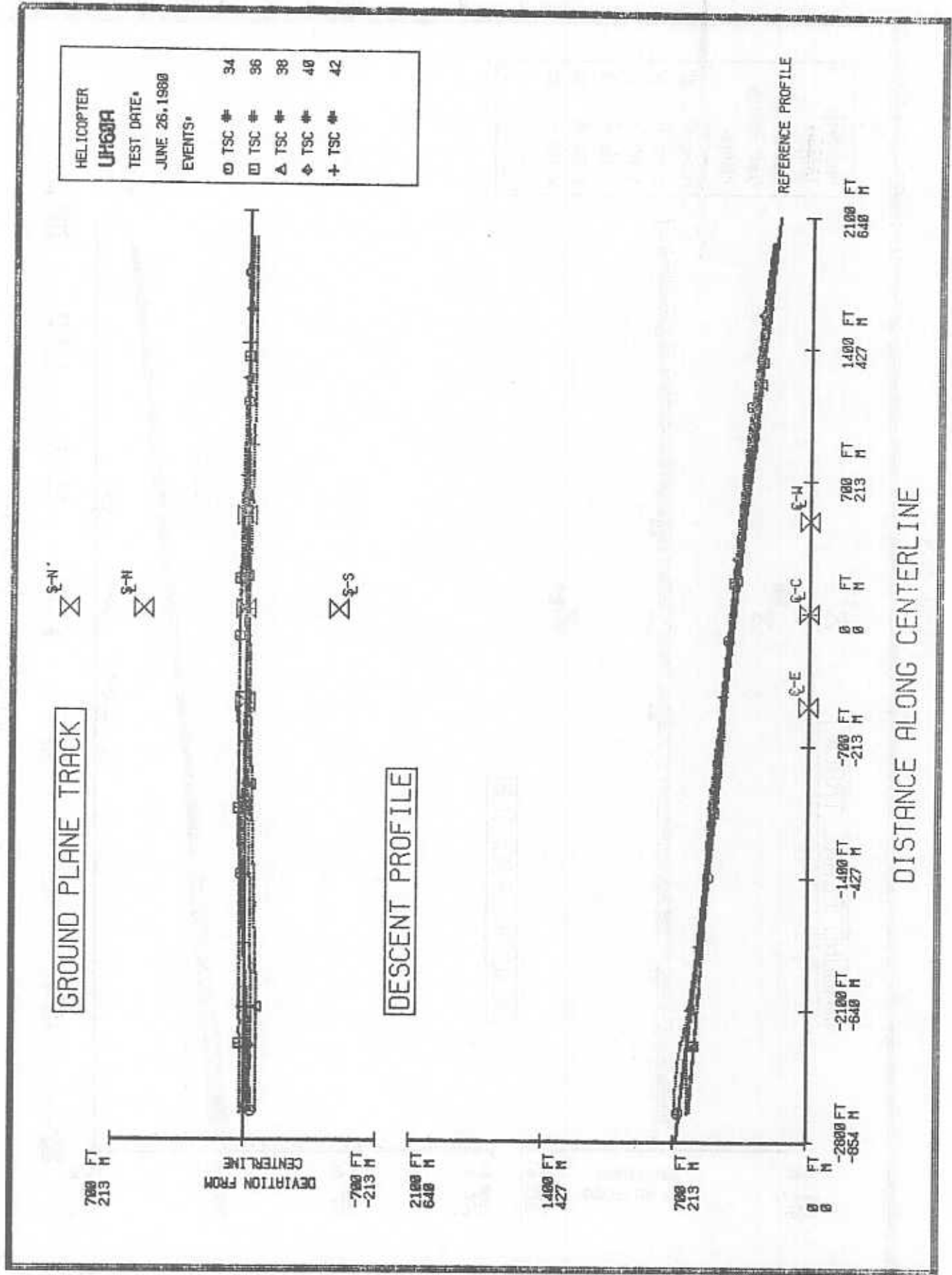


FIGURE C7-5

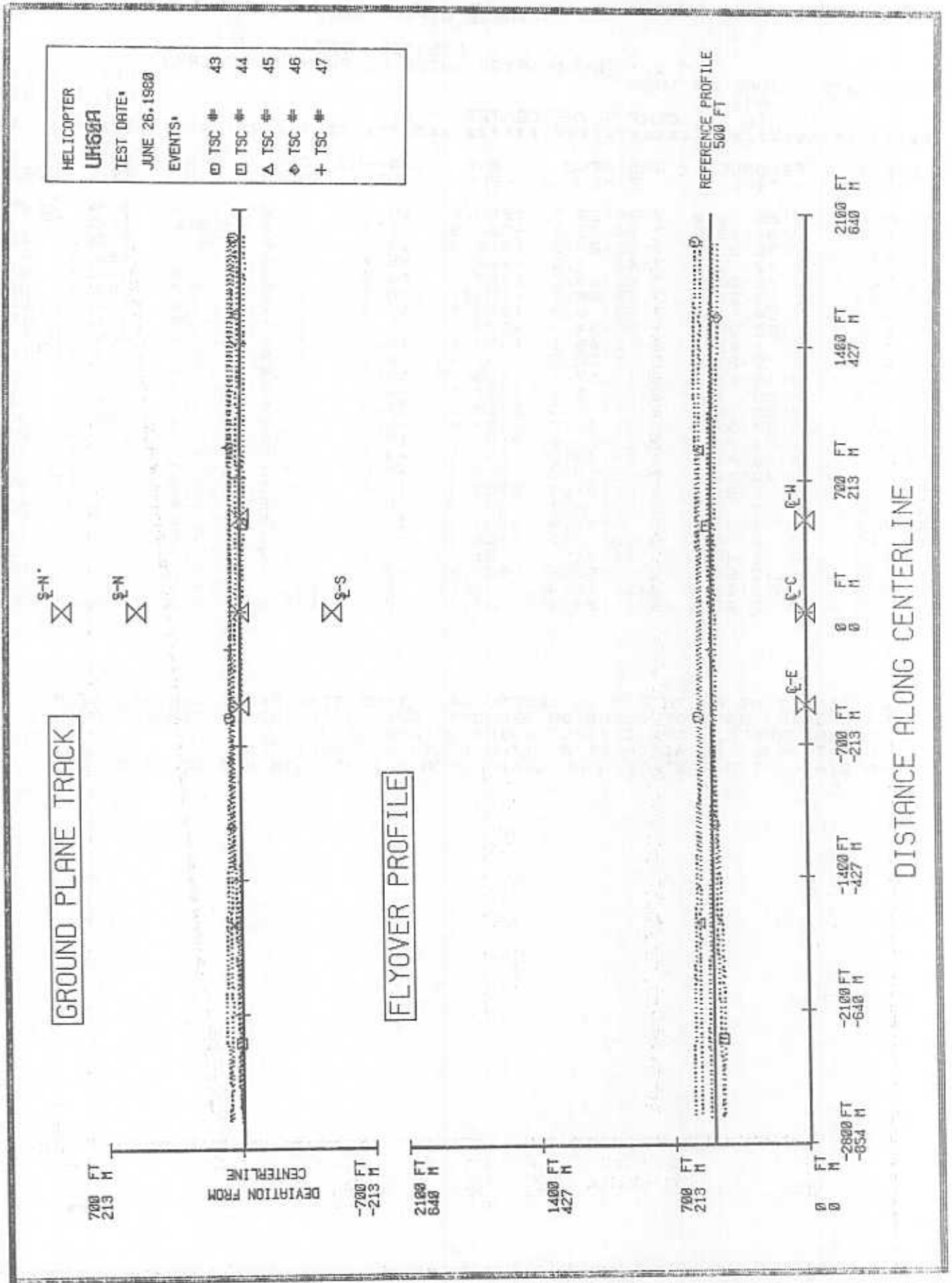


TABLE C7-1

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 26, 1980

UH60A

MIC # 1 CENTERLINE CENTER, 4 FT

FAA/AEE 120

MAR 12, 1981

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|--------|---------------|---------------|---------|-------------|----------|--------|-------|------------|
| 21 DEP | 7:26:30.0 | 7:26:29.7 | 1259.2 | 10.7 | 65.8 | 388.9 | 395.7 | 100.6 |
| 22 ARR | 7:34:42.5 | 7:34:42.1 | -922.5 | -5.9 | 88.2 | 420.8 | 440.5 | 107.2 |
| 23 DEP | 7:38:27.5 | 7:38:27.2 | 1449.3 | 11.7 | 89.0 | 370.1 | 370.6 | 92.8 |
| 24 ARR | 7:42:5.0 | 7:42:4.6 | -900.5 | -5.7 | 83.4 | 403.3 | 428.3 | 100.7 |
| 25 DEP | 7:45:30.0 | 7:45:29.7 | 1463.2 | 11.5 | 71.3 | 381.9 | 390.2 | 101.0 |
| 26 ARR | 7:50:57.0 | 7:50:56.7 | -1057.1 | -6.8 | 87.7 | 377.7 | 393.0 | 108.0 |
| 27 DEP | 7:54:1.0 | 7:54:0.7 | 1522.7 | 12.3 | 71.7 | 374.8 | 376.4 | 95.3 |
| 28 ARR | 7:58:35.0 | 7:58:34.6 | -803.7 | -5.6 | 90.1 | 404.8 | 431.4 | 119.2 |
| 29 DEP | 8:1:48.5 | 8:1:48.1 | 1382.5 | 10.8 | 73.0 | 397.0 | 406.6 | 101.4 |
| 30 ARR | 8:7:23.0 | 8:7:22.6 | -791.0 | -5.4 | 76.5 | 390.0 | 407.7 | 126.9 |
| 31 DEP | 8:18:17.5 | 8:18:17.1 | 1676.2 | 13.6 | 68.4 | 430.9 | 435.1 | 97.9 |
| 32 ARR | 8:23:1.5 | 8:23:1.1 | -611.5 | -5.1 | 87.7 | 403.5 | 407.7 | 125.8 |
| 33 DEP | 8:26:9.0 | 8:26:8.6 | 1412.3 | 11.5 | 68.8 | 406.0 | 411.5 | 80.0 |
| 34 ARR | 8:30:37.0 | 8:30:36.5 | -407.0 | -3.2 | 73.0 | 411.4 | 558.3 | 132.5 |
| 35 DEP | 8:34:22.5 | 8:34:22.0 | 2163.3 | 17.3 | 69.7 | 519.4 | 592.6 | 61.2 |
| 36 ARR | 8:39:48.5 | 8:39:47.9 | -525.5 | -4.1 | 71.7 | 403.2 | 646.6 | 140.9 |
| 38 ARR | 8:49:11.0 | 8:49:10.6 | -572.6 | -5.0 | 84.1 | 396.5 | 498.5 | 127.3 |
| 39 DEP | 8:52:21.5 | 8:52:21.1 | 2153.3 | 17.8 | 86.5 | 421.9 | 455.7 | 97.3 |
| 40 ARR | 8:57:6.5 | 8:57:6.1 | -373.5 | -6.2 | 78.6 | 404.6 | 445.3 | 114.8 |
| 41 DEP | 9:0:44.5 | 9:0:44.0 | 2221.2 | 17.8 | 88.5 | 551.6 | 614.4 | 63.8 |
| 42 ARR | 9:6:4.5 | 9:6:4.1 | -756.5 | -5.0 | 76.8 | 403.5 | 459.0 | 118.5 |
| 44 F-W | 9:11:42.0 | 9:11:41.4 | 451.0 | 1.8 | 166.7 | 500.2 | 649.2 | 129.6 |
| 45 F-E | 9:13:54.5 | 9:13:53.8 | -102.8 | -0.4 | 149.1 | 549.7 | 740.0 | 132.6 |
| 46 F-U | 9:16:13.0 | 9:16:17.4 | -9.5 | -0.0 | 157.9 | 473.5 | 664.5 | 134.4 |
| 47 F-E | 9:18:36.0 | 9:18:35.4 | 32.7 | 0.1 | 148.8 | 404.9 | 733.6 | 137.6 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
 R/C: AIRCRAFT SPEED RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C7-2

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 26, 1980
UH60A
MIC #1G CENTERLINE CENTER, GROUND

FAA/AEE 120
JAN 17, 1981

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|--------|---------------|---------------|---------|-------------|----------|--------|-------|------------|
| 21 DEP | 7:26:29.0 | 7:26:28.6 | 1259.2 | 10.7 | 65.7 | 392.8 | 439.9 | 116.8 |
| 22 ARR | 7:34:42.0 | 7:34:41.6 | -879.2 | -5.6 | 88.9 | 424.7 | 475.6 | 116.7 |
| 23 DEP | 7:38:29.5 | 7:38:29.1 | 1439.8 | 11.7 | 68.8 | 374.6 | 427.7 | 61.0 |
| 24 ARR | 7:42:4.5 | 7:42:4.1 | -901.7 | -5.9 | 88.4 | 407.3 | 463.0 | 113.4 |
| 25 DEP | 7:45:30.0 | 7:45:29.7 | 1468.2 | 11.5 | 71.3 | 385.8 | 394.1 | 101.8 |
| 26 ARR | 7:50:57.0 | 7:50:56.6 | -1057.1 | -6.9 | 87.7 | 381.6 | 403.4 | 108.9 |
| 27 DEP | 7:54:0.5 | 7:54:0.2 | 1590.3 | 12.3 | 71.8 | 378.7 | 392.7 | 105.4 |
| 28 ARR | 7:58:35.5 | 7:58:35.1 | -962.7 | -5.4 | 89.9 | 408.8 | 416.1 | 109.7 |
| 29 DEP | 8:1:40.0 | 8:1:47.6 | 1385.7 | 10.6 | 73.0 | 401.0 | 425.3 | 109.5 |
| 30 ARR | 8:7:23.0 | 8:7:22.6 | -731.0 | -5.4 | 76.5 | 393.9 | 491.1 | 126.7 |
| 31 DEP | 8:18:17.0 | 8:18:16.6 | 1663.9 | 13.5 | 68.5 | 434.8 | 452.2 | 106.9 |
| 32 ARR | 8:23:2.0 | 8:23:1.6 | -648.3 | -5.4 | 67.9 | 407.4 | 470.0 | 119.9 |
| 33 DEP | 8:26:7.1 | 8:26:7.1 | 1455.9 | 11.8 | 68.9 | 409.9 | 423.6 | 104.0 |
| 34 ARR | 8:30:37.0 | 8:30:37.0 | -403.7 | -3.1 | 73.1 | 415.4 | 520.9 | 127.1 |
| 35 DEP | 8:34:10.5 | 8:34:10.0 | 2279.6 | 18.4 | 67.7 | 523.2 | 554.7 | 109.4 |
| 36 ARR | 8:39:50.0 | 8:39:49.6 | -463.8 | -3.7 | 71.1 | 418.2 | 514.3 | 126.7 |
| 37 DEP | 8:49:14.5 | 8:49:14.1 | -774.8 | -6.9 | 66.9 | 400.5 | 407.9 | 79.0 |
| 38 ARR | 8:50:20.0 | 8:50:21.6 | 3152.2 | 17.8 | 66.2 | 495.6 | 485.8 | 88.7 |
| 39 DEP | 8:57:0.0 | 8:57:5.5 | -855.0 | -6.1 | 73.4 | 468.6 | 481.8 | 122.0 |
| 40 ARR | 9:0:42.5 | 9:0:42.6 | 2415.3 | 19.0 | 69.1 | 555.2 | 557.9 | 85.4 |
| 41 DEP | 9:1:0.5 | 9:1:4.1 | -756.5 | -5.6 | 76.8 | 407.5 | 463.3 | 113.4 |
| 42 ARR | 9:1:0.0 | 9:1:33.0 | -65.0 | -0.2 | 149.5 | 568.4 | 568.4 | 90.0 |
| 43 DEP | 9:11:42.0 | 9:11:41.4 | 451.0 | 1.6 | 160.7 | 504.2 | 652.2 | 129.4 |
| 44 ARR | 9:13:56.0 | 9:13:55.5 | -35.0 | -0.1 | 140.3 | 553.7 | 580.0 | 98.6 |
| 45 DEP | 9:16:13.0 | 9:16:17.4 | -9.5 | -0.0 | 157.9 | 478.5 | 667.3 | 134.2 |
| 46 ARR | 9:18:37.5 | 9:18:37.1 | 26.0 | 0.4 | 143.7 | 493.9 | 512.6 | 103.6 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C7-3

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 26, 1980

FAA/AEE 120

UH60A

MAR 12, 1981

MIC #1H CENTERLINE CENTER, 33FT

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|--------|---------------|---------------|---------|-------------|----------|--------|-------|------------|
| 21 DEP | 7:26:30.0 | 7:26:29.7 | 1259.2 | 10.7 | 65.8 | 360.7 | 368.3 | 101.7 |
| 22 ARR | 7:34:42.0 | 7:34:41.8 | -870.2 | -5.8 | 88.3 | 392.2 | 443.1 | 117.7 |
| 23 DEP | 7:38:27.0 | 7:38:26.7 | 1435.3 | 11.6 | 69.1 | 341.9 | 352.8 | 104.3 |
| 24 ARR | 7:42: 4.5 | 7:42: 4.1 | -901.7 | -5.3 | 83.4 | 374.6 | 430.4 | 119.5 |
| 25 DEP | 7:45:30.0 | 7:45:29.7 | 1463.2 | 11.5 | 71.3 | 353.5 | 363.2 | 103.3 |
| 26 ARR | 7:50:56.5 | 7:50:56.2 | -1029.1 | -6.6 | 87.6 | 348.9 | 406.7 | 119.4 |
| 27 DEP | 7:54: 1.0 | 7:54: 0.7 | 1582.7 | 12.3 | 71.7 | 346.5 | 348.8 | 98.6 |
| 28 ARR | 7:58:35.5 | 7:58:35.2 | -862.5 | -5.4 | 89.9 | 376.0 | 382.4 | 103.5 |
| 29 DEP | 8: 1:48.2 | 8: 1:48.2 | 1382.5 | 10.6 | 73.0 | 368.5 | 377.4 | 102.4 |
| 30 ARR | 8: 7:23.5 | 8: 7:23.1 | -736.0 | -5.4 | 76.8 | 361.2 | 420.9 | 120.9 |
| 31 DEP | 8:18:17.5 | 8:18:17.1 | 1673.2 | 12.6 | 68.4 | 402.3 | 407.9 | 99.6 |
| 32 ARR | 8:23: 3.0 | 8:23: 2.7 | -632.0 | -5.3 | 67.2 | 374.9 | 393.2 | 107.6 |
| 33 DEP | 8:26: 3.0 | 8:26: 2.7 | 1436.0 | 11.7 | 68.9 | 377.7 | 381.3 | 97.8 |
| 34 ARR | 8:30:38.0 | 8:30:37.6 | -448.7 | -3.4 | 79.9 | 362.6 | 452.8 | 122.3 |
| 35 DEP | 8:34:30.0 | 8:34:19.6 | 2265.8 | 18.2 | 69.1 | 432.0 | 492.0 | 99.9 |
| 36 ARR | 8:39:50.0 | 8:39:49.6 | -462.0 | -3.7 | 71.1 | 379.4 | 465.4 | 122.6 |
| 38 ARR | 8:49:14.0 | 8:49:13.7 | -727.5 | -5.5 | 69.1 | 367.7 | 369.0 | 85.2 |
| 39 DEP | 8:52:21.5 | 8:52:21.1 | 2158.0 | 17.5 | 85.5 | 454.7 | 459.1 | 97.6 |
| 40 ARR | 8:57: 7.0 | 8:57: 6.7 | -902.9 | -5.5 | 78.7 | 375.7 | 331.5 | 106.0 |
| 41 DEP | 9: 0:42.0 | 9: 0:41.5 | 2433.0 | 19.9 | 82.7 | 524.9 | 524.9 | 92.7 |
| 42 ARR | 9: 6: 5.0 | 9: 6: 4.7 | -742.7 | -5.6 | 75.5 | 374.7 | 402.9 | 111.2 |
| 44 F-E | 9:11:43.0 | 9:11:42.6 | 333.8 | 1.3 | 101.0 | 471.3 | 483.2 | 102.0 |
| 45 F-E | 9:13:55.5 | 9:13:55.0 | -60.6 | -0.2 | 142.1 | 526.9 | 562.3 | 112.3 |
| 46 F-E | 9:16:19.5 | 9:16:19.1 | -32.6 | -0.1 | 155.3 | 445.6 | 445.6 | 96.0 |
| 47 F-E | 9:18:37.5 | 9:18:37.1 | 25.3 | 0.1 | 142.7 | 466.1 | 478.2 | 103.6 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C7-4

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 26, 1980

UH60A

MIC # 2 CENTERLINE WEST, 4 FT

FAA/ACE 120

MAR 12, 1981

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|--------|---------------|---------------|---------|-------------|----------|--------|--------|------------|
| 21 DEP | 7:26:26.5 | 7:26:26.2 | 1302.7 | 11.2 | 64.7 | 297.7 | 298.6 | 85.6 |
| 22 ARR | 7:34:46.0 | 7:34:45.7 | -882.5 | -5.7 | 87.7 | 369.9 | 381.0 | 104.3 |
| 23 DEP | 7:38:25.0 | 7:38:24.7 | 1363.5 | 11.1 | 68.7 | 275.4 | 317.0 | 69.1 |
| 24 ARR | 7:42:08.0 | 7:42:07.7 | -867.0 | -5.5 | 88.5 | 355.1 | 366.1 | 110.9 |
| 25 DEP | 7:45:28.0 | 7:45:27.7 | 1504.2 | 11.3 | 71.2 | 281.7 | 320.9 | 59.7 |
| 26 ARR | 7:51:00.5 | 7:51:00.2 | -944.7 | -6.1 | 82.0 | 318.8 | 329.1 | 104.4 |
| 27 DEP | 7:53:58.5 | 7:53:58.2 | 1511.5 | 11.3 | 71.5 | 272.6 | 309.3 | 63.6 |
| 28 ARR | 7:58:38.5 | 7:58:38.2 | -940.1 | -6.0 | 89.0 | 356.6 | 372.6 | 105.8 |
| 29 DEP | 8:01:46.0 | 8:01:45.7 | 1412.3 | 11.0 | 72.1 | 340.9 | 386.6 | 69.0 |
| 30 ARR | 8:07:28.0 | 8:07:27.7 | -723.8 | -5.4 | 75.6 | 340.9 | 363.3 | 116.0 |
| 31 DEP | 8:18:15.0 | 8:18:14.7 | 1650.9 | 13.3 | 69.0 | 316.9 | 340.6 | 66.2 |
| 32 ARR | 8:23:06.0 | 8:23:05.7 | -934.2 | -7.9 | 67.0 | 343.4 | 405.9 | 123.1 |
| 33 DEP | 8:26:06.0 | 8:26:05.7 | 1571.7 | 12.8 | 68.5 | 308.7 | 350.6 | 66.6 |
| 34 ARR | 8:30:42.0 | 8:30:41.7 | -638.8 | -4.9 | 73.4 | 308.3 | 444.6 | 124.1 |
| 35 DEP | 8:34:18.5 | 8:34:18.1 | 2279.5 | 12.4 | 67.7 | 304.5 | 469.9 | 58.0 |
| 36 ARR | 8:39:55.5 | 8:39:55.2 | -724.2 | -5.8 | 70.2 | 356.5 | 381.7 | 110.9 |
| 38 ARR | 8:49:16.0 | 8:49:15.6 | -816.2 | -7.4 | 63.1 | 334.5 | 424.6 | 102.4 |
| 39 DEP | 8:52:18.0 | 8:52:17.7 | 2192.7 | 17.9 | 67.2 | 358.5 | 398.6 | 83.6 |
| 40 ARR | 8:57:10.5 | 8:57:10.2 | -826.7 | -6.4 | 77.8 | 351.1 | 375.1 | 110.5 |
| 41 DEP | 9:00:41.5 | 9:00:41.0 | 2453.8 | 19.5 | 68.9 | 380.5 | 538.7 | 45.8 |
| 42 ARR | 9:06:03.5 | 9:06:03.1 | -970.6 | -6.4 | 77.1 | 360.1 | 396.4 | 117.7 |
| 43 F-E | 9:09:22.0 | 9:09:20.7 | 36.0 | 0.1 | 147.1 | 565.9 | 1461.5 | 157.6 |
| 44 F-U | 9:11:43.0 | 9:11:42.2 | 933.8 | 1.2 | 161.0 | 568.7 | 657.3 | 143.6 |
| 45 F-E | 9:13:51.5 | 9:13:50.6 | 35.7 | 0.1 | 148.1 | 555.7 | 681.5 | 145.5 |
| 46 F-U | 9:16:19.0 | 9:16:18.2 | 2.7 | 0.0 | 153.2 | 474.0 | 877.9 | 147.3 |
| 47 F-E | 9:18:31.0 | 9:18:29.6 | 23.8 | 0.1 | 149.3 | 493.1 | 1275.5 | 161.9 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C7-5

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 26, 1980

FAA/AEE 120

UH60A

MAR 12, 1981

MIC # 3 CENTERLINE EAST, 4 FT

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|--------|---------------|---------------|---------|-------------|----------|--------|-------|------------|
| 21 DEP | 7:26:38.0 | 7:26:37.5 | 1157.8 | 9.7 | 66.8 | 476.0 | 576.3 | 55.7 |
| 22 ARR | 7:34:40.5 | 7:34:40.1 | -812.2 | -5.2 | 88.7 | 463.9 | 468.8 | 81.7 |
| 23 DEP | 7:38:32.5 | 7:38:32.1 | 1336.0 | 10.8 | 69.1 | 469.8 | 476.5 | 80.3 |
| 24 ARR | 7:42:3.5 | 7:42:3.1 | -923.8 | -5.9 | 87.6 | 454.9 | 469.0 | 75.5 |
| 25 DEP | 7:45:36.0 | 7:45:35.6 | 1401.7 | 10.8 | 72.4 | 482.4 | 506.1 | 72.4 |
| 26 ARR | 7:50:55.5 | 7:50:55.1 | -1010. | -6.5 | 87.5 | 433.7 | 454.5 | 72.6 |
| 27 DEP | 7:54:6.5 | 7:54:6.1 | 1613.8 | 12.5 | 71.9 | 482.1 | 503.9 | 73.3 |
| 28 ARR | 7:58:32.0 | 7:58:31.6 | -885.5 | -5.5 | 91.0 | 454.1 | 472.0 | 105.8 |
| 29 DEP | 8:1:54.5 | 8:1:54.0 | 1391.8 | 10.4 | 74.7 | 498.8 | 526.4 | 68.8 |
| 30 ARR | 8:7:20.0 | 8:7:19.6 | -776.0 | -5.7 | 76.1 | 437.1 | 478.3 | 113.9 |
| 31 DEP | 8:18:23.5 | 8:18:23.0 | 1608.7 | 12.0 | 68.8 | 544.8 | 566.7 | 74.9 |
| 32 ARR | 8:23:2.5 | 8:23:2.0 | -647.5 | -5.4 | 67.7 | 448.8 | 545.4 | 55.4 |
| 33 DEP | 8:26:15.5 | 8:26:15.0 | 1342.7 | 10.5 | 71.3 | 504.8 | 605.6 | 56.5 |
| 34 ARR | 8:30:35.0 | 8:30:34.6 | -413.7 | -3.2 | 74.2 | 433.7 | 455.2 | 105.5 |
| 35 DEP | 8:34:26.0 | 8:34:25.4 | 2092.5 | 16.2 | 69.5 | 667.9 | 702.4 | 72.0 |
| 36 ARR | 8:39:47.5 | 8:39:47.1 | -565.3 | -4.5 | 71.2 | 440.4 | 456.4 | 105.2 |
| 38 ARR | 8:49:10.0 | 8:49:9.6 | -612.8 | -5.4 | 64.6 | 440.8 | 448.4 | 79.5 |
| 39 DEP | 8:52:20.0 | 8:52:20.4 | 1917.2 | 16.9 | 64.7 | 632.2 | 709.8 | 69.0 |
| 40 ARR | 8:57:3.5 | 8:57:3.1 | -632.2 | -4.6 | 77.6 | 455.1 | 460.3 | 98.6 |
| 41 DEP | 9:0:50.0 | 9:0:49.3 | 2011.5 | 15.8 | 70.1 | 708.7 | 823.0 | 59.2 |
| 42 ARR | 9:6:3.0 | 9:6:2.6 | -795.7 | -5.3 | 77.4 | 450.5 | 456.0 | 81.1 |
| 43 F-E | 9:9:30.0 | 9:9:29.5 | 62.6 | 0.2 | 149.6 | 563.6 | 574.3 | 101.1 |
| 44 F-W | 9:11:41.0 | 9:11:40.6 | 492.3 | 1.3 | 159.8 | 436.7 | 512.3 | 108.2 |
| 45 F-E | 9:13:57.5 | 9:13:57.0 | 60.2 | 0.2 | 149.1 | 551.1 | 587.3 | 110.4 |
| 46 F-W | 9:16:18.5 | 9:16:18.1 | -5.3 | -0.6 | 152.1 | 474.0 | 514.4 | 67.1 |
| 47 F-E | 9:18:41.0 | 9:18:40.5 | 115.0 | 0.4 | 146.9 | 434.7 | 557.6 | 62.5 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C7-6

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 26, 1980
UH60A

FAA/AEE 120
MAR 12, 1981

MIC # 4 SIDELINE NORTH, 4 FT

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|--------|---------------|---------------|---------|-------------|----------|--------|--------|------------|
| 21 DEP | 7:26:32.5 | 7:26:31.9 | 1197.3 | 10.1 | 66.2 | 628.5 | 709.6 | 76.0 |
| 22 ARR | 7:34:40.9 | 7:34:39.3 | -844.0 | -5.4 | 89.0 | 604.6 | 821.6 | 132.6 |
| 23 DEP | 7:38:29.0 | 7:38:28.4 | 1463.3 | 11.9 | 68.8 | 626.7 | 638.5 | 79.0 |
| 24 ARR | 7:42:3.0 | 7:42:2.3 | -935.0 | -6.0 | 87.5 | 606.0 | 770.1 | 128.1 |
| 25 DEP | 7:45:31.5 | 7:45:31.0 | 1507.5 | 11.8 | 71.4 | 614.0 | 617.0 | 84.2 |
| 26 ARR | 7:50:55.5 | 7:50:54.9 | -1010.1 | -6.5 | 37.5 | 607.4 | 716.2 | 122.0 |
| 27 DEP | 7:54:2.5 | 7:54:1.9 | 1619.2 | 12.6 | 71.3 | 617.7 | 628.1 | 79.6 |
| 28 ARR | 7:58:33.5 | 7:58:32.8 | -909.5 | -5.7 | 90.9 | 625.1 | 758.3 | 124.5 |
| 29 DEP | 8:1:49.5 | 8:1:49.0 | 1407.0 | 10.7 | 73.5 | 621.3 | 621.5 | 88.6 |
| 30 ARR | 8:7:25.5 | 8:7:25.0 | -741.7 | -5.5 | 75.8 | 599.6 | 600.0 | 87.9 |
| 31 DEP | 8:18:19.0 | 8:18:18.4 | 1662.2 | 13.4 | 68.9 | 633.9 | 638.6 | 82.6 |
| 32 ARR | 8:23:2.5 | 8:23:1.9 | -647.5 | -5.4 | 67.7 | 600.2 | 629.9 | 107.9 |
| 33 DEP | 8:26:5.0 | 8:26:7.4 | 1436.0 | 11.7 | 68.3 | 620.5 | 627.2 | 98.4 |
| 34 ARR | 8:30:30.0 | 8:30:28.7 | -853.7 | -6.4 | 74.7 | 619.2 | 1509.9 | 155.8 |
| 35 DEP | 8:34:20.0 | 8:34:19.4 | 2265.8 | 18.9 | 69.1 | 702.1 | 703.9 | 93.3 |
| 36 ARR | 8:39:50.0 | 8:39:49.4 | -408.8 | -3.7 | 71.1 | 614.2 | 694.9 | 117.8 |
| 38 ARR | 8:49:3.0 | 8:49:7.2 | -737.7 | -6.9 | 65.7 | 643.5 | 945.6 | 137.1 |
| 39 DEP | 8:52:22.0 | 8:52:21.4 | 2152.2 | 17.8 | 66.2 | 639.9 | 639.7 | 92.1 |
| 40 ARR | 8:57:9.0 | 8:57:8.4 | -867.7 | -6.3 | 78.0 | 632.8 | 643.7 | 79.4 |
| 41 DEP | 9:0:41.5 | 9:0:40.9 | 2453.3 | 19.5 | 69.9 | 742.1 | 754.1 | 109.9 |
| 42 ARR | 9:6:4.0 | 9:6:3.4 | -769.3 | -5.6 | 77.2 | 647.7 | 712.9 | 114.6 |
| 43 F-E | 9:9:29.5 | 9:9:27.9 | -65.9 | -0.2 | 149.5 | 716.0 | 716.8 | 92.6 |
| 44 F-W | 9:11:43.5 | 9:11:42.9 | 260.5 | 0.9 | 160.7 | 707.0 | 708.0 | 90.7 |
| 45 F-E | 9:13:50.5 | 9:13:55.9 | -12.9 | -0.0 | 148.5 | 705.1 | 705.9 | 83.1 |
| 46 F-W | 9:16:18.5 | 9:16:17.8 | -5.8 | -0.0 | 158.1 | 666.9 | 747.9 | 116.9 |
| 47 F-E | 9:18:33.0 | 9:18:37.4 | 11.7 | 0.0 | 147.9 | 659.2 | 659.5 | 91.7 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C7-7

 POSITION DATA
 HELICOPTER NOISE MEASUREMENT PROGRAM

 TEST DATE: JUNE 26, 1980
 UH60A

 FAA/AEE 120
 MAR 12, 1981

MIC # 5 SIDELINE SOUTH, 4 FT

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|--------|---------------|---------------|---------|-------------|----------|--------|--------|------------|
| 21 DEP | 7:26:31.5 | 7:26:31.0 | 1284.0 | 10.9 | 66.0 | 603.2 | 606.7 | 83.9 |
| 22 ARR | 7:34:41.0 | 7:34:40.3 | -832.2 | -5.3 | 88.5 | 637.6 | 795.1 | 120.1 |
| 23 DEP | 7:38:27.0 | 7:38:26.5 | 1435.3 | 11.6 | 69.1 | 604.4 | 613.0 | 99.6 |
| 24 ARR | 7:42: 5.5 | 7:42: 4.9 | -891.0 | -5.7 | 83.1 | 654.6 | 672.3 | 98.6 |
| 25 DEP | 7:45:30.5 | 7:45:29.9 | 1457.8 | 11.4 | 71.1 | 631.2 | 631.9 | 92.6 |
| 26 ARR | 7:50:56.5 | 7:50:55.9 | -1029. | -6.6 | 87.6 | 632.9 | 630.0 | 111.5 |
| 27 DEP | 7:54: 2.0 | 7:54: 1.5 | 1607.5 | 12.6 | 71.3 | 619.1 | 622.3 | 84.1 |
| 28 ARR | 7:58:35.5 | 7:58:34.9 | -862.2 | -5.4 | 29.9 | 648.7 | 657.6 | 99.4 |
| 29 DEP | 8: 1:50.0 | 8: 1:49.4 | 1411.7 | 10.8 | 73.3 | 642.8 | 651.4 | 80.7 |
| 30 ARR | 8: 7:24.0 | 8: 7:23.4 | -742.8 | -5.5 | 76.7 | 654.8 | 681.3 | 106.0 |
| 31 DEP | 8:18:19.0 | 8:18:18.4 | 1662.2 | 13.4 | 68.9 | 673.2 | 682.4 | 80.8 |
| 32 ARR | 8:23: 5.5 | 8:23: 4.9 | -322.7 | -6.9 | 67.4 | 670.1 | 681.8 | 79.4 |
| 33 DEP | 8:26: 9.5 | 8:26: 8.9 | 1431.5 | 11.5 | 69.3 | 654.2 | 664.2 | 89.1 |
| 34 ARR | 8:30:37.0 | 8:30:36.3 | -407.0 | -3.2 | 75.0 | 663.6 | 779.9 | 121.7 |
| 35 DEP | 8:34:19.0 | 8:34:18.3 | 2286.7 | 18.5 | 67.6 | 728.0 | 738.9 | 99.9 |
| 36 ARR | 8:39:59.0 | 8:39:54.4 | -725.7 | -5.3 | 70.0 | 663.4 | 709.2 | 69.3 |
| 37 ARR | 8:49:15.5 | 8:49:14.9 | -910.5 | -7.3 | 62.5 | 650.1 | 641.7 | 75.1 |
| 38 DEP | 8:52:23.0 | 8:52:22.4 | 2151.0 | 17.9 | 65.9 | 657.8 | 696.0 | 81.2 |
| 39 ARR | 8:57: 7.0 | 8:57: 6.4 | -902.3 | -6.5 | 73.7 | 641.1 | 655.8 | 102.2 |
| 41 DEP | 9: 0:48.5 | 9: 0:47.6 | 2073.7 | 16.3 | 70.1 | 736.0 | 1015.2 | 46.5 |
| 42 ARR | 9: 6: 5.5 | 9: 6: 4.9 | -813.3 | -6.0 | 76.3 | 624.7 | 637.7 | 101.6 |
| 43 T-E | 9: 9:27.5 | 9: 9:26.8 | -90.0 | -0.3 | 149.5 | 720.1 | 943.3 | 112.3 |
| 44 T-M | 9:11:43.0 | 9:11:42.4 | 333.6 | 1.2 | 151.0 | 695.1 | 714.3 | 103.9 |
| 45 T-E | 9:13:55.0 | 9:13:54.9 | -77.8 | -0.3 | 142.2 | 763.9 | 875.7 | 118.6 |
| 46 T-M | 9:16:18.5 | 9:16:17.3 | -5.8 | -0.6 | 158.1 | 699.7 | 794.6 | 118.9 |
| 47 T-E | 9:18:36.5 | 9:18:35.7 | 40.7 | 0.2 | 148.5 | 734.4 | 858.3 | 121.2 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C7-8

TEST DATE: JUNE 26, 1980
 UH60A
 MIC #5G SIDELINE SOUTH, GROUND
 POSITION DATA
 HELICOPTER NOISE MEASUREMENT PROGRAM
 FAA/AEE 120
 MAR 12, 1981

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|----------|---------------|---------------|---------|-------------|----------|--------|-------|------------|
| 21 DEP | 7:26:31.5 | 7:26:31.0 | 1284.0 | 10.9 | 66.0 | 605.7 | 609.3 | 83.8 |
| 22 ARR | 7:34:43.5 | 7:34:42.0 | -945.0 | -6.1 | 87.0 | 600.0 | 690.9 | 91.6 |
| 23 DEP | 7:38:27.5 | 7:38:27.0 | 1440.3 | 11.7 | 69.0 | 606.8 | 608.0 | 93.6 |
| 24 ARR | 7:42:05.5 | 7:42:04.0 | -891.0 | -5.7 | 63.1 | 607.0 | 675.3 | 99.6 |
| 25 DEP | 7:45:00.5 | 7:45:29.9 | 1457.8 | 11.4 | 71.1 | 633.6 | 634.2 | 92.5 |
| 26 ARR | 7:50:57.0 | 7:50:56.4 | -1057.0 | -6.8 | 87.7 | 635.2 | 653.4 | 105.2 |
| 27 DEP | 7:54:02.0 | 7:54:01.5 | 1607.5 | 13.6 | 71.3 | 621.4 | 624.3 | 84.1 |
| 28 ARR | 8:01:59.0 | 8:01:58.4 | -1411.7 | -10.3 | 73.3 | 647.3 | 653.0 | 86.7 |
| 29 DEP | 8:07:24.4 | 8:07:24.4 | -732.0 | -5.4 | 76.0 | 657.1 | 658.6 | 93.6 |
| 30 ARR | 8:13:18.9 | 8:13:18.9 | 1644.0 | 13.0 | 69.0 | 675.6 | 696.5 | 75.9 |
| 31 DEP | 8:18:19.5 | 8:18:18.0 | -786.2 | -6.6 | 67.0 | 672.6 | 674.7 | 94.7 |
| 32 ARR | 8:23:04.0 | 8:23:03.4 | 1424.5 | 11.5 | 69.0 | 656.6 | 656.7 | 89.3 |
| 33 DEP | 8:26:08.5 | 8:26:07.0 | -407.0 | -3.2 | 73.0 | 666.0 | 782.2 | 121.6 |
| 34 ARR | 8:30:37.0 | 8:30:36.3 | 2236.7 | 16.5 | 67.0 | 706.7 | 741.3 | 99.7 |
| 35 DEP | 8:34:19.0 | 8:34:18.3 | -206.5 | -4.0 | 70.3 | 666.0 | 672.3 | 96.0 |
| 36 ARR | 8:39:52.0 | 8:39:51.4 | 1727.5 | 13.3 | 66.1 | 666.6 | 682.7 | 91.6 |
| 37 DEP | 8:40:14.0 | 8:40:13.5 | -727.0 | -4.3 | 66.0 | 669.0 | 769.4 | 76.7 |
| 38 ARR | 8:52:09.5 | 8:52:08.0 | 1164.0 | 17.3 | 66.0 | 669.0 | 647.5 | 96.3 |
| 39 DEP | 8:57:07.5 | 8:57:06.0 | -897.0 | -6.4 | 76.4 | 646.0 | 744.1 | 83.8 |
| 40 ARR | 9:00:43.0 | 9:00:42.3 | 2001.0 | 16.7 | 69.6 | 733.0 | 627.4 | 100.7 |
| 41 DEP | 9:06:22.5 | 9:06:21.8 | -224.3 | -6.6 | 77.1 | 627.0 | 668.8 | 120.5 |
| 42 ARR | 9:09:27.0 | 9:09:26.3 | 126.5 | -6.5 | 149.3 | 750.0 | 717.1 | 100.0 |
| 43 F-I-E | 9:11:43.0 | 9:11:42.4 | 333.0 | 1.2 | 161.0 | 690.0 | 717.1 | 100.0 |
| 44 F-I-E | 9:13:55.0 | 9:13:54.2 | -77.0 | -0.3 | 143.2 | 771.7 | 878.2 | 113.5 |
| 45 F-I-E | 9:16:10.5 | 9:16:09.8 | 15.0 | -0.6 | 156.1 | 762.5 | 797.0 | 118.8 |
| 46 F-I-E | 9:18:36.5 | 9:18:35.7 | 40.7 | 0.2 | 143.5 | 797.1 | 851.9 | 121.8 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

TABLE C7-9

POSITION DATA
HELICOPTER NOISE MEASUREMENT PROGRAM

TEST DATE: JUNE 26, 1980

FAA/AEE 120

UH60A

MAR 12, 1981

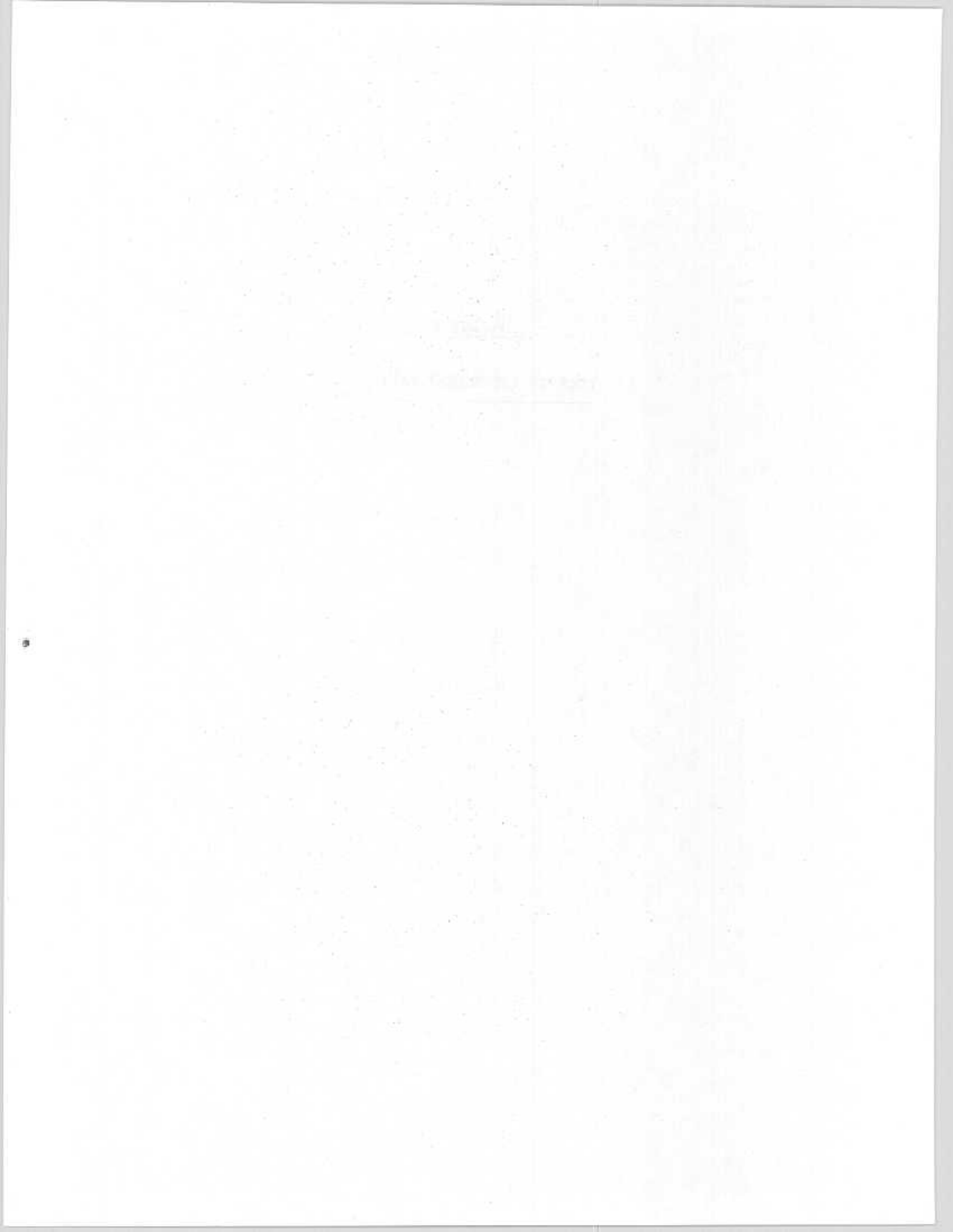
MIC # 6 SIDELINE NORTH, 4 FT

| EVENT | RECORDED TIME | RADIATED TIME | R/C FPM | C/D-ANG DEG | GS KNOTS | CPA FT | SR FT | AR-ANG DEG |
|--------|---------------|---------------|---------|-------------|----------|--------|--------|------------|
| 21 DEP | 7:26:25.5 | 7:26:24.4 | 1351.5 | 11.6 | 64.9 | 1036.2 | 1227.6 | 122.4 |
| 22 ARR | 7:34:37.5 | 7:34:36.3 | -997.3 | -6.3 | 69.1 | 970.7 | 1408.4 | 136.4 |
| 23 DEP | 7:38:24.5 | 7:38:23.5 | 1371.3 | 11.1 | 68.8 | 1014.7 | 1122.3 | 115.3 |
| 24 ARR | 7:42:00.5 | 7:41:59.0 | -932.0 | -6.0 | 87.9 | 978.9 | 1345.4 | 133.3 |
| 25 DEP | 7:45:26.5 | 7:45:25.5 | 1503.7 | 11.9 | 70.8 | 995.8 | 1172.1 | 121.8 |
| 26 ARR | 7:50:56.0 | 7:50:55.1 | -1021.1 | -6.6 | 87.5 | 989.6 | 1045.7 | 108.9 |
| 27 DEP | 7:53:58.5 | 7:53:57.5 | 1511.5 | 11.8 | 71.5 | 1002.6 | 1094.2 | 113.8 |
| 28 ARR | 7:58:35.0 | 7:58:34.1 | -898.7 | -5.6 | 90.1 | 1000.8 | 1026.5 | 102.8 |
| 29 DEP | 8:01:45.0 | 8:01:44.0 | 1462.3 | 11.4 | 71.9 | 999.1 | 1167.2 | 121.1 |
| 30 ARR | 8:07:20.0 | 8:07:18.9 | -776.0 | -5.7 | 76.1 | 976.3 | 1237.9 | 127.9 |
| 31 DEP | 8:18:13.5 | 8:18:12.4 | 1669.7 | 13.2 | 69.8 | 1000.6 | 1193.6 | 123.0 |
| 32 ARR | 8:23:00.5 | 8:23:01.6 | -647.5 | -5.4 | 67.7 | 971.8 | 995.0 | 102.4 |
| 33 DEP | 8:26:04.0 | 8:26:03.0 | 1592.9 | 13.1 | 67.6 | 964.8 | 1192.1 | 122.7 |
| 34 ARR | 8:30:36.5 | 8:30:35.5 | -295.0 | -3.0 | 73.2 | 990.0 | 1103.4 | 116.2 |
| 35 DEP | 8:34:15.5 | 8:34:14.4 | 2196.2 | 17.7 | 67.8 | 1048.9 | 1232.1 | 121.6 |
| 36 ARR | 8:39:50.0 | 8:39:49.1 | -468.3 | -3.7 | 71.1 | 986.7 | 1050.1 | 110.0 |
| 38 ARR | 8:49:08.5 | 8:49:07.4 | -716.0 | -6.2 | 65.3 | 1025.7 | 1225.3 | 123.3 |
| 39 DEP | 8:52:17.5 | 8:52:16.4 | 2182.7 | 17.3 | 67.2 | 1048.5 | 1223.4 | 121.0 |
| 40 ARR | 8:57:07.5 | 8:57:06.6 | -897.0 | -6.4 | 78.4 | 1010.1 | 1019.5 | 97.3 |
| 41 DEP | 9:00:39.0 | 9:00:38.0 | 2442.5 | 19.6 | 67.7 | 1006.9 | 1132.5 | 113.3 |
| 42 ARR | 9:06:01.5 | 9:06:00.4 | -974.7 | -6.4 | 77.5 | 1022.0 | 1232.0 | 123.5 |
| 43 F-E | 9:09:27.0 | 9:09:26.0 | -126.5 | -0.5 | 149.3 | 1046.2 | 1168.7 | 116.5 |
| 44 F-U | 9:11:43.0 | 9:11:42.0 | 333.8 | 1.2 | 161.9 | 1064.7 | 1092.3 | 103.0 |
| 45 F-E | 9:13:54.5 | 9:13:53.4 | -102.5 | -0.4 | 149.1 | 1039.0 | 1195.4 | 119.6 |
| 46 F-U | 9:16:19.5 | 9:16:18.6 | -32.8 | -0.1 | 153.3 | 1024.3 | 1033.2 | 97.6 |
| 47 F-E | 9:18:38.5 | 9:18:37.6 | -16.8 | -0.1 | 143.4 | 1006.3 | 1006.8 | 88.2 |

REC. TIME: TIME PNLTM WAS RECORDED, RAD. TIME: TIME PNLTM WAS RADIATED
 R/C: AIRCRAFT RATE OF CLIMB OR DESCENT, C/D-ANG: CLIMB OR DESCENT ANGLE
 GS: GROUND SPEED, CPA: CLOSEST POINT OF APPROACH
 SR: SLANT RANGE TO AIRCRAFT AT TIME PNLTM WAS RADIATED
 AR-ANG: ACOUSTIC RADIATION ANGLE BETWEEN FLIGHT PATH AND SLANT RANGE

APPENDIX D

COCKPIT INSTRUMENT DATA



Appendix D
COCKPIT DATA

During each event of the June 1980 Helicopter Noise Measurement program cockpit photos were taken. The slides were projected onto a screen (considerably enlarged) making it possible to read the instruments with reasonable accuracy. The photos were supposed to be taken when aircraft was directly over the centerline-center microphone site. Although this was not achieved in each case the cockpit photos reflect the helicopter "stabilized" configuration during the test event. One important caution is necessary in interpreting the photographic information; the snapshot freezes instrument readings at one moment of time whereas most readings are constantly changing by a small amount as the pilot "hunts" for the reference condition. Thus fluctuations above or below reference conditions are to be anticipated. The instrument readings are most useful in terms of verifying the region of operation for different parameters.

Each table within this appendix provides the following information:

| | |
|------------------|---|
| Slide Run No. | This event number along with the test date provides a cross reference to other data. |
| Slide Time | The time off the range control synchronized clock consistent with acoustical and tracking time bases. |
| Slide Event Type | This specifies the event type as identified on the cockpit "event board". |
| Altimeter | Specifies the barometric altimeter reading, one of the more stable indicators. |
| IAS | Indicated airspeed a fairly stable indicator. |
| Rotor Speed | Main Rotor speed in RPM or percent, a very stable indicator. |
| Torque | The torque on the main rotor shaft, a fairly stable value. |
| Verticle Speed | The rate of ascent or descent, a rather sensitive and variable indicator. |
| Heading | The compass magnetic heading which fluctuates around the target heading. |

Appendix D

The tables in Appendix D are organized by helicopter type.

| <u>Table</u> | <u>Helicopter</u> | <u>Test Date</u> | <u>Events</u> |
|--------------|-------------------|------------------|---------------|
| D1-1 | UH-60A | 6-22 | 1-11 |
| D1-2 | | 6-22 | 12-26 |
| D1-3 | | 6-22 | 27-42 |
| D1-4 | | 6-22 | 43-52 |
| D1-5 | | 6-25 | 56-69 |
| D1-6 | | 6-25 | 70-77 |
| D1-7 | | 6-26 | 21-34 |
| D1-8 | | 6-26 | 35-49 |
| D1-9 | | 6-26 | 49-50 |
| D2-1 | S-76 | 6-23 | 1-15 |
| D2-2 | | 6-23 | 16-29 |
| D2-3 | | 6-23 | 30-43 |
| D2-4 | | 6-23 | 44-56 |
| D2-5 | | 6-23 | 58-70 |
| D2-6 | | 6-25 | 1-14 |
| D2-7 | | 6-25 | 15-28 |
| D2-8 | | 6-25 | 29-42 |
| D2-9 | | 6-25 | 43-55 |
| D3-1 | A-109 | 6-24 | 1-14 |
| D3-2 | | 6-24 | 15-28 |
| D3-3 | | 6-24 | 29-42 |
| D3-4 | | 6-24 | 43-56 |
| D3-5 | | 6-24 | 57-64 |
| D4-1 | B-206-L | 6-26 | 1-14 |
| D4-2 | | 6-26 | 15-20 |

TABLE D1-1

HELICOPTER COCKPIT DATA
UH-60A - 1 of 9

Helicopter: UH-60A

Test Date: 6/22/80

| Slide Run No. | Slide Event Type | Slide Time | Altimeter (Feet) | IAS (Kts) | Rotor Speed (RPM or %) | Torque (%) | Vertical Speed (fpm) | Heading (Degrees) |
|---------------|------------------|------------|------------------|-----------|------------------------|------------|----------------------|-------------------|
| A-T1 | T0 A-T1 | 5:35:05 | 60' | 75 | 100% | 98% | 500 | 265 |
| A-T2 | A-T2 | 5:39:00 | 450' | 75 | 100% | 13% | -800 | 260 |
| A-1 | LF0 1000* | 5:47:15 | 1030' | 155 | 100% | 88% | 0 | 80 |
| A-12 | LF0 | 5:53:44 | 1000' | 153 | 100% | 96% | -100 | 260 |
| A-2 | LF0 | 5:51:08 | 1000' | 153 | 100% | 94% | 0 | 80 |
| A-3 | LF0 | 5:54:54 | 990' | 155 | 100% | 83% | -500 | 270 |
| A-4 | LF0 | 6:02:09 | 995' | 150 | 100% | 87.5% | -100 | 85 |
| A-5 | LF0 | 6:06:33 | 995' | 155 | 100% | 92% | 0 | 265 |
| A-6 | LF0 | 6:08:34 | 1000' | 153 | 100% | 90% | -100 | 85 |
| B-7 | T0 | 6:14:53 | 360' | 75 | 100% | 97% | 1900 | 265 |
| B-8 | T0 | 6:18:57 | 300' | 85 | 100% | 105% | 1900 | 265 |
| B-9 | T0 | 6:22:56 | 300' | 75 | 100% | 100% | 1400 | 265 |
| B-10 | T0 | 6:27:54 | 380' | 74 | 100% | 100% | 2000 | 265 |
| B-11 | T0 | 6:32:53 | 300' | 71 | 100% | 101% | 2000 | 265 |

Legend: LF0 - Level Flyover; T0 - Takeoff; APP - Approach; Kt - Knots;
fpm - feet per minute; IAS - Indicated Airspeed

TABLE D1-2
HELICOPTER COCKPIT DATA
UH-60A - 2 of 9

Helicopter: UH-60A

Test Date: 6/22/80

| Slide Run No. | Slide Event Type | Slide Time | Altimeter (Feet) | IAS (Kts) | Rotor Speed (RPM or %) | Torque (%) | Vertical Speed (fpm) | Heading (Degrees) |
|---------------|------------------|------------|------------------|-----------|------------------------|------------|----------------------|-------------------|
| B-12 | T0 | 6:35:51 | 550' | 70 | 100% | 99% | 2010 | 265 |
| B-13 | T0 | 6:40:23 | XXX | 60 | 100% | 91% | 100 | 265 |
| B-14 | T0 | 6:44:13 | 180' | 78 | 100% | 98% | 1500 | 260 |
| B-15 | T0 | 6:48:49 | 100' | 82 | 100% | 103% | 1000 | 65 |
| B-16 | APP | 6:53:56 | 420' | 72 | 100% | 20% | -800 | 270 |
| B-17 | APP | 6:58:04 | 390' | 70 | 100% | 22% | -900 | 270 |
| B-18 | APP | 7:03:11 | 350' | 68 | 100% | 20% | -800 | 270 |
| B-19 | APP | 7:08:13 | 390' | 69 | 100% | 17% | -800 | 265 |
| B-20 | APP | 7:13:00 | 310' | 70 | 100% | 19% | -1900 | 270 |
| B-21 | APP | 7:17:10 | 340' | 70 | 100% | 20% | -1800 | 270 |
| B-22 | APP | 7:23:30 | 300' | 70 | 100% | 17% | -1900 | 270 |
| B-23 | APP | 8:10:00 | 250' | 70 | 100% | 22% | -800 | 265 |
| C-25 | LF0 .9 Vy | 8:18:52 | 550' | 152 | 100% | 93.5% | 0 | 80 |
| C-26 | LF0 .8 Vy | 8:22:37 | 550' | 132 | 100% | 68% | 100 | 265 |

Legend: LF0 - Level Flyover; T0 - Takeoff; APP - Approach; Kt - Knots;
fpm - feet per minute; IAS - Indicated Airspeed

XXX : photo obscured

TABLE D1-3

HELICOPTER COCKPIT DATA
UH-60A - 3 of 9

Helicopter: UH-60A

Test Date: 6/22/80

| Slide Run No. | Slide Event Type | Slide Time | Altimeter (Feet) | IAS (Kts) | Rotor Speed (RPM or %) | Torque (%) | Vertical Speed (fpm) | Heading (Degrees) |
|---------------|------------------|------------|------------------|-----------|------------------------|------------|----------------------|-------------------|
| C-27 | LF0 .7 Vy | 8:25:43 | 500' | 120 | 100% | 52.5% | 0 | 80 |
| C-28 | LF0 .9 Vy | 8:27:15 | 550' | 150 | 100% | 89% | 200 | 265 |
| C-29 | LF0 .8 Vy | 8:29:00 | 520' | 132 | 100% | 71% | 0 | 80 |
| C-30 | LF0 .7 Vy | 8:32:45 | 520' | 115 | 100% | 58% | 0 | 265 |
| C-31 | LF0 .9 Vy | 8:35:19 | 520' | 148 | 100% | 77% | -100 | 85 |
| C-32 | LF0 .8 Vy | 8:38:08 | 520' | 130 | 100% | 69.5% | 0 | 265 |
| C-33 | LF0 .7 Vy | 8:42:38 | 500' | 115 | 100% | 60% | 0 | 85 |
| C-34 | LF0 .9 Vy | 8:46:23 | 540' | 150 | 100% | 83% | 0 | 265 |
| C-37 | LF0 1500' | 9:01:13 | 1500' | 150 | 100% | 92% | 0 | 85 |
| D-38 | LF0 1500' | 9:06:55 | 1520' | 150 | 100% | 88% | 0 | 265 |
| D-39 | LF0 1000' | 9:08:29 | 1040' | 150 | 100% | 82% | 0 | 85 |
| D-40 | LF0 1000' | 9:12:45 | 1000' | 150 | 100% | 86% | 0 | 265 |
| D-41 | LF0 700' | 9:15:08 | 700' | 150 | 100% | 90% | 100 | 85 |
| D-42 | LF0 700' | 9:20:34 | 720' | 152 | 100% | 88% | 0 | 265 |

Legend: LF0 - Level Flyover; T0 - Takeoff; APP - Approach; Kt - Knots;
fpm - feet per minute; IAS - Indicated Airspeed

TABLE D1-4

HELICOPTER COCKPIT DATA
UH-60A - 4 of 9

Helicopter: UH-60A

Test Date: 6/22/80

| Slide Run No. | Slide Event Type | Slide Time | Altimeter (Feet) | IAS (Kts) | Rotor Speed (RPM or %) | Torque (%) | Vertical Speed (fpm) | Heading (Degrees) |
|---------------|------------------|------------|------------------|-----------|------------------------|------------|----------------------|-------------------|
| D-43 | LF0 300' | 9:23:59 | 350' | 150 | 100% | 81% | -250 | 85 |
| D-44 | LF0 300' | 9:27:43 | 310' | 152 | 100% | 92% | -100 | 265 |
| D-45 | LF0 1500' | 9:31:13 | 1500' | 152 | 100% | 89% | -100 | 85 |
| D-46 | LF0 1500' | 9:35:39 | 1420' | 152 | 100% | 93% | 400 | 265 |
| D-47 | LF0 1000' | 9:43:46 | 1020' | 150 | 100% | 89% | 100 | 85 |
| D-48 | LF0 1000' | 9:48:33 | 990' | 150 | 100% | 91% | 100 | 265 |
| CC-49 | VH 500' | 9:51:30 | 490' | 160 | 100% | 100% | 0 | 85 |
| CC-50 | VH 500' | 9:54:23 | 450' | 160 | 100% | 101% | 250 | 265 |
| CC-51 | VH 500' | 9:57:31 | 500' | 160 | 100% | 99% | 100 | 340 |
| CC-52 | .6 Vy 500' | 9:59:30 | 490' | 100 | 100% | 49% | 100 | 265 |

Legend: LF0 - Level Flyover; T0 - Takeoff; APP - Approach; Kt - Knots;
fpm - feet per minute; IAS - Indicated Airspeed

TABLE D1-5

HELICOPTER COCKPIT DATA
UH-60A - 5 of 9

Helicopter: UH-60A

Test Date: 6/25/80

| Slide Run No. | Slide Event Type | Slide Time | Altimeter (Feet) | IAS (Kts) | Rotor Speed (RPM or %) | Torque (%) | Vertical Speed (fpm) | Heading (Degrees) |
|---------------|------------------|------------|------------------|-----------|------------------------|------------|----------------------|-------------------|
| D-56 | LF0 300' | 8:21:13 | 360' | 150 | 100% | 101% | 300 | 85 |
| D-57 | LF0 300' | 8:24:16 | 300' | 150 | XXX | XXX | XXX | XXX |
| D-58 | LF0 300' | 8:26:15 | 380' | 154 | 100% | 92% | 0 | 83 |
| D-59 | LF0 300' | 8:29:47 | 380' | 154 | 100% | 91% | 50 | 265 |
| D-60 | LF0 700' | 8:31:23 | 730' | 152 | 100% | 90% | 200 | 83 |
| D-61 | LF0 700' | 8:35:35 | 750' | 152 | 100% | 88% | 0 | 260 |
| D-62 | LF0 700' | 8:38:35 | 740' | 154 | 100% | 97% | 200 | 84 |
| D-63 | LF0 700' | 8:42:33 | 740' | 154 | 100% | 88% | 100 | 260 |
| D-64 | LF0 1000' | 8:46:00 | 1000' | 150 | 100% | 88% | 0 | 81 |
| D-65 | LF0 1000' | 8:47:19 | 1000' | 154 | 100% | 83% | 0 | 260 |
| D-66 | LF0 1000' | 8:53:13 | 1000' | 152 | 100% | 90% | 0 | 81 |
| D-67 | LF0 1000' | 8:55:24 | 1000' | 152 | 100% | 89% | 50 | 260 |
| D-68 | LF0 1500' | 8:58:15 | 1500' | 154 | 100% | 92% | -50 | 84 |
| D-69 | LF0 1500' | 9:02:10 | 1500' | 150 | 100% | 91% | 0 | 260 |

Legend: LF0 - Level Flyover; T0 - Takeoff; APP - Approach; Kt - Knots;
fpm - feet per minute; IAS - Indicated Airspeed

XXX : photo obscured

TABLE D1-6

HELICOPTER COCKPIT DATA
UH-60A - 6 of 9

Helicopter: UH-60A

Test Date: 6/25/80

| Slide Run No. | Slide Event Type | Slide Time | Altimeter (Feet) | IAS (Kts) | Rotor Speed (RPM or %) | Torque (%) | Vertical Speed (fpm) | Heading (Degrees) |
|---------------|------------------|------------|------------------|-----------|------------------------|------------|----------------------|-------------------|
| D-70 | LF0 1500' | 9:05:05 | 1500' | 154 | 100% | 95% | 50 | 81 |
| D-71 | LF0 1500' | 9:09:51 | 1500' | 154 | 100% | 95% | 0 | 260 |
| D-72 | LF0 2000' | 9:13:20 | 1980' | 155 | 100% | 96% | 0 | 85 |
| D-73 | LF0 2000' | 9:17:41 | 2000' | 150 | 100% | 91% | 0 | 260 |
| D-74 | LF0 2000' | 9:22:39 | 2000' | 150 | 100% | 87% | 0 | 83 |
| D-75 | LF0 2000' | 9:25:16 | 2000' | 152 | 100% | 92% | 0 | 265 |
| D-76 | LF0 2500' | 9:29:19 | 2500' | 152 | 100% | 97% | 0 | 85 |
| D-77 | LF0 2500' | 9:32:00 | 2500' | 155 | 100% | 96% | 100 | 265 |

Legend: LF0 - Level Flyover; TO - Takeoff; APP - Approach; Kt - Knots;
fpm - feet per minute; IAS - Indicated Airspeed

TABLE D1-7

HELICOPTER COCKPIT DATA
UH-60A - 7 of 9

Helicopter: UH-60A

Test Date: 6/26/80

| Slide Run No. | Slide Event Type | Slide Time | Altimeter (Feet) | IAS (Kts) | Rotor Speed (RPM or %) | Torque (%) | Vertical Speed (fpm) | Heading (Degrees) |
|---------------|------------------|------------|------------------|-----------|------------------------|------------|----------------------|-------------------|
| B-21 | TO H+10 | 7:27:23 | 350' | 55 | 100% | 78% | 1000 | 86 |
| B-22 | APP Vy + 10 | 7:35:53 | 450' | 75 | 100% | 18% | -900 | 265 |
| B-23 | TO H + 10 | 7:39:34 | 525' | 63 | 100% | 82% | 1400 | 84 |
| B-24 | APP Vy + 10 | 7:41:08 | 510' | 75 | 100% | 25% | -900 | 260 |
| B-25 | TO H + 10 | 7:46:45 | 710' | 74 | 100% | 84% | 1500 | 86 |
| B-26 | APP Vy + 10 | 7:51:07 | 300' | 79 | 100% | 30% | -800 | 265 |
| B-27 | TO H + 10 | 7:54:08 | 410' | 70 | 100% | 87% | 1500 | 85 |
| B-28 | APP Vy + 10 | 7:59:54 | 180' | 75 | 100% | 19% | -900 | 270 |
| B-29 | TO H + 10 | 8:02:00 | 580' | 78 | 100% | 83% | 1500 | 85 |
| B-30 | APP Vy-10 | 8:13:34 | 310' | 60 | 100% | 26% | -800 | 260 |
| B-31 | TO H + 10 | 8:19:22 | 590' | 75 | 100% | 86% | 1500 | 86 |
| B-32 | APP Vy - 10 | 8:24:19 | 160' | 50 | 100% | 35% | -700 | 280 |
| B-33 | TO H + 10 | 8:26:14 | 440' | 70 | 100% | 85% | 1500 | 84 |
| B-34 | APP Vy - 10 | 8:31:27 | 410' | 60 | 100% | 31% | -500 | 260 |

Legend: LFO - Level Flyover; TO - Takeoff; APP - Approach; Kt - Knots;
fpm - feet per minute; IAS - Indicated Airspeed

table D1-8
 HELICOPTER COCKPIT DATA
 UH-60A - 8 of 9

Helicopter: UH-60A

Test Date: 6/26/80

| Slide Run No. | Slide Event Type | Slide Time | Altimeter (Feet) | IAS (Kts) | Rotor Speed (RPM or %) | Torque (%) | Vertical Speed (fpm) | Heading (Degrees) |
|---------------|------------------|-------------------|------------------|-----------|------------------------|------------|----------------------|-------------------|
| B-35 | TO MAX | 8:35:08 | 670' | 85 | 100% | 99% | 2010 | 85 |
| B-36 | APP Vy - 10 | 8:40:57 | 380' | 56 | 100% | 25% | -600 | 270 |
| B-37 | TO MAX | 8:44:47 | 650' | 85 | 100% | 98% | 2100 | 85 |
| B-38 | APP Vy | 8:49:33 | 210' | 48 | 100% | 34% | -500 | 260 |
| B-39 | TO MAX | 8:53:31 | 640' | 81 | 100% | 95% | 1900 | 89 |
| B-40 | APP Vy | 8:58:18 | 310' | 65 | 100% | 23% | -800 | 265 |
| B-41 | TO MAX | 9:01:49 | 610' | 85 | 100% | 98% | 2010 | 83 |
| B-42 | APP Vy | 9:07:02 | 200' | 65 | 100% | 19.5% | -900 | 265 |
| D-43 | LF0 | 152 Kt 9:10:23 | 560' | 145 | 100% | 98% | 0 | 86 |
| D-44 | LF0 | 152 Kt 9:13:47 | 510' | 150 | 100% | 89% | 100 | 85 |
| D-45 | LF0 | 152 Kt 9:15:54 | 550' | 150 | 100% | 106% | 100 | 85 |
| D-46 | LF0 | 152 Kt 9:17:25 | 490' | 150 | 100% | 97% | 0 | 260 |
| D-47 | LF0 | 152 Kt 9:19:35 | 500' | 153 | 100% | 93% | 0 | 85 |
| H-49 | LF0 1000' | 9:27:23 | 940' | 21 | 100% | 75% | -400 | 118 |

Legend: LF0 - Level Flyover; T0 - Takeoff; APP - Approach; Kt - Knots;
 fpm - feet per minute; IAS - Indicated Airspeed

TABLE D1-9

HELICOPTER COCKPIT DATA
UH-60A - 9 of 9

Helicopter: UH-60A

Test Date: 6/26/80

| Slide Run No. | Slide Event Type | Slide Time | Altimeter (Feet) | IAS (Kts) | Rotor Speed (RPM or %) | Torque (%) | Vertical Speed (fpm) | Heading (Degrees) |
|---------------|------------------|------------|------------------|-----------|------------------------|------------|----------------------|-------------------|
| H-49 | LF0 1000' | 9:28:26 | 1000' | 20 | 100% | 77% | 0 | 112 |
| H-49 | LF0 1000' | 9:29:39 | 1000' | 20 | 100% | 77% | 0 | 100 |
| H-50 | LF0 1500' | 9:32:10 | 1500' | XXX | 100% | 58% | -400 | 174 |
| H-50 | LF0 1500' | 9:33:00 | 1500' | XXX | 100% | 58% | -400 | 174 |
| H-50 | LF0 1500' | 9:33:27 | 1390' | XXX | 100% | 69% | -200 | 165 |
| H-50 | LF0 1500' | 9:33:44 | 1360' | XXX | 100% | 71% | -100 | 160 |

Legend: LF0 - Level Flyover; T0 - Takeoff; APP - Approach; Kt - Knots;
fpm - feet per minute; IAS - Indicated Airspeed

XXX : photo obscured

TABLE D2-1

HELICOPTER COCKPIT DATA
S-76 - 1 of 9

Helicopter: S-76

Test Date: 6/23/80

| Slide Run No. | Slide Event Type | Slide Time | Altimeter (Feet) | IAS (Kts) | Rotor Speed (RPM or %) | Torque (%) | Vertical Speed (fpm) | Heading (Degrees) |
|---------------|------------------|------------|------------------|-----------|------------------------|------------|----------------------|-------------------|
| A1 | LF0 1000' | 5:16:02 | 960' | 142 | 108% | 78% | -50 | 262 |
| A2 | LF0 1000' | 5:18:17 | 970' | 140 | 100% | 80% | 250 | 270 |
| A3 | LF0 1000' | 5:21:36 | 980' | 138 | 100% | 76% | 50 | 264 |
| A4 | LF0 1000' | 5:24:50 | 960' | 138 | 100% | 76% | 200 | 272 |
| D5 | LF0 1500' | 5:28:08 | 1540' | 140 | 100% | 78% | 100 | 262 |
| D6 | LF0 1500' | 5:31:26 | 1510' | 140 | 100% | 73% | -100 | 72 |
| D7 | LF0 700' | 5:34:16 | 748' | 140 | 100% | 78% | 150 | 262 |
| D8 | LF0 700' | 5:35:15 | 760' | 140 | 100% | 76% | 100 | 76 |
| D9 | LF0 300' | 5:38:49 | 300' | 138 | 100% | 80% | 100 | 260 |
| D10 | LF0 300' | 5:40:26 | 300' | 138 | 100% | 58% | -150 | 270 |
| D11 | LF0 1500' | 5:44:42 | 1450' | 142 | 100% | 69% | -200 | 264 |
| D12 | LF0 1500' | 5:46:51 | 1410' | 140 | 100% | 76% | 0 | 80 |
| D13 | LF0 700' | 5:48:03 | 710' | 140 | 100% | 71% | -50 | 264 |
| D14 | LF0 700' | 5:50:24 | 690' | 143 | 100% | 64% | -250 | 76 |
| D15 | LF0 300' | 5:53:21 | 300' | 140 | 100% | 84% | 50 | 264 |

Legend: LF0 - Level Flyover; T0 - Takeoff; APP - Approach; Kt - Knots;
fpm - feet per minute; IAS - Indicated Airspeed

TABLE D2-2
HELICOPTER COCKPIT DATA
S-76 - 2 of 9

Helicopter: S-76

Test Date: 6/23/80

| Slide Run No. | Slide Event Type | Slide Time | Altimeter (Feet) | IAS (Kts) | Rotor Speed (RPM or %) | Torque (%) | Vertical Speed (fpm) | Heading (Degrees) |
|---------------|------------------|-----------------|------------------|-----------|------------------------|------------|----------------------|-------------------|
| D16 | LF0 300' | 5:56:24 | 300' | 140 | 160% | 69% | -150 | 80 |
| C17 | LF0 500' | 140 Kt 5:59:16 | 500' | 140 | 100% | 77% | 50 | 266 |
| C18 | LF0 500' | 140 Kt 6:03:08 | 510' | 142 | 100% | 66% | -150 | 76 |
| C19 | LF0 500' | 140 Kt 6:07:32 | 510' | 140 | 100% | 71% | 50 | 266 |
| C-20 | LF0 500' | 1-10 Kt 6:08:28 | 510' | 142 | 108% | 68% | -150 | 72 |
| C-21 | LF0 500' | 93 Kt 6:12:04 | 520' | 93 | 100% | 40% | 100 | 266 |
| C-22 | LF0 500' | 93 Kt 6:14:54 | 530' | 95 | 100% | 34% | -150 | 70 |
| C-23 | LF0 500' | 93 Kt 6:16:56 | 480' | 93 | 100% | 40% | 0 | 270 |
| C-24 | LF0 500' | 93 Kt 6:18:00 | 520' | 100 | 100% | 30% | -150 | 72 |
| C-25 | LF0 500' | 155 Kt 6:27:32 | 510' | 150 | 100% | 88% | 100 | 266 |
| C-26 | LF0 500' | 155 Kt 6:29:00 | 540' | 155 | 100% | 96% | 100 | 76 |
| C-27 | LF0 500' | 155 Kt 6:32:49 | 470' | 155 | 100% | 94% | 100 | 266 |
| C-28 | LF0 500' | 155 Kt 6:34:54 | 510' | 155 | 100% | 96% | -100 | 70 |
| C-29 | LF0 500' | 105 Kt 6:37:02 | 460' | 109 | 100% | 45% | -100 | 264 |

Legend: LF0 - Level Flyover; TO - Takeoff; APP - Approach; Kt - Knots;
fpm - feet per minute; IAS - Indicated Airspeed

TABLE D2-3

HELICOPTER COCKPIT DATA
S-76 - 3 of 9

Helicopter: S-76

Test Date: 6/23/80

| Slide Run No. | Slide Event Type | Slide Time | Altitude (Feet) | IAS (Kts) | Rotor Speed (RPM or %) | Torque (%) | Vertical Speed (fpm) | Heading (Degrees) |
|---------------|------------------|------------|-----------------|-----------|------------------------|------------|----------------------|-------------------|
| C-30 | LF0 500' | 6:39:44 | 500' | 110 | 100% | 45% | -50 | 72 |
| C-31 | LF0 500' | 6:41:43 | 490' | 109 | 100% | 40% | -50 | 268 |
| C-32 | LF0 500' | 6:44:35 | 480' | 56 | 100% | 45% | -50 | 72 |
| B-33 | T0 | 7:22:38 | XXX | 82 | 100% | 95% | 450 | 72 |
| B-34 | APA | 7:25:06 | XXX | 60 | 100% | 22% | -650 | 260 |
| B-35 | T0 | 7:29:50 | 480' | 70 | 100% | 100% | 1700 | 76 |
| B-36 | APP | 7:32:52 | XXX | 70 | 100% | 22% | -600 | 270 |
| B-37 | T0 | 7:34:46 | 120' | 70 | 100% | 105% | 1200 | 76 |
| B-38 | APP | 7:36:50 | XXX | 70 | 100% | 24% | -600 | 77 |
| B-39 | T0 | 7:39:00 | 220' | 70 | 100% | 105% | 1010 | 72 |
| B-40 | APP | 7:40:50 | XXX | 70 | 100% | 20% | -700 | 270 |
| B-41 | T0 | 7:46:00 | 220' | 70 | 100% | 100% | 1010 | 70 |
| B-42 | APP | 7:49:29 | XXX | 70 | 100% | 20% | -700 | 270 |
| B-43 | T0 | 7:52:41 | 180' | 63 | 100% | 62% | 1000 | 80 |

Legend: LF0 - Level Flyover; T0 - Takeoff; APP - Approach; Kt - Knots;
fpm - feet per minute; IAS - Indicated Airspeed

XXX : photo obscured

TABLE D2-4

HELICOPTER COCKPIT DATA
S-76 - 4 of 9

Helicopter: S-76

Test Date: 6/23/80

| Slide Run No. | Slide Event Type | Slide Time | Altimeter (Feet) | IAS (Kts) | Rotor Speed (RPM or %) | Torque (%) | Vertical Speed (fpm) | Heading (Degrees) |
|---------------|------------------|------------|------------------|-----------|------------------------|------------|----------------------|-------------------|
| B-44 | APP | 7:54:12 | 200' | 62 | 100% | 27% | 550 | 270 |
| E-45 | LF0 1000' | 8:00:09 | 960' | 139 | 100% | 75% | 300 | 79 |
| E-46 | LF0 1000' | 8:02:00 | XXX | 142 | 100% | 80% | 0 | 76 |
| E-47 | LF0 1000' | 8:05:10 | 920' | 140 | 100% | 75% | 0 | 76 |
| E-48 | LF0 1000' | 8:08:00 | XXX | 140 | 100% | 70% | -50 | 260 |
| C-49 | LF0 500' | 8:10:30 | 510' | 124 | 100% | 55% | 0 | 76 |
| C-50 | LF0 500' | 8:13:41 | 460' | 124 | 100% | 55% | 50 | 260 |
| C-51 | LF0 300' | 8:16:55 | 470' | 124 | 100% | 55% | 0 | 76 |
| C-52 | LF0 300' | 8:19:27 | 490' | 124 | 100% | 53% | 200 | 260 |
| B-53 | T0 | 9:22:09 | 80' | 75 | 100% | 110% | 600 | -14 |
| B-54 | APP | 8:26:09 | 220' | 77 | 100% | 24% | -200 | 260 |
| B-55 | T0 | 8:28:17 | 180' | 70 | 100% | 93% | 1010 | 74 |
| B-56 | APP | 8:41:26 | XXX | 77 | 100% | 24% | -600 | 260 |
| C-51 | LF0 500' | 8:46:30 | 520' | 142 | 107% | 70% | 0 | 74 |

Legend: LF0 - Level Flyover; T0 - Takeoff; APP - Approach; Kt - Knots;
fpm - feet per minute; IAS - Indicated Airspeed

XXX : photo obscured

TABLE D2-5

HELICOPTER COCKPIT DATA
S-76 - 5 of 9

Helicopter: S-76

Test Date: 6/23/80

| Slide Run No. | Slide Event Type | Slide Time | Altitude (Feet) | IAS (Kts) | Rotor Speed (RPM or %) | Torque (%) | Vertical Speed (fpm) | Heading (Degrees) |
|---------------|------------------|------------|-----------------|-----------|------------------------|------------|----------------------|-------------------|
| C-58 | LF0 300' | 8:47:40 | 490' | 142 | 107% | 60% | -100 | 260 |
| C-59 | LF0 500' | 8:50:30 | 540' | 140 | 107% | 65% | -200 | 76 |
| C-60 | LF0 500' | 8:53:38 | 540' | 140 | 107% | 65% | 100 | 260 |
| C-61 | LF0 500' | 8:57:51 | 500' | 93 | 107% | 35% | 0 | 77 |
| C-62 | LF0 500' | 9:00:13 | 480' | 93 | 107% | 45% | 0 | 260 |
| C-63 | LF0 500' | 9:07:33 | 530' | 93 | 107% | 45% | 150 | 76 |
| C-64 | LF0 500' | 9:10:29 | 490' | 93 | 107% | 45% | 50 | 260 |
| C-65 | LF0 500' | 9:14:42 | 500' | 155 | 107% | 75% | -200 | 80 |
| C-66 | LF0 500' | 9:16:25 | 490' | 155 | 107% | 80% | 0 | 260 |
| C-67 | LF0 500' | 9:18:32 | 500' | 155 | 107% | 80% | -300 | 77 |
| C-68 | LF0 | 9:21:16 | XXX | 155 | XXX | XXX | 0 | 260 |
| B-69 | APP | 9:26:42 | XXX | XXX | 107% | 15% | -650 | 260 |
| B-70 | APP | 9:31:55 | 250' | XXX | 107% | 25% | -650 | 260 |

Legend: LF0 - Level Flyover; T0 - Takeoff; APP - Approach; Kt - Knots;
fpm - feet per minute; IAS - Indicated Airspeed

XXX : photo obscured

TABLE D2-6

HELICOPTER COCKPIT DATA
S-76 - 6 of 9

Helicopter: S-76

Test Date: 6/25/80

| Slide Run No. | Slide Event Type | Slide Run | Slide Time | Altimeter (Feet) | IAS (Kts) | Rotor Speed (RPM or %) | Torque (%) | Vertical Speed (fpm) | Heading (Degrees) |
|---------------|------------------|-----------|------------|------------------|-----------|------------------------|------------|----------------------|-------------------|
| A-1 | LF0 | 140 Kt | 5:02:42 | 1020' | 140 | 107% | 70% | 50 | 81 |
| A-2 | LF0 | 140 Kt | 5:06:22 | 990' | 140 | 107% | 70% | 0 | 260 |
| A-3 | LF0 | 140 Kt | 5:08:23 | 1000' | 138 | 107% | 70% | 150 | 76 |
| A-4 | LF0 | 140 Kt | 5:10:16 | 1000' | 142 | 107% | 70% | 0 | 260 |
| D-5 | LF0 1500' | | 5:13:55 | 1580' | 142 | 107% | 70% | 0 | 84 |
| D-6 | LF0 1500' | | 5:16:44 | 1520' | 140 | 107% | 65% | 0 | 260 |
| D-7 | LF0 1500' | | 5:18:58 | 1580' | 140 | 107% | 75% | -100 | 78 |
| D-8 | LF0 700' | | 5:21:02 | 700' | 143 | 107% | 70% | -50 | 260 |
| D-9 | LF0 700' | | 5:24:11 | 740' | 140 | 107% | 70% | 200 | 80 |
| D-10 | LF0 300' | | 5:26:42 | 340' | 140 | 107% | 70% | -100 | 260 |
| D-11 | LF0 300' | | 5:28:31 | 390' | 138 | 107% | 70% | 50 | 80 |
| D-12 | LF0 1500' | | 5:31:28 | 1440' | 145 | 107% | 70% | -100 | 260 |
| D-13 | LF0 1500' | | 5:33:17 | 1540' | 140 | 107% | 75% | -50 | 79 |
| D-14 | LF0 700' | | 5:36:02 | 720' | 140 | 107% | 65% | -50 | 260 |

Legend: LF0 - Level Flyover; T0 - Takeoff; APP - Approach; Kt - Knots;
fpm - feet per minute; IAS - Indicated Airspeed

TABLE D2-7

HELICOPTER COCKPIT DATA
S-76 - 7 of 9

Helicopter: S-76

Test Date: 6/25/80

| Slide Run No. | Slide Event Type | Slide Time | Altimeter (Feet) | IAS (Kts) | Rotor Speed (RPM or %) | Torque (%) | Vertical Speed (fpm) | Heading (Degrees) |
|---------------|------------------|------------|------------------|-----------|------------------------|------------|----------------------|-------------------|
| D-15 | LF0 700' | 5:38:03 | 720' | 138 | 107% | 70% | 100 | 80 |
| D-16 | LF0 300' | 5:40:30 | 300' | 140 | 107% | 66% | 0 | 260 |
| D-17 | LF0 300' | 5:42:19 | 320' | 136 | 107% | 70% | 150 | 84 |
| C-18 | LF0 500' 109 Kt | 5:46:39 | 500' | 110 | 107% | 45% | 50 | 260 |
| C-19 | LF0 500' 109 Kt | 5:48:32 | 500' | 109 | 107% | 48% | 100 | 85 |
| C-20 | LF0 500' 109 Kt | 5:50:37 | 440' | 112 | 107% | 45% | 0 | 260 |
| C-21 | LF0 500' 109 Kt | 5:53:43 | 480' | 109 | 107% | 45% | 0 | 82 |
| C-22 | LF0 500' 109 Kt | 5:56:30 | 476' | 12 | 107 | 45% | -50 | 260 |
| C-23 | LF0 300' 109 Kt | 5:59:15 | 520' | 109 | 107% | 40% | -50 | 85 |
| C-24 | LF0 500' 124 Kt | 6:05:52 | 510' | 125 | 107% | 50% | -100 | 260 |
| C-25 | LF0 500' 124 Kt | 6:07:03 | 520' | 125 | 107% | 55% | 100 | 72 |
| C-26 | LF0 500' 124 Kt | 6:10:08 | 480' | 124 | 107% | 50% | -200 | 260 |
| C-27 | LF0 500' 124 Kt | 6:13:28 | 480' | 124 | 107% | 55% | 50 | 82 |
| C-28 | LF0 500' 124 Kt | 6:16:41 | 480' | 125 | 107% | 45% | -100 | 76 |

Legend: LF0 - Level Flyover; TO - Takeoff; APP - Approach; Kt - Knots;
fpm - feet per minute; IAS - Indicated Airspeed

TABLE D2-8

HELICOPTER COCKPIT DATA
S-76 - 8 of 9

Helicopter: S-76

Test Date: 6/25/80

| Slide Run No. | Slide Event Type | Slide Time | Slide Time | Altimeter (Feet) | IAS (Kts) | Rotor Speed (RPM or %) | Torque (%) | Vertical Speed (fpm) | Heading (Degrees) |
|---------------|------------------|------------|------------|------------------|-----------|------------------------|------------|----------------------|-------------------|
| C-29 | LF0 500' | 124 Kt | 6:18:06 | 490' | 124 | 107% | 50% | 100 | 82 |
| D-30 | LF0 2500' | | 6:23:00 | 2510' | 140 | 107% | 72% | 0 | 262 |
| D-31 | LF0 2500' | | 6:26:58 | 2480' | 144 | 107% | 68% | -100 | 86 |
| D-32 | LF0 2500' | | 6:29:23 | 2460' | 140 | 107% | 65% | -50 | 260 |
| D-33 | LF0 2500' | | 6:33:09 | 2510' | 140 | 107% | 70% | 50 | 86 |
| D-34 | LF0 2000' | | 6:39:04 | 1940' | 145 | 107% | 68% | -100 | 260 |
| D-35 | LF0 2000' | | 6:42:45 | 1960' | 138 | 107% | 78% | 150 | 80 |
| D-36 | LF0 2000' | | 6:46:42 | 2000' | 142 | 107% | 68% | 0 | 260 |
| D-37 | LF0 2000' | | 6:49:10 | 2010' | 142 | 107% | 68% | -100 | 82 |
| D-38 | LF0 1500' | | 6:53:01 | 1500' | xxx | xxx | xxx | xxx | xxx |
| D-39 | LF0 2000' | | 6:56:39 | 1500' | 137 | 107% | 72% | 400 | 80 |
| B-40 | APP | | 7:00:38 | 240' | 70 | 107% | 21% | -600 | 260 |
| B-41 | TO | | 7:21:55 | 450' | 63 | 107% | 98% | -100 | 80 |
| B-42 | APP | | 7:26:03 | 270' | 70 | 107% | 31% | -500 | 76 |

Legend: LF0 - Level Flyover; TO - Takeoff; APP - Approach; Kt - Knots;
fpm - feet per minute; IAS - Indicated Airspeed

xxx : photo obscured

TABLE D2-9

HELICOPTER COCKPIT DATA
S-76 - 9 of 9

Helicopter: S-76

Test Date: 6/25/80

| Slide Run No. | Slide Event Type | Slide Time | Altimeter (Feet) | IAS (Kts) | Rotor Speed (RPM or %) | Torque (%) | Vertical Speed (fpm) | Heading (Degrees) |
|---------------|------------------|----------------|------------------|-----------|------------------------|------------|----------------------|-------------------|
| B-43 | TO | 7:28:15 | 246' | 63 | 107% | 96% | 1500 | 86 |
| B-44 | APP | 7:32:05 | 250' | 70 | 107% | 31% | -600 | 260 |
| B-45 | TO | 7:34:08 | 240' | 70 | 107% | 97% | 1500 | 82 |
| B-46 | APP | 7:38:33 | 242' | 78 | 107% | 23% | -600 | 260 |
| B-47 | TO | 7:41:47 | 230' | 70 | 107% | 100% | 1600 | 82 |
| B-48 | APP | 7:44:50 | 240' | 70 | 107% | 23% | -600 | 260 |
| B-49 | TO | 7:46:20 | 240' | 70 | 107% | 99% | 1700 | 80 |
| B-50 | APP | 7:50:08 | 240' | 78 | 107% | 25% | -500 | 260 |
| B-51 | TO | 7:53:22 | 241' | 70 | 107% | 96% | 1700 | 80 |
| E-52 | LF0 | 140 Kt 7:56:34 | 1000' | 140 | 107% | 71% | 100 | 268 |
| E-53 | LF0 | 140 Kt 7:58:05 | 960' | 142 | 107% | 50% | -50 | 78 |
| E-54 | LF0 | 140 Kt 7:59:57 | 1000' | 140 | 107% | 66% | -50 | 270 |
| E-55 | LF0 | 140 Kt 8:02:17 | 956' | 140 | 107% | 69% | -50 | 78 |

Legend: LF0 - Level Flyover; TO - Takeoff; APP - Approach; Kt - Knots;
fpm - feet per minute; IAS - Indicated Airspeed

TABLE D3-1
HELICOPTER COCKPIT DATA
A-109 - 1 of 5

Helicopter: A-109 Test Date: 6/24/80

| Slide Run No. | Slide Event Type | Slide Time | Altimeter (Feet) | IAS (Kts) | Rotor Speed (RPM or %) | Torque (%) | Vertical Speed (fpm) | Heading (Degrees) |
|---------------|------------------|------------|------------------|-----------|------------------------|------------|----------------------|-------------------|
| A-1 | LF0 1000' | 6:11:07 | 1000' | 140 | 100% | 100% | 0 | 90 |
| A-2 | LF0 1000' | 6:12:50 | 1000' | 130 | 100% | 90% | -175 | 270 |
| A-3 | LF0 1000' | 6:14:06 | 1000' | 130 | 100% | 88% | -100 | 85 |
| A-4 | LF0 1000' | 6:23:41 | 980' | 130 | 100% | 90% | -50 | 260 |
| A-5 | LF0 1500' | 6:26:32 | 1500' | 128 | 100% | 90% | -100 | 85 |
| A-6 | LF0 1500' | 6:29:09 | 1500' | 132 | 100% | 95% | 0 | 160 |
| A-7 | LF0 700' | 6:31:52 | 720' | 128 | 100% | 90% | 100 | 85 |
| A-8 | LF0 700' | 6:34:15 | 680' | 128 | 100% | 90% | 50 | 260 |
| A-9 | LF0 360' | 6:36:34 | 300' | 127 | 100% | 85% | -50 | 90 |
| A-10 | LF0 360' | 6:38:29 | 300' | 130 | 100% | 90% | 0 | 260 |
| A-11 | LF0 1300' | 6:41:08 | 1500' | 138 | 100% | 87% | 0 | 88 |
| A-12 | LF0 1300' | 6:44:23 | 1480' | 142 | 100% | 95% | 0 | 270 |
| A-13 | LF0 700' | 6:47:08 | 680' | 130 | 100% | 94% | 0 | 88 |
| D-14 | LF0 700' | 6:50:40 | 680' | 126 | 100% | 86% | 100 | 270 |

Legend: LF0 - Level Flyover; T0 - Takeoff; APP - Approach; Kt - Knots;
fpm - feet per minute; IAS - Indicated Airspeed

TABLE D3-2

HELICOPTER COCKPIT DATA
A-109 - 2 of 5

Helicopter: A-109

Test Date: 6/24/80

| Slide Run No. | Slide Event Type | Slide Time | Altimeter (Feet) | IAS (Kts) | Rotor Speed (RPM or %) | Torque (%) | Vertical Speed (fpm) | Heading (Degrees) |
|---------------|------------------|------------|------------------|-----------|------------------------|------------|----------------------|-------------------|
| D-15 | LF0 300' | 6:52:56 | 300' | 128 | 100% | 80% | -200 | 90 |
| D-16 | LF0 300' | 6:54:03 | 300' | 130 | 100% | 90% | 50 | 260 |
| C-17 | LF0 500' 130 Kt | 6:56:32 | 510' | 130 | 100% | 95% | 150 | 90 |
| C-18 | LF0 500' 130 Kt | 6:58:48 | 500' | 129 | 100% | 85% | 0 | 270 |
| C-19 | LF0 500' 130 Kt | 7:02:26 | 500' | 130 | 100% | 90% | 0 | 85 |
| C-20 | LF0 500' 130 Kt | 7:06:14 | 500' | 130 | 100% | 90% | 0 | 260 |
| C-21 | LF0 500' 87 Kt | 7:13:37 | 470' | 87 | 100% | 60% | 0 | 85 |
| C-22 | LF0 500' 87 Kt | 7:16:33 | 535' | 87 | 100% | 60% | 0 | 260 |
| B-23 | T0 | 7:46:58 | 170' | 58 | 100% | 114% | 1010 | 82 |
| B-24 | APP | 7:49:58 | 170' | 60 | 100% | 40% | -900 | 260 |
| B-25 | T0 | 7:53:02 | 150' | 60 | 100% | 112% | 1000 | 84 |
| B-26 | APP | 7:55:36 | 450' | 58 | 100% | 35% | -1000 | 260 |
| B-27 | T0 | 7:58:17 | 120' | 65 | 100% | 112% | 1000 | 80 |
| B-28 | APP | 8:01:47 | 350' | 60 | 100% | 35% | -800 | 260 |

Legend: LF0 - Level Flyover; T0 - Takeoff; APP - Approach; Kt - Knots;
fpm - feet per minute; IAS - Indicated Airspeed

TABLE D3-3
HELICOPTER COCKPIT DATA
A-109 - 3 of 5

Helicopter: A-109 Test Date: 6/24/80

| Slide Run No. | Slide Event Type | Slide Time | Altimeter (Feet) | IAS (Kts) | Rotor Speed (RPM or %) | Torque (%) | Vertical Speed (fpm) | Heading (Degrees) |
|---------------|------------------|------------|------------------|-----------|------------------------|------------|----------------------|-------------------|
| B-29 | T0 | 8:03:43 | 110' | 60 | 100% | 110% | 1000 | 85 |
| B-30 | APP | 8:05:22 | 400' | 60 | 100% | 35% | -700 | 260 |
| B-31 | T0 | 8:07:32 | 200' | 65 | 100% | 115% | 1100 | 85 |
| B-32 | APP | 8:10:49 | 380' | 60 | 100% | 40% | -700 | 260 |
| B-33 | T0 | 8:12:52 | 180' | 58 | 100% | 115% | 1050 | 85 |
| B-34 | APP | 8:14:11 | 380' | 60 | 100% | 38% | -800 | 260 |
| B-35 | T0 | 8:17:37 | 140' | 63 | 100% | 60% | 0 | 85 |
| B-36 | APP | 8:18:00 | 120' | 55 | 100% | 35% | -900 | 260 |
| B-37 | T0 | 8:22:58 | 150' | 60 | 100% | 115% | 1010 | 84 |
| B-38 | APP | 8:24:22 | 330' | 60 | 100% | 40% | -800 | 260 |
| B-39 | T0 | 8:26:32 | 200' | 58 | 100% | 112% | 1010 | 82 |
| B-40 | APP | 8:28:23 | 330' | 60 | 100% | 37% | -1000 | 260 |
| B-41 | T0 | 8:30:18 | 160' | 60 | 100% | 11% | 1000 | 85 |
| E-42 | LFO .9 VNE | 1000' | 8:32:47 | 1000' | 135 | 100% | -250 | 270 |

Legend: LFO - Level Flyover; T0 - Takeoff; APP - Approach; Kt - Knots;
fpm - feet per minute; IAS - Indicated Airspeed

TABLE D3-4

HELICOPTER COCKPIT DATA
A-109 - 4 of 5

Helicopter: A-109

Test Date: 6/24/80

| Slide Run No. | Slide Event Type | Slide Time | Altimeter (Feet) | IAS (Kts) | Rotor Speed (RPM or %) | Torque (%) | Vertical Speed (fpm) | Heading (Degrees) | |
|---------------|------------------|------------|------------------|-----------|------------------------|------------|----------------------|-------------------|-----|
| E-43 | LF0 .9 VNE | 1000' | 8:35:23 | 980' | 130 | 100% | 82% | 100 | 82 |
| E-44 | LF0 .9 VNE | 1000' | 8:37:34 | 970' | 125 | 100% | 80% | 100 | 270 |
| E-45 | LF0 .9 VNE | 1000' | 8:40:03 | 1000' | 130 | 100% | 90% | 0 | 85 |
| C-46 | LF0 500' | 87 Kt | 8:42:39 | 460' | 87 | 100% | 60% | -75 | 260 |
| C-47 | LF0 500' | 87 Kt | 8:45:56 | 500' | 90 | 100% | 60% | -150 | 85 |
| C-48 | LF0 500' | 145 Kt | 8:54:31 | 420' | 142 | 100% | 115% | 150 | 270 |
| C-49 | LF0 500' | 145 Kt | 8:55:48 | 500' | 142 | 100% | 110% | 0 | 89 |
| C-50 | LF0 500' | 145 Kt | 8:58:03 | 440' | 143 | 100% | 110% | -100 | 270 |
| C-51 | LF0 500' | 102 Kt | 9:00:17 | 520' | 105 | 100% | 70% | 0 | 85 |
| C-52 | LF0 500' | 102 Kt | 9:02:32 | 460' | 105 | 100% | 65% | -100 | 265 |
| C-53 | LF0 500' | 102 Kt | 9:06:59 | 500' | 105 | 100% | 70% | 125 | 80 |
| C-54 | LF0 500' | 116 Kt | 9:08:16 | 470' | 120 | 100% | 75% | -100 | 265 |
| C-55 | LF0 500' | 116 Kt | 9:10:28 | 380' | 115 | 100% | 80% | 0 | 80 |
| C-56 | LF0 500' | 102 Kt | 9:12:39 | 490' | 105 | 100% | 65% | -200 | 270 |

Legend: LF0 - Level Flyover; TU - Takeoff; APP - Approach; Kt - Knots;
fpm - feet per minute; IAS - Indicated Airspeed

TABLE D3-5

HELICOPTER COCKPIT DATA
A-109 - 5 of 5

Helicopter: A-109

Test Date: 6/24/80

| Slide Run No. | Slide Event Type | Slide Time | Altimeter (Feet) | IAS (Kts) | Rotor Speed (RPM or %) | Torque (%) | Vertical Speed (fpm) | Heading (Degrees) |
|---------------|------------------|------------|------------------|-----------|------------------------|------------|----------------------|-------------------|
| C-57 | LF0 500' | 9:15:53 | 500' | 115 | 100% | 80% | 50 | 82 |
| C-58 | LF0 500' | 9:17:12 | 470' | 110 | 100% | 70% | -100 | 265 |
| C-59 | LF0 500' | 9:20:29 | 450' | 143 | 100% | 115% | 150 | 80 |
| C-60 | LF0 500' | 9:21:39 | 470' | 145 | 100% | 115% | -180 | 265 |
| C-61 | LF0 500' | 9:23:40 | 440' | 140 | 100% | 115% | 100 | 260 |
| C-62 | LF0 500' | 9:25:38 | 470' | 132 | 100% | 115% | 0 | 265 |
| C-63 | LF0 500' | 9:27:56 | 500' | 130 | 100% | 100% | 300 | 85 |
| C-64 | APP | 9:30:56 | XXX | 60 | 100% | 35% | 0 | 265 |

Legend: LF0 - Level Flyover;
fpm - feet per minute;

T0 - Takeoff; APP - Approach;
IAS - Indicated Airspeed

Kt - Knots;

XXX : photo obscured

TABLE D4-1
HELICOPTER COCKPIT DATA
206L - 1 of 2

Helicopter: 206L

Test Date: 6/26/80

| Slide Run No. | Slide Event Type | Slide Time | Altimeter (Feet) | IAS (Kts) | Rotor Speed (RPM or %) | Torque (%) | Vertical Speed (fpm) | Heading (Degrees) |
|---------------|------------------|------------|------------------|-----------|------------------------|------------|----------------------|-------------------|
| D-1 | LF0 300' | 5:11:30 | 340' | 115 | 100% | 80% | 0 | 85 |
| D-2 | LF0 300' | 5:44:69 | 360' | 115 | 100% | 82% | 100 | 260 |
| D-3 | LF0 300' | 5:47:02 | 350' | 115 | 100% | 86% | 0 | 90 |
| D-4 | LF0 300' | 5:49:13 | 360' | 115 | 100% | 86% | -150 | 260 |
| D-5 | LF0 700' | XXX | 660' | 115 | 100% | XXX | -150 | XXX |
| D-6 | LF0 700' | 5:55:39 | 710' | 115 | 100% | 88% | 0 | 260 |
| D-7 | LF0 700' | 5:59:00 | 700' | 115 | 100% | 86% | 0 | 90 |
| D-8 | LF0 700' | 6:02:45 | 710' | 115 | 100% | 86% | 0 | 260 |
| D-9 | LF0 1000' | 6:03:14 | 990' | 115 | 100% | 84% | -50 | 90 |
| D-10 | LF0 1000' | 6:10:16 | 960' | 115 | 100% | 86% | 0 | 265 |
| D-11 | LF0 1000' | 6:14:55 | 980' | 115 | 100% | 84% | -200 | 90 |
| D-12 | LF0 1000' | 6:18:13 | 1000' | 115 | 100% | 84% | -100 | 265 |
| D-13 | LF0 1500' | 6:23:32 | 1460' | 115 | 100% | 84% | -100 | 90 |
| D-14 | LF0 1500' | 6:27:50 | 1490' | 115 | 100% | 86% | 100 | 265 |

Legend: LF0 - Level Flyover; T0 - Takeoff; APP - Approach; Kt - Knots;
fpm - feet per minute; IAS - Indicated Airspeed

XXX : photo obscured

TABLE D4-2

HELICOPTER COCKPIT DATA

206L - 2 of 2

Helicopter: 206L

Test Date: 6/26/80

| Slide Run No. | Slide Event Type | Slide Time | Altimeter (Feet) | IAS (Kts) | Rotor Speed (RPM or %) | Torque (%) | Vertical Speed (fpm) | Heading (Degrees) |
|---------------|------------------|------------|------------------|-----------|------------------------|------------|----------------------|-------------------|
| D-15 | LF0 1560' | 6:33:10 | 1420' | 115 | 100% | 88% | -100 | 90 |
| D-16 | LF0 1560' | 6:36:03 | 1500' | 115 | 100% | 86% | -150 | 265 |
| D-17 | LF0 2000' | 8:40:27 | 2010' | 115 | 100% | 84% | 0 | 85 |
| D-18 | LF0 2000' | 6:45:15 | 2000' | 115 | 100% | 84% | 0 | 260 |
| D-19 | LF0 2000' | 6:50:41 | 2000' | 115 | 100% | 84% | -150 | 90 |
| D-20 | Hover 300' | 6:55:32 | 300' | XXX | 100% | 84% | 0 | 265 |
| D-20 | Hover 300' | 6:56:50 | 300' | XXX | 100% | -156 | -150 | 260 |

Legend: LF0 - Level Flyover;
fpm - feet per minute;

T0 - Takeoff; APP - Approach;
IAS - Indicated Airspeed

Kt - Knots;

XXX : photo obscured

APPENDIX E

METEOROLOGICAL DATA

Appendix E

METEOROLOGICAL DATA

This appendix presents a summary of meteorological data gleaned from National Weather Service radiosonde (rawinsonde) weather balloon ascensions. Tables are identified by launch date and launch time. Within each table the following data is provided:

| | |
|-----------------------------|--|
| Time | This is the balloon launch time. |
| Pressure | Atmospheric pressure in inches of Mercury. |
| Altitude Above Ground Level | Expressed in meters. |
| Temperature | Expressed in degrees Celsius. |
| Relative Humidity | Expressed in percent. |

These data have been used to establish values of temperature and relative humidity at 33 feet (10m) above ground level for use in atmospheric absorption corrections. Subsequent analyses can use these data to perform layered atmospheric absorption corrections using temperature and relative humidity values for each 100-foot layer between the microphone and the helicopter. The interpolated 100-foot layer data are presented in tabular format.

In addition to the data tables we have also presented graphic displays of temperature, relative humidity, windspeed, crosswind component and headwind components versus altitude for each balloon ascension. The wind vectors are defined for helicopters flying in the 260° direction, (i.e., east to west). Crosswind vectors are identified as either right crosswind (RX) or left crosswind (LX) while along-track vectors are identified as headwind (H) or tailwind (T). The total wind vector is identified as (W). It is noted that point by point summations of crosswind squared and headwind (or tailwind) squared do not always equal the square of the total wind vector due to loss of significant figures in rounding. Nevertheless the plots provide valuable insight into the influence of winds aloft on both helicopter adherence to reference flight paths and helicopter noise levels.

Index to Temperature-Relative Humidity Profiles

| <u>Table No.</u> | <u>Test Date</u> | <u>Data</u> |
|------------------|------------------|-------------|
| E1 | 6-22 | T, RH |
| E2 | 6-23 | T, RH |
| E3 | 6-24 | T, RH |
| E4 | 6-25 | T, RH |
| E5 | 6-26 | T, RH |

Temperature-Relative Humidity and Wind Vector Plots

| <u>Figure</u> | <u>Test Date</u> | <u>Asc. No.</u> | <u>Asc. Time</u> |
|---------------|------------------|-----------------|------------------|
| E1-1 | 6-22 | 2 | 5:35 |
| E1-2 | 6-22 | 3 | 6:11 |
| E1-3 | 6-22 | 4 | 6:30 |
| E1-4 | 6-22 | 5 | 7:00 |
| E1-5 | 6-22 | 6 | 8:00 |
| E1-6 | 6-22 | 7 | 9:00 |
| E2-1 | 6-23 | 8 | 5:00 |
| E2-2 | 6-23 | 9 | 5:30 |
| E2-3 | 6-23 | 10 | 6:00 |
| E2-4 | 6-23 | 11 | 6:30 |
| E2-5 | 6-23 | 12 | 7:00 |
| E2-6 | 6-23 | 13 | 7:30 |
| E2-7 | 6-23 | 14 | 9:00 |
| E3-1 | 6-24 | 15 | 5:00 |
| E3-2 | 6-24 | 16 | 5:30 |
| E3-3 | 6-24 | 17 | 6:00 |
| E3-4 | 6-24 | 18 | 6:30 |
| E3-5 | 6-24 | 19 | 7:00 |
| E3-6 | 6-24 | 20 | 8:00 |
| E3-7 | 6-24 | 21 | 9:00 |

| <u>Figure</u> | <u>Test Date</u> | <u>Asc. No.</u> | <u>Asc. Time</u> |
|---------------|------------------|-----------------|------------------|
| E4-1 | 6-25 | 22 | 5:00 |
| E4-2 | 6-25 | 23 | 5:30 |
| E4-3 | 6-25 | 24 | 6:00 |
| E4-4 | 6-25 | 25 | 6:30 |
| E4-5 | 6-25 | 26 | 7:00 |
| E4-6 | 6-25 | 27 | 8:00 |
| E4-7 | 6-25 | 28 | 9:00 |
| E5-1 | 6-26 | 29 | 5:00 |
| E5-2 | 6-26 | 30 | 5:30 |
| E5-3 | 6-26 | 31 | 6:00 |
| E5-4 | 6-26 | 32 | 6:30 |
| E5-5 | 6-26 | 33 | 7:00 |
| E5-6 | 6-26 | 34 | 8:00 |
| E5-7 | 6-26 | 35 | 9:00 |

TABLE NO. E1

AIRCRAFT NOISE PROPAGATION

METEOROLOGICAL DATA

(INTERPOLATED)*

(6/22/80)

TIME OF DAY

| | 5:35 | 6:11 | 6:30 | 7:00 | 8:00 | 9:00 |
|-------|----------------|---------------|-----------|-----------|-----------|---------|
| A.P.: | 30.00 | 30.00 | 30.02 | 30.03 | 30.03 | 30.04 |
| ALT: | TEMP&RH | TEMP&RH | TEMP&RH | TEMP&RH | TEMP&RH | TEMP&RH |
| 10: | 16.3 85.9:14.6 | 87.1:15.8 | 86.5:17.1 | 83.6:20.5 | 69.0:22.6 | 63.7: |
| 15: | 16.8 83.7:15.5 | 86.1:16.0 | 85.3:17.2 | 83.9:20.5 | 67.9:22.5 | 63.3: |
| 45: | 18.6 73.9:16.5 | 80.2:16.9 | 77.8:17.9 | 85.7:20.2 | 61.4:21.9 | 61.4: |
| 75: | 19.5 65.6:17.5 | 74.4:17.7 | 70.4:18.7 | 87.5:20.0 | 54.8:21.3 | 59.5: |
| 105: | 19.8 58.2:18.5 | 68.5:18.5 | 62.9:19.5 | 89.3:19.8 | 48.3:20.7 | 57.6: |
| 135: | 20.1 51.7:19.3 | 63.5:19.3 | 56.2:20.2 | 90.9:19.5 | 41.9:20.1 | 55.7: |
| 165: | 20.5 47.5:19.6 | 60.5:19.7 | 52.7:20.4 | 91.3:19.4 | 38.6:19.7 | 54.3: |
| 195: | 21.0 44.9:19.6 | 58.9:19.7 | 51.6:20.1 | 90.7:19.4 | 36.4:19.6 | 53.5: |
| 225: | 21.3 43.3:19.6 | 57.2:19.8 | 50.6:19.9 | 90.1:19.4 | 38.2:19.6 | 52.6: |
| 255: | 21.4 43.1:19.6 | 55.6:19.9 | 49.5:19.7 | 89.5:19.3 | 38.0:19.5 | 51.8: |
| 285: | 20.9 43.1:19.6 | 54.0:20.0 | 48.4:19.5 | 88.8:19.3 | 37.9:19.4 | 51.0: |
| 315: | 20.7 43.2:19.6 | 52.3:20.0 | 47.4:19.3 | 88.2:19.3 | 37.7:19.3 | 50.7: |
| 345: | 20.5 43.3:19.6 | 50.7:20.1 | 46.3:19.1 | 87.6:19.3 | 37.5:19.0 | 50.8: |
| 375: | 20.3 43.3:19.6 | 49.1:20.2 | 45.2:18.8 | 87.0:19.3 | 37.3:18.8 | 50.9: |
| 405: | 20.1 43.4:19.6 | 47.4:20.3 | 44.2:18.6 | 86.4:19.2 | 37.1:18.5 | 51.1: |
| 435: | 19.9 43.4:19.6 | 45.8:20.2 | 43.8:18.4 | 85.8:19.2 | 36.9:18.2 | 51.2: |
| 465: | 19.7 43.5:19.6 | 44.2:19.9 | 44.1:18.2 | 85.2:19.1 | 37.1:18.0 | 51.3: |
| 495: | 19.5 43.6:19.6 | 42.6:19.7 | 44.5:18.0 | 84.6:18.8 | 37.6:17.7 | 51.4: |
| 525: | 19.3 43.6:19.5 | 41.7:19.4 | 45.0:17.8 | 84.0:18.5 | 38.2:17.5 | 51.6: |
| 555: | 19.1 43.7:19.3 | 42.0:19.1 | 45.4:17.6 | 83.3:18.2 | 38.8:17.2 | 51.7: |
| 585: | 18.9 43.7:19.0 | 42.5:18.9 | 45.9:17.3 | 82.7:17.9 | 39.4:16.9 | 51.8: |
| 615: | 18.7 43.8:18.7 | 43.1:18.6 | 46.3:17.1 | 82.1:17.6 | 40.0:16.7 | 52.0: |
| 645: | 18.5 43.9:18.5 | 43.6:18.4 | 46.7:16.9 | 81.5:17.3 | 40.6:16.4 | 52.1: |
| 675: | 18.3 43.9:18.2 | 44.2:18.1 | 47.2:16.7 | 80.9:17.0 | 41.2:16.2 | 52.2: |
| 705: | 18.0 44.0:17.9 | 44.7:17.8 | 47.6:16.5 | 80.3:16.7 | 41.8:15.9 | 52.3: |
| 735: | 17.8 44.0:17.7 | 45.3:17.6 | 48.1:16.3 | 79.7:16.4 | 42.4:15.6 | 52.5: |
| 765: | 17.6 44.1:17.4 | 45.8:17.3 | 48.5:16.0 | 79.1:16.1 | 43.0:15.4 | 52.6: |
| 795: | 17.4 44.2:17.1 | 46.4:17.0 | 48.9:15.8 | 78.5:15.8 | 43.7:15.1 | 52.7: |
| 825: | 17.2 44.2:16.8 | 46.9:16.8 | 49.4:15.6 | 77.8:15.5 | 44.3:14.9 | 52.9: |
| 855: | 17.0 44.3:16.6 | 47.5:16.5 | 49.8:15.4 | 77.2:15.2 | 44.9:14.6 | 53.0: |
| 885: | 16.8 44.4:16.3 | 48.0:16.2 | 50.3:15.2 | 76.6:14.9 | 45.5:14.3 | 53.1: |
| 915: | 16.6 44.4:16.0 | 48.6:16.0 | 50.7:15.0 | 76.0:14.6 | 46.1:14.1 | 53.3: |
| 945: | 16.4 44.5:15.8 | 49.1:15.7 | 51.2:14.8 | 75.4:14.3 | 46.7:13.8 | 53.4: |
| 975: | 16.1 44.9:15.5 | 49.7:15.5 | 51.6:14.5 | 74.8:14.0 | 47.3:13.6 | 53.5: |
| 1005: | 15.9 45.7:15.2 | 50.2:15.2 | 52.0:14.3 | 74.2:13.7 | 47.9:13.3 | 53.6: |
| 1035: | 15.6 46.5:15.0 | 50.8:14.9 | 52.5:14.1 | 73.6:13.4 | 48.5:13.1 | 53.8: |
| 1065: | 15.3 47.3:14.7 | 51.3:14.7 | 52.9:13.9 | 73.0:13.1 | 49.1:12.8 | 53.9: |
| 1095: | 15.0 48.1:14.4 | 51.9:14.4 | 53.4:13.7 | 72.3:12.8 | 49.7:12.5 | 54.0: |
| 1125: | 14.7 48.9:14.2 | 52.4:14.1 | 53.8:13.5 | 71.7:12.5 | 50.3:12.3 | 54.2: |
| 1155: | 14.5 49.7:13.9 | 53.0:13.9 | 54.2:13.2 | 71.1:12.2 | 50.9:12.0 | 54.3: |
| 1185: | 14.2 50.5:13.6 | 53.5:13.6 | 54.7:13.0 | 70.5:11.9 | 51.5:11.8 | 54.4: |
| 1215: | 13.9 51.3:13.4 | 54.1:13.3 | 55.1:12.8 | 69.9:11.6 | 52.1:11.5 | 54.6: |
| 1245: | 13.6 52.0:13.1 | 54.6:13.1 | 55.6:12.6 | 69.3:11.3 | 52.7:11.2 | 54.7: |
| 1275: | 13.3 52.8:12.8 | 55.2:12.8 | 56.0:12.4 | 68.7:11.0 | 53.3:11.0 | 54.8: |
| 1305: | 13.1 53.6:12.5 | 55.7:12.6 | 56.4:12.2 | 68.1:10.7 | 53.9:10.7 | 54.9: |
| 1335: | 12.8 54.4:12.3 | 56.3:12.3 | 56.9:12.0 | 67.5:10.4 | 54.5:10.5 | 55.1: |
| 1365: | 12.5 55.2:12.0 | 56.8:12.0 | 57.3:11.7 | 66.8:10.1 | 55.1:10.2 | 55.2: |
| 1395: | 12.2 56.0:11.7 | 57.4:11.8 | 57.8:11.5 | 66.2: 9.8 | 55.7: 9.9 | 55.3: |
| 1425: | 11.9 56.8:11.5 | 57.9:11.5 | 58.2:11.3 | 65.6: 9.5 | 56.3: 9.7 | 55.5: |
| 1455: | 11.6 57.6:11.2 | 58.5:11.2 | 58.6:11.1 | 65.0: 9.2 | 56.9: 9.4 | 55.6: |
| 1485: | 11.4 58.4:10.9 | 59.0:11.0 | 59.1:10.9 | 64.4: 8.9 | 57.5: 9.2 | 55.7: |
| 1515: | 11.1 59.1:10.7 | 59.6:10.7 | 59.6:10.7 | 63.9: 8.6 | 58.1: 8.9 | 55.9: |
| 1545: | 11.0 59.4:10.4 | 60.4:10.4 | 60.4:10.4 | 64.2: 8.3 | 58.7: 8.7 | 56.1: |
| 1575: | | 61.4:10.1 | 61.5:10.1 | 65.1: 8.1 | 59.4: 8.4 | 56.4: |
| 1605: | | 9.8 62.3: 9.8 | 62.6: 9.8 | 66.1: 7.8 | 60.0: 8.2 | 56.8: |
| 1635: | | 9.5 63.2: 9.6 | 63.7: 9.5 | 67.0: 7.6 | 60.6: 7.9 | 57.1: |
| 1665: | | 9.3 64.2: 9.3 | 64.8: 9.2 | 67.9: 7.4 | 61.3: 7.7 | 57.5: |
| 1695: | | 9.0 65.1: 9.0 | 65.9: 9.0 | 68.8: 7.1 | 61.9: 7.4 | 57.8: |
| 1725: | | 8.7 66.0: 8.7 | 67.0: 8.7 | 69.7: 6.9 | 62.5: 7.2 | 58.2: |
| 1755: | | 8.4 67.0: 8.4 | 68.1: 8.4 | 70.6: 6.6 | 63.1: 6.9 | 58.5: |
| 1785: | | 8.2 67.9: 8.1 | 69.2: 8.1 | 71.5: 6.4 | 63.8: 6.7 | 58.9: |
| 1815: | | 7.9 68.8: 7.8 | 70.3: 7.8 | 72.4: 6.1 | 64.4: 6.5 | 59.2: |
| 1845: | | 7.6 69.8: 7.5 | 71.4: 7.5 | 73.3: 5.9 | 65.0: 6.2 | 59.5: |
| 1875: | | 7.3 70.7: 7.2 | 72.5: 7.2 | 74.2: 5.7 | 65.7: 6.0 | 59.9: |
| 1905: | | 7.0 71.6: 6.9 | 73.6: 6.9 | 75.1: 5.4 | 66.3: 5.7 | 60.2: |

NOTE: Average altitude(ALT): meters
 Temperature(TEMP): Deg. Celsius
 Relative humidity(RH): %
 Atmospheric Pressure(A.P.): in. Hg

* TEMPERATURE AND HUMIDITY DATA ARE INTERPOLATED TO THE SPECIFIED ALTITUDE

TABLE NO. E2

AIRCRAFT NOISE PROPAGATION

METEOROLOGICAL DATA

(INTERPOLATED)*

(6/23/80)

TIME OF DAY

| | 5:00 | 5:30 | 6:00 | 6:30 | 7:00 | 7:30 | 9:00 |
|------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| A.P. | 30.06 | 30.04 | 30.08 | 30.08 | 30.08 | 30.08 | 30.10 |
| ALT | TEMP&RH | TEMP&RH | TEMP&RH | TEMP&RH | TEMP&RH | TEMP&RH | TEMP&RH |
| 10 | 17.4 79.2 | 16.9 80.6 | 16.7 84.6 | 17.0 83.0 | 18.5 79.2 | 21.2 71.7 | 24.9 61.1 |
| 15 | 18.0 72.3 | 17.1 79.9 | 16.9 83.5 | 17.2 81.8 | 18.6 78.2 | 21.3 70.7 | 24.9 60.9 |
| 45 | 19.9 56.5 | 18.1 75.9 | 18.1 76.8 | 18.3 75.1 | 19.3 72.5 | 21.7 65.0 | 24.8 59.4 |
| 75 | 20.9 49.2 | 19.2 71.9 | 19.3 70.2 | 19.4 68.4 | 19.9 66.7 | 22.1 59.2 | 24.7 58.0 |
| 105 | 20.3 48.7 | 20.2 67.9 | 20.5 63.6 | 20.5 61.7 | 20.6 61.0 | 22.4 53.5 | 24.6 56.5 |
| 135 | 19.8 48.2 | 21.2 63.8 | 21.7 56.9 | 21.6 54.9 | 21.2 55.3 | 22.8 47.7 | 24.5 55.0 |
| 165 | 19.2 47.8 | 22.0 60.0 | 22.5 52.4 | 22.3 50.0 | 21.7 50.7 | 23.0 43.5 | 24.4 53.8 |
| 195 | 18.6 47.3 | 22.3 56.3 | 22.6 51.0 | 22.5 47.7 | 22.0 48.1 | 23.0 42.3 | 24.2 53.3 |
| 225 | 18.0 46.8 | 22.4 52.7 | 22.6 50.9 | 22.5 46.5 | 22.1 46.4 | 22.7 42.6 | 23.9 53.2 |
| 255 | 17.5 46.4 | 22.6 49.2 | 22.5 50.8 | 22.5 45.3 | 22.3 44.8 | 22.5 42.9 | 23.6 53.2 |
| 285 | 16.9 46.7 | 22.6 47.3 | 22.5 50.6 | 22.5 44.1 | 22.4 43.1 | 22.2 43.2 | 23.3 53.2 |
| 315 | 16.2 48.5 | 22.4 47.3 | 22.4 50.5 | 22.5 42.9 | 22.4 42.4 | 22.0 43.5 | 23.0 53.2 |
| 345 | 15.4 51.1 | 22.1 47.7 | 22.4 50.4 | 22.5 41.9 | 22.1 42.7 | 21.7 43.8 | 22.8 53.1 |
| 375 | 14.7 53.7 | 21.9 48.0 | 22.3 50.2 | 22.3 41.6 | 21.9 43.1 | 21.5 44.1 | 22.5 53.1 |
| 405 | 14.3 55.0 | 21.6 48.3 | 22.2 50.2 | 22.1 42.1 | 21.6 43.4 | 21.2 44.4 | 22.2 53.1 |
| 435 | 14.3 55.0 | 21.4 48.7 | 22.0 50.5 | 21.8 42.5 | 21.3 43.8 | 21.0 44.7 | 21.9 53.0 |
| 465 | | 21.1 49.0 | 21.7 50.9 | 21.5 43.0 | 21.1 44.2 | 20.7 45.0 | 21.6 53.0 |
| 495 | | 20.9 49.3 | 21.5 51.2 | 21.3 43.5 | 20.8 44.6 | 20.5 45.3 | 21.3 53.0 |
| 525 | | 20.6 49.7 | 21.2 51.6 | 21.0 43.9 | 20.5 45.0 | 20.3 45.6 | 21.1 52.9 |
| 555 | | 20.4 50.0 | 21.0 52.0 | 20.7 44.4 | 20.3 45.4 | 20.0 45.9 | 20.8 52.9 |
| 585 | | 20.1 50.3 | 20.7 52.3 | 20.5 44.9 | 20.0 45.8 | 19.8 46.2 | 20.5 52.9 |
| 615 | | 19.9 50.6 | 20.5 52.7 | 20.2 45.3 | 19.7 46.2 | 19.5 46.4 | 20.2 52.8 |
| 645 | | 19.6 51.0 | 20.2 53.0 | 19.9 45.8 | 19.5 46.6 | 19.3 46.7 | 19.9 52.8 |
| 675 | | 19.4 51.3 | 19.9 53.4 | 19.6 46.3 | 19.2 47.0 | 19.0 47.0 | 19.6 52.8 |
| 705 | | 19.2 51.6 | 19.7 53.8 | 19.4 46.8 | 18.9 47.4 | 18.8 47.3 | 19.4 52.8 |
| 735 | | 18.9 52.0 | 19.4 54.1 | 19.1 47.2 | 18.7 47.8 | 18.5 47.6 | 19.1 52.7 |
| 765 | | 18.7 52.3 | 19.2 54.5 | 18.8 47.7 | 18.4 48.2 | 18.3 47.9 | 18.8 52.7 |
| 795 | | 18.4 52.6 | 18.9 54.9 | 18.6 48.2 | 18.1 48.6 | 18.0 48.2 | 18.5 52.7 |
| 825 | | 18.2 52.9 | 18.7 55.2 | 18.3 48.6 | 17.9 49.0 | 17.8 48.5 | 18.2 52.6 |
| 855 | | 17.9 53.3 | 18.4 55.6 | 18.0 49.1 | 17.6 49.4 | 17.5 48.8 | 17.9 52.6 |
| 885 | | 17.7 53.6 | 18.1 55.9 | 17.8 49.6 | 17.3 49.8 | 17.3 49.1 | 17.7 52.6 |
| 915 | | 17.4 53.9 | 17.9 56.3 | 17.5 50.0 | 17.1 50.2 | 17.1 49.4 | 17.4 52.5 |
| 945 | | 17.2 54.3 | 17.6 56.7 | 17.2 50.5 | 16.8 50.6 | 16.8 49.7 | 17.1 52.5 |
| 975 | | 16.9 54.6 | 17.4 57.0 | 17.0 51.0 | 16.5 51.0 | 16.6 50.0 | 16.8 52.5 |
| 1005 | | 16.7 54.9 | 17.1 57.4 | 16.7 51.4 | 16.3 51.4 | 16.3 50.3 | 16.5 52.4 |
| 1035 | | 16.4 55.2 | 16.9 57.7 | 16.4 51.9 | 16.0 51.8 | 16.1 50.6 | 16.3 52.4 |
| 1065 | | 16.2 55.6 | 16.6 58.1 | 16.2 52.4 | 15.7 52.2 | 15.8 50.9 | 16.0 52.4 |
| 1095 | | 15.9 55.9 | 16.3 58.5 | 15.9 52.9 | 15.5 52.6 | 15.6 51.2 | 15.7 52.4 |
| 1125 | | 15.7 56.2 | 16.1 58.8 | 15.6 53.3 | 15.2 53.0 | 15.3 51.5 | 15.4 52.3 |
| 1155 | | 15.5 56.6 | 15.8 59.2 | 15.4 53.8 | 14.9 53.4 | 15.1 51.8 | 15.1 52.3 |
| 1185 | | 15.2 56.9 | 15.6 59.5 | 15.1 54.3 | 14.7 53.8 | 14.8 52.1 | 14.8 52.3 |
| 1215 | | 15.0 57.2 | 15.3 59.9 | 14.8 54.7 | 14.4 54.1 | 14.6 52.4 | 14.6 52.2 |
| 1245 | | 14.7 57.6 | 15.1 60.3 | 14.5 55.2 | 14.1 54.5 | 14.4 52.7 | 14.3 52.2 |
| 1275 | | 14.5 57.9 | 14.8 60.6 | 14.3 55.7 | 13.9 54.9 | 14.1 53.0 | 14.0 52.2 |
| 1305 | | 14.2 58.2 | 14.5 61.0 | 14.0 56.1 | 13.6 55.3 | 13.9 53.3 | 13.7 52.1 |
| 1335 | | 14.0 58.5 | 14.3 61.4 | 13.7 56.6 | 13.3 55.7 | 13.6 53.6 | 13.4 52.1 |
| 1365 | | 13.7 58.9 | 14.0 61.7 | 13.5 57.1 | 13.1 56.1 | 13.5 53.7 | 13.3 52.1 |
| 1395 | | 13.5 59.2 | 13.8 62.1 | 13.2 57.5 | 12.8 56.5 | | |
| 1425 | | 13.2 59.5 | 13.5 62.4 | 12.9 58.0 | 12.5 56.9 | | |
| 1455 | | 13.0 59.9 | 13.3 62.8 | 12.7 58.5 | 12.3 57.3 | | |
| 1485 | | 12.7 60.2 | 13.0 63.2 | 12.4 59.0 | 12.0 57.7 | | |
| 1515 | | 12.5 60.5 | 12.7 63.5 | 12.1 59.4 | 11.7 58.1 | | |
| 1545 | | 12.2 60.9 | 12.5 63.8 | 11.9 59.8 | 11.5 58.4 | | |
| 1575 | | 11.9 61.3 | 12.2 63.9 | 11.6 59.7 | 11.2 58.3 | | |
| 1605 | | 11.6 61.8 | 12.0 63.7 | 11.4 59.4 | 11.0 57.9 | | |
| 1635 | | 11.3 62.3 | 11.8 63.5 | 11.2 59.1 | 10.8 57.6 | | |
| 1665 | | 10.9 62.9 | 11.5 63.3 | 11.0 58.7 | 10.6 57.2 | | |
| 1695 | | 10.6 63.4 | 11.3 63.2 | 10.8 58.4 | 10.4 56.8 | | |
| 1725 | | 10.3 63.9 | 11.0 63.0 | 10.5 58.1 | 10.1 56.4 | | |
| 1755 | | 9.9 64.4 | 10.8 62.8 | 10.3 57.7 | 9.9 56.1 | | |
| 1785 | | 9.6 64.9 | 10.6 62.6 | 10.1 57.4 | 9.7 55.7 | | |
| 1815 | | 9.3 65.4 | 10.3 62.4 | 9.9 57.1 | 9.5 55.3 | | |
| 1845 | | 8.9 65.9 | 10.1 62.3 | 9.7 56.7 | 9.3 54.9 | | |
| 1875 | | 8.6 66.4 | 9.9 62.1 | 9.4 56.4 | 9.0 54.6 | | |
| 1905 | | 8.3 66.9 | 9.6 61.9 | 9.2 56.1 | 8.8 54.2 | | |

NOTE: Average altitude(ALT): meters
 Temperature(TEMP): Deg. Celsius
 Relative humidity(RH): %
 Atmospheric Pressure(A.P.): in. Hg

* TEMPERATURE AND HUMIDITY DATA ARE INTERPOLATED TO THE SPECIFIED ALTITUDE

TABLE NO. E3

AIRCRAFT NOISE PROPAGATION

METEOROLOGICAL DATA

(INTERPOLATED)*

(6/24/80)

TIME OF DAY

| | 5:00 | 5:30 | 6:00 | 6:30 | 7:00 | 8:00 | 9:00 |
|------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| A.P. | 30.04 | 30.03 | 30.04 | 30.04 | 30.04 | 30.06 | 30.06 |
| ALT | TEMP&RH | TEMP&RH | TEMP&RH | TEMP&RH | TEMP&RH | TEMP&RH | TEMP&RH |
| 10 | 18.6 80.3 | 18.4 83.4 | 17.3 88.2 | 19.1 87.3 | 20.2 83.6 | 21.8 77.8 | 24.3 74.6 |
| 15 | 18.7 79.9 | 18.5 82.9 | 18.2 87.8 | 19.2 86.9 | 20.2 83.4 | 21.7 77.9 | 24.2 74.6 |
| 45 | 19.5 77.6 | 19.0 80.1 | 18.7 84.9 | 19.6 84.3 | 20.3 82.5 | 21.4 78.5 | 23.9 74.5 |
| 75 | 20.3 75.3 | 19.4 77.3 | 19.3 82.0 | 20.0 81.7 | 20.3 81.6 | 21.0 79.1 | 23.6 74.5 |
| 105 | 21.1 72.9 | 19.9 74.4 | 19.8 79.1 | 20.4 79.1 | 20.4 80.7 | 20.7 79.8 | 23.2 74.4 |
| 135 | 21.9 70.6 | 20.3 71.7 | 20.4 76.2 | 20.8 76.6 | 20.5 79.8 | 20.3 80.4 | 22.9 74.3 |
| 165 | 22.2 69.2 | 20.5 70.1 | 20.7 74.2 | 21.0 74.6 | 20.6 78.7 | 20.3 80.0 | 22.5 74.1 |
| 195 | 22.1 68.7 | 20.6 69.6 | 20.8 73.2 | 21.2 73.4 | 20.8 77.3 | 20.7 78.4 | 22.2 73.5 |
| 225 | 22.0 68.3 | 20.6 69.2 | 20.8 72.3 | 21.4 72.2 | 20.9 75.8 | 21.2 76.5 | 21.8 72.8 |
| 255 | 21.9 68.0 | 20.6 68.7 | 20.9 71.4 | 21.5 71.1 | 21.1 74.4 | 21.7 74.7 | 21.4 72.2 |
| 285 | 21.8 67.6 | 20.7 68.2 | 20.9 70.5 | 21.7 69.9 | 21.3 73.0 | 22.1 72.8 | 21.4 71.8 |
| 315 | 21.7 67.2 | 20.7 67.8 | 21.0 69.6 | 21.8 68.8 | 21.5 71.5 | 22.6 71.0 | 21.6 71.9 |
| 345 | 21.6 66.8 | 20.7 67.3 | 21.0 68.7 | 21.9 67.6 | 21.7 70.1 | 23.1 69.1 | 22.0 71.9 |
| 375 | 21.5 66.4 | 20.8 66.9 | 21.0 67.8 | 22.1 66.5 | 21.8 68.6 | 23.6 67.2 | 22.3 72.0 |
| 405 | 21.4 66.0 | 20.8 66.4 | 21.1 66.9 | 22.2 65.3 | 22.0 67.2 | 24.0 65.4 | 22.6 72.0 |
| 435 | 21.3 65.5 | 20.8 66.0 | 21.1 66.0 | 22.4 64.2 | 22.2 65.7 | 24.5 63.5 | 22.9 72.1 |
| 465 | 21.2 65.2 | 20.9 65.5 | 21.2 65.1 | 22.5 63.0 | 22.4 64.3 | 25.0 61.7 | 23.2 72.1 |
| 495 | 21.1 64.8 | 20.9 65.1 | 21.2 64.2 | 22.7 61.8 | 22.6 62.9 | 25.2 60.7 | 23.4 72.2 |
| 525 | 21.0 64.4 | 21.0 64.6 | 21.3 63.3 | 22.7 61.2 | 22.6 62.1 | 25.0 60.9 | 23.2 72.4 |
| 555 | 20.9 64.0 | 21.0 64.2 | 21.3 62.4 | 22.6 61.4 | 22.5 62.1 | 24.7 61.2 | 23.0 72.7 |
| 585 | 20.8 63.6 | 21.0 63.7 | 21.4 61.5 | 22.4 61.7 | 22.4 62.3 | 24.5 61.4 | 22.7 72.9 |
| 615 | 20.7 63.2 | 21.1 63.3 | 21.2 61.4 | 22.2 62.0 | 22.2 62.6 | 24.2 61.7 | 22.5 73.1 |
| 645 | 20.5 62.8 | 21.1 62.8 | 21.0 61.9 | 22.0 62.3 | 22.1 62.8 | 24.0 62.0 | 22.2 73.4 |
| 675 | 20.4 62.5 | 21.1 62.3 | 20.7 62.5 | 21.8 62.5 | 21.9 63.0 | 23.7 62.3 | 22.0 73.6 |
| 705 | 20.3 62.1 | 21.2 61.9 | 20.5 63.0 | 21.6 62.8 | 21.8 63.2 | 23.5 62.5 | 21.7 73.8 |
| 735 | 20.2 61.7 | 21.1 61.7 | 20.2 63.5 | 21.4 63.1 | 21.7 63.5 | 23.2 62.8 | 21.5 74.1 |
| 765 | 20.1 61.4 | 20.9 62.0 | 20.0 64.0 | 21.2 63.4 | 21.5 63.7 | 22.9 63.1 | 21.2 74.3 |
| 795 | 19.9 61.7 | 20.6 62.5 | 19.7 64.6 | 21.0 63.7 | 21.4 63.9 | 22.7 63.4 | 20.9 74.5 |
| 825 | 19.7 62.3 | 20.3 62.9 | 19.5 65.1 | 20.9 64.0 | 21.2 64.2 | 22.4 63.6 | 20.7 74.8 |
| 855 | 19.4 62.9 | 20.0 63.4 | 19.2 65.6 | 20.7 64.3 | 21.1 64.4 | 22.2 63.9 | 20.4 75.0 |
| 885 | 19.2 63.5 | 19.7 63.8 | 18.9 66.1 | 20.5 64.6 | 20.9 64.6 | 21.9 64.2 | 20.2 75.2 |
| 915 | 19.0 64.1 | 19.5 64.3 | 18.7 66.6 | 20.3 64.9 | 20.8 64.9 | 21.7 64.5 | 19.9 75.5 |
| 945 | 18.7 64.8 | 19.2 64.7 | 18.4 67.2 | 20.1 65.2 | 20.6 65.4 | 21.4 64.9 | 19.7 75.7 |
| 975 | 18.5 65.4 | 18.9 65.1 | 18.2 67.7 | 19.9 65.5 | 20.3 66.2 | 21.1 65.5 | 19.4 75.9 |
| 1005 | 18.3 66.0 | 18.6 65.6 | 17.9 68.2 | 19.7 65.8 | 20.0 67.0 | 20.7 66.4 | 19.1 76.2 |
| 1035 | 18.0 66.6 | 18.3 66.0 | 17.7 68.7 | 19.5 66.1 | 19.8 67.9 | 20.4 67.2 | 18.9 76.4 |
| 1065 | 17.8 67.2 | 18.0 66.5 | 17.4 69.3 | 19.3 66.6 | 19.5 68.7 | 20.0 68.1 | 18.6 76.6 |
| 1095 | 17.5 67.8 | 17.8 66.9 | 17.2 69.8 | 19.0 67.3 | 19.2 69.6 | 19.6 68.9 | 18.4 76.9 |
| 1125 | 17.3 68.4 | 17.5 67.4 | 16.9 70.3 | 18.7 67.9 | 18.9 70.5 | 19.3 69.8 | 18.1 77.1 |
| 1155 | 17.1 69.1 | 17.2 67.8 | 16.7 70.8 | 18.4 68.5 | 18.6 71.3 | 18.9 70.6 | 17.9 77.3 |
| 1185 | 16.9 70.0 | 16.9 68.3 | 16.4 71.4 | 18.2 69.1 | 18.4 72.2 | 18.5 71.5 | 17.6 77.6 |
| 1215 | 16.7 71.4 | 16.6 68.7 | 16.1 71.9 | 17.9 69.8 | 18.1 73.0 | 18.2 72.4 | 17.4 77.8 |
| 1245 | 16.6 72.9 | 16.3 69.2 | 15.9 72.4 | 17.6 70.4 | 17.8 73.9 | 17.8 73.2 | 17.1 78.0 |
| 1275 | 16.4 74.4 | 16.1 69.6 | 15.6 72.9 | 17.4 71.0 | 17.5 74.7 | 17.4 74.1 | 16.8 78.3 |
| 1305 | 16.3 75.9 | 15.8 70.1 | 15.4 73.4 | 17.1 71.7 | 17.2 75.6 | 17.1 74.9 | 16.6 78.5 |
| 1335 | 16.1 76.6 | 15.5 70.5 | 15.1 74.0 | 16.8 72.3 | 17.0 76.5 | 16.7 75.8 | 16.3 78.7 |
| 1365 | 16.0 74.5 | 15.2 71.0 | 14.9 74.5 | 16.5 72.9 | 16.7 77.3 | 16.3 76.6 | 16.1 79.0 |
| 1395 | 15.8 70.4 | 14.9 71.4 | 14.6 75.0 | 16.3 73.5 | 16.4 78.2 | 16.0 77.5 | 15.8 79.2 |
| 1425 | 15.6 66.2 | 14.7 71.9 | 14.4 75.5 | 16.0 74.2 | 16.1 79.0 | 15.6 77.5 | 15.6 79.4 |
| 1455 | 15.4 62.1 | 14.4 72.3 | 14.1 76.1 | 15.7 74.8 | 15.8 79.9 | 15.4 73.4 | 15.3 79.7 |
| 1485 | 15.3 58.0 | 14.1 72.8 | 13.8 76.6 | 15.4 75.4 | 15.6 80.7 | 15.3 65.9 | 15.0 79.9 |
| 1515 | 15.1 53.8 | 13.8 73.2 | 13.6 77.1 | 15.2 76.0 | 15.3 81.6 | 15.2 58.4 | 14.8 80.1 |
| 1545 | 14.9 50.3 | 13.6 72.8 | 13.4 77.5 | 14.9 76.5 | 15.0 82.4 | 15.2 50.9 | 14.5 80.4 |
| 1575 | 14.7 48.7 | 13.4 70.2 | 13.3 73.0 | 14.4 76.0 | 14.6 83.1 | 15.1 45.4 | 14.3 78.2 |
| 1605 | 14.5 48.3 | 13.3 66.4 | 13.3 67.5 | 13.9 73.8 | 14.2 83.5 | 15.2 42.2 | 14.2 73.6 |
| 1635 | 14.3 47.9 | 13.2 62.6 | 13.2 62.1 | 13.9 65.1 | 14.0 78.3 | 15.3 39.3 | 14.0 69.0 |
| 1665 | 14.0 47.5 | 13.2 58.9 | 13.2 56.6 | 14.2 50.6 | 14.0 65.9 | 15.4 36.3 | 13.9 64.3 |
| 1695 | 13.8 47.1 | 13.1 55.1 | 13.2 51.1 | 14.6 36.9 | 14.0 51.7 | 15.5 34.6 | 13.7 59.6 |
| 1725 | 13.6 46.7 | 13.0 51.3 | 13.2 45.7 | 14.7 30.9 | 14.1 40.3 | | 13.6 54.9 |
| 1755 | 13.3 46.3 | 12.9 47.6 | 13.1 40.2 | 14.4 31.7 | 14.1 36.0 | | 13.4 50.3 |
| 1785 | 13.1 45.9 | 12.8 43.8 | 13.1 34.8 | 14.2 32.5 | 14.1 35.9 | | 13.2 45.6 |
| 1815 | 12.9 45.5 | 12.7 40.0 | 13.1 30.4 | 13.9 33.3 | 14.1 35.8 | | 13.1 40.9 |
| 1845 | 12.7 45.1 | 12.6 36.3 | 12.9 29.5 | 13.7 34.2 | 14.1 35.7 | | 12.9 38.3 |
| 1875 | 12.4 44.7 | 12.5 32.5 | 12.7 30.8 | 13.5 35.0 | 14.1 35.6 | | 12.8 38.1 |
| 1905 | 12.2 44.3 | 12.3 31.2 | 12.4 32.1 | 13.2 35.8 | 14.1 35.5 | | 12.6 38.2 |

NOTE: Average altitude(ALT): meters
 Temperature(TEMP): Deg. Celsius
 Relative humidity(RH): %
 Atmospheric Pressure(A.P.): in. Hg

* TEMPERATURE AND HUMIDITY DATA ARE INTERPOLATED TO THE SPECIFIED ALTITUDE

TABLE NO. E4
AIRCRAFT NOISE PROPAGATION

METEOROLOGICAL DATA

(INTERPOLATED)*

(6/25/80)

TIME OF DAY

| | 5:00 | 5:30 | 6:00 | 6:30 | 7:00 | 8:00 | 9:00 |
|------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| A.P. | 30.02 | 30.02 | 30.04 | 30.03 | 30.03 | 30.04 | 30.06 |
| ALT | TEMP&RH | TEMP&RH | TEMP&RH | TEMP&RH | TEMP&RH | TEMP&RH | TEMP&RH |
| 10 | 19.7 94.2 | 19.4 89.5 | 19.0 93.6 | 19.6 49.0 | 19.8 87.8 | 22.4 80.1 | 24.2 71.9 |
| 15 | 19.8 93.7 | 19.5 89.2 | 19.1 93.0 | 19.6 50.2 | 19.7 87.3 | 22.3 80.3 | 24.1 72.1 |
| 45 | 19.9 91.0 | 19.7 87.9 | 19.5 91.1 | 20.1 57.3 | 19.3 85.1 | 21.4 81.7 | 23.4 73.6 |
| 75 | 20.1 88.3 | 19.9 86.5 | 19.9 89.3 | 20.5 64.4 | 19.6 84.2 | 20.6 82.6 | 22.7 75.0 |
| 105 | 20.2 85.5 | 20.1 85.2 | 20.3 87.5 | 21.0 71.5 | 20.2 84.2 | 20.3 81.7 | 22.0 76.4 |
| 135 | 20.3 82.8 | 20.4 84.0 | 20.7 85.6 | 21.4 78.5 | 20.9 84.0 | 20.3 79.5 | 21.3 77.9 |
| 165 | 20.5 80.3 | 20.9 83.5 | 21.1 82.2 | 21.9 80.1 | 21.4 82.2 | 20.5 77.0 | 20.9 78.1 |
| 195 | 20.6 77.9 | 21.8 83.6 | 21.5 77.1 | 22.4 76.5 | 21.8 78.9 | 20.8 74.1 | 20.8 76.7 |
| 225 | 20.7 75.6 | 22.3 82.6 | 21.9 71.9 | 22.9 73.0 | 22.2 75.6 | 21.2 71.2 | 20.9 75.0 |
| 255 | 20.8 73.2 | 22.4 80.3 | 22.3 67.2 | 23.2 70.3 | 22.5 72.2 | 21.5 69.0 | 20.9 73.3 |
| 285 | 20.9 70.8 | 22.5 77.8 | 22.4 65.1 | 23.2 69.4 | 22.7 70.2 | 21.5 68.1 | 20.9 71.6 |
| 315 | 21.0 68.4 | 22.6 75.3 | 22.2 65.4 | 22.9 69.3 | 22.5 69.8 | 21.3 68.0 | 20.9 69.9 |
| 345 | 21.1 66.3 | 22.5 73.7 | 22.0 65.6 | 22.7 69.3 | 22.3 69.8 | 21.1 68.0 | 21.0 68.2 |
| 375 | 21.1 65.4 | 22.3 73.3 | 21.8 65.8 | 22.5 69.2 | 22.1 69.9 | 21.0 67.9 | 21.0 66.5 |
| 405 | 20.9 65.7 | 22.0 72.9 | 21.6 66.0 | 22.2 69.1 | 21.9 69.9 | 20.8 67.8 | 21.0 65.6 |
| 435 | 20.8 66.1 | 21.8 72.5 | 21.4 66.2 | 22.0 69.0 | 21.7 69.9 | 20.7 67.7 | 20.9 65.7 |
| 465 | 20.6 66.4 | 21.6 72.0 | 21.2 66.5 | 21.8 69.0 | 21.4 69.9 | 20.5 67.6 | 20.7 65.8 |
| 495 | 20.4 66.7 | 21.3 71.6 | 21.0 66.7 | 21.5 68.9 | 21.2 69.9 | 20.4 67.5 | 20.6 66.0 |
| 525 | 20.3 67.1 | 21.1 71.2 | 20.8 66.9 | 21.3 68.8 | 21.0 70.0 | 20.2 67.5 | 20.5 66.1 |
| 555 | 20.1 67.4 | 20.9 70.8 | 20.6 67.1 | 21.0 68.7 | 20.8 70.0 | 20.1 67.4 | 20.4 66.3 |
| 585 | 20.0 67.7 | 20.6 70.4 | 20.4 67.3 | 20.8 68.6 | 20.6 70.0 | 19.9 67.3 | 20.3 66.4 |
| 615 | 19.8 68.1 | 20.4 69.9 | 20.2 67.6 | 20.6 68.6 | 20.3 70.0 | 19.8 67.2 | 20.2 66.5 |
| 645 | 19.6 68.4 | 20.2 69.5 | 20.1 67.8 | 20.3 68.5 | 20.1 70.0 | 19.6 67.1 | 20.1 66.7 |
| 675 | 19.4 66.4 | 20.0 69.1 | 19.9 68.0 | 20.1 68.4 | 19.9 70.1 | 19.5 67.0 | 20.0 66.8 |
| 705 | 19.1 60.9 | 19.7 68.7 | 19.7 69.0 | 19.9 67.9 | 19.7 70.1 | 19.3 67.0 | 20.0 66.0 |
| 735 | 18.8 53.9 | 19.5 68.3 | 19.6 66.8 | 19.9 64.7 | 19.6 67.9 | 19.2 66.6 | 20.1 61.8 |
| 765 | 18.5 47.9 | 19.3 67.9 | 19.5 64.4 | 20.0 59.4 | 19.6 61.9 | 19.3 66.1 | 20.3 55.0 |
| 795 | 18.3 45.4 | 19.0 67.4 | 19.5 62.1 | 20.1 54.0 | 19.7 54.5 | 19.3 65.5 | 20.5 49.3 |
| 825 | 18.2 45.4 | 18.9 65.7 | 19.4 59.7 | 20.2 49.1 | 19.8 48.0 | 19.3 64.9 | 20.4 47.5 |
| 855 | 18.0 45.4 | 19.0 62.7 | 19.4 57.3 | 20.2 47.0 | 19.7 45.6 | 19.4 64.2 | 20.2 48.5 |
| 885 | 17.9 45.4 | 19.0 59.6 | 19.3 55.0 | 19.9 47.2 | 19.5 46.6 | 19.3 63.6 | 20.0 49.5 |
| 915 | 17.8 45.3 | 19.0 56.4 | 19.3 52.6 | 19.7 47.3 | 19.3 47.5 | 19.1 63.1 | 19.8 50.5 |
| 945 | 17.6 45.3 | 19.1 53.3 | 19.2 50.2 | 19.5 47.5 | 19.1 48.5 | 18.9 62.5 | 19.6 51.5 |
| 975 | 17.5 45.3 | 19.1 50.6 | 19.1 48.7 | 19.3 47.7 | 18.9 49.5 | 18.7 61.9 | 19.4 52.5 |
| 1005 | 17.4 45.3 | 18.9 49.4 | 18.9 48.1 | 19.1 47.8 | 18.7 50.4 | 18.5 61.3 | 19.2 53.5 |
| 1035 | 17.2 45.3 | 18.7 49.2 | 18.7 47.9 | 18.8 48.0 | 18.5 51.4 | 18.3 60.7 | 19.0 54.5 |
| 1065 | 17.1 45.3 | 18.5 49.0 | 18.5 47.6 | 18.6 48.2 | 18.2 52.4 | 18.1 60.2 | 18.8 55.5 |
| 1095 | 17.0 45.3 | 18.3 48.9 | 18.3 47.3 | 18.4 48.3 | 18.0 53.4 | 17.8 59.6 | 18.5 56.5 |
| 1125 | 16.8 45.3 | 18.1 48.7 | 18.1 47.0 | 18.2 48.5 | 17.8 54.3 | 17.6 59.0 | 18.3 57.5 |
| 1155 | 16.7 45.2 | 17.9 48.5 | 17.9 46.8 | 18.0 48.6 | 17.6 55.3 | 17.4 58.4 | 18.1 58.5 |
| 1185 | 16.6 45.2 | 17.7 48.4 | 17.7 46.5 | 17.8 48.8 | 17.4 56.3 | 17.2 57.8 | 17.9 59.5 |
| 1215 | 16.4 45.2 | 17.5 48.2 | 17.5 46.2 | 17.5 49.0 | 17.2 57.3 | 17.0 57.3 | 17.7 60.5 |
| 1245 | 16.3 45.2 | 17.3 48.0 | 17.2 45.9 | 17.3 49.1 | 16.9 58.2 | 16.8 56.7 | 17.5 60.4 |
| 1275 | 16.2 45.2 | 17.1 47.9 | 17.0 45.6 | 17.1 49.3 | 16.7 59.2 | 16.6 56.1 | 17.3 59.4 |
| 1305 | 16.0 45.2 | 16.9 47.7 | 16.8 45.4 | 16.9 49.5 | 16.5 60.2 | 16.4 55.5 | 17.1 58.3 |
| 1335 | 15.9 45.2 | 16.6 47.6 | 16.6 45.1 | 16.7 49.6 | 16.3 59.8 | 16.2 54.9 | 16.9 57.2 |
| 1365 | 15.8 45.2 | 16.4 47.4 | 16.4 44.8 | 16.4 49.8 | 16.2 58.1 | 16.0 54.3 | 16.7 56.2 |
| 1395 | 15.6 45.2 | 16.2 47.2 | 16.2 44.5 | 16.2 50.0 | 16.0 56.3 | 15.8 53.8 | 16.5 55.1 |
| 1425 | 15.5 45.1 | 16.0 47.1 | 16.0 44.3 | 16.0 50.1 | 15.8 54.6 | 15.6 53.2 | 16.3 54.1 |
| 1455 | 15.4 45.1 | 15.8 46.9 | 15.8 44.0 | 15.8 50.3 | 15.7 52.8 | 15.3 52.6 | 16.1 53.0 |
| 1485 | 15.2 45.1 | 15.6 46.7 | 15.6 43.7 | 15.6 50.5 | 15.5 51.0 | 15.1 52.0 | 15.9 51.9 |
| 1515 | 15.1 45.1 | 15.4 46.6 | 15.3 43.4 | 15.3 50.6 | 15.4 49.3 | 14.9 51.4 | 15.7 50.9 |
| 1545 | 15.0 44.5 | 15.2 46.5 | 15.1 43.4 | 15.1 50.7 | 15.2 47.9 | 14.7 51.0 | 15.5 50.0 |
| 1575 | 14.8 42.9 | 15.0 46.5 | 14.9 44.0 | 14.9 50.4 | 15.0 47.5 | 14.5 50.9 | 15.2 50.1 |
| 1605 | 14.6 41.2 | 14.8 46.6 | 14.7 45.0 | 14.6 50.0 | 14.7 47.6 | 14.2 51.0 | 15.0 51.1 |
| 1635 | 14.5 39.5 | 14.6 46.8 | 14.5 46.0 | 14.4 49.6 | 14.5 47.7 | 14.0 51.1 | 14.8 52.0 |
| 1665 | 14.3 37.7 | 14.4 46.9 | 14.3 47.1 | 14.1 49.2 | 14.3 47.8 | 13.7 51.2 | 14.6 52.9 |
| 1695 | 14.2 36.0 | 14.2 47.0 | 14.0 48.1 | 13.9 48.8 | 14.0 47.9 | 13.5 51.3 | 14.3 53.8 |
| 1725 | 14.0 35.1 | 14.0 47.1 | 13.8 48.1 | 13.6 48.4 | 13.8 47.9 | 13.2 51.4 | 14.1 54.7 |
| 1755 | 13.7 36.5 | 13.7 47.2 | 13.6 48.6 | 13.3 48.6 | 13.5 48.0 | 12.9 51.5 | 13.9 55.7 |
| 1785 | 13.4 39.3 | 13.5 48.0 | 13.5 46.3 | 13.0 50.6 | 13.3 48.1 | 12.7 51.6 | 13.6 56.6 |
| 1815 | 13.1 42.1 | 13.2 49.7 | 13.3 44.0 | 12.7 54.0 | 13.0 48.2 | 12.4 51.7 | 13.4 57.5 |
| 1845 | 12.8 44.9 | 13.0 51.5 | 13.2 41.6 | 12.3 57.4 | 12.8 48.3 | 12.2 52.8 | 13.2 58.4 |
| 1875 | 12.5 47.8 | 12.7 53.3 | 13.0 39.3 | 12.0 60.8 | 12.6 49.2 | 12.0 55.0 | 12.9 59.3 |
| 1905 | 12.2 50.6 | 12.4 55.1 | 12.9 37.0 | 11.7 64.2 | 12.3 51.2 | 11.7 57.1 | 12.7 60.2 |

NOTE: Average altitude(ALT): meters
Temperature(TEMP): Deg. Celsius
Relative humidity(RH): %
Atmospheric Pressure(A.P.): in. Hg

* TEMPERATURE AND HUMIDITY DATA ARE INTERPOLATED TO THE SPECIFIED ALTITUDE

TABLE NO. E5
AIRCRAFT NOISE PROPAGATION

METEDROLOGICAL DATA

(INTERPOLATED)*

(6/26/80)

TIME OF DAY

| | 5:00 | 5:30 | 6:30 | 7:00 | 8:00 | 9:00 |
|-------|----------------|-----------|-----------|-----------|-----------|---------|
| A.P.: | 29.94 | 29.94 | 29.93 | 29.93 | 29.93 | 29.94 |
| ALT: | TEMP&RH | TEMP&RH | TEMP&RH | TEMP&RH | TEMP&RH | TEMP&RH |
| 10: | 17.8 94.8:18.5 | 94.4:19.1 | 92.5:20.1 | 89.8:20.9 | 89.6:22.4 | 86.8: |
| 15: | 17.9 94.4:18.6 | 94.1:19.2 | 92.2:20.1 | 89.6:20.9 | 89.4:22.4 | 89.2: |
| 45: | 18.3 91.7:18.9 | 92.0:19.3 | 91.0:19.8 | 88.9:20.3 | 88.2:21.8 | 88.3: |
| 75: | 18.7 89.1:19.2 | 90.0:19.5 | 89.8:19.5 | 88.2:19.7 | 87.1:21.1 | 87.5: |
| 105: | 19.2 86.4:19.5 | 87.9:19.6 | 88.6:19.2 | 87.5:19.1 | 85.9:20.5 | 86.6: |
| 135: | 19.5 84.5:19.7 | 86.7:19.7 | 88.0:19.3 | 87.0:18.7 | 85.3:19.9 | 86.4: |
| 165: | 19.7 83.4:19.6 | 86.5:19.6 | 88.0:19.7 | 86.7:18.6 | 85.2:19.2 | 86.8: |
| 195: | 20.0 82.4:19.6 | 86.3:19.5 | 88.1:19.8 | 86.5:18.4 | 85.1:18.8 | 87.0: |
| 225: | 20.0 82.0:19.5 | 86.1:19.5 | 88.1:19.6 | 86.4:18.3 | 85.0:18.7 | 86.9: |
| 255: | 19.7 82.3:19.5 | 85.9:19.4 | 88.1:19.4 | 86.2:18.1 | 84.9:18.7 | 86.8: |
| 285: | 19.4 82.6:19.5 | 85.7:19.4 | 88.1:19.2 | 86.0:18.0 | 84.8:18.6 | 86.6: |
| 315: | 19.1 82.9:19.4 | 85.4:19.3 | 88.2:19.0 | 85.9:17.8 | 84.7:18.6 | 86.5: |
| 345: | 18.8 83.2:19.4 | 85.2:19.2 | 88.2:18.8 | 85.7:17.6 | 84.6:18.5 | 86.3: |
| 375: | 18.6 83.4:19.3 | 85.0:19.1 | 88.1:18.6 | 85.5:17.5 | 84.5:18.5 | 86.2: |
| 405: | 18.3 83.7:19.2 | 84.9:18.9 | 88.0:18.4 | 85.4:17.3 | 84.4:18.5 | 86.1: |
| 435: | 18.0 84.0:18.9 | 85.0:18.7 | 87.9:18.2 | 85.2:17.2 | 84.3:18.4 | 85.4: |
| 465: | 17.7 84.3:18.7 | 85.0:18.5 | 87.8:18.0 | 85.0:17.0 | 84.2:18.3 | 83.5: |
| 495: | 17.4 84.6:18.4 | 85.1:18.2 | 87.7:17.8 | 84.9:16.9 | 84.1:18.2 | 80.9: |
| 525: | 17.2 84.8:18.2 | 85.1:18.0 | 87.5:17.6 | 84.7:16.7 | 83.6:18.0 | 78.2: |
| 555: | 16.9 85.1:17.9 | 85.2:17.8 | 87.4:17.4 | 84.5:16.5 | 81.5:17.4 | 75.5: |
| 585: | 16.6 85.4:17.7 | 85.2:17.6 | 87.3:17.2 | 84.4:16.2 | 78.4:17.8 | 72.9: |
| 615: | 16.3 85.6:17.4 | 85.3:17.4 | 87.2:17.0 | 84.2:16.0 | 77.5:17.6 | 70.2: |
| 645: | 16.1 85.7:17.1 | 85.3:17.1 | 87.1:16.8 | 84.0:15.9 | 79.0:17.5 | 67.6: |
| 675: | 15.9 85.7:16.9 | 85.4:16.9 | 86.9:16.6 | 83.9:15.7 | 80.7:17.4 | 64.9: |
| 705: | 15.7 85.6:16.6 | 85.4:16.7 | 86.8:16.4 | 83.7:15.6 | 82.5:17.2 | 62.3: |
| 735: | 15.5 85.6:16.4 | 85.5:16.5 | 86.7:16.2 | 83.5:15.4 | 83.3:17.1 | 59.6: |
| 765: | 15.3 85.6:16.1 | 85.5:16.3 | 86.6:16.0 | 83.4:15.2 | 83.2:17.0 | 56.9: |
| 795: | 15.1 85.6:15.9 | 85.6:16.0 | 86.5:15.8 | 83.2:14.9 | 83.0:16.9 | 54.3: |
| 825: | 14.9 85.5:15.6 | 85.6:15.8 | 86.3:15.6 | 83.0:14.7 | 82.9:16.7 | 51.6: |
| 855: | 14.7 85.5:15.4 | 85.7:15.6 | 86.2:15.4 | 82.9:14.5 | 82.7:16.6 | 49.0: |
| 885: | 14.5 85.5:15.1 | 85.7:15.4 | 86.1:15.2 | 82.7:14.3 | 82.5:16.5 | 46.3: |
| 915: | 14.3 85.5:14.8 | 85.8:15.2 | 86.0:15.0 | 82.5:14.1 | 82.4:16.3 | 43.7: |
| 945: | 14.1 85.4:14.6 | 85.8:14.9 | 85.9:14.8 | 82.4:13.8 | 82.2:16.2 | 41.0: |
| 975: | 13.9 85.4:14.3 | 85.9:14.7 | 85.7:14.6 | 82.2:13.6 | 82.1:16.1 | 39.2: |
| 1005: | 13.7 85.4:14.1 | 85.9:14.5 | 85.6:14.4 | 82.2:13.5 | 82.0:16.1 | 38.8: |
| 1035: | 13.5 85.4:13.8 | 86.0:14.3 | 85.5: | 13.5 | 82.0:16.1 | 38.8: |
| 1065: | 13.3 85.4:13.6 | 86.0: | | | | |
| 1095: | 13.1 85.3:13.6 | 86.0: | | | | |
| 1125: | 12.9 84.8: | | | | | |
| 1155: | 12.8 82.6: | | | | | |
| 1185: | 12.7 78.0: | | | | | |
| 1215: | 13.2 68.5: | | | | | |
| 1245: | 13.9 55.3: | | | | | |
| 1275: | 14.7 42.1: | | | | | |
| 1305: | 15.4 28.9: | | | | | |
| 1335: | 16.1 16.2: | | | | | |
| 1365: | 16.4 10.0: | | | | | |
| 1395: | 16.1 9.9: | | | | | |
| 1425: | 15.9 9.9: | | | | | |
| 1455: | 15.7 9.8: | | | | | |
| 1485: | 15.5 9.7: | | | | | |
| 1515: | 15.2 9.7: | | | | | |
| 1545: | 15.0 9.6: | | | | | |
| 1575: | 14.7 9.5: | | | | | |
| 1605: | 14.4 9.5: | | | | | |
| 1635: | 14.2 9.4: | | | | | |
| 1665: | 13.9 9.3: | | | | | |
| 1695: | 13.7 9.2: | | | | | |
| 1725: | 13.4 9.2: | | | | | |
| 1755: | 13.1 9.1: | | | | | |
| 1785: | 12.9 9.0: | | | | | |
| 1815: | 12.6 9.0: | | | | | |
| 1845: | 12.3 7.8: | | | | | |
| 1875: | 12.0 4.9: | | | | | |
| 1905: | 11.7 1.6: | | | | | |

NOTE: Average altitude(ALT): meters
Temperature(TEMP): Deg. Celsius
Relative humidity(RH): %
Atmospheric Pressure(A.P.): in. Hg

* TEMPERATURE AND HUMIDITY DATA ARE INTERPOLATED TO THE SPECIFIED ALTITUDE

FIGURE E1-1

DATE 6/22/80
 ASC. NO. 2
 LAUNCH TIME 5:35 AM

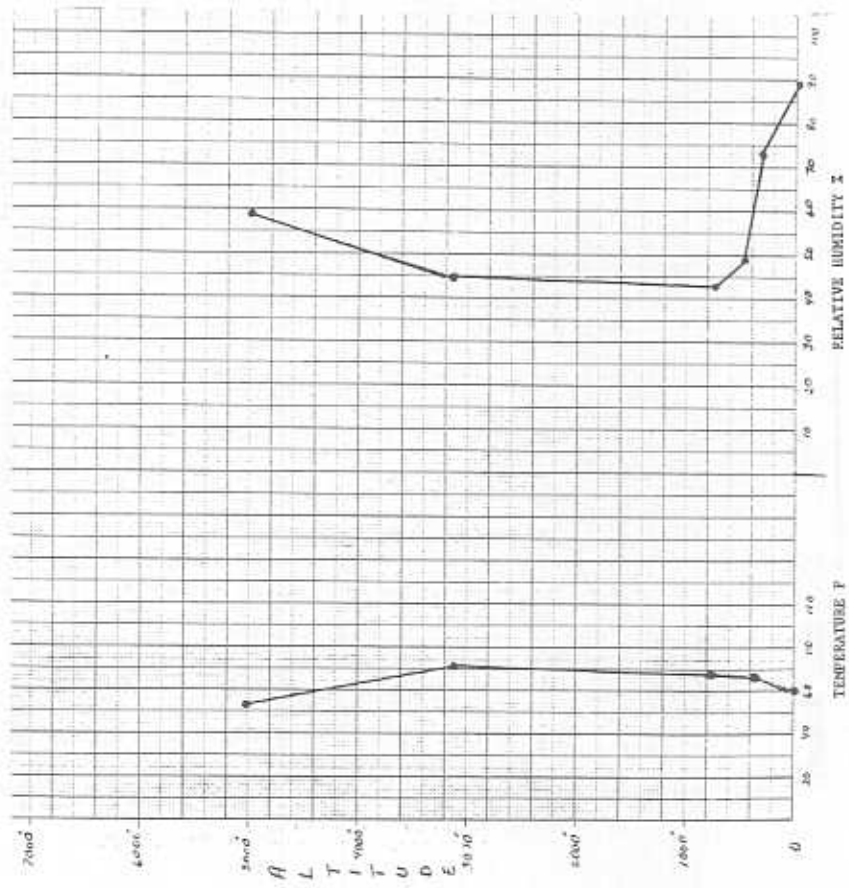
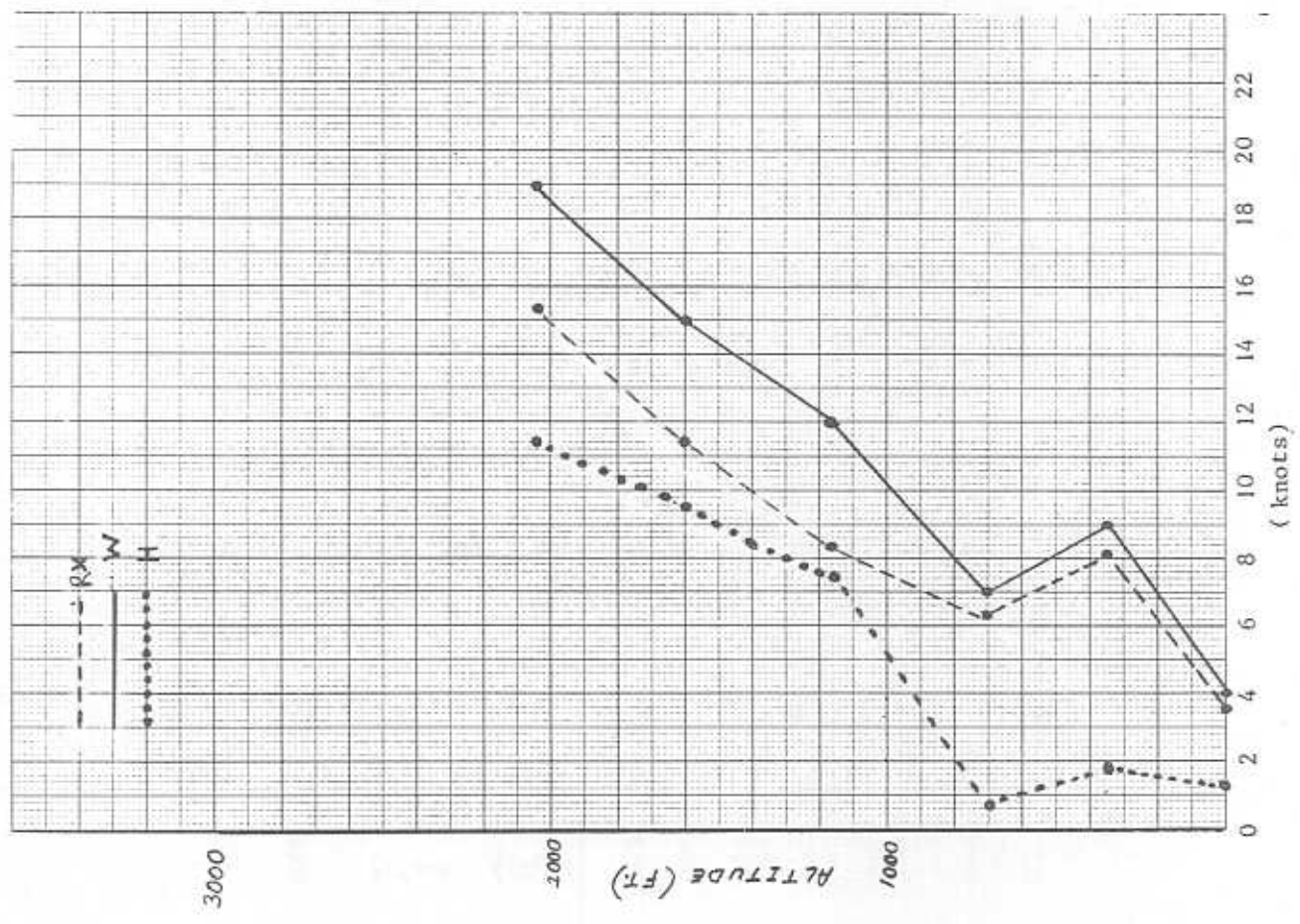


FIGURE E1-2

DATE 6/22/30
 ASC. NO. 3
 LAUNCH TIME 6:11 AM

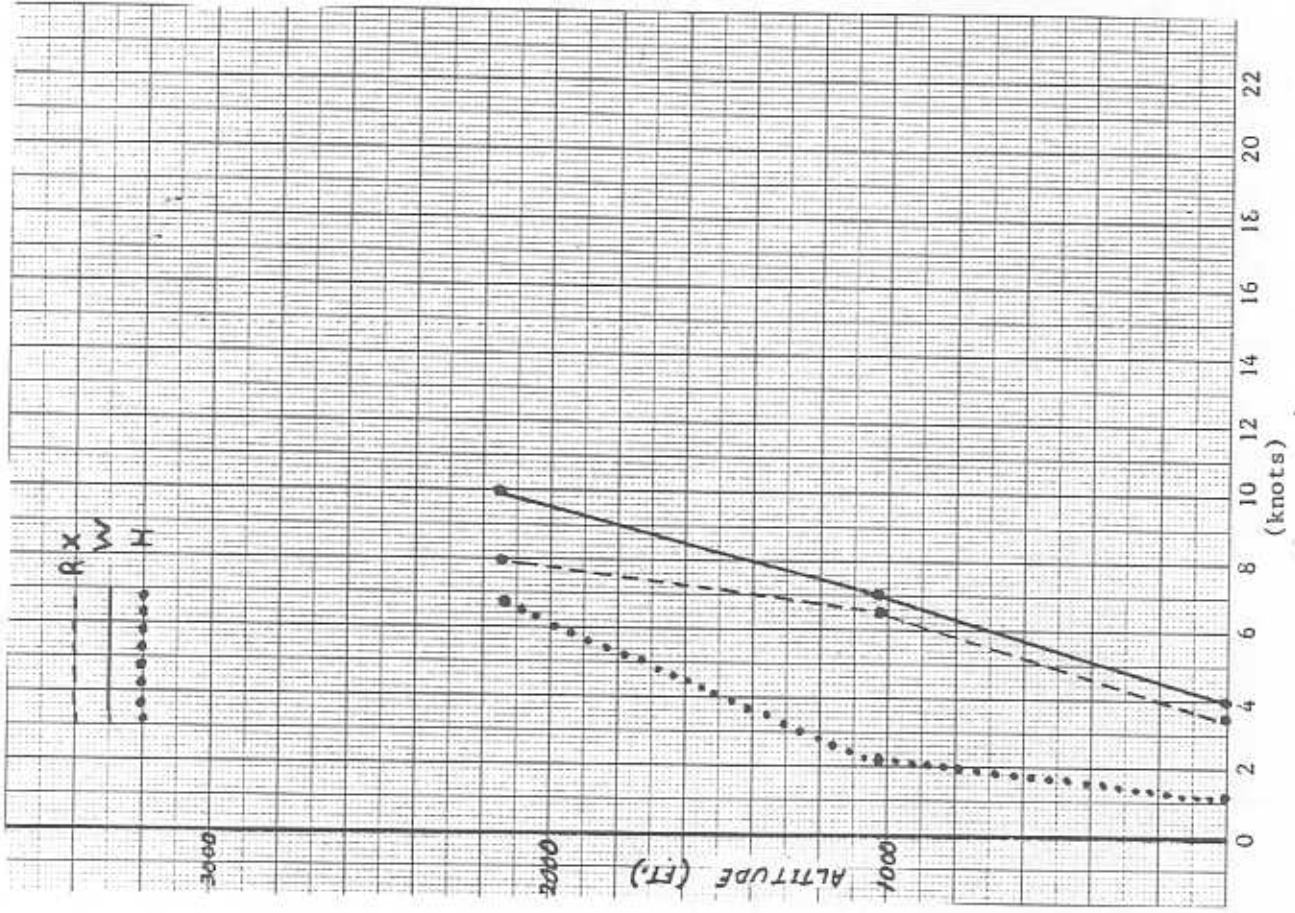
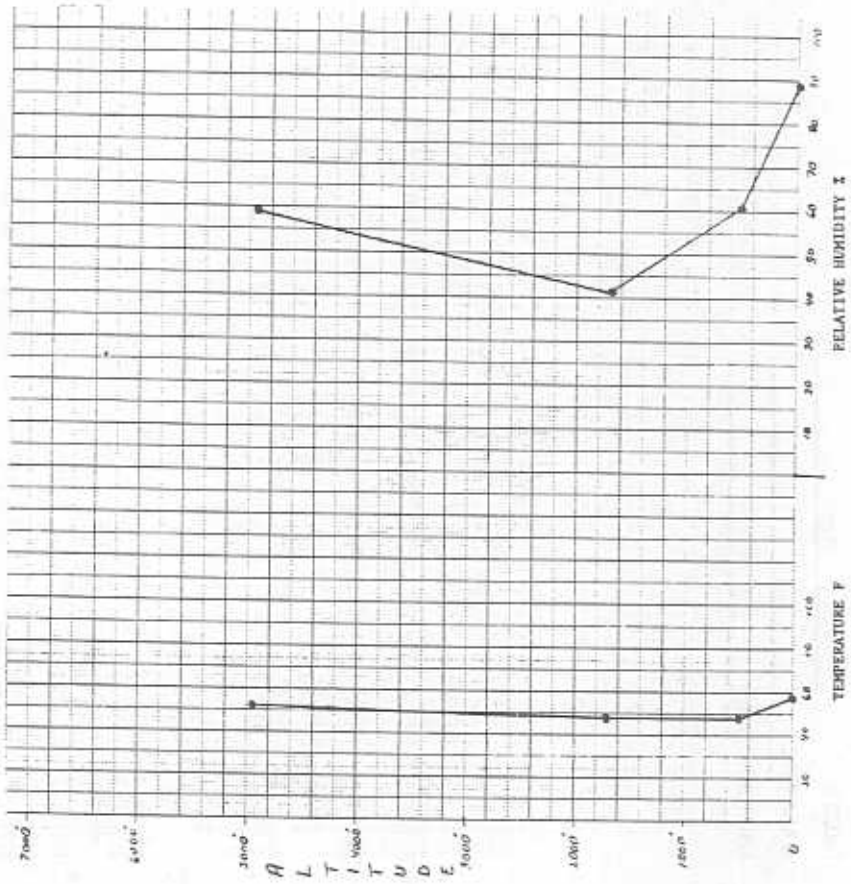


FIGURE E1-3

DATE 6/22/80
 ASC. NO. 4
 LAUNCH TIME 6:30 AM

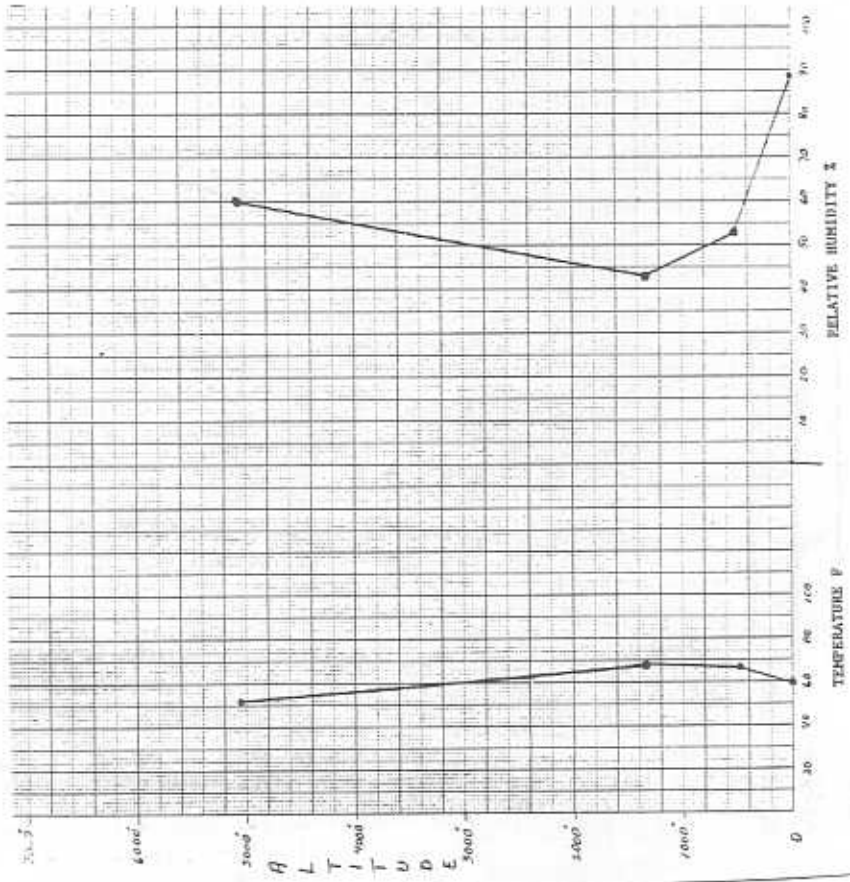
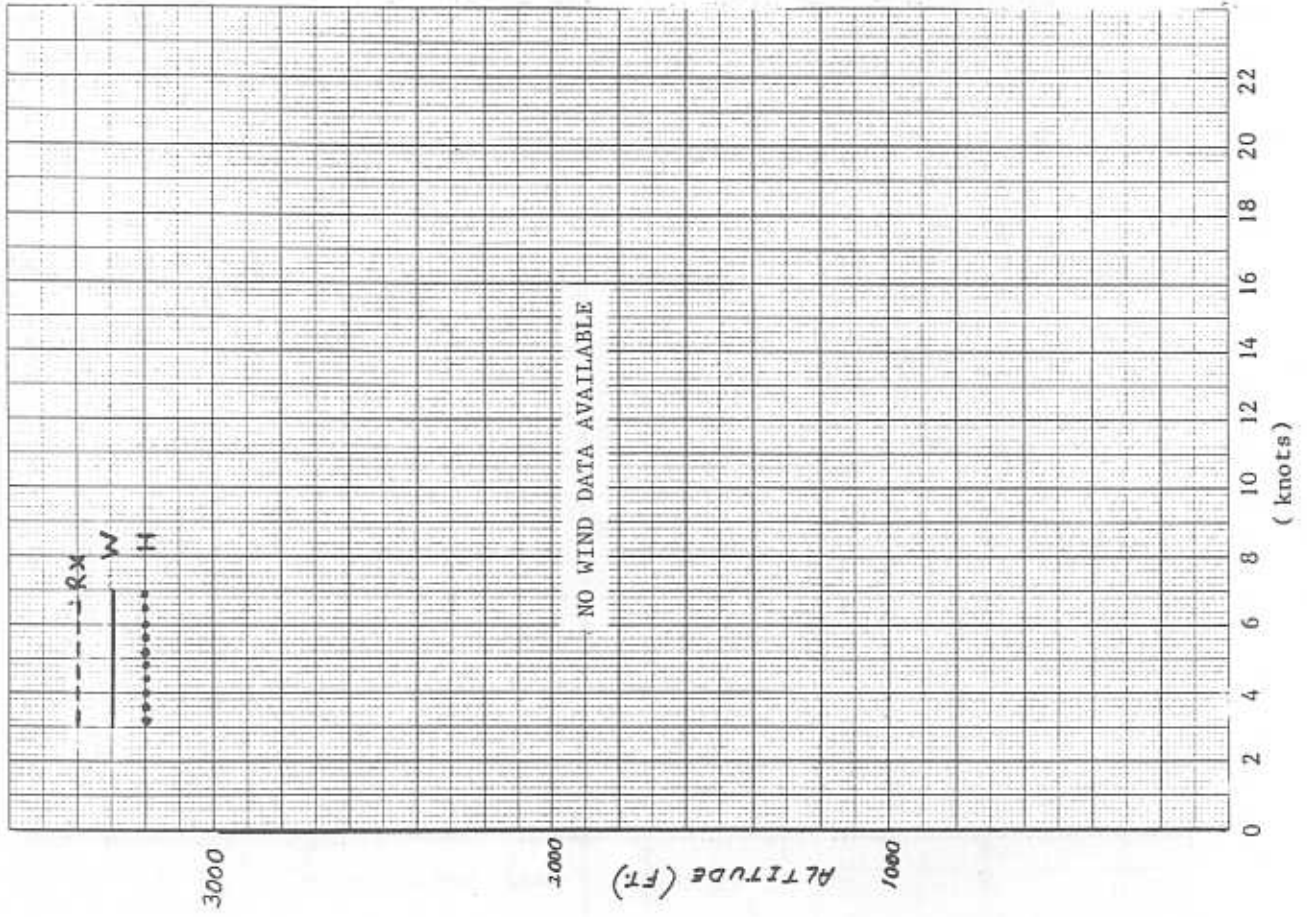
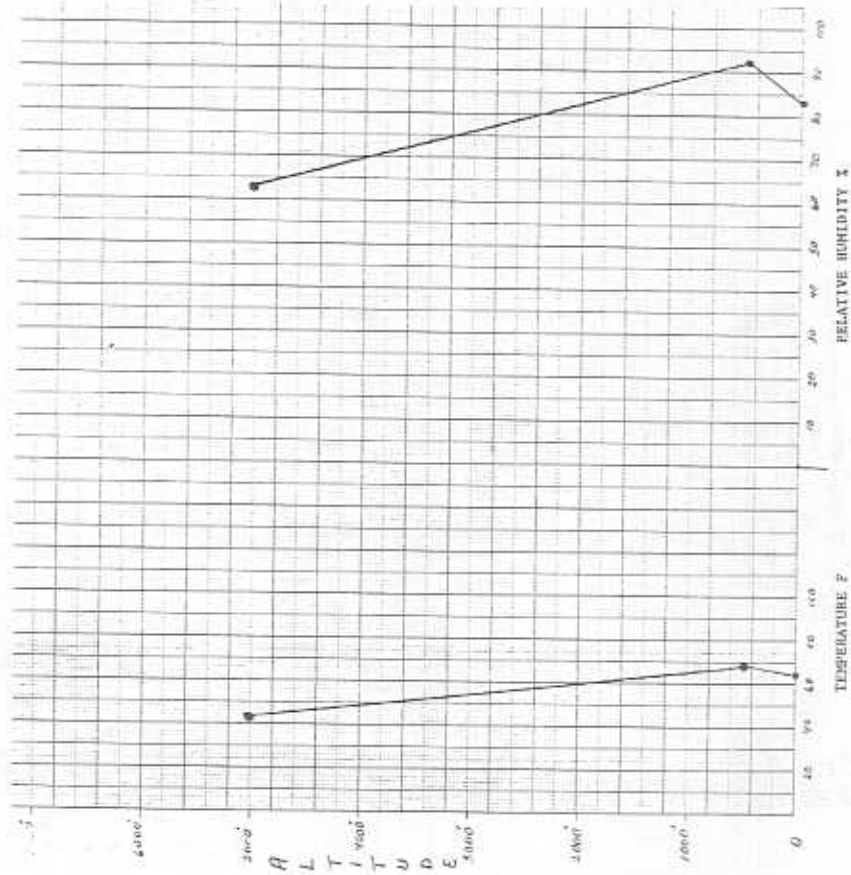
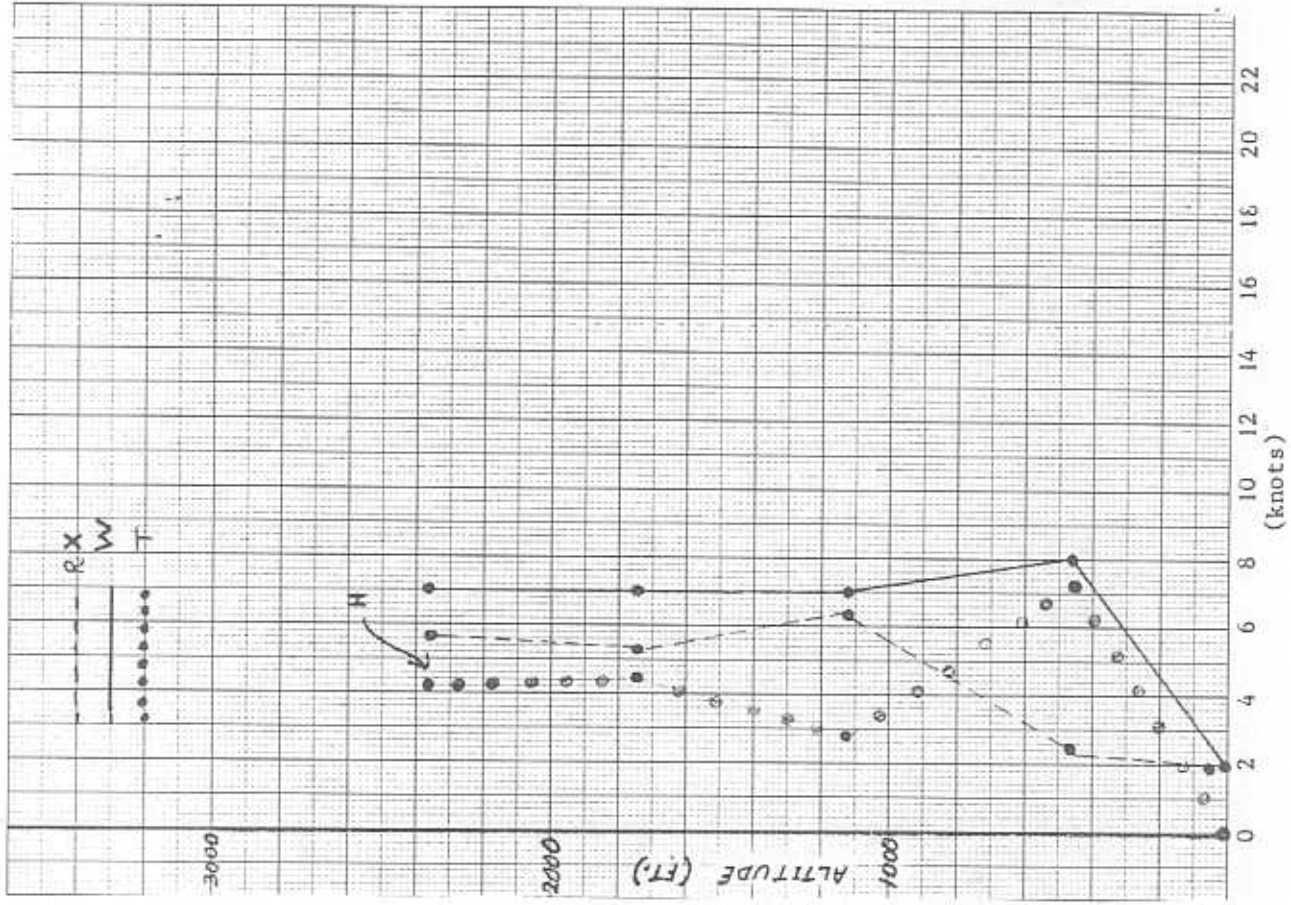


FIGURE E1-4

DATE 6/22/80
 ASC. NO. 5
 LAUNCH TIME 7:22 AM



DATE 6/22/50
 ASC. NO. 6
 LAUNCH TIME 8:00 A.M.

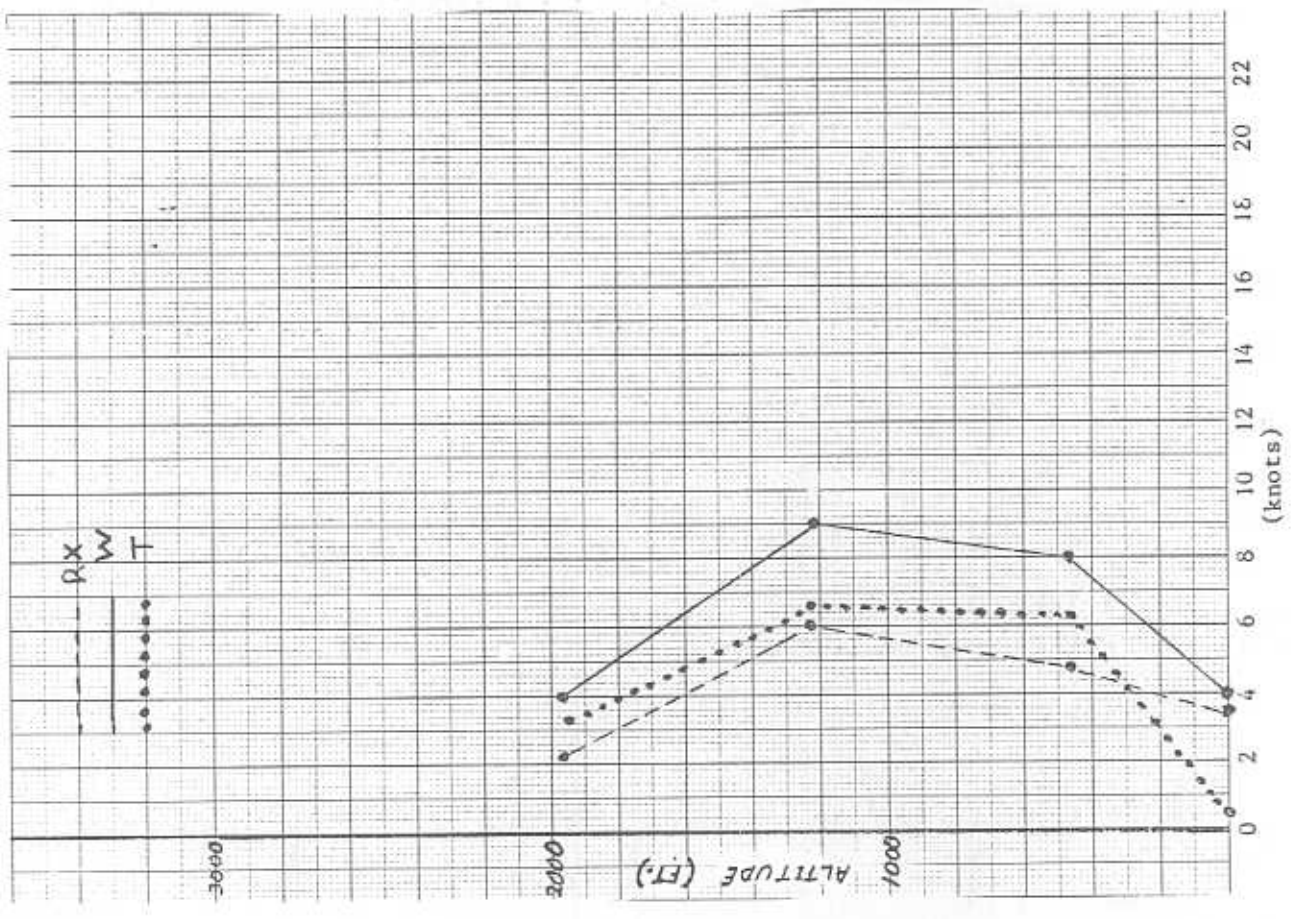


FIGURE E1-5

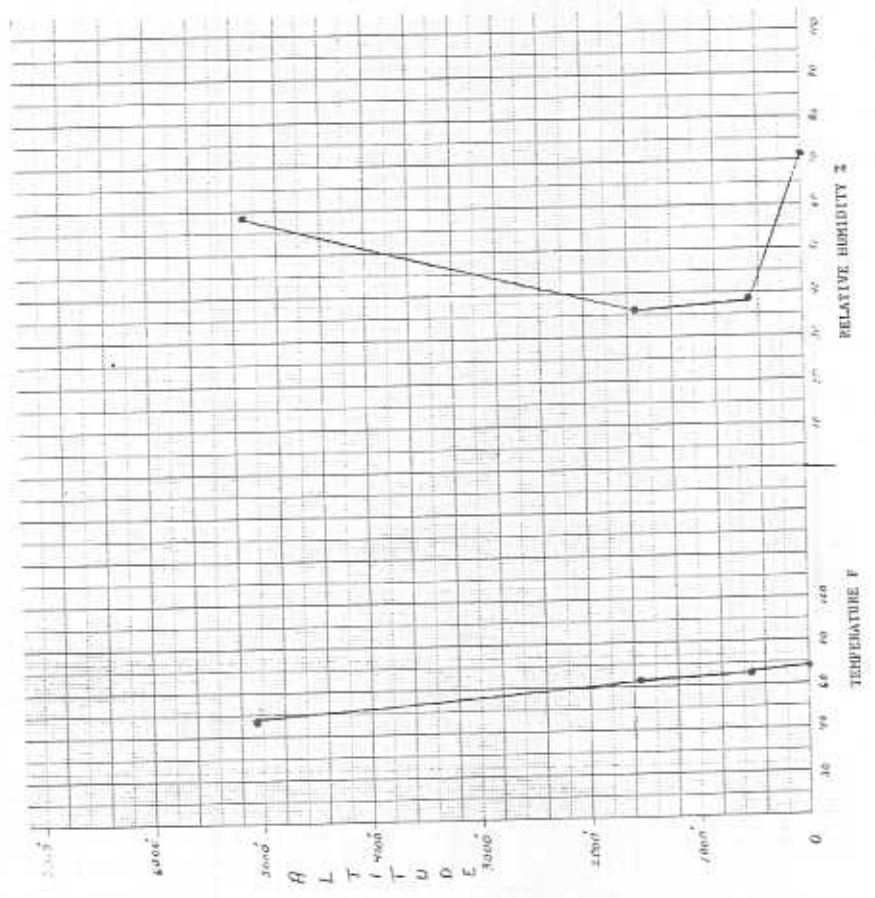
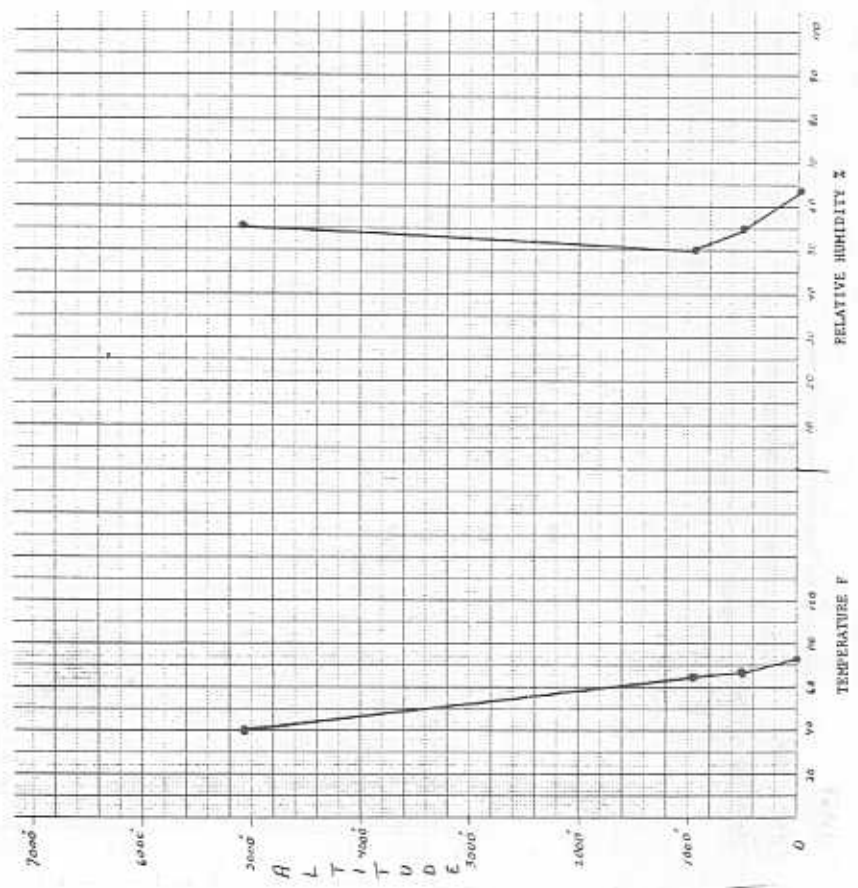
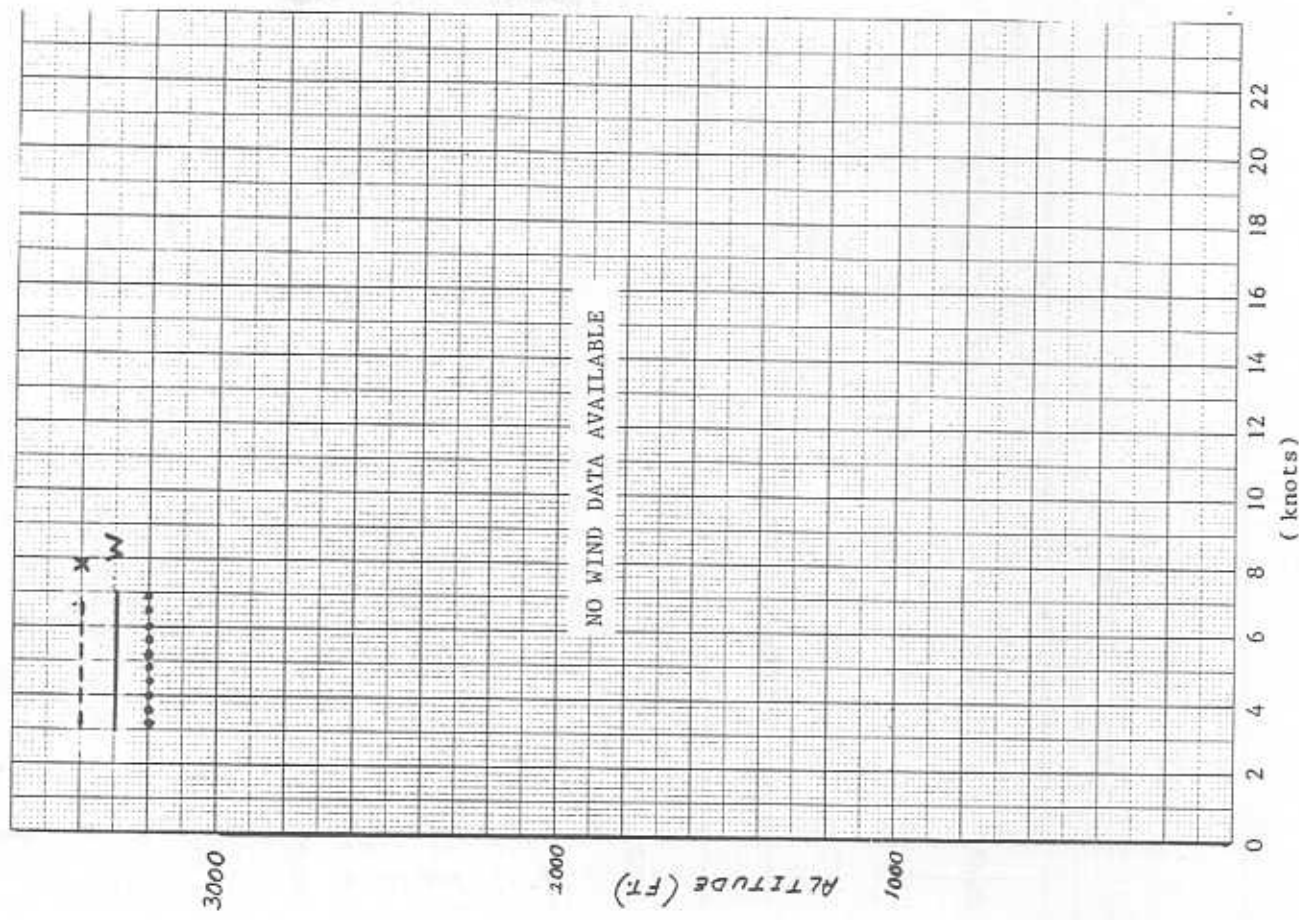


FIGURE E1-6

DATE 6/22/33
 ASC. NO. 7
 LAUNCH TIME 9:00 AM



DATE 6/23/80
 ASC. NO. 8
 LAUNCH TIME 5:00 AM

FIGURE E2-1

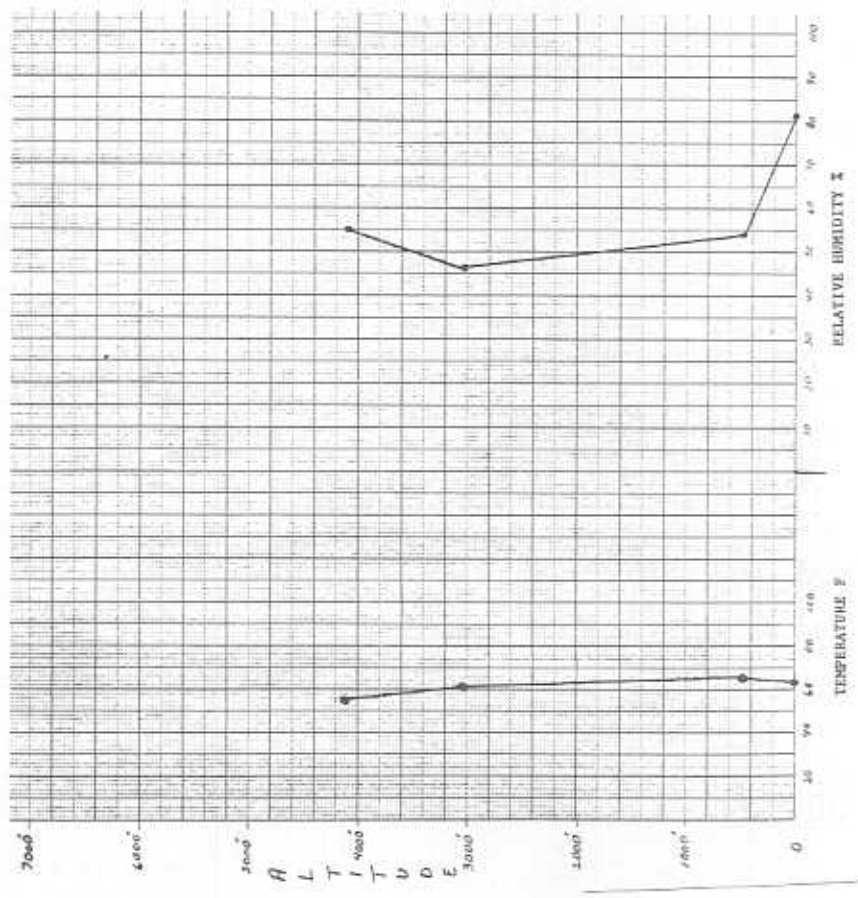
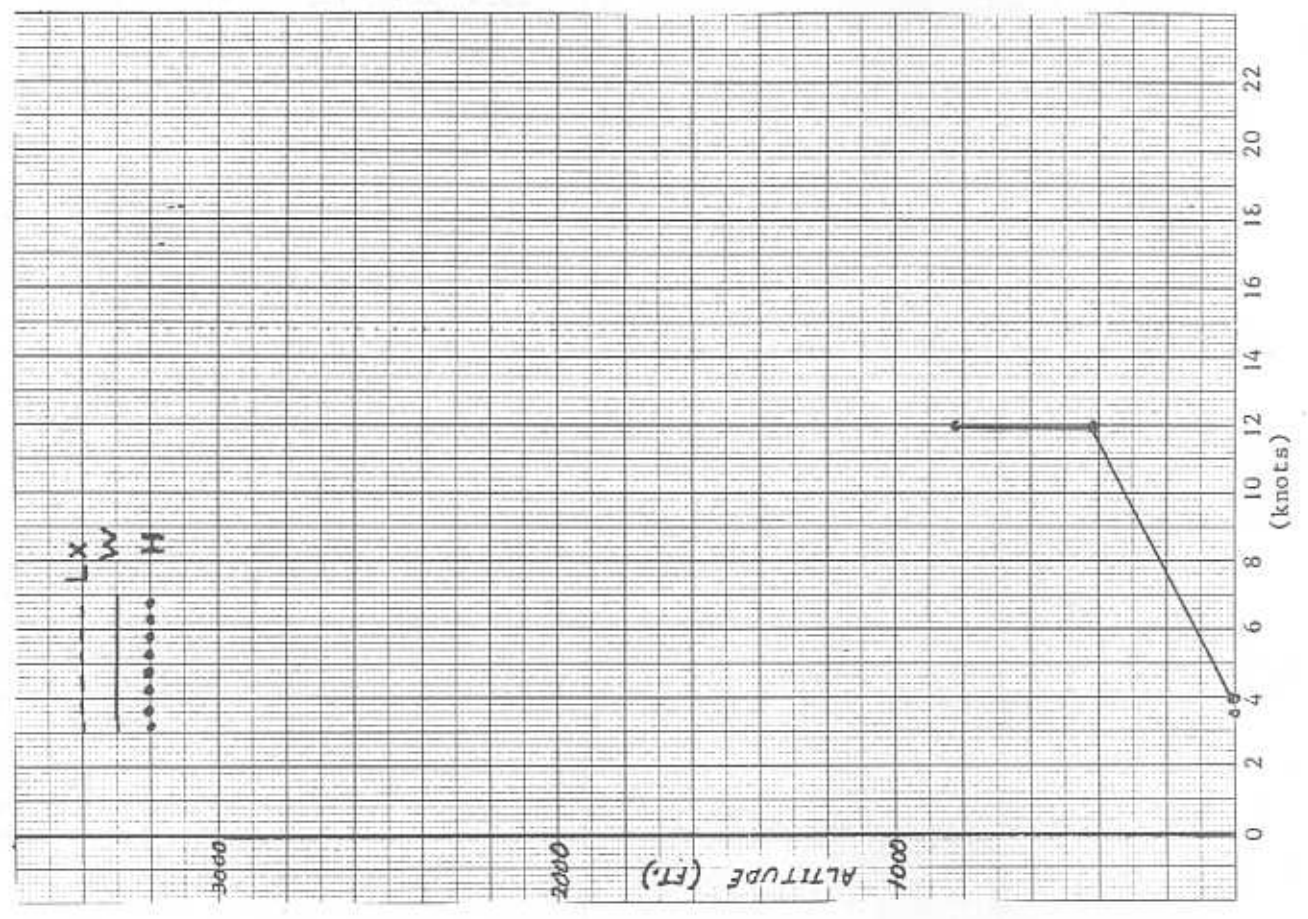


FIGURE E2-2

DATE 6/2-53
 ASC. NO. 1
 LAUNCH TIME 5:03 PM

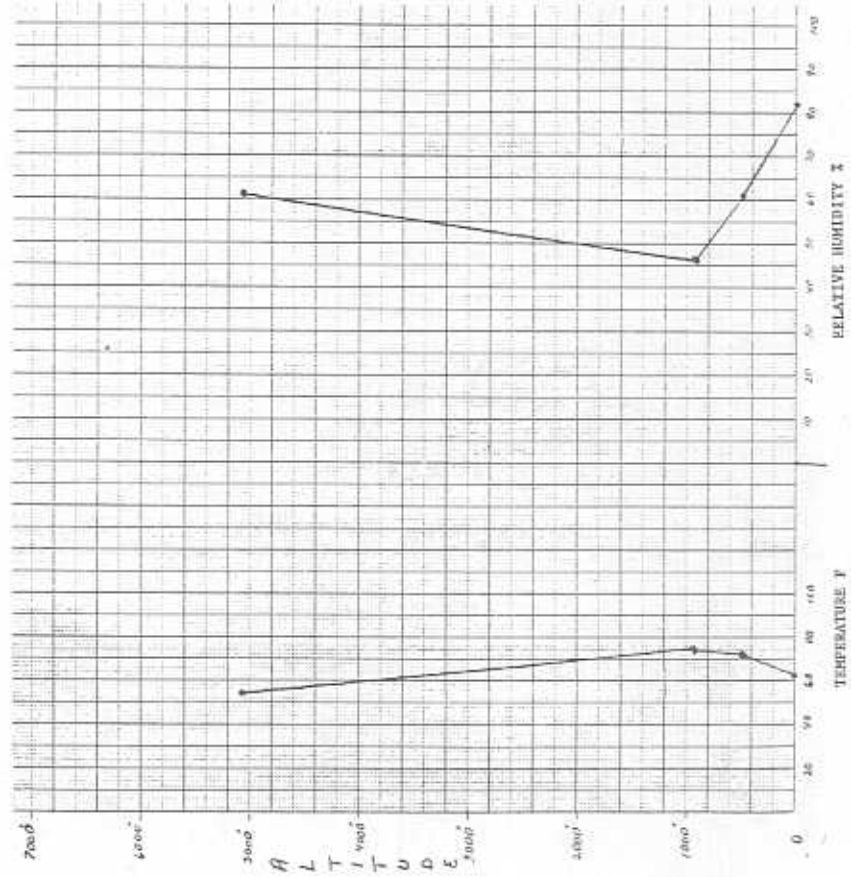
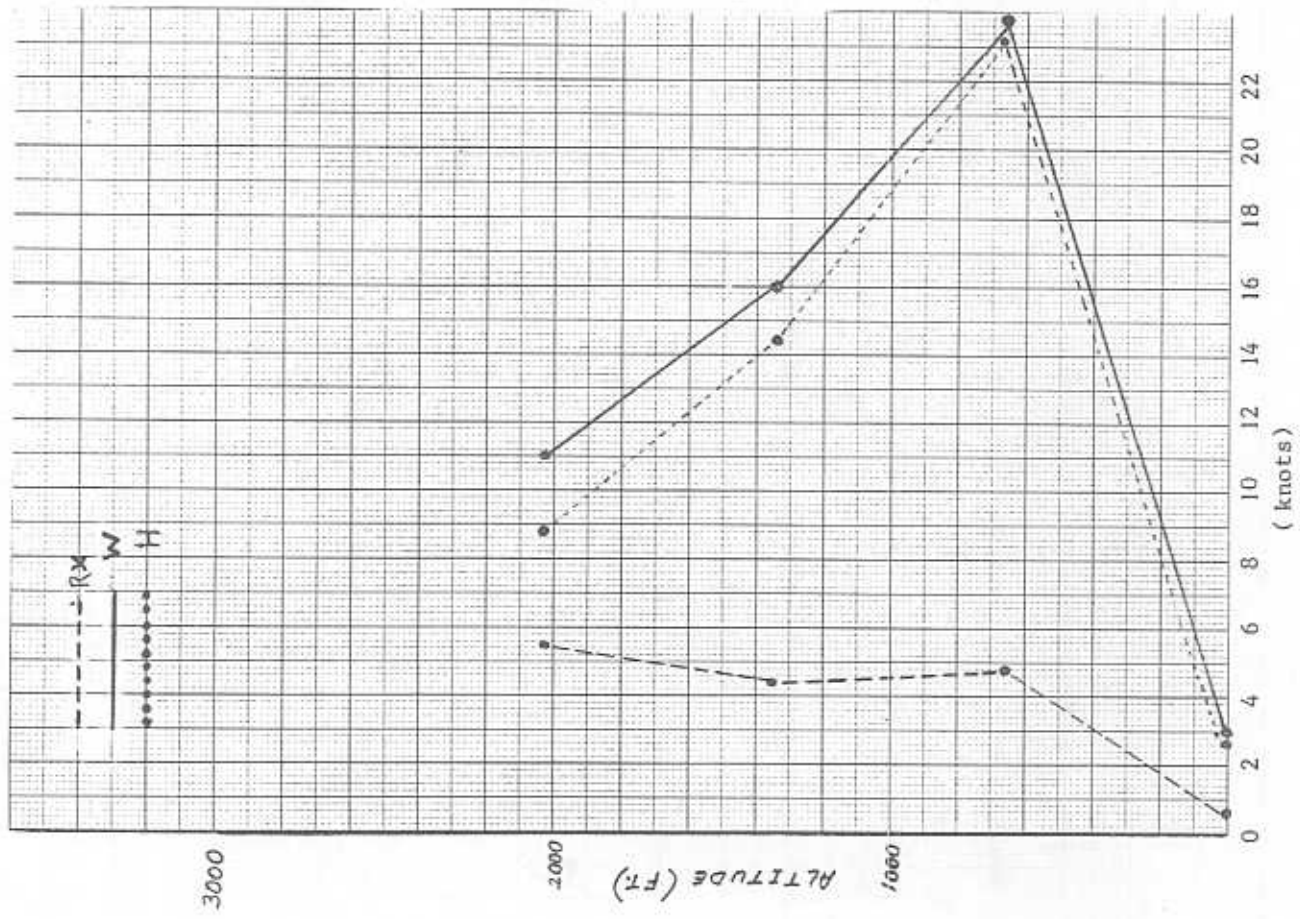
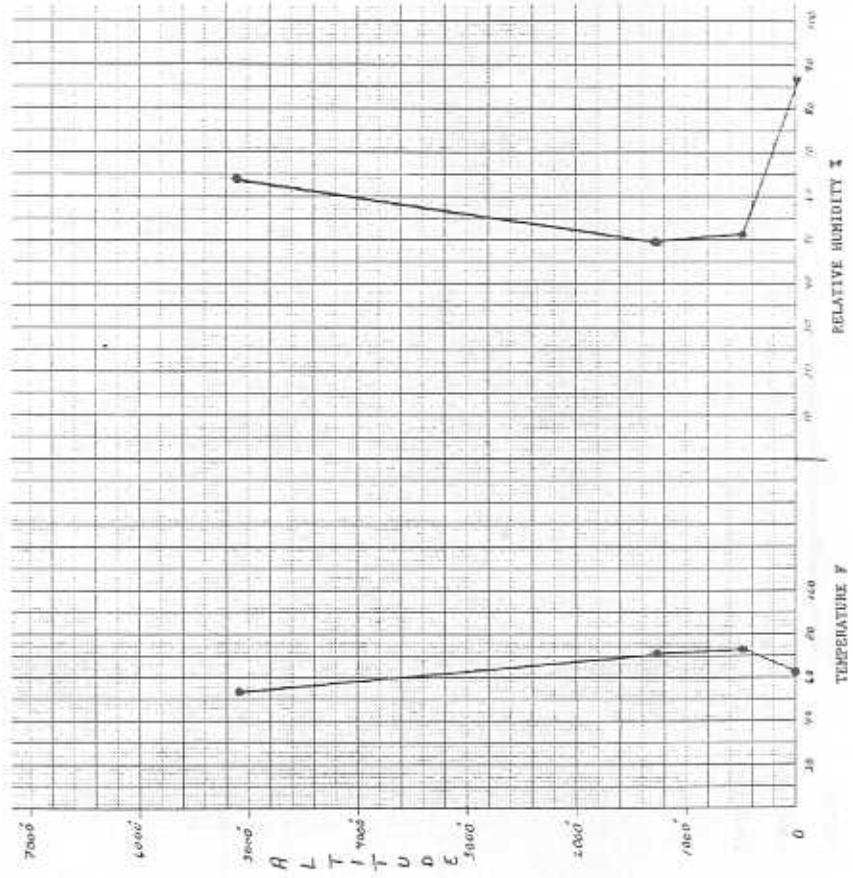
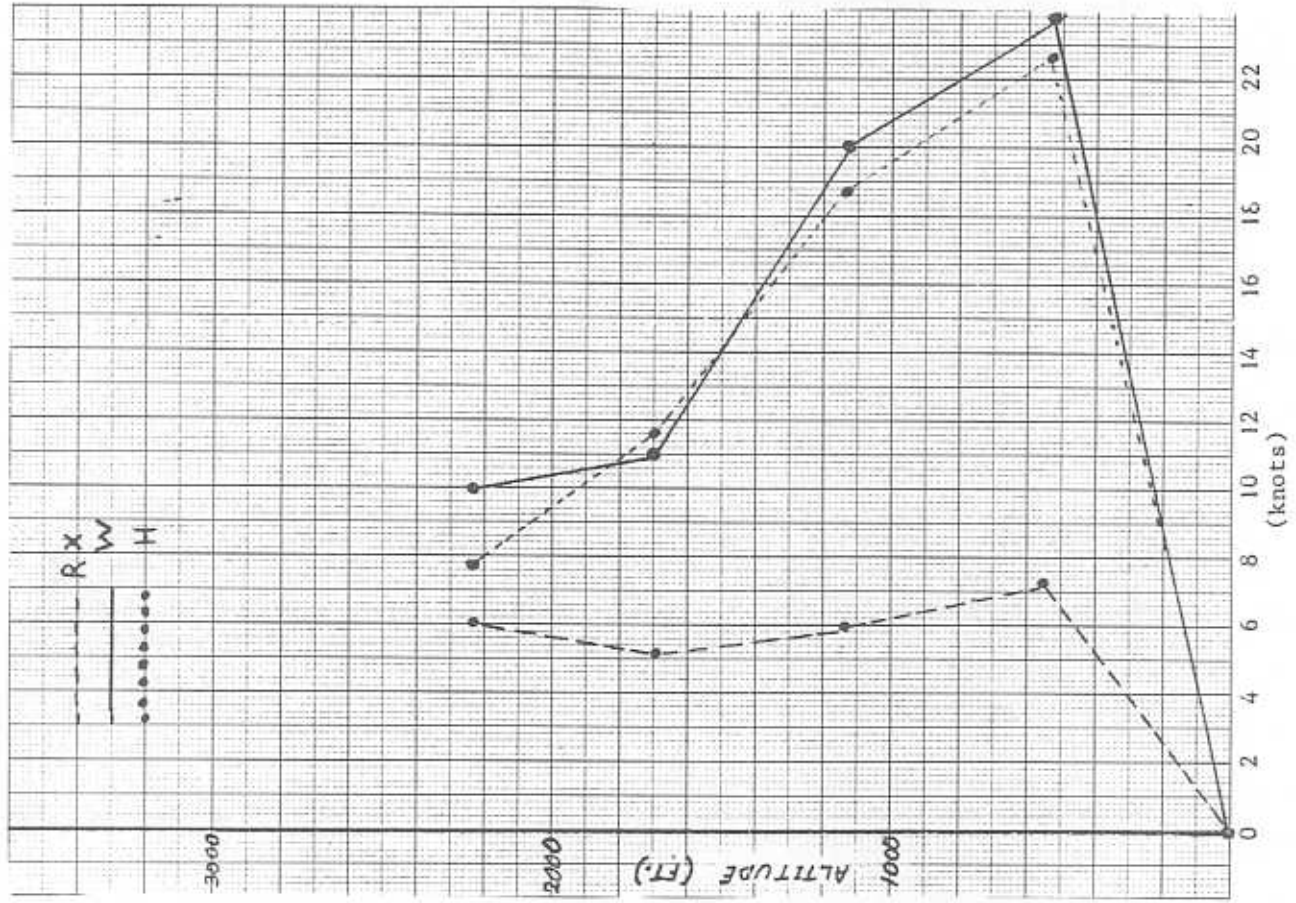


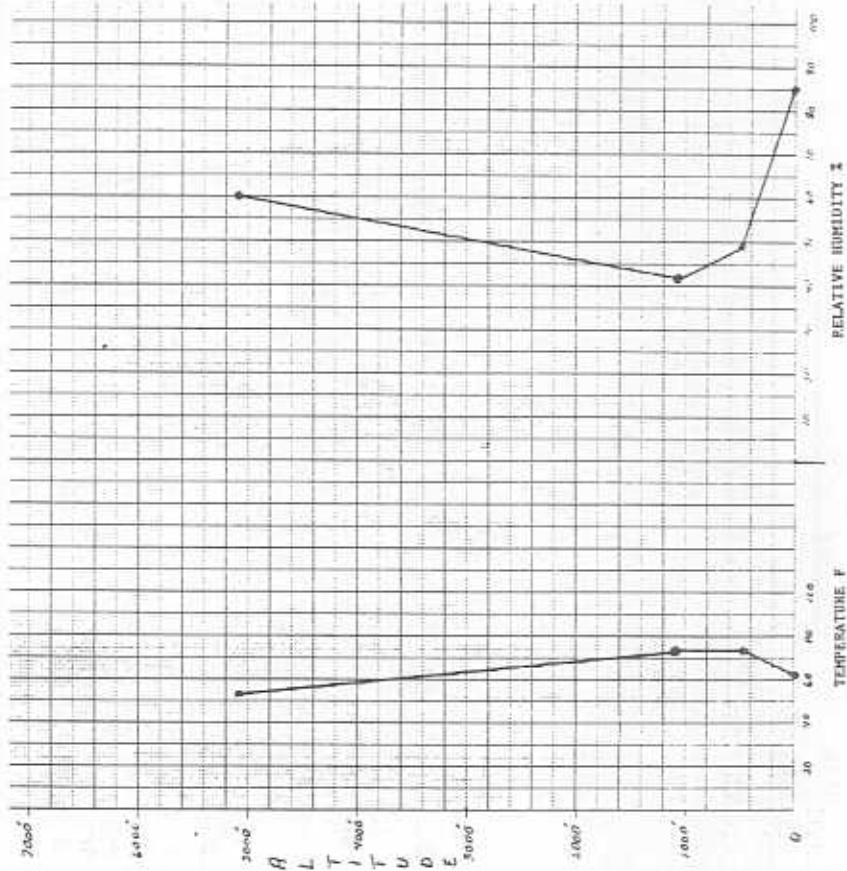
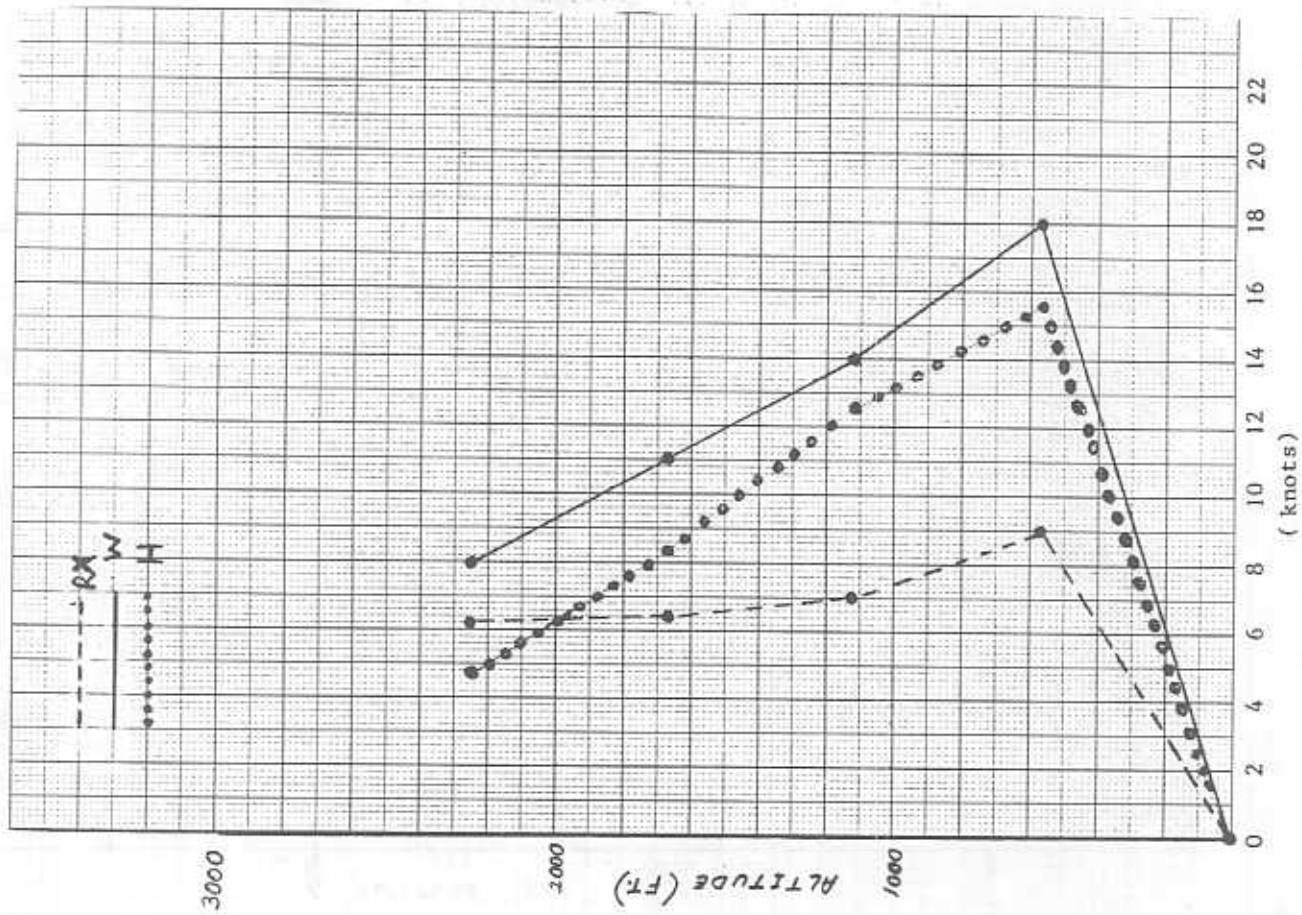
FIGURE E2-3

DATE 6/23/80
 ASC. NO. 10
 LAUNCH TIME 2:05 PM



DATE 6/22/90
 ASC. NO. 11
 LAUNCH TIME 6:30 P.M.

FIGURE E2-4



DATE 6/22/50
 ASC. NO. 12
 LAUNCH TIME 7:00 A.M.

FIGURE E2-5

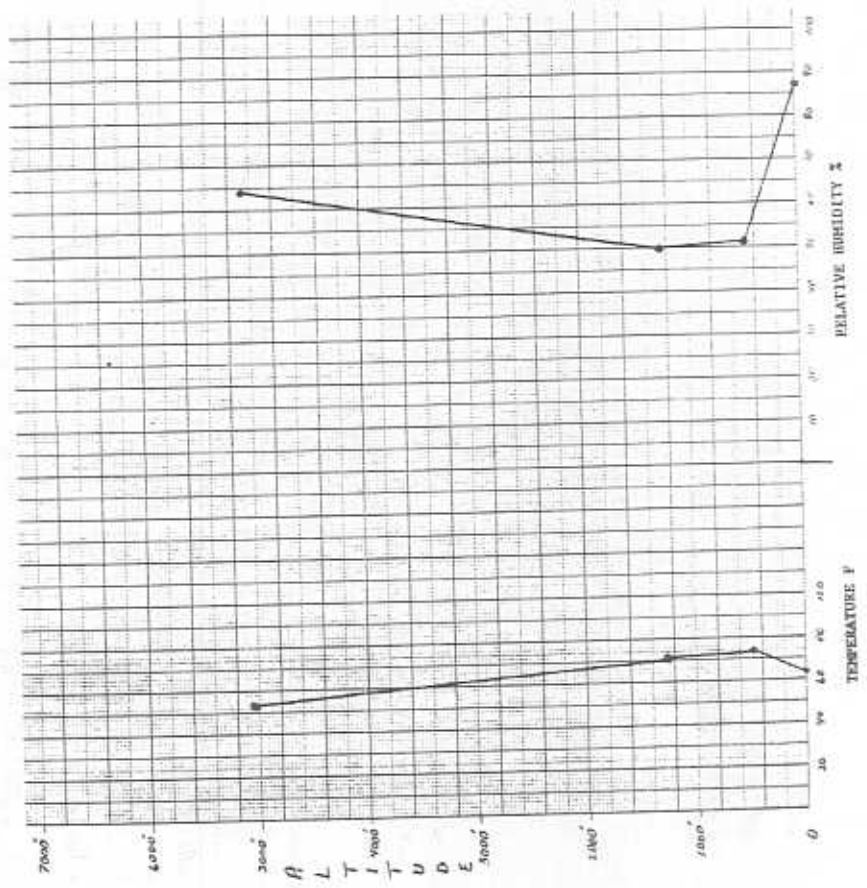
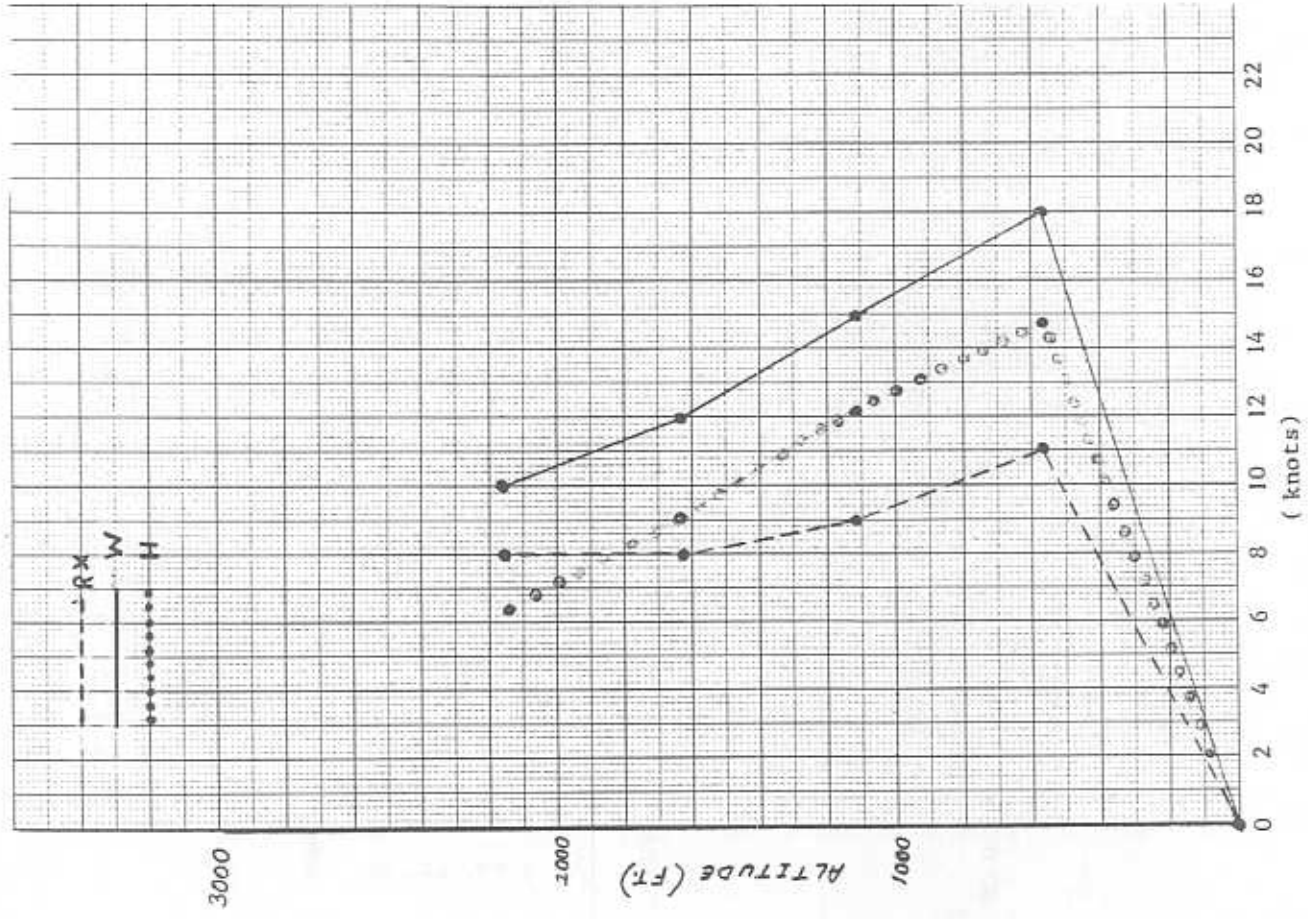
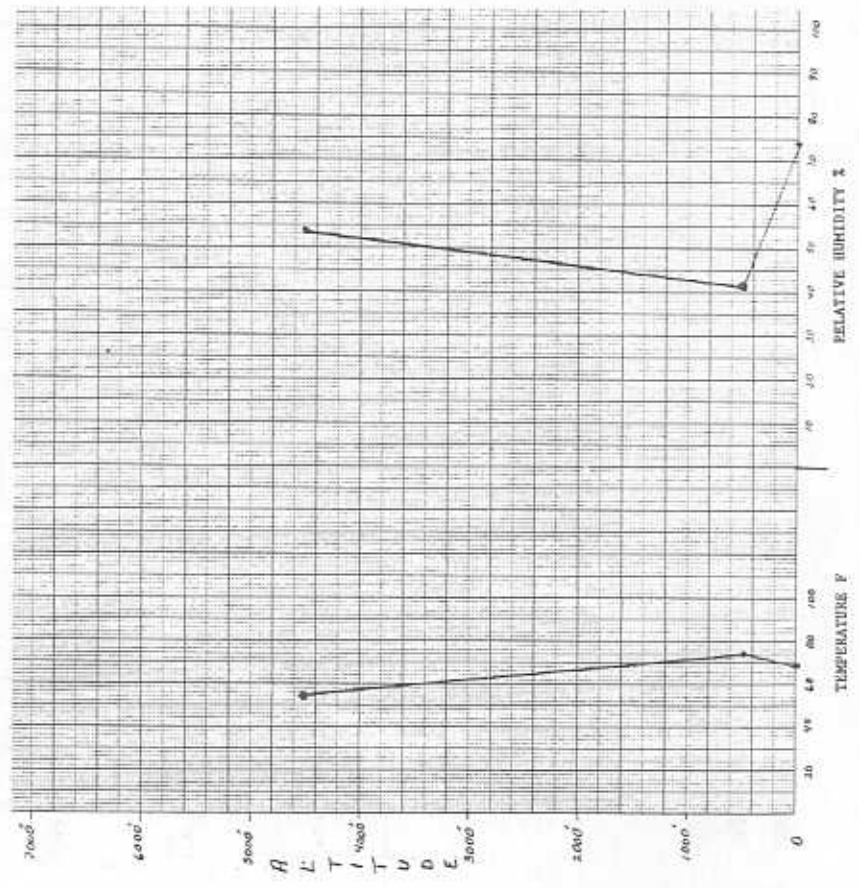
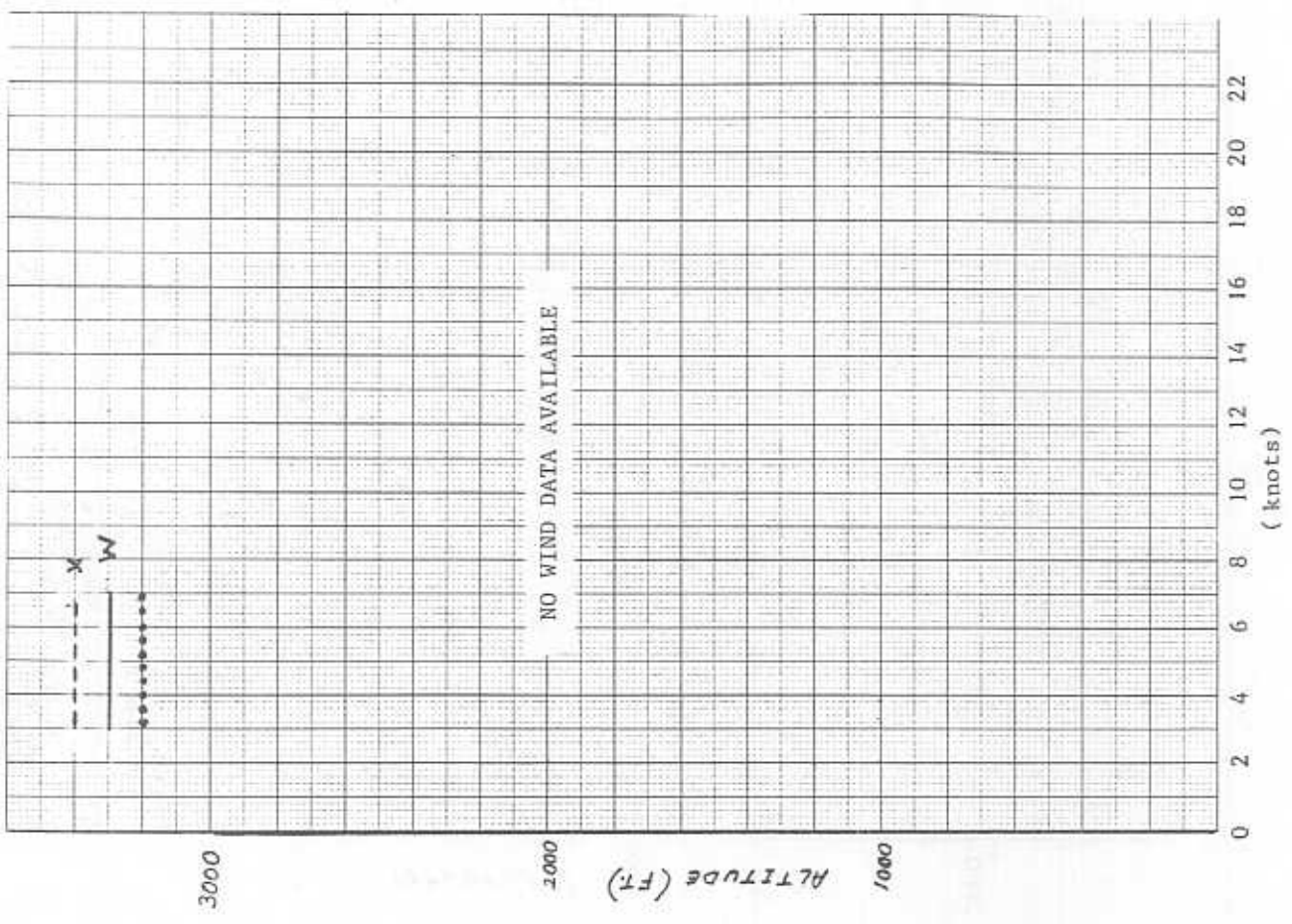


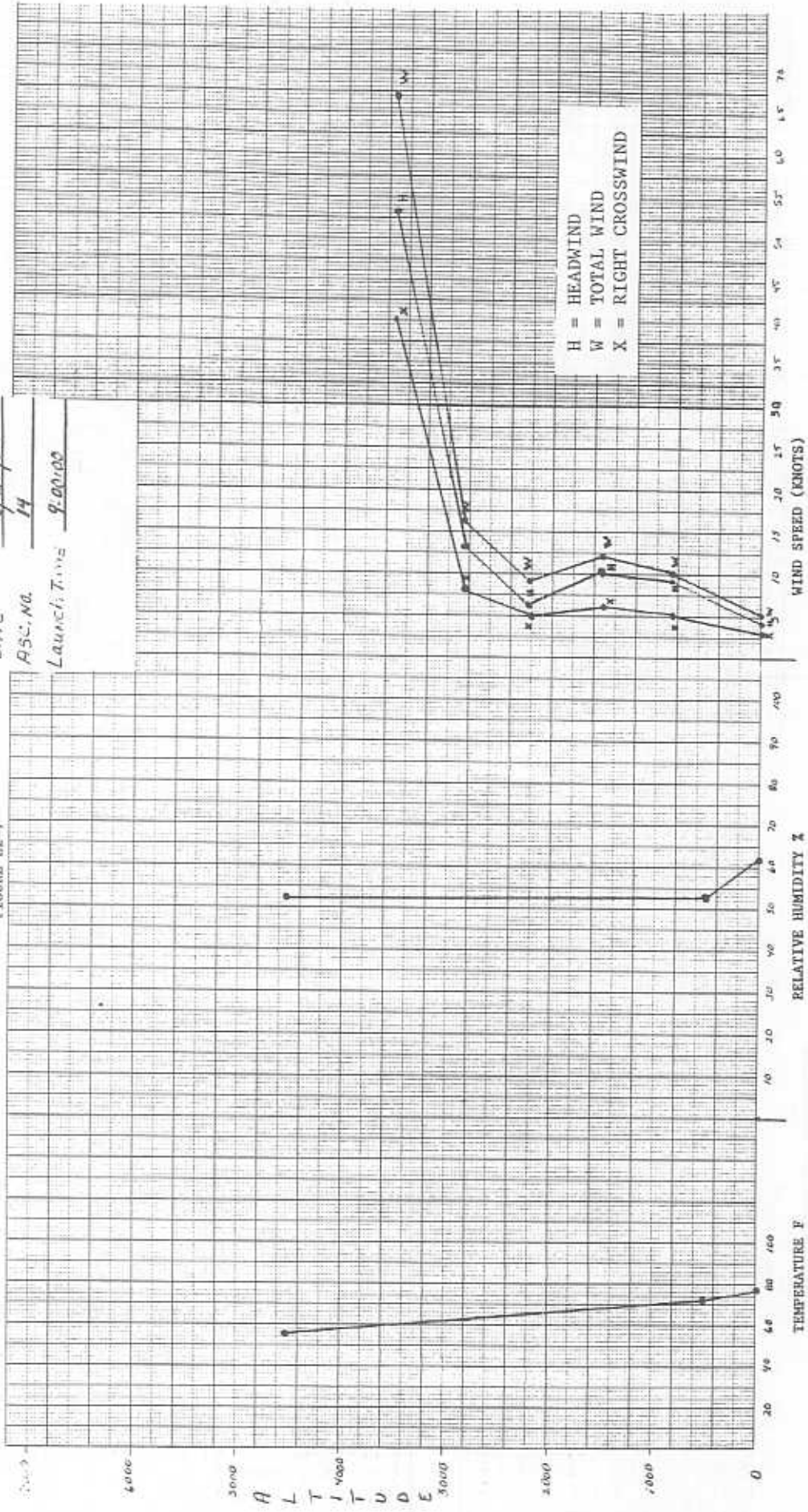
FIGURE E2-6

DATE 6/2-83
 ASC. NO. 13
 LAUNCH TIME 7:51 A/A



DATE 6/13/80
 ASS. NO. 14
 LAUNCH TIME 9:00:00

FIGURE E2-7



ALTITUDE

TEMPERATURE F

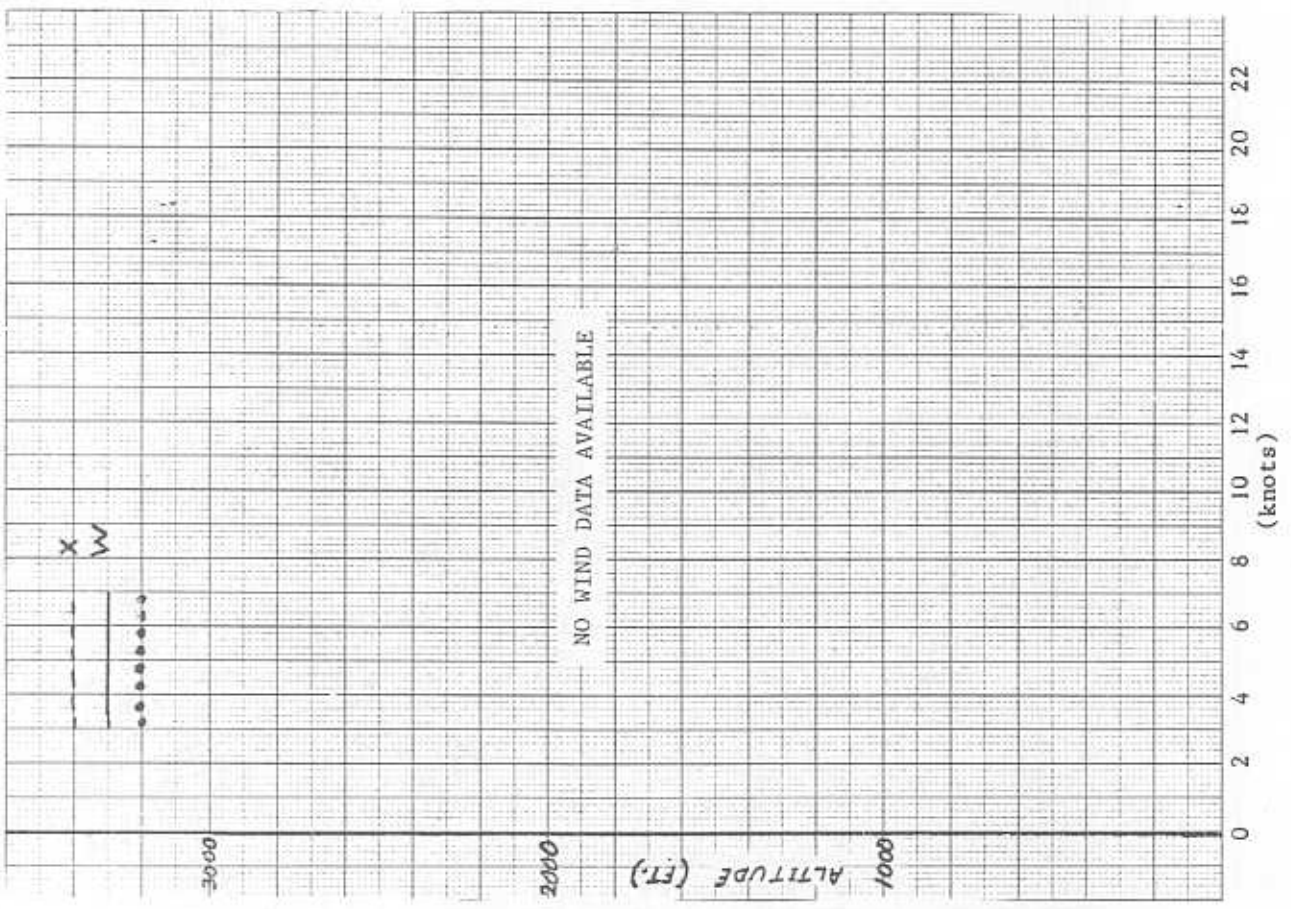
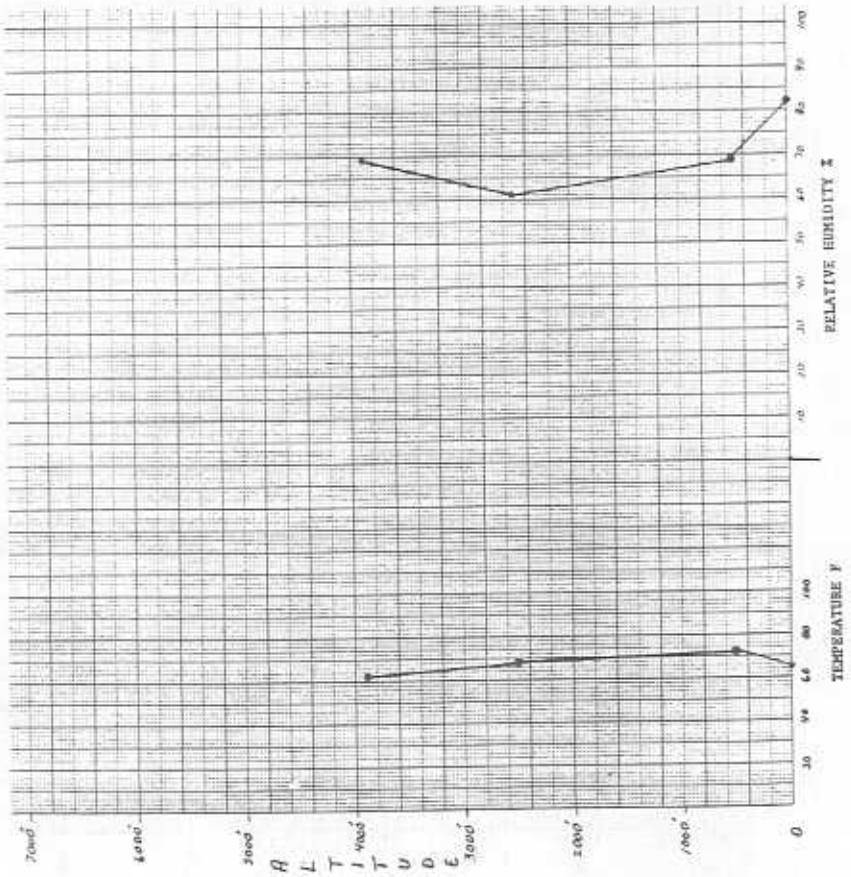
RELATIVE HUMIDITY %

WIND SPEED (KNOTS)

H = HEADWIND
 W = TOTAL WIND
 X = RIGHT CROSSWIND

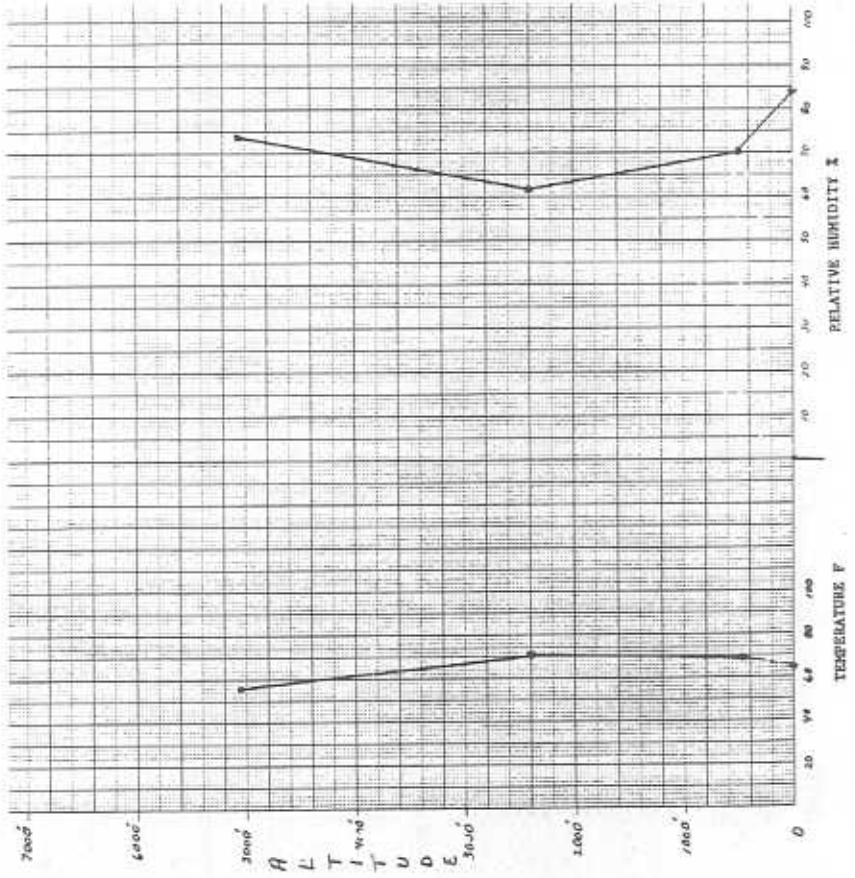
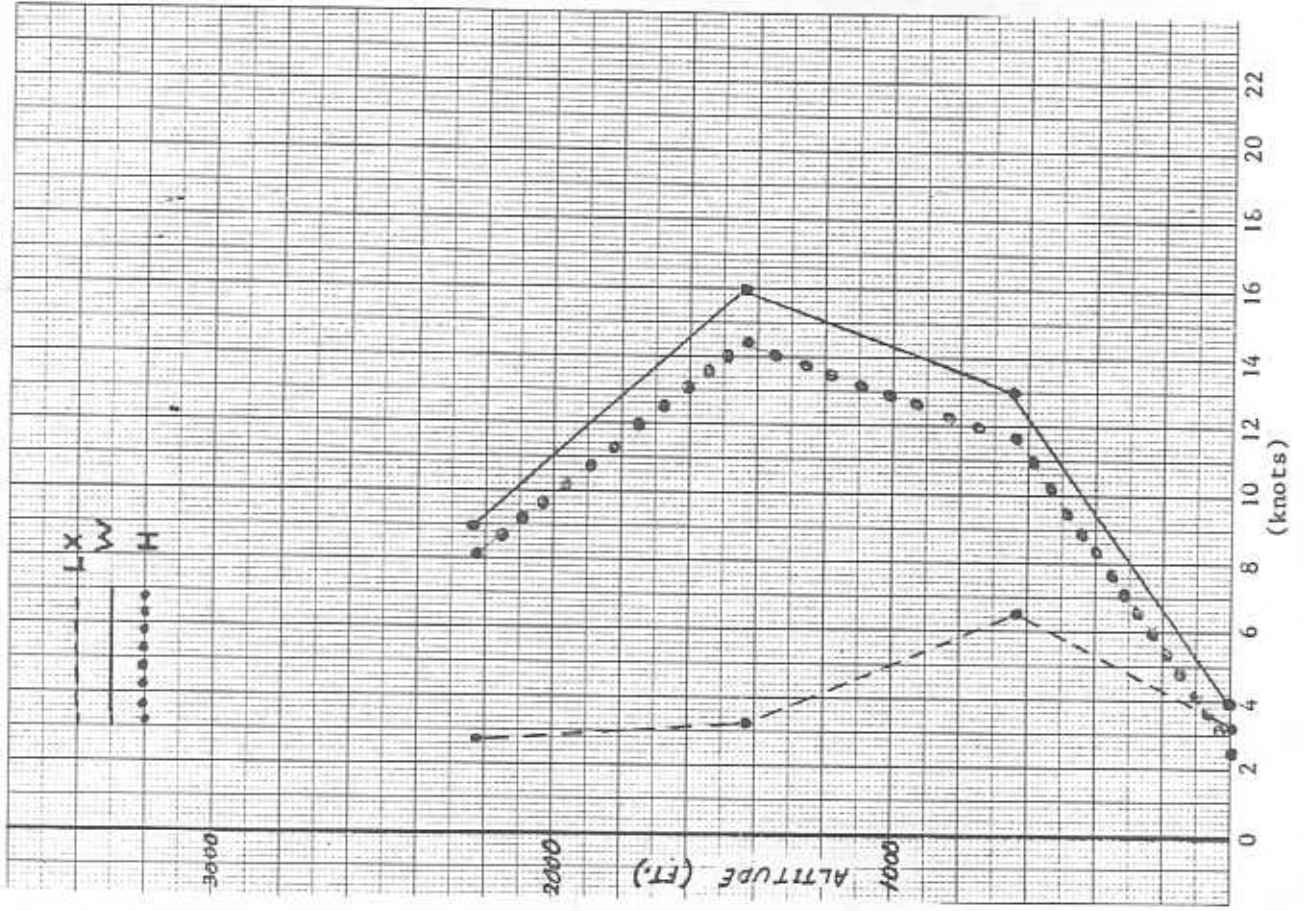
FIGURE E3-1

DATE 6/22/86
 ASC. NO. 15
 LAUNCH TIME 5:0 1:11



DATE 6/24/95
 ASC. NO. 16
 LAUNCH TIME 5:30 AM

FIGURE E3-2



DATE 6/24/53
 ASC. NO. 17
 LAUNCH TIME 6:03 PM

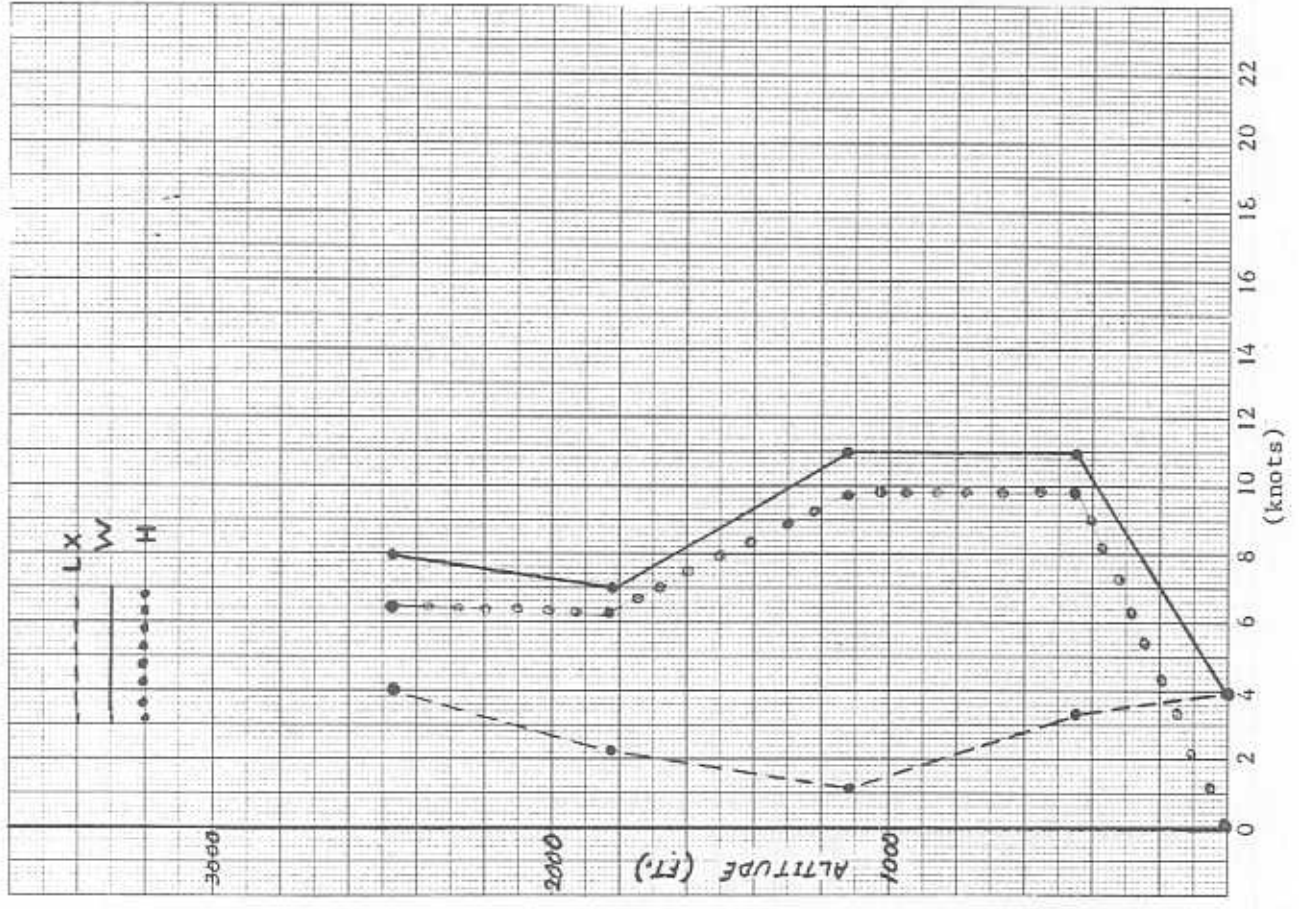
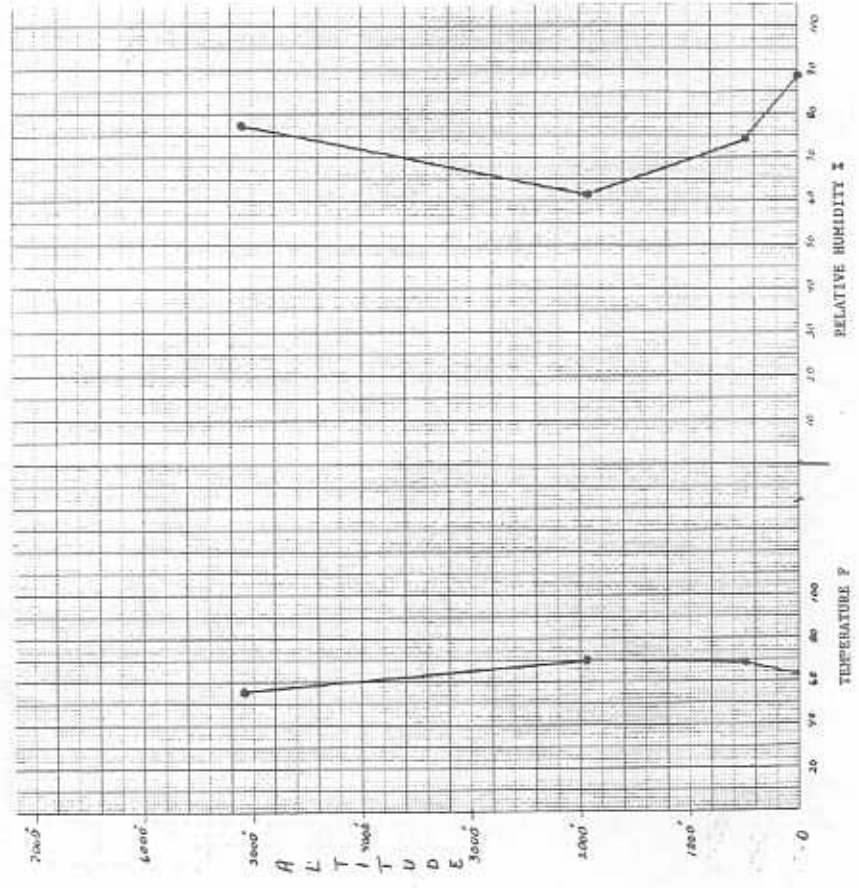


FIGURE E3-3

FIGURE E3-4

DATE 6/20/20
 ASC. NO. 19
 LAUNCH TIME 12:50 AM

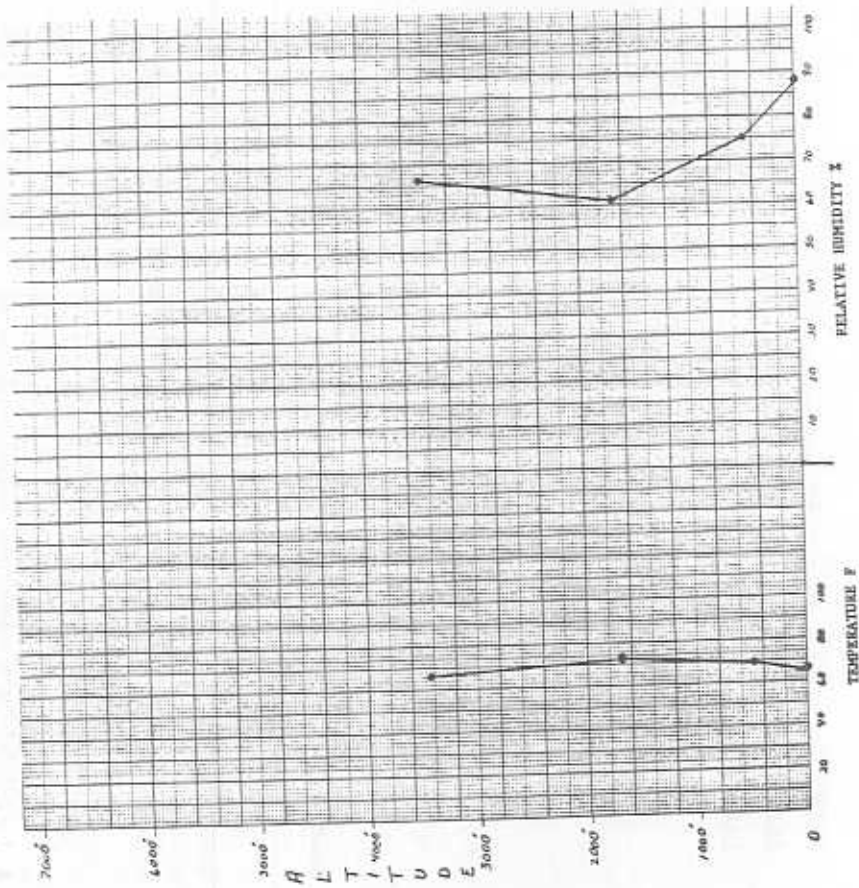
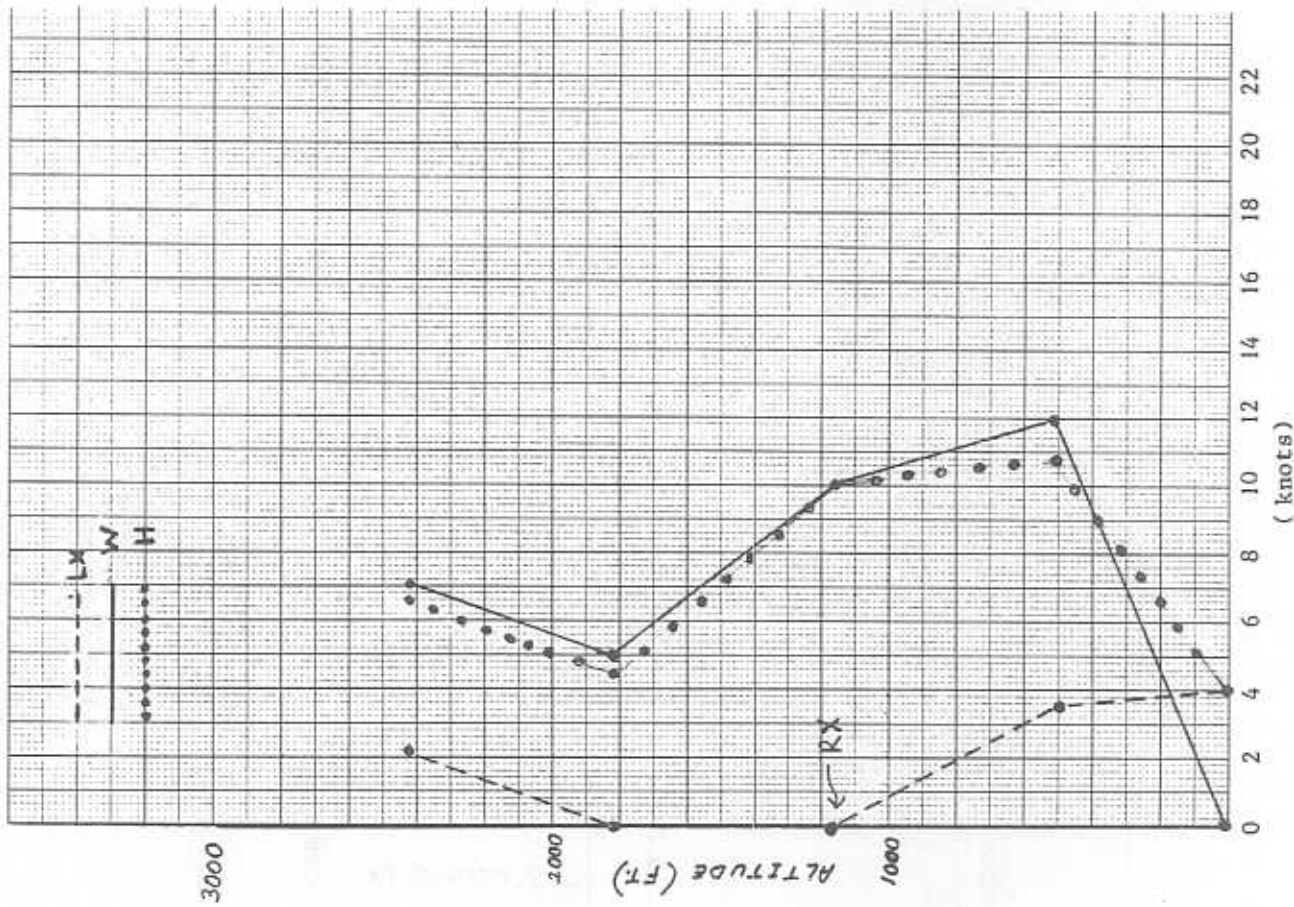
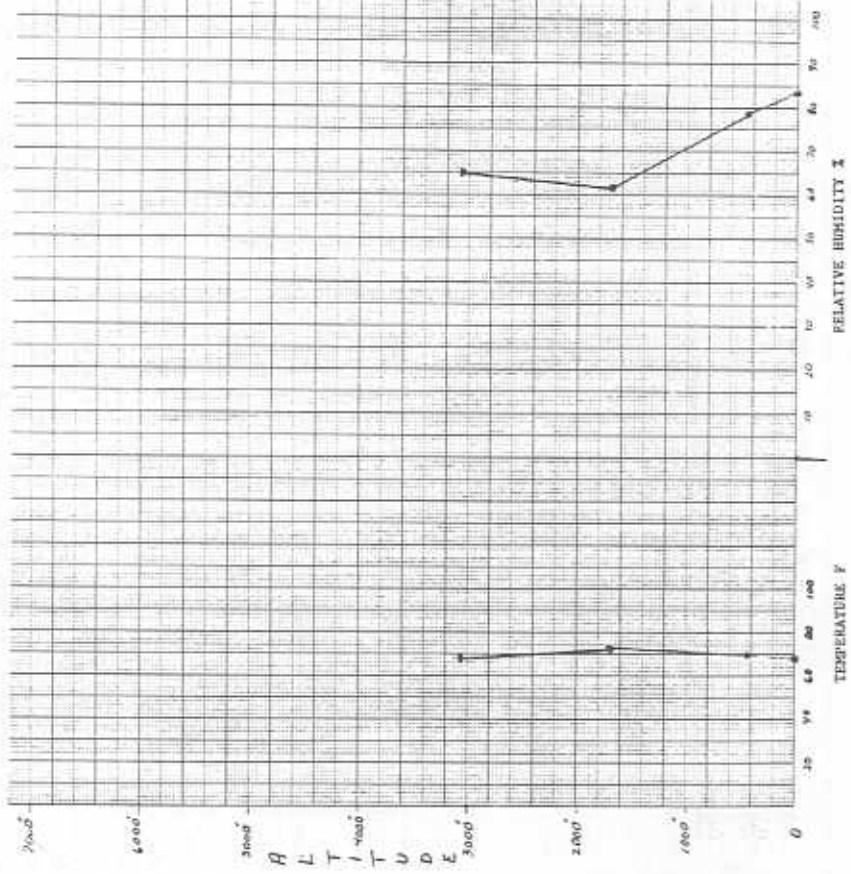
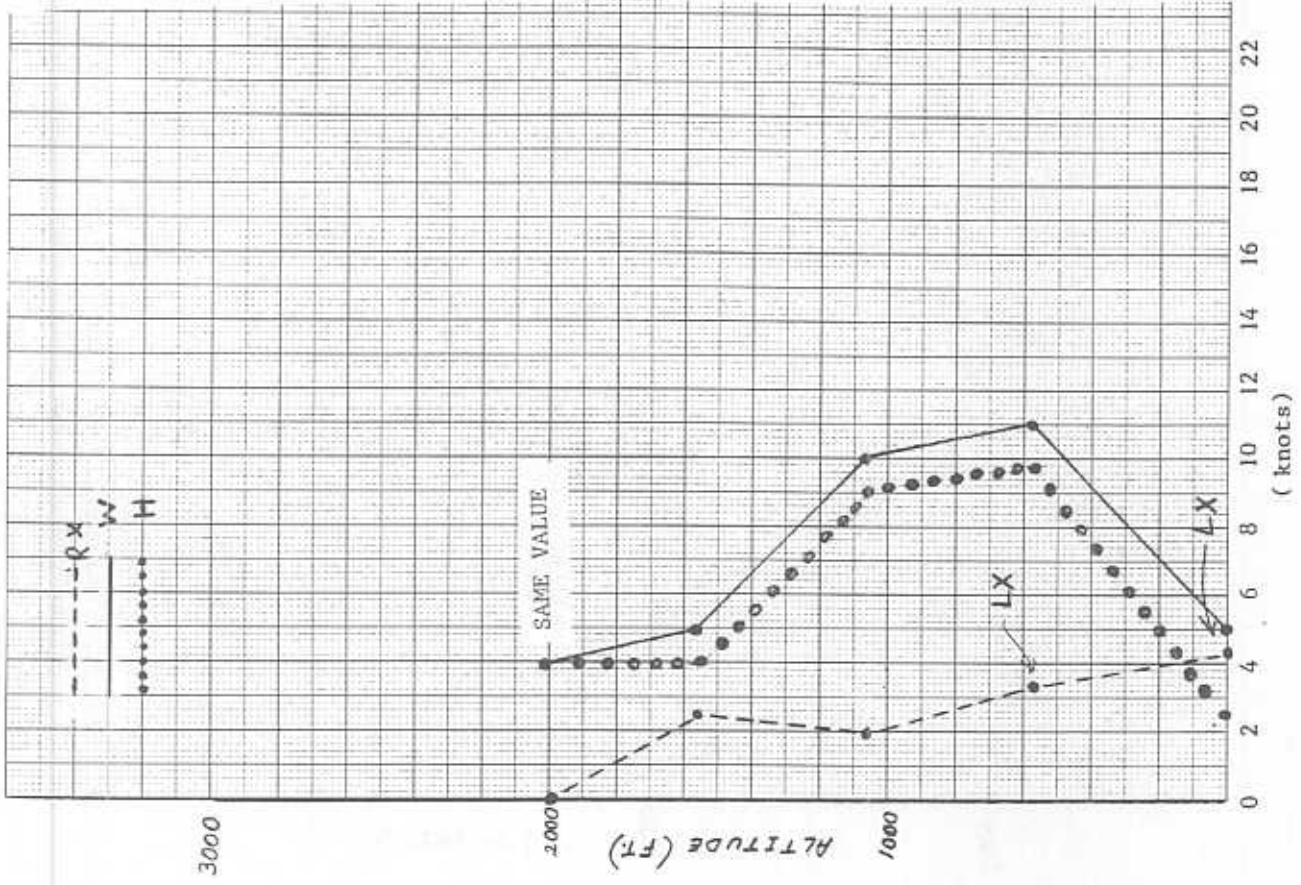


FIGURE E3-5

DATE 6/24/80
 ASC. NO. 11
 LAUNCH TIME 7:00 AM



DATE 6/24/80
 ASC. NO. 20
 LAUNCH TIME 8:00 AM

FIGURE E3-6

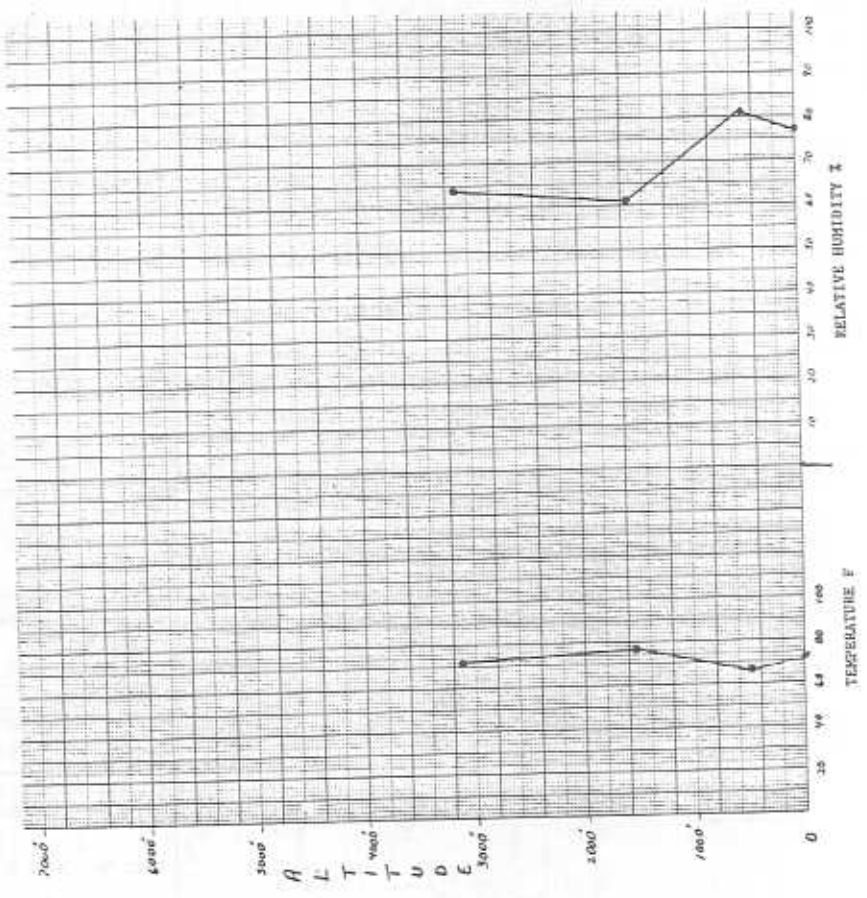
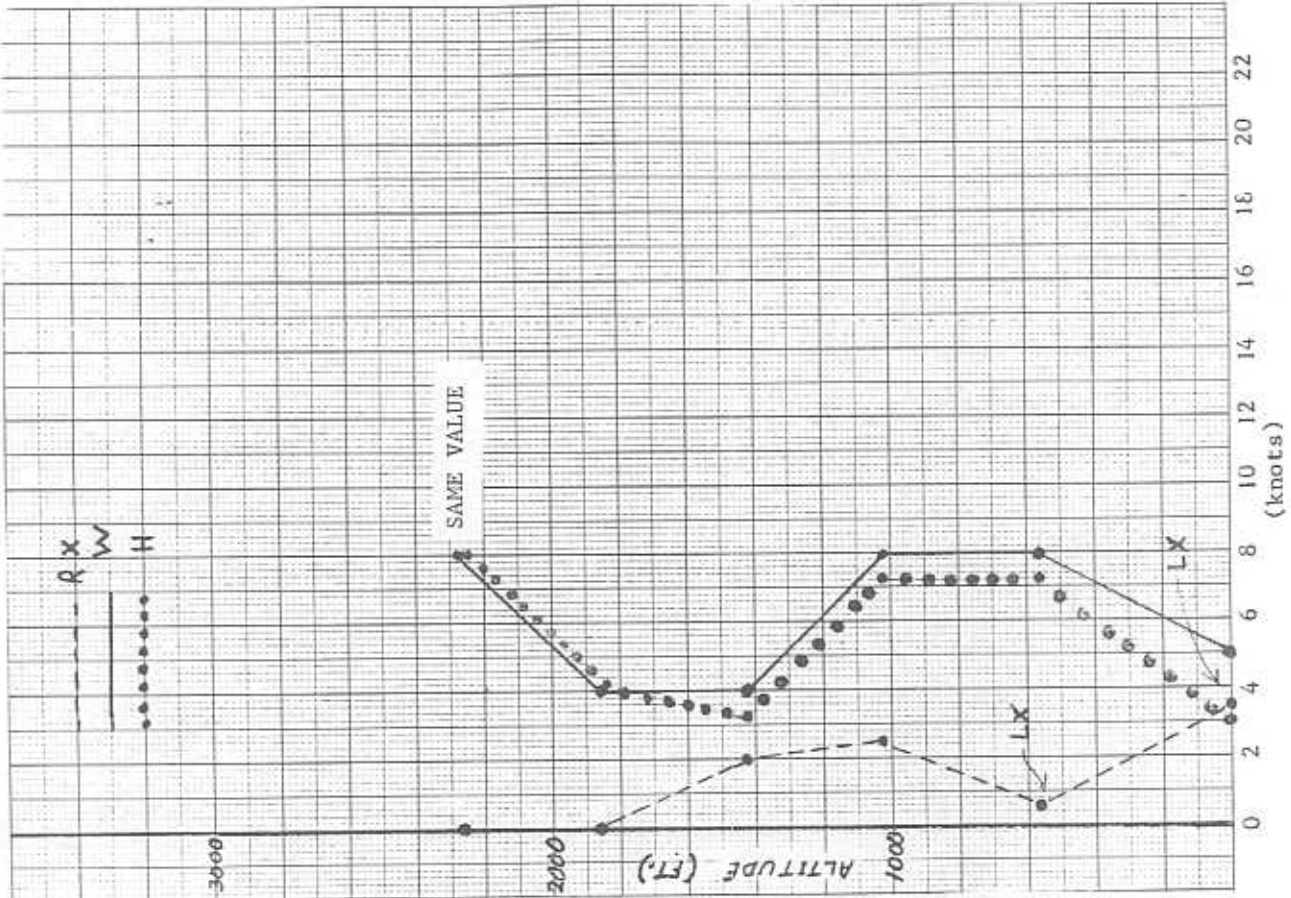
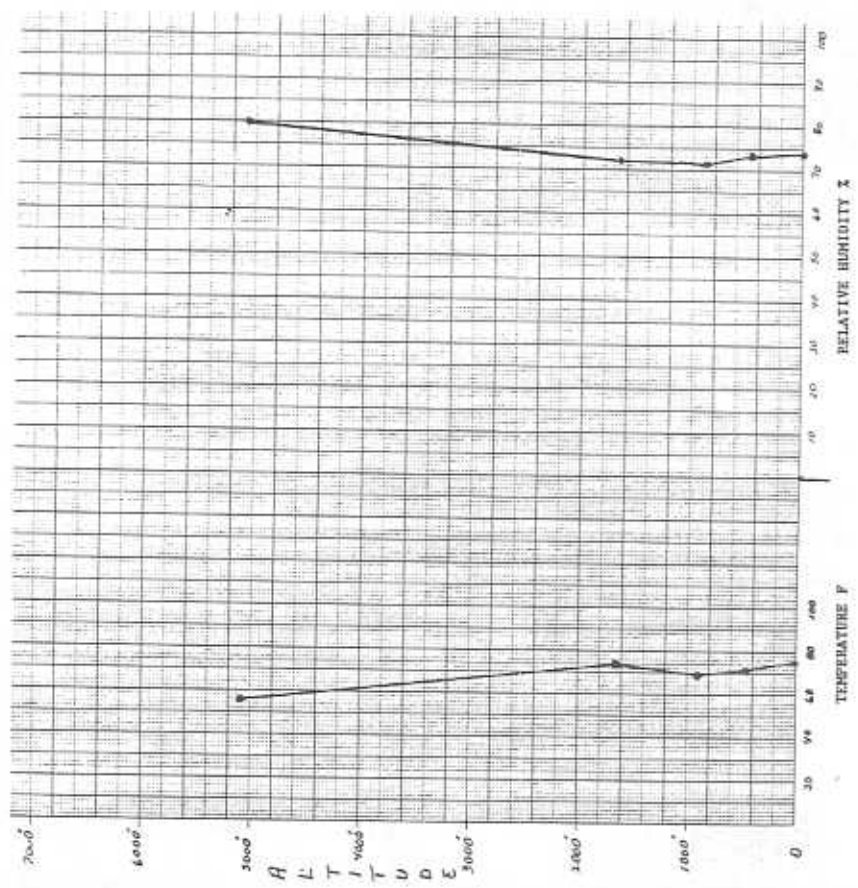
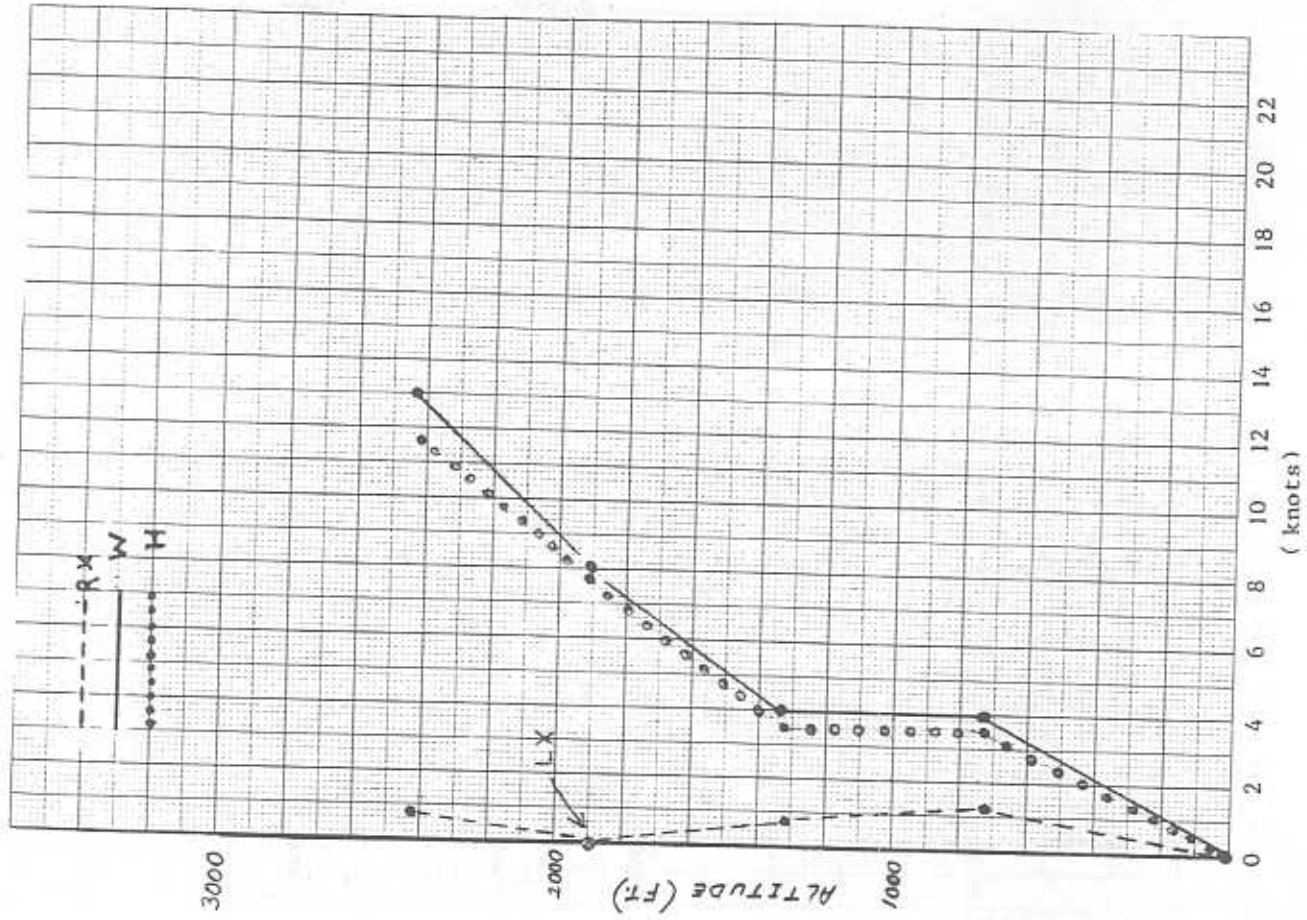


FIGURE E3-7

DATE 6/20/90
 ASC. NO. 21
 LAUNCH TIME 9:00 AM



DATE 6/27/80
 ASC. NO. 22
 LAUNCH TIME 5:00 P.M.

FIGURE E4-1

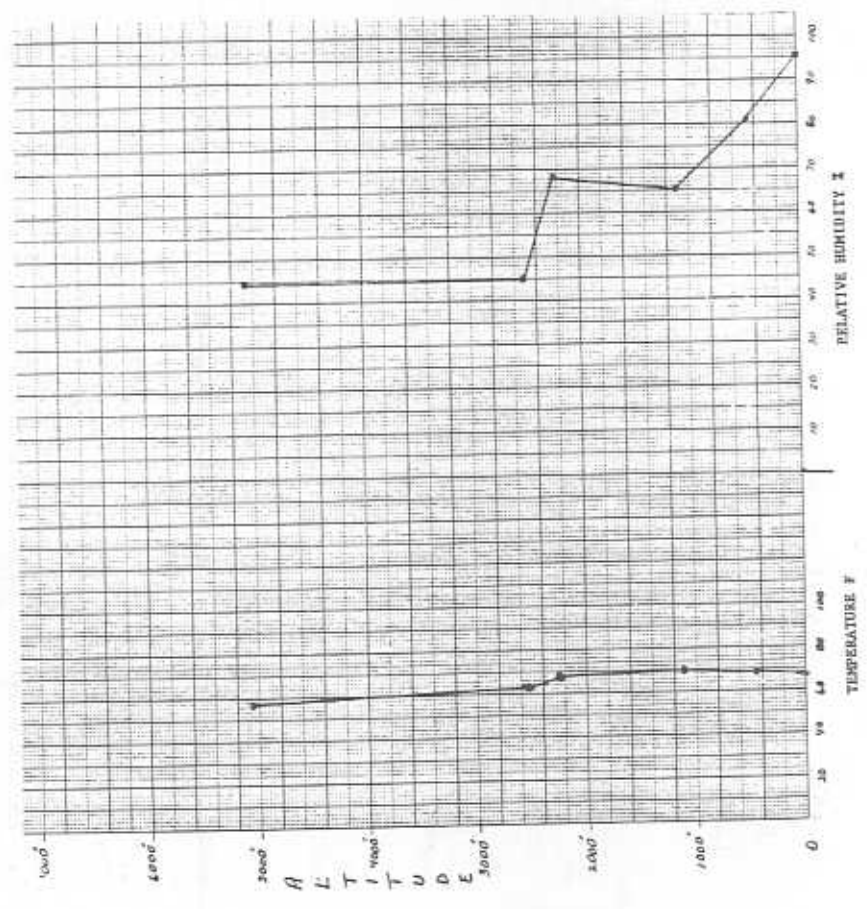
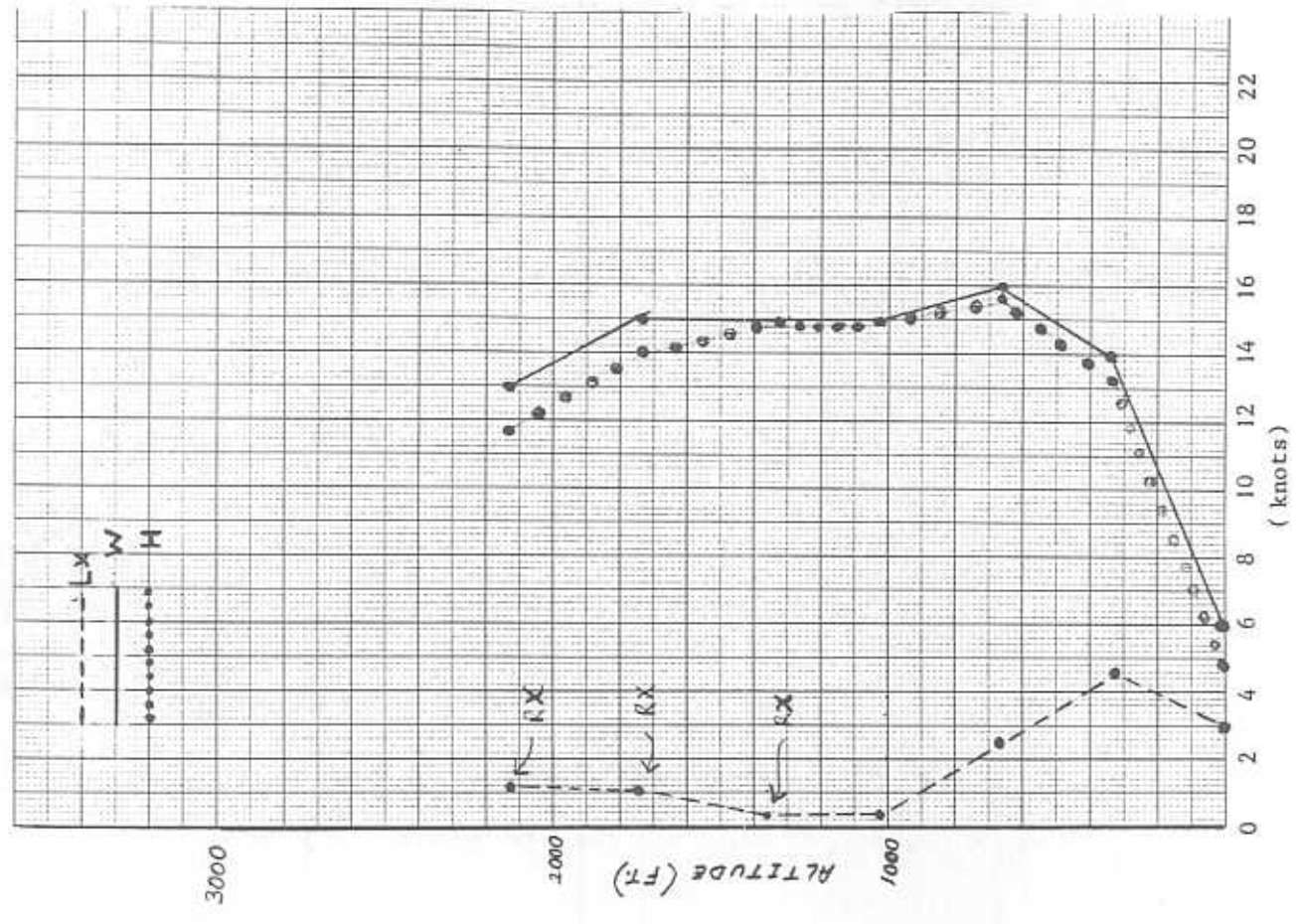


FIGURE E4-2

DATE 6/27/66
 ASC. NO. 23
 LAUNCH TIME 0800 AM

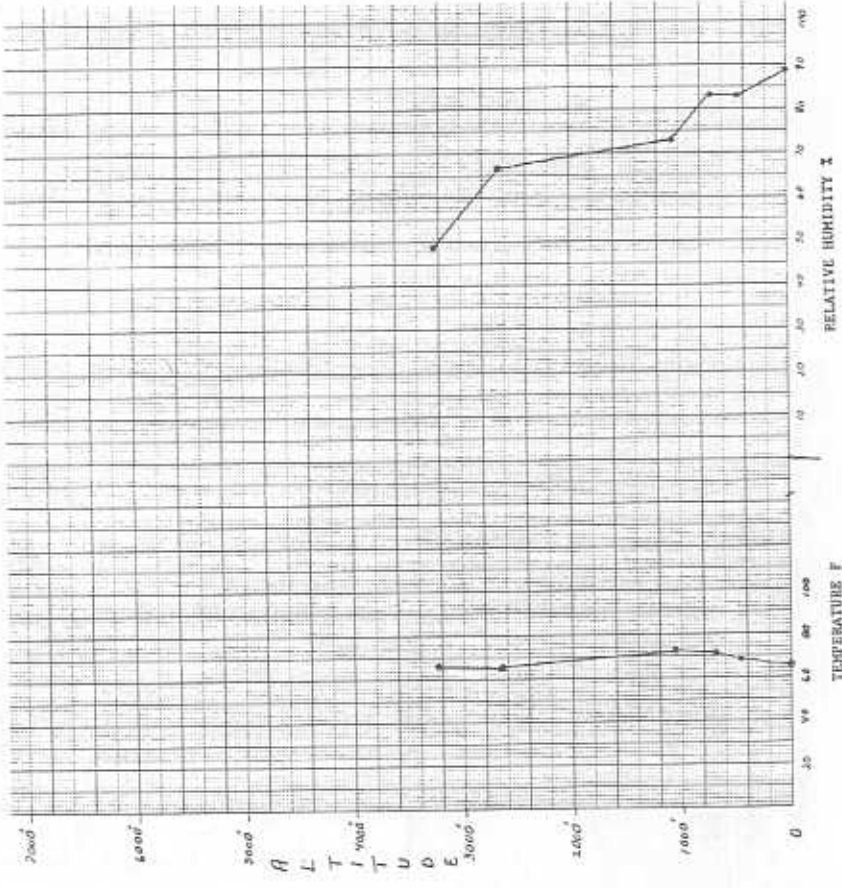
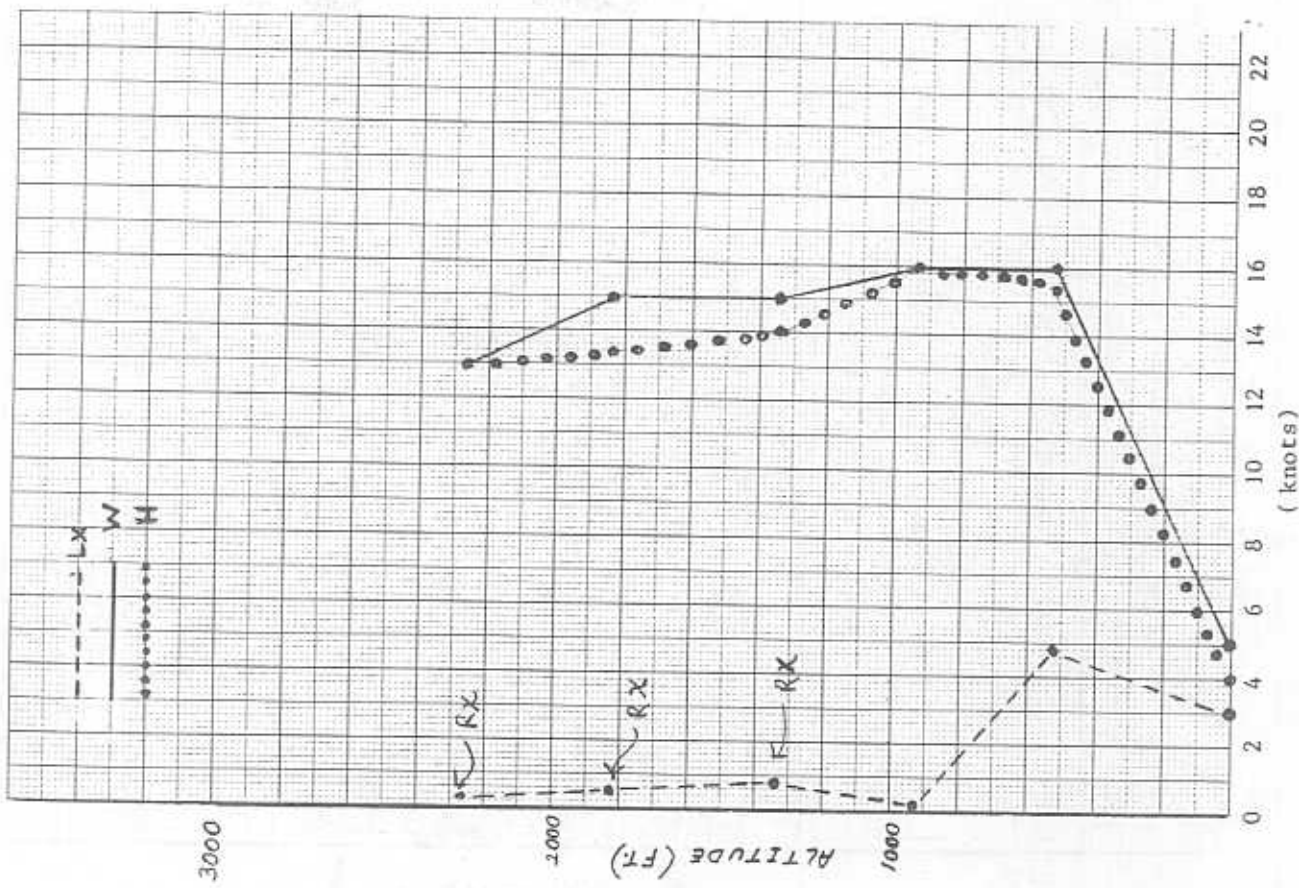


FIGURE E4-3

DATE 6/25/50
 ASC. NO. 74
 LAUNCH TIME 6:00 AM

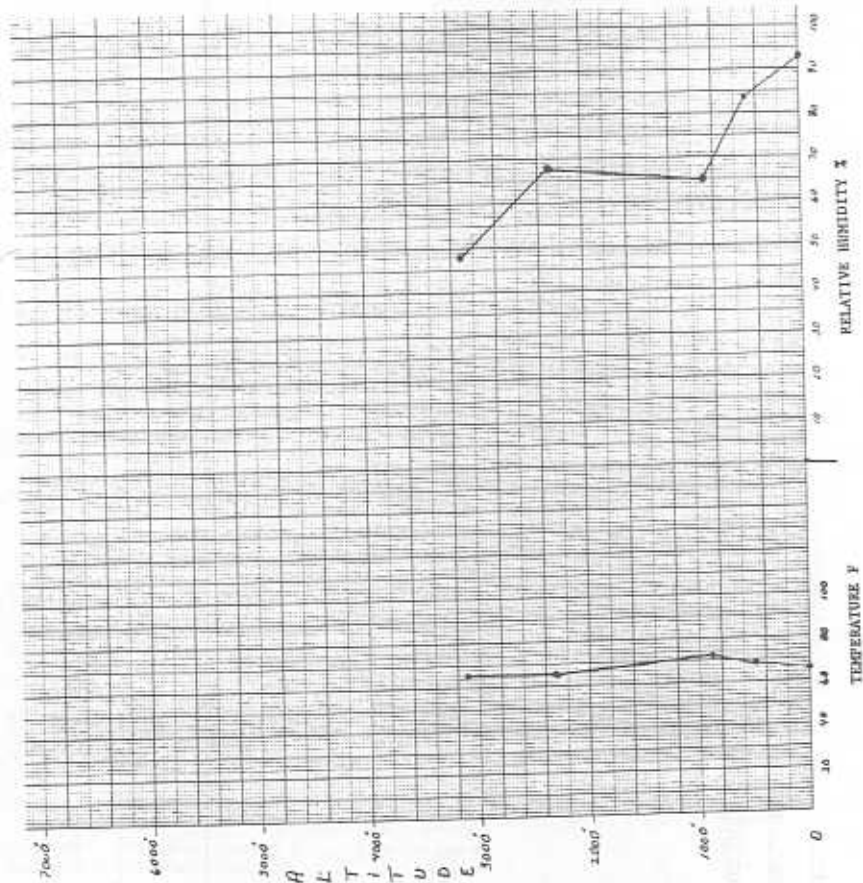
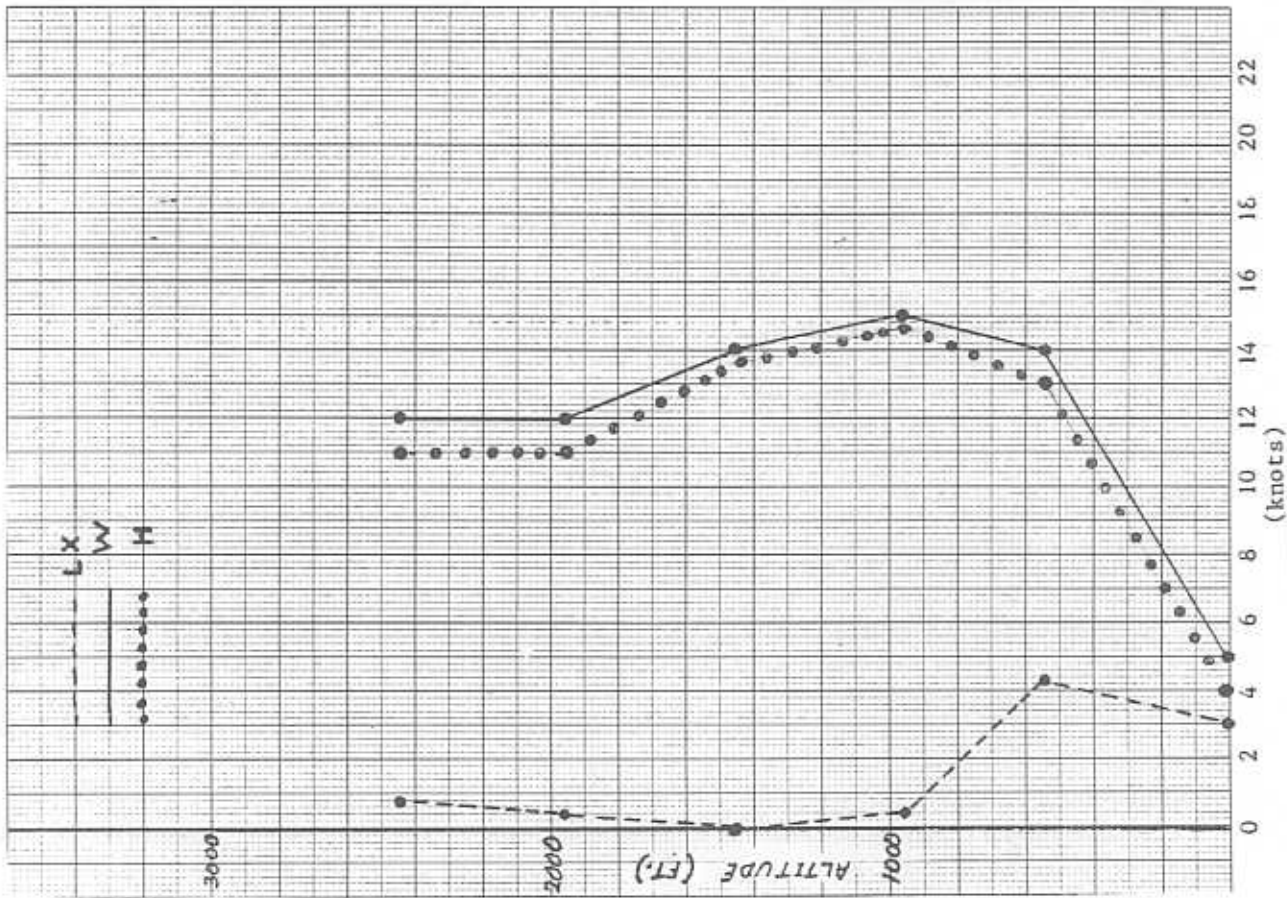
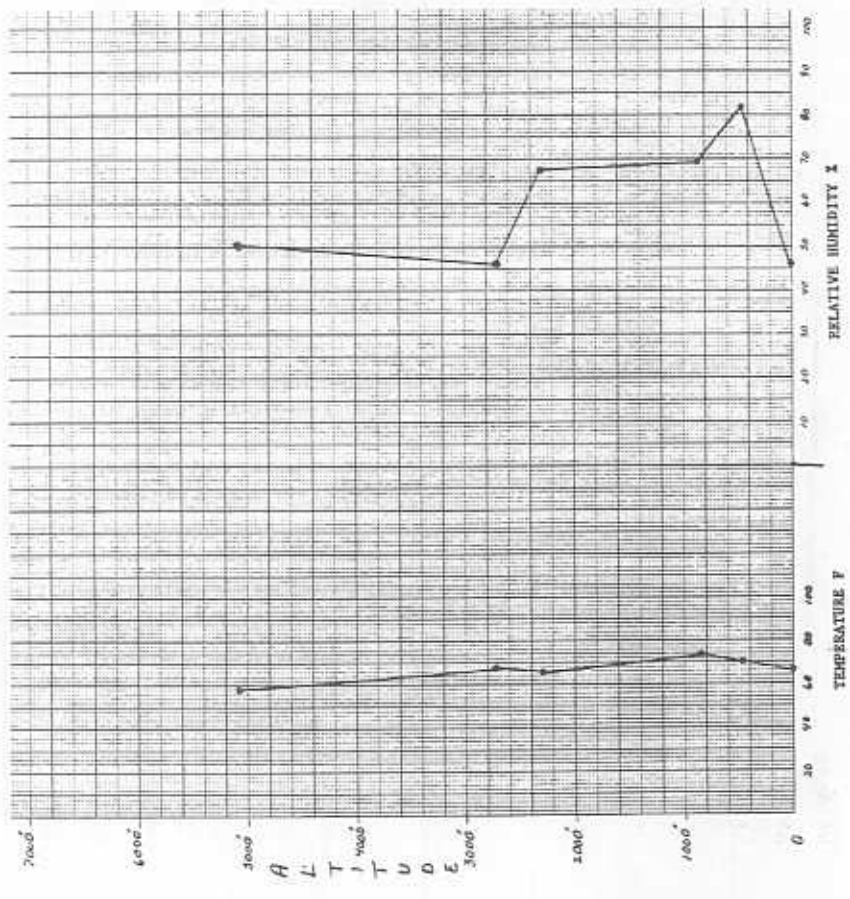
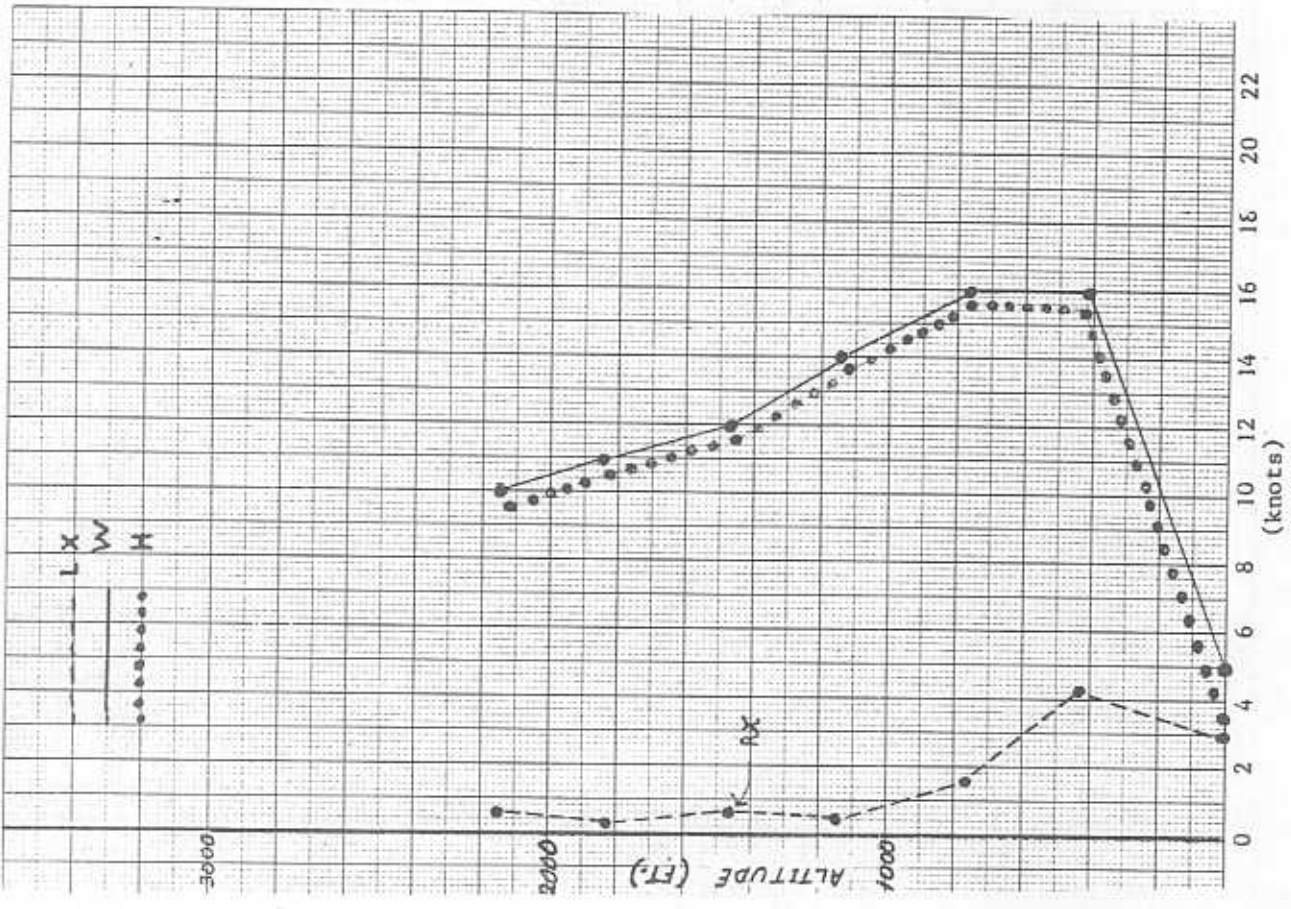


FIGURE E4-4

DATE 6/2-1964
 ASC. NO. 25
 LAUNCH TIME 6:50 P.M.



DATE 10/27/60
 ASC. NO. 26
 LAUNCH TIME 7:22:11

FIGURE E4-5

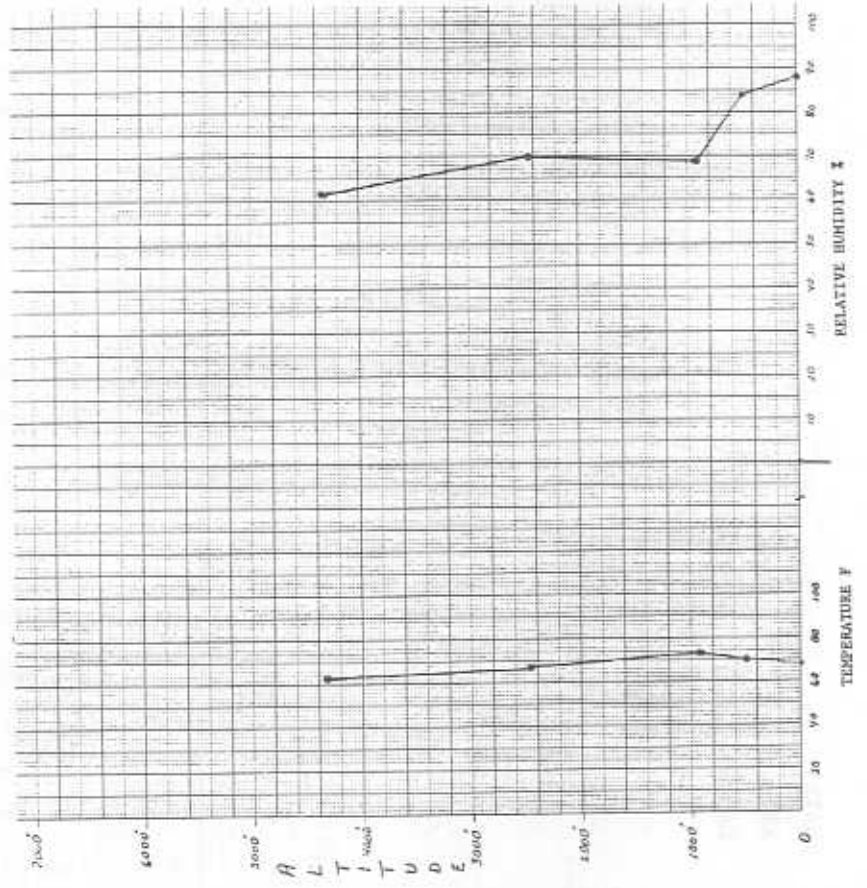
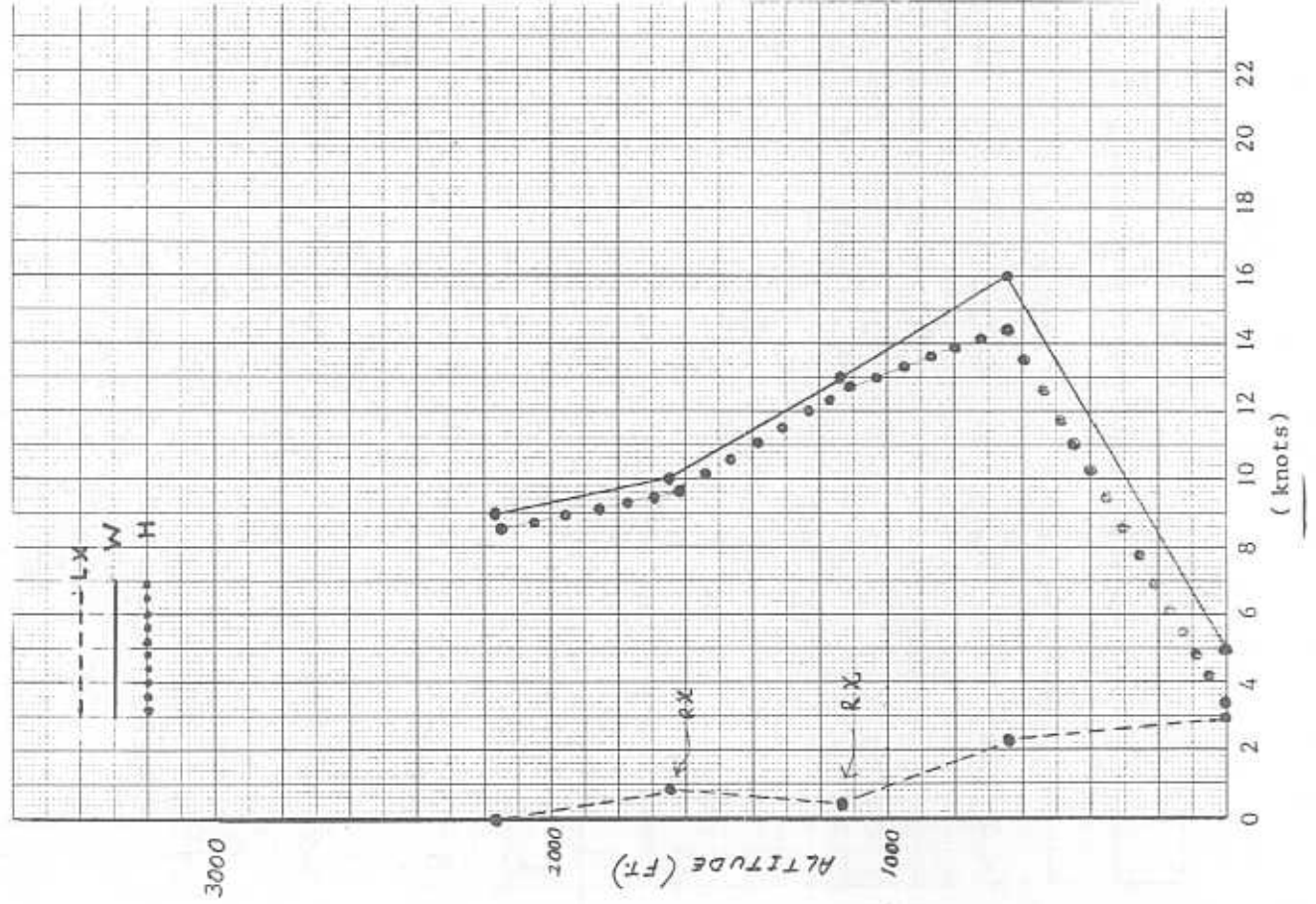
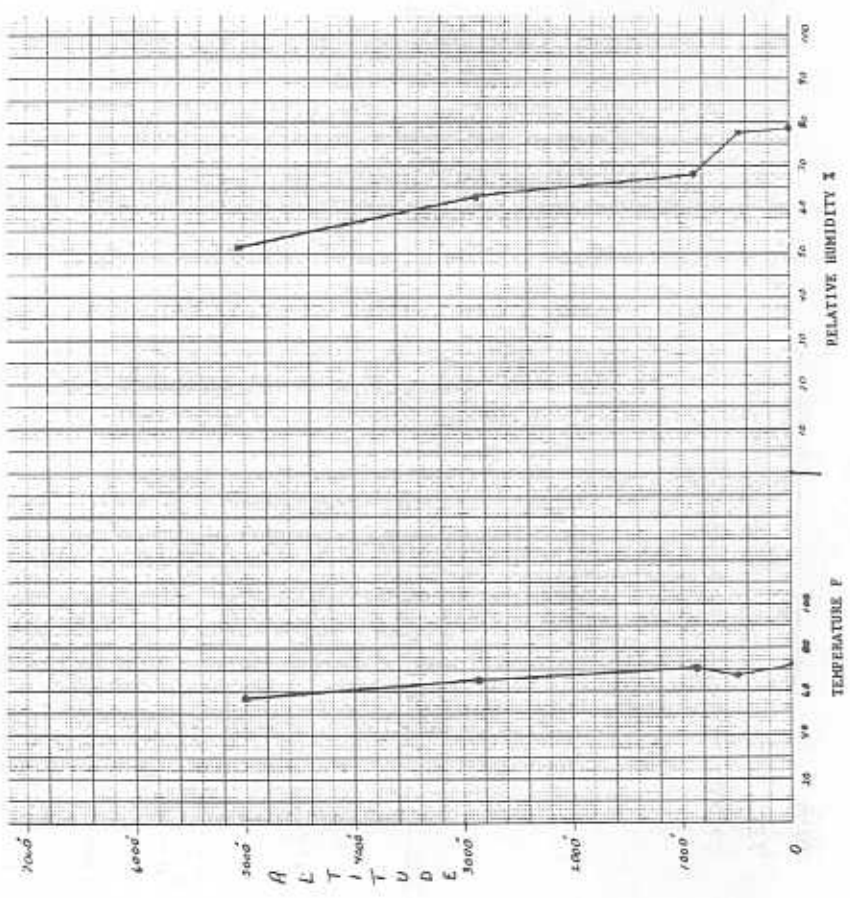
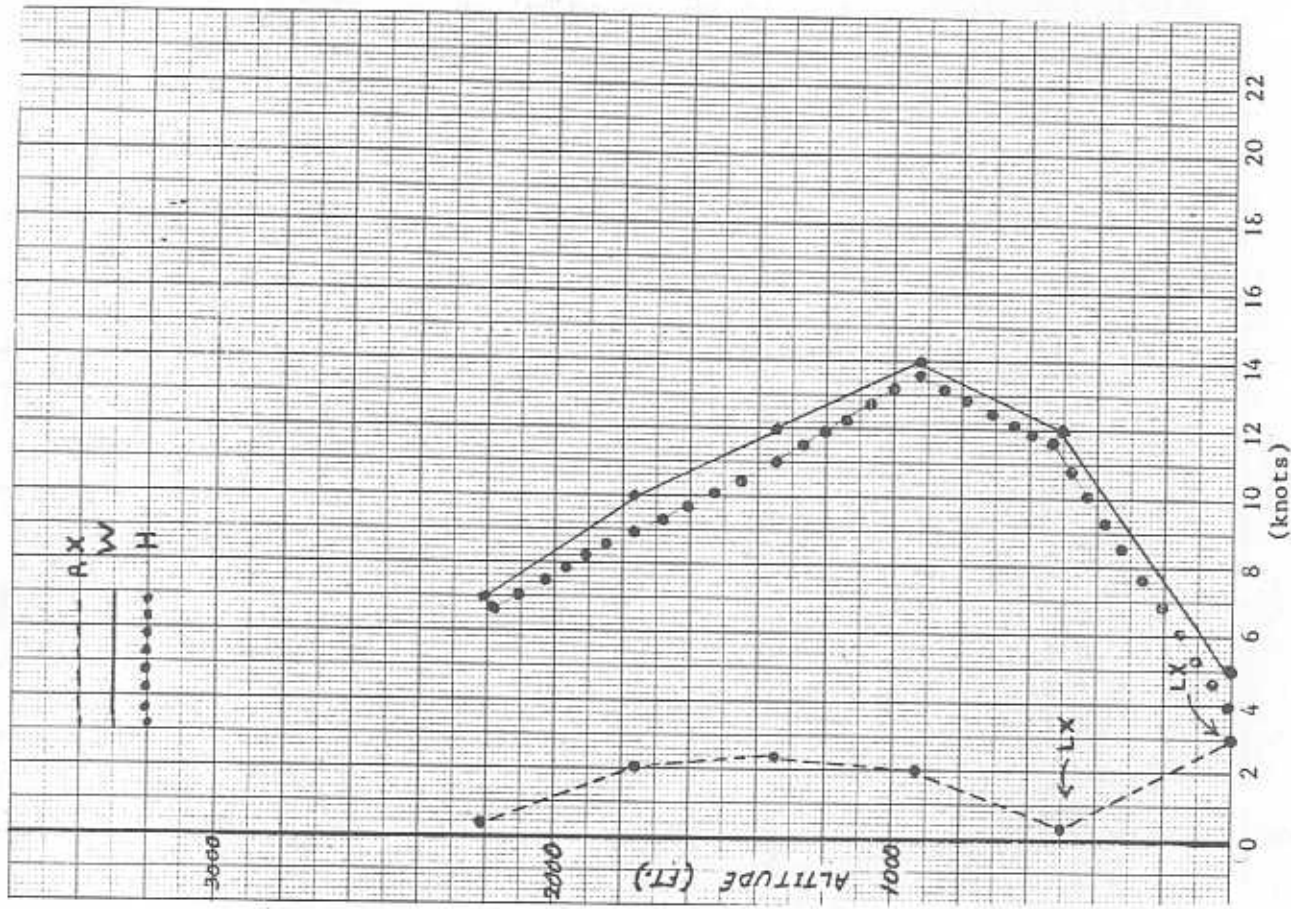


FIGURE E4-6

DATE 10-27-50
 ASC. NO. 27
 LAUNCH TIME 8:00 AM



DATE 6/25/80
 ASC. NO. 28
 LAUNCH TIME 9:00 AM

FIGURE E4-7

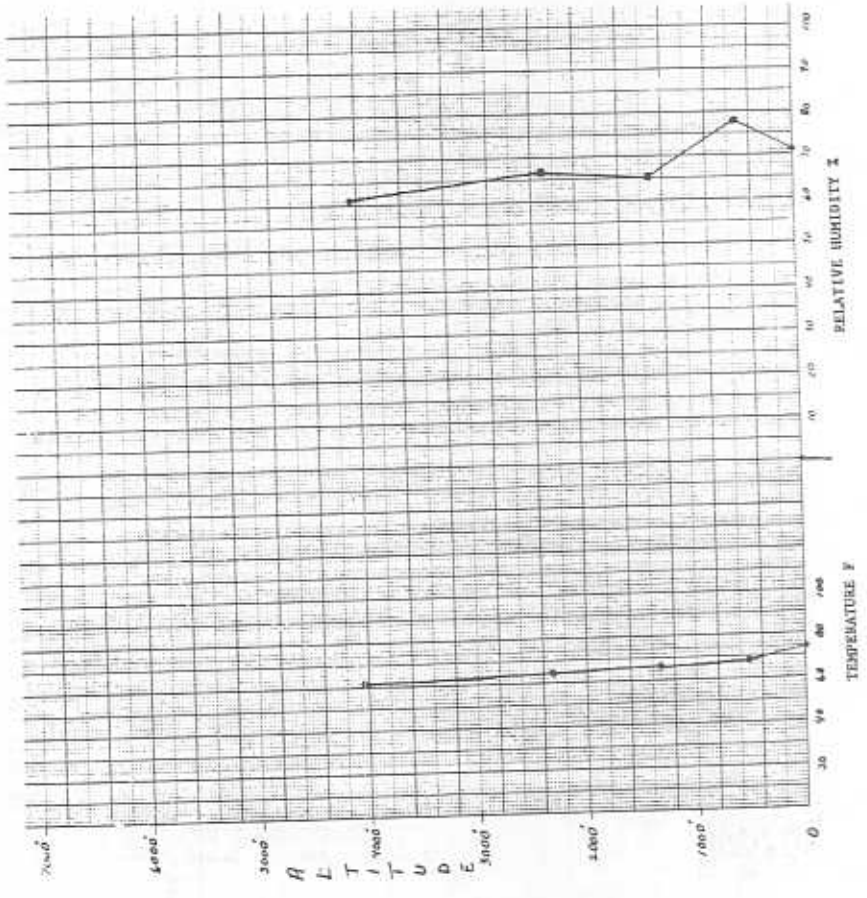
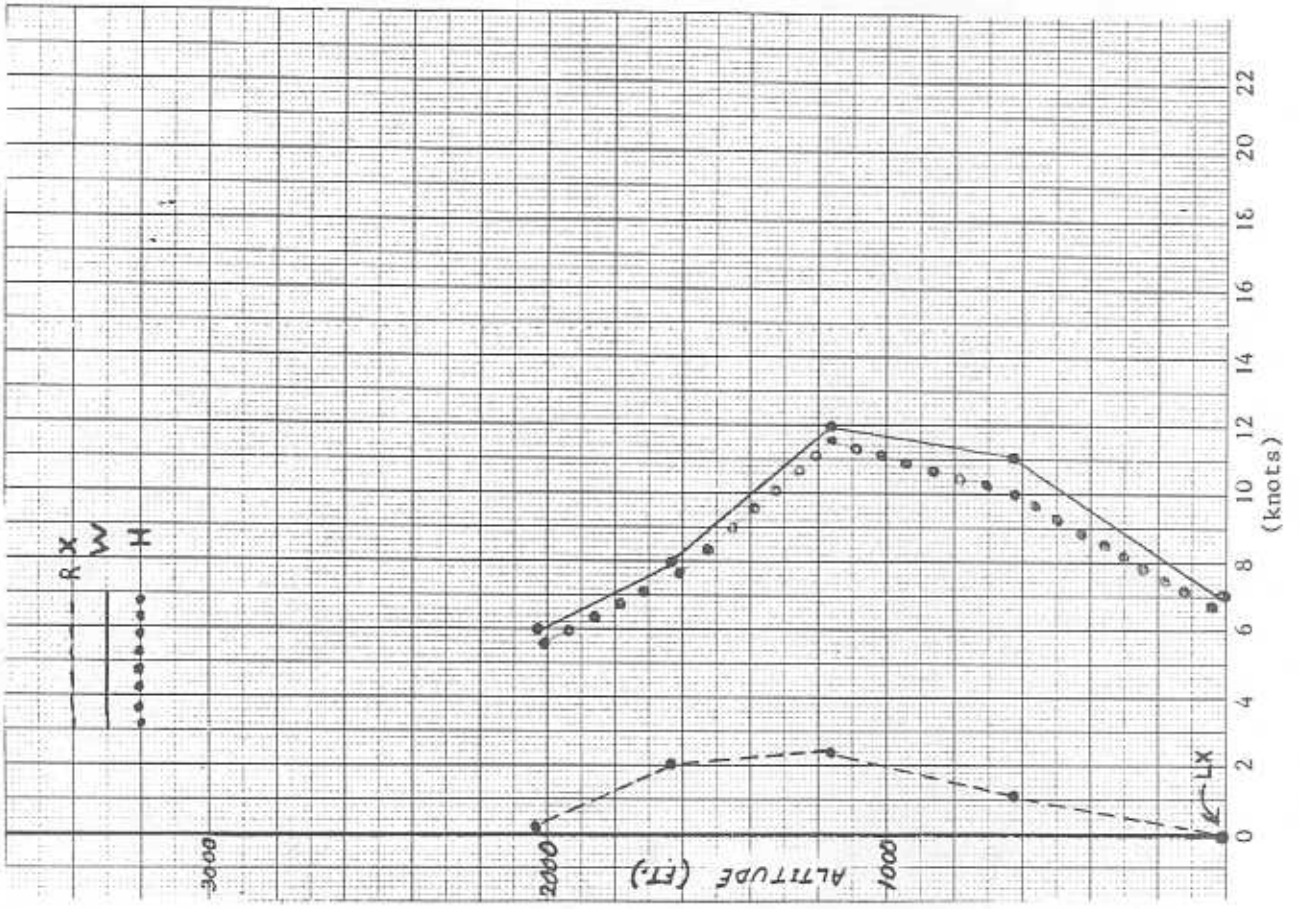
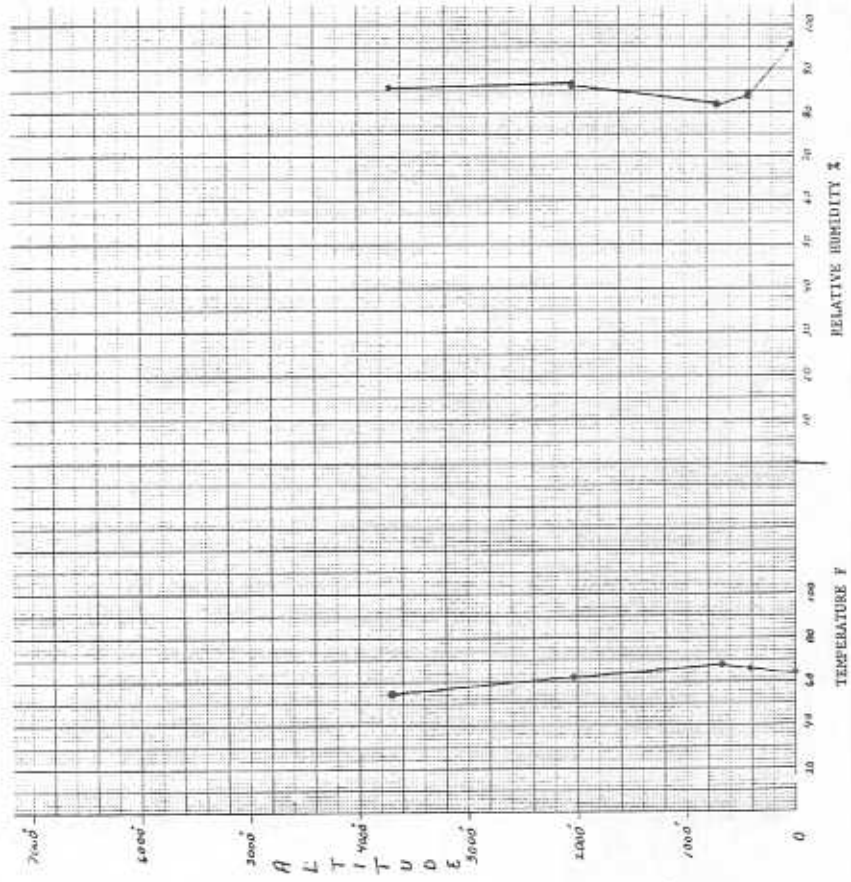
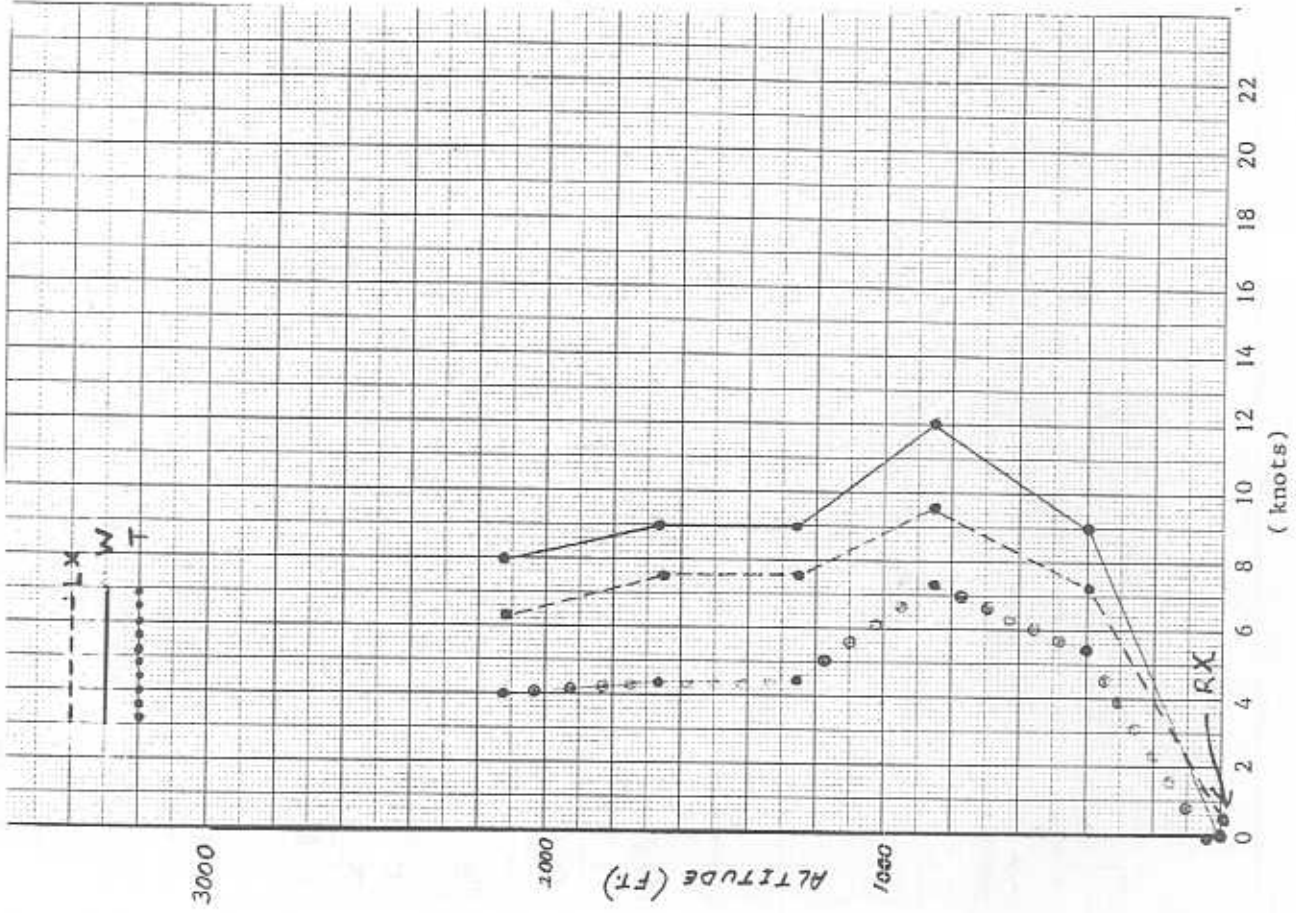


FIGURE E5-1

DATE 6/26/92
 ASC. NO. 27
 LAUNCH TIME 5:07 AM



DATE 6/26/50
 ASC. NO. 30
 LAUNCH TIME 5:30 AM

FIGURE E5-2

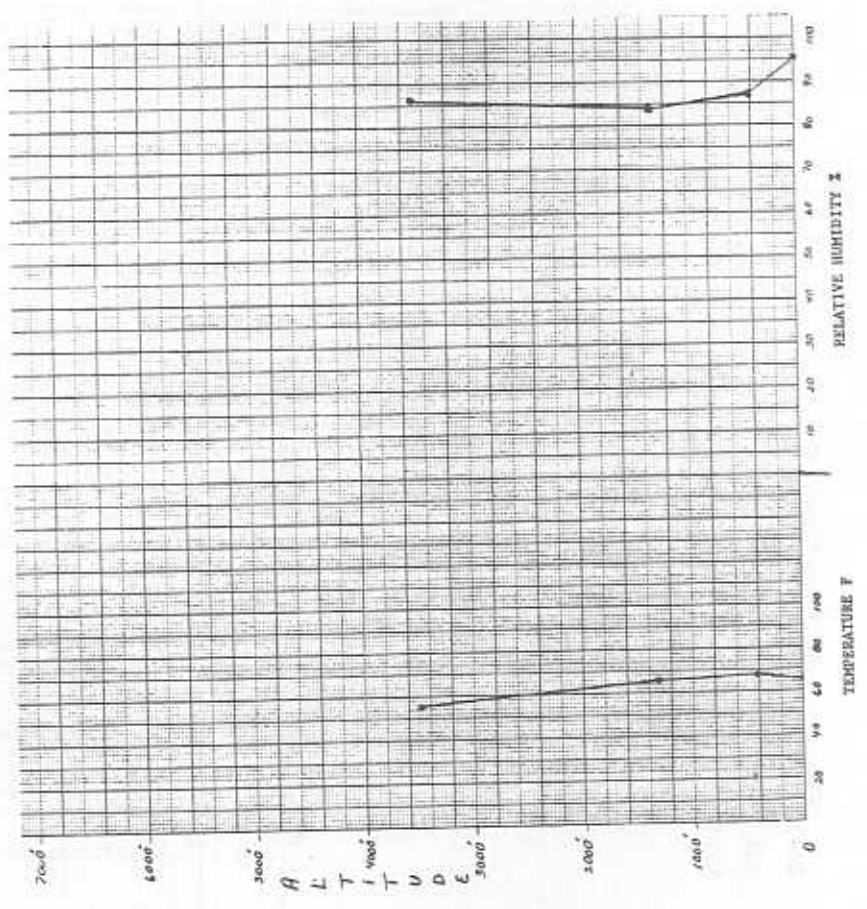
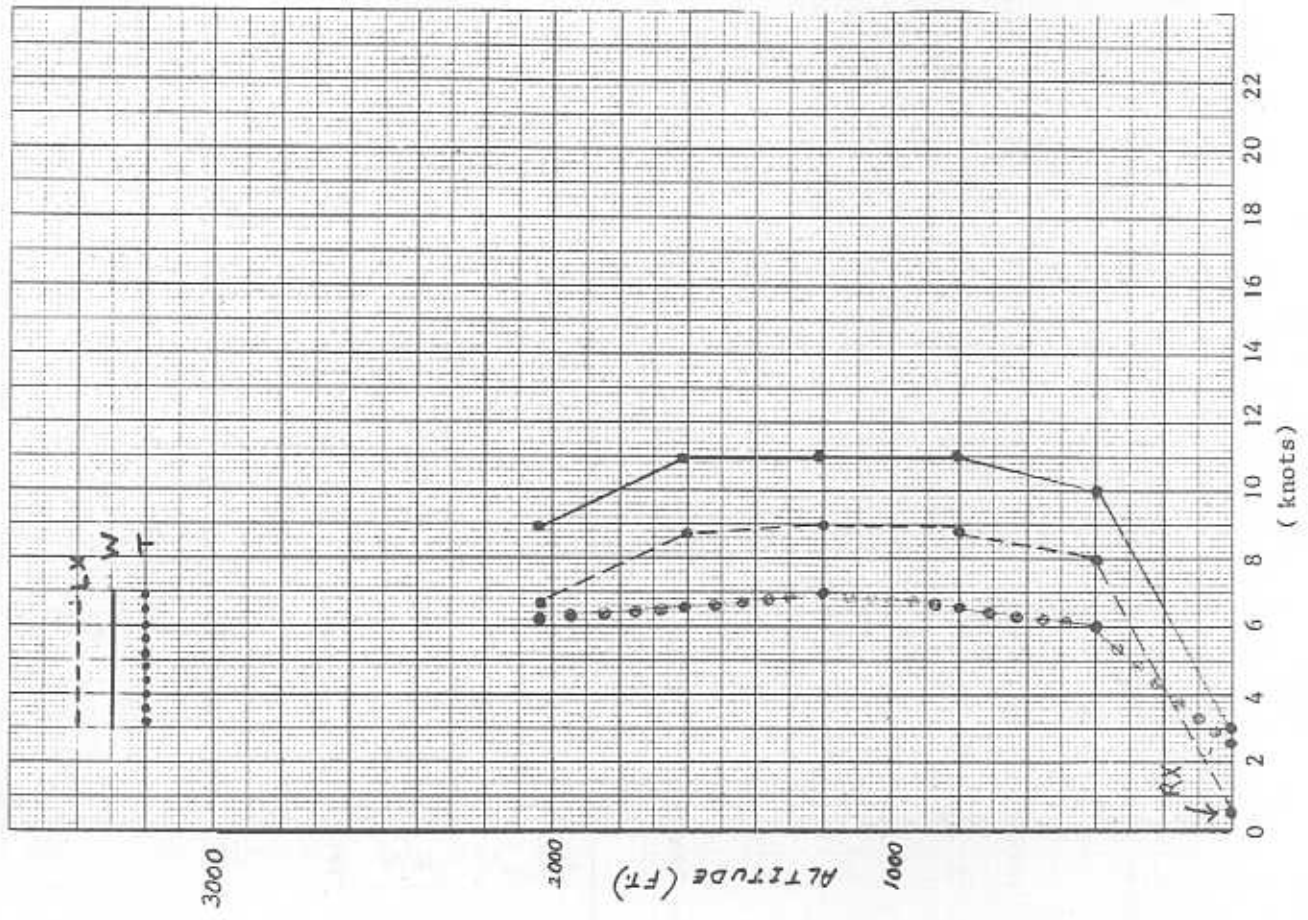
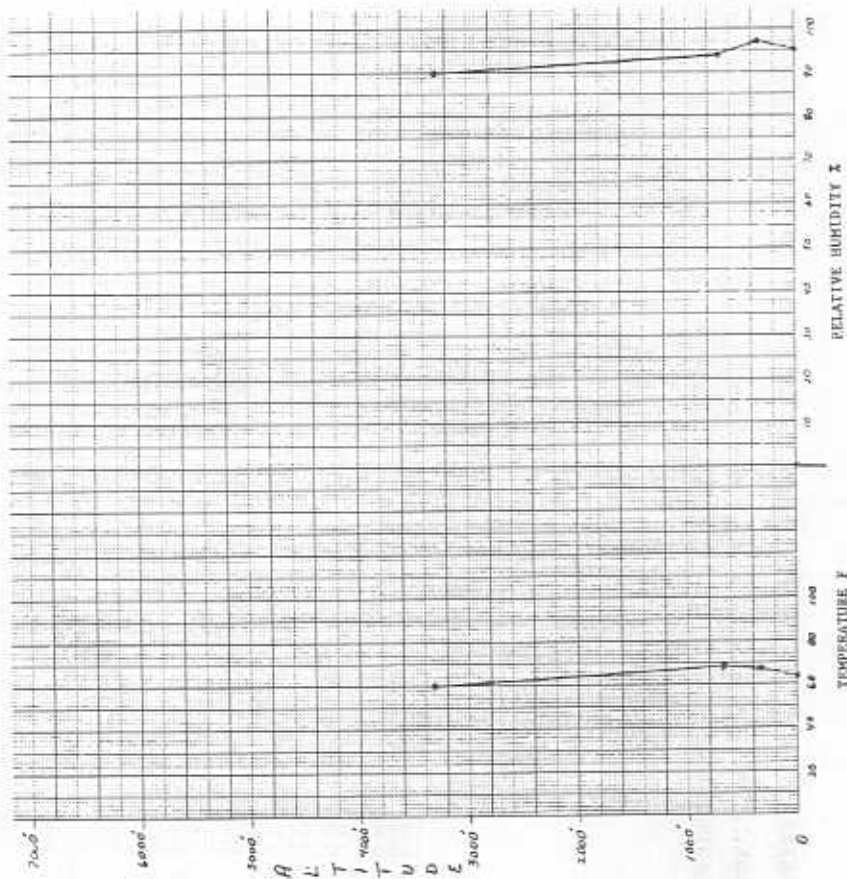
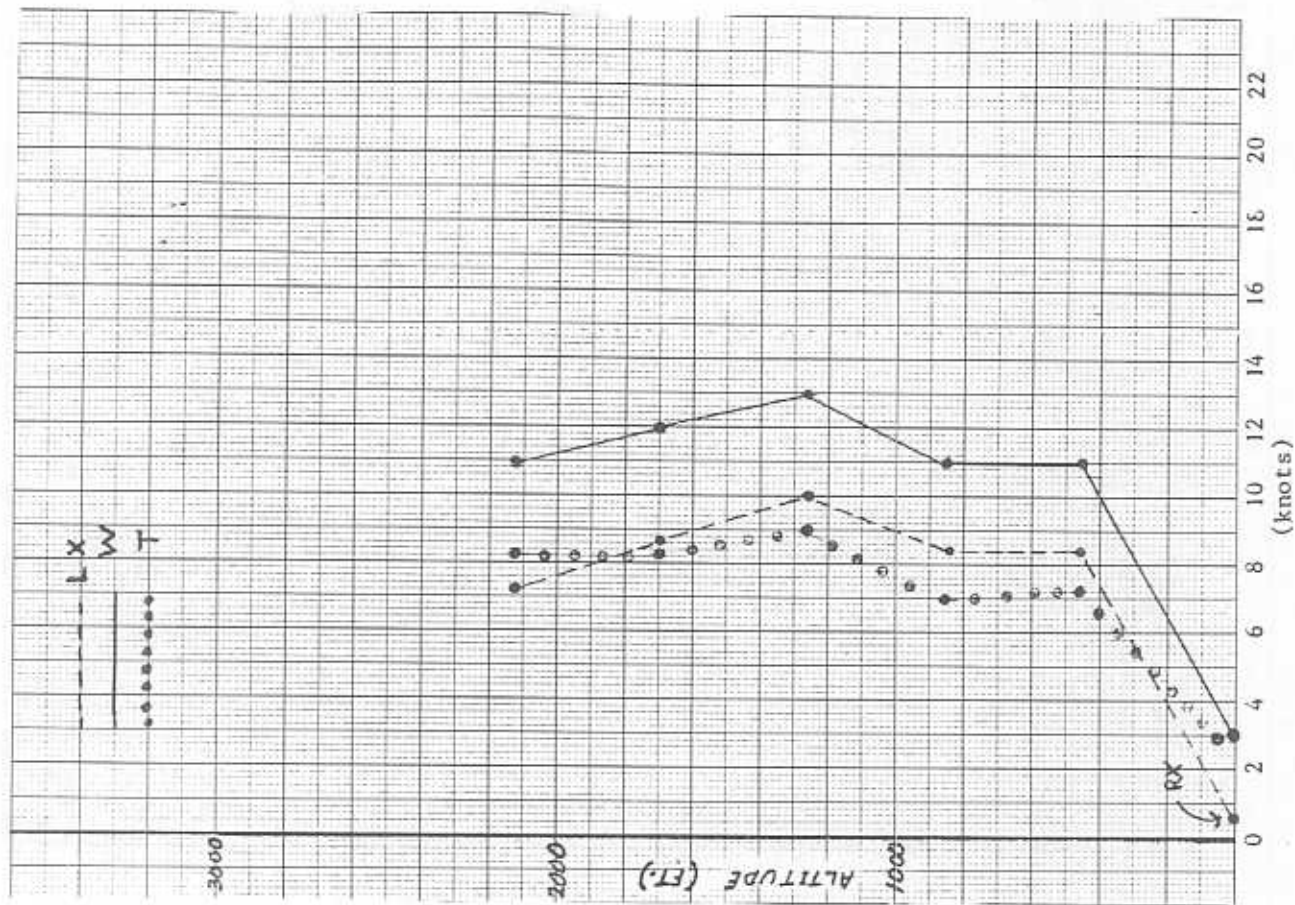


FIGURE E5-3

DATE 6/26/90
 ASC. NO. 31
 LAUNCH TIME 6:00 AM



DATE 1/26/59
 ASC. NO. 32
 LAUNCH TIME 6:30 AM

FIGURE E5-4

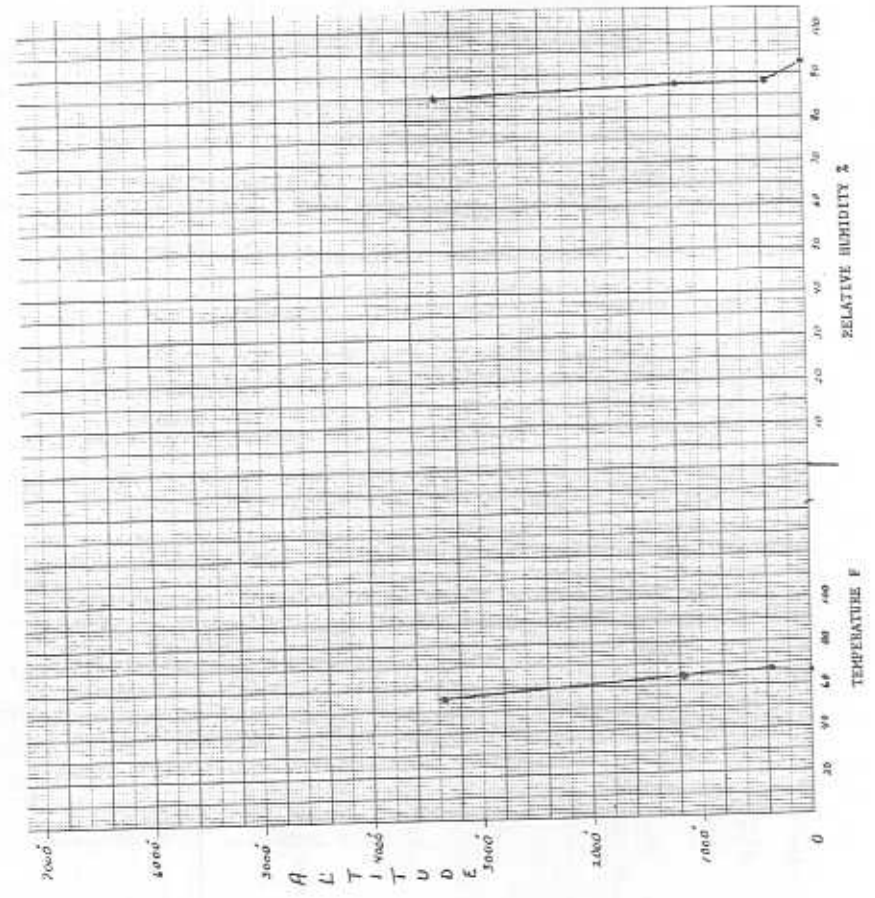
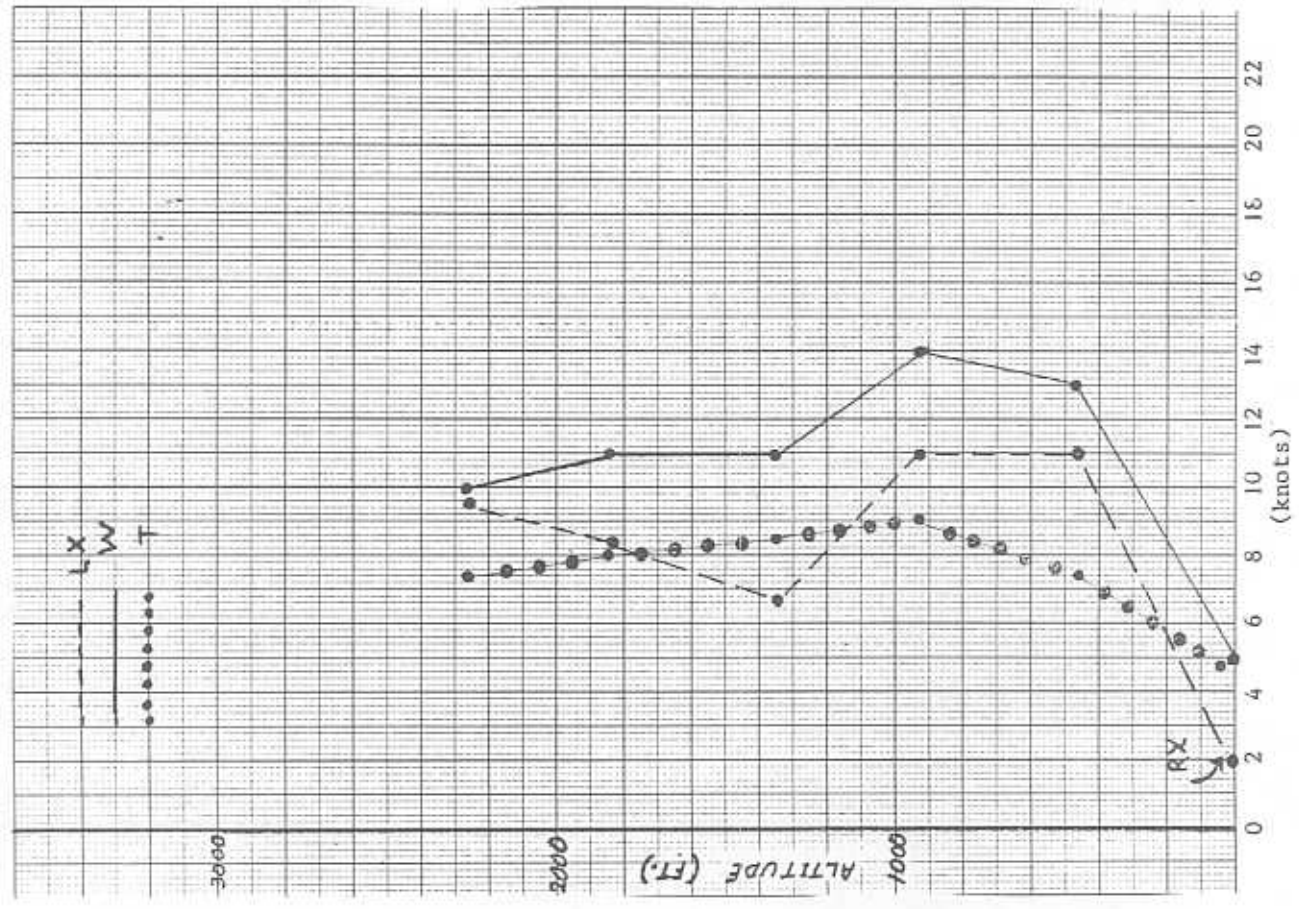


FIGURE E5-5

DATE 6/26/80
 ASC. NO. 33
 LAUNCH TIME 7:00 AM

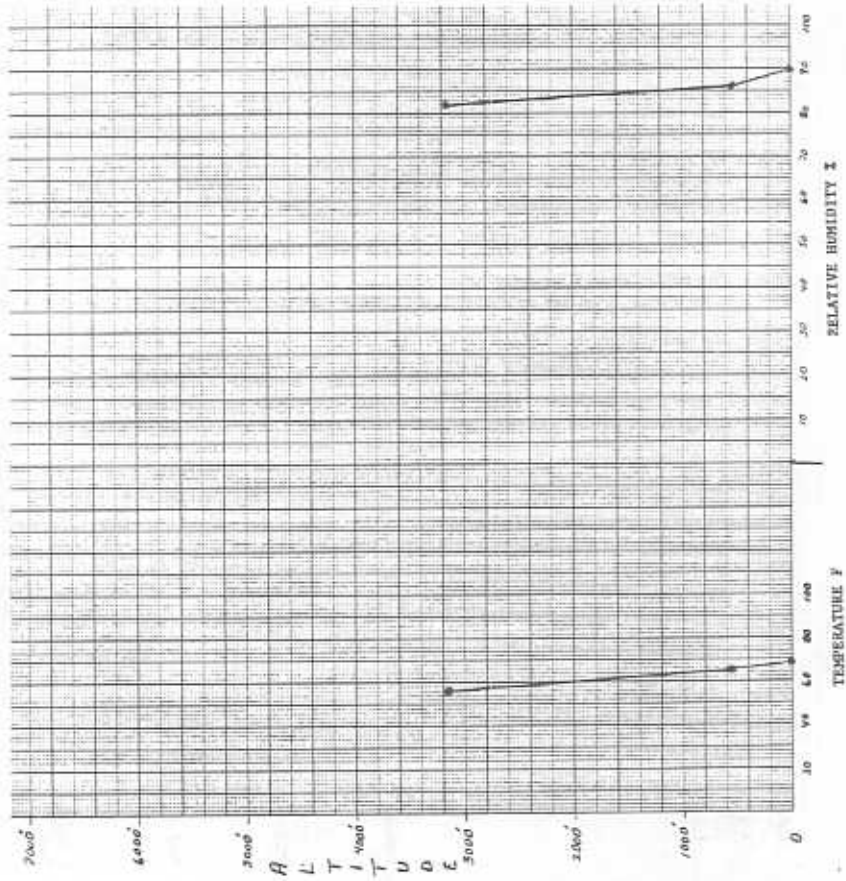
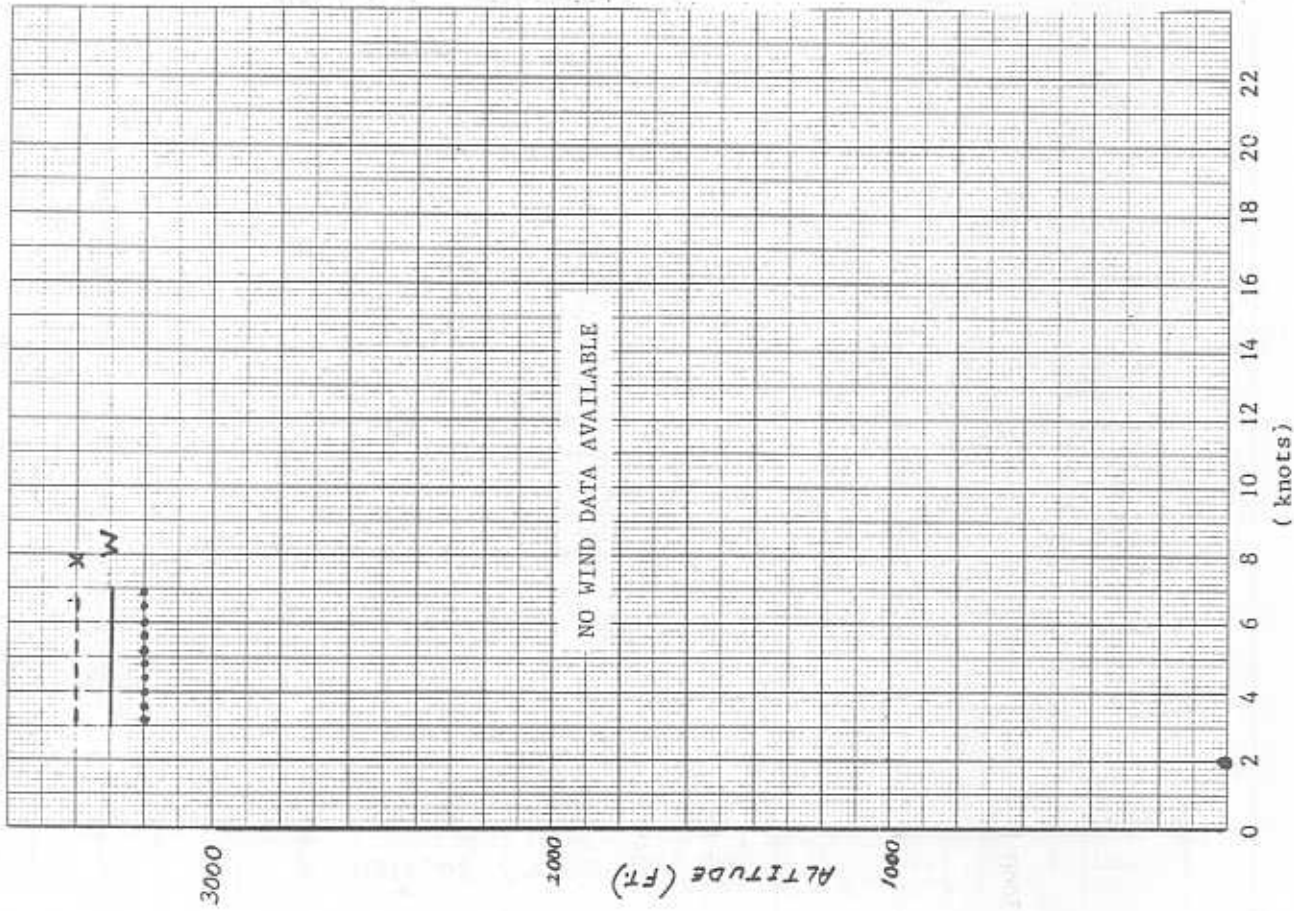


FIGURE E5-6

DATE 6/26/80
 ASC. NO. 34
 LAUNCH TIME 8:00 AM

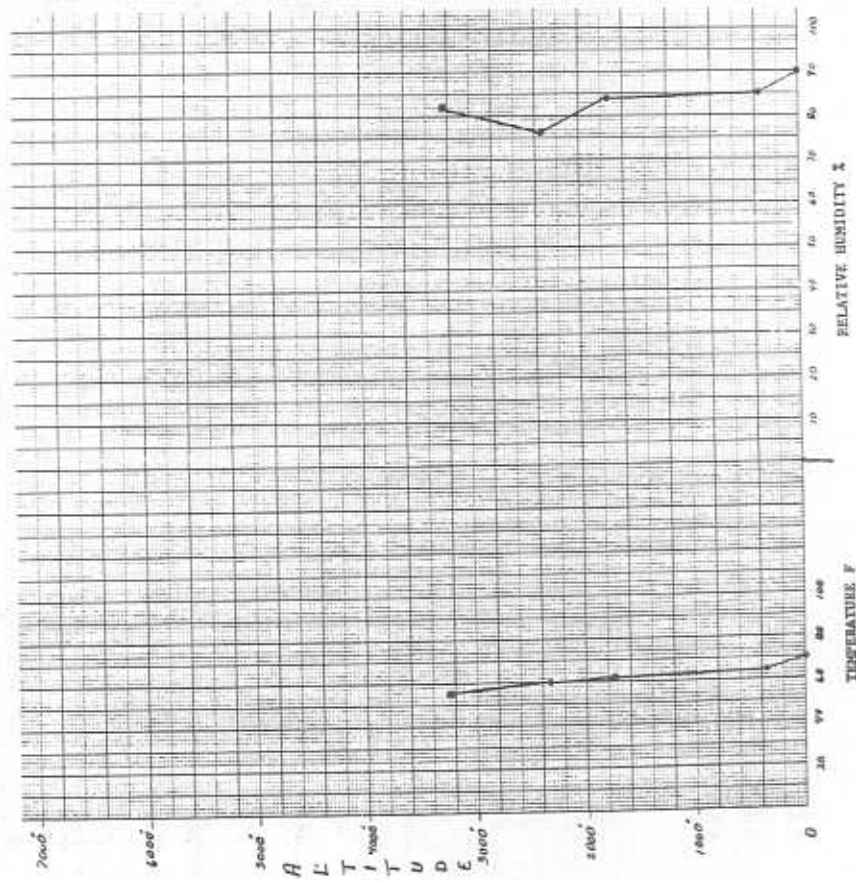
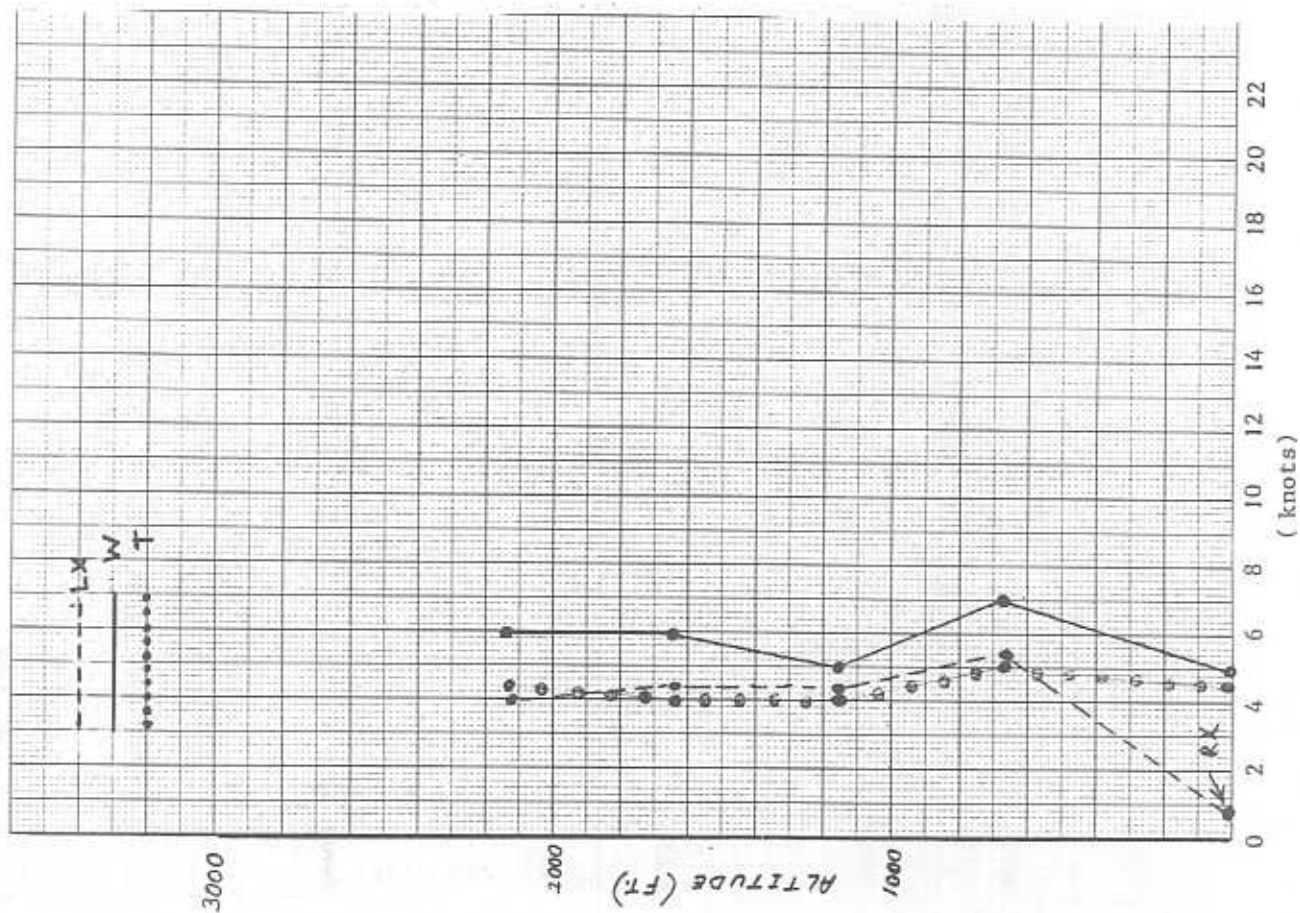
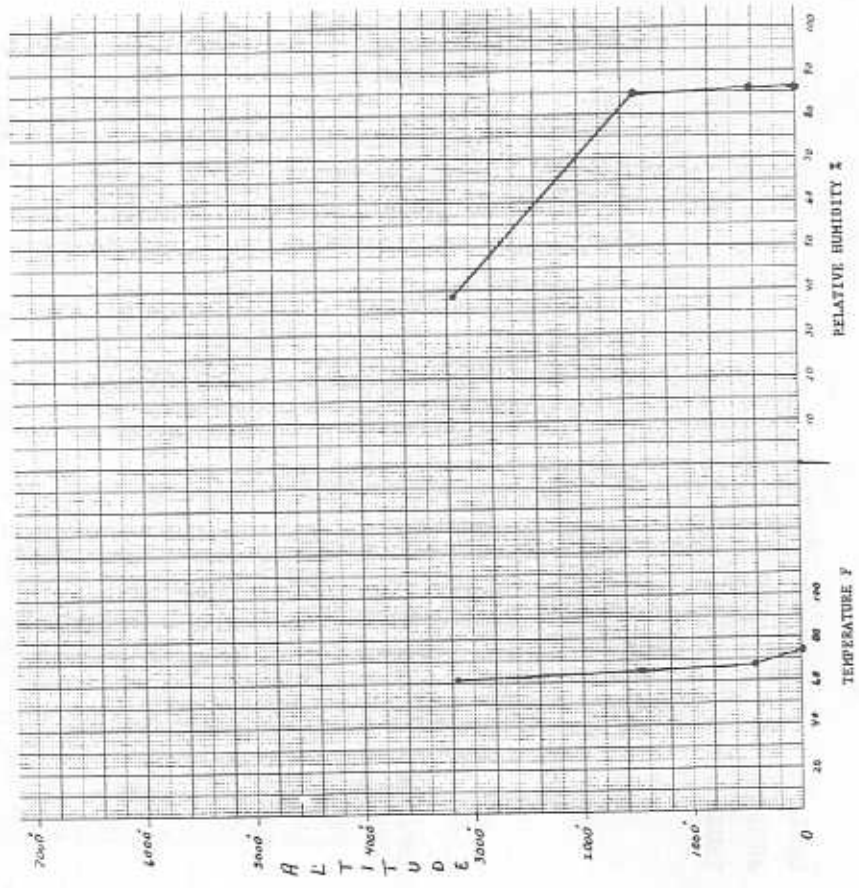
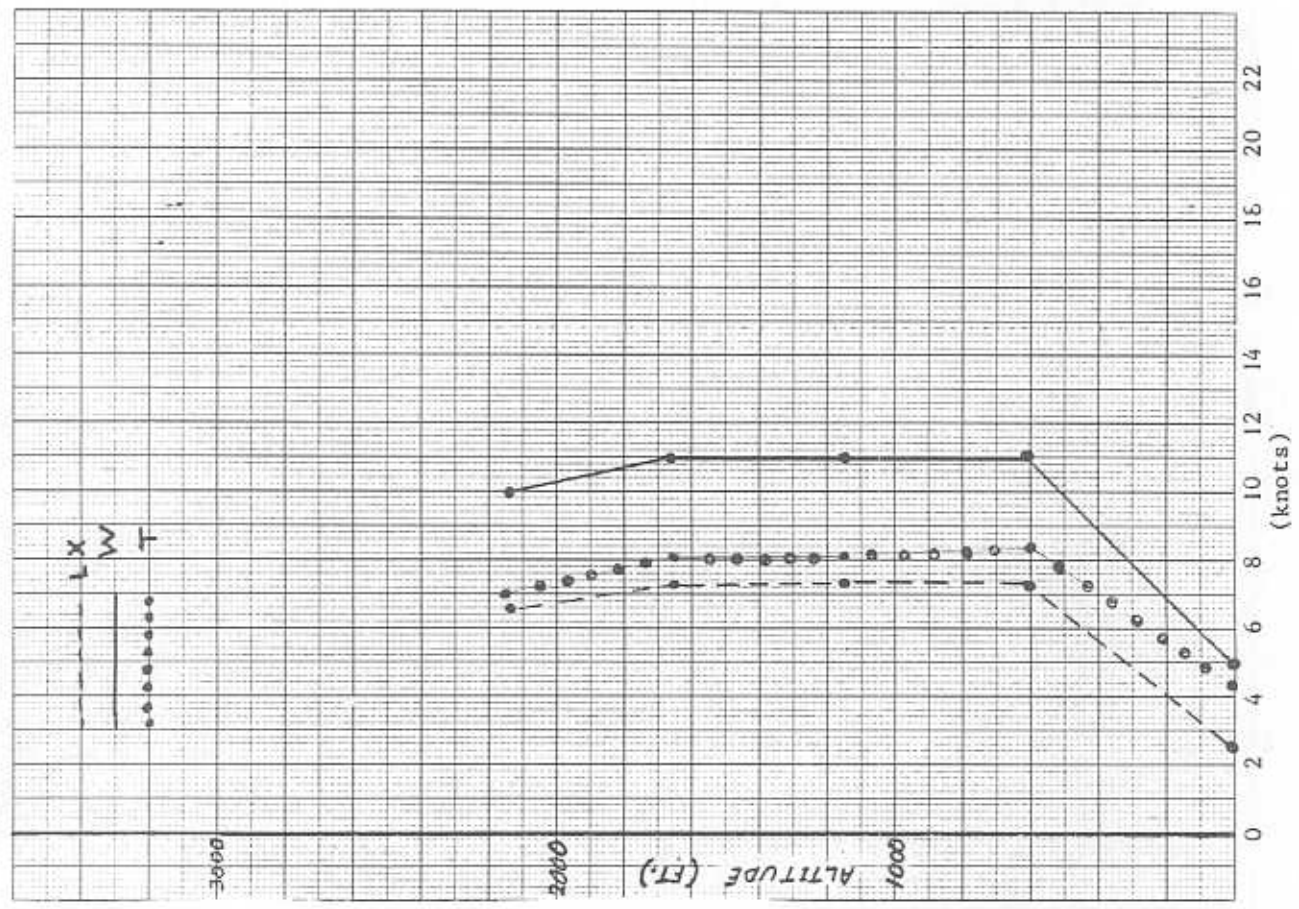


FIGURE E5-7

DATE 6/26/80
 ASC. NO. 35
 LAUNCH TIME 9:00 AM



B