ACD
34094
10

DOT/FAA/CT-ACD34094/10

PHASE 1

DFW TRAINING ROOM TEST PROCEDURES

FOR A MODIFICATION TO THE

ARTS IIIA A3.05 PROGRAM

FOR THE FINAL APPROACH SPACING TOOL (FAST)

CONFIGURATION CONTROL DECISIONS (CCD) T15712 and T16295

CASE FILES CD300-CPT-OO3A and CD300-AR3A-003

FINAL

JUNE 30, 1994

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Preface

This specification details the test procedures that are necessary to test the modification to the ARTS IIIA program for the Final Approach Spacing Tool (FAST) system. Current plans are to test the prototype FAST system capabilities early in 1993. Initial testing of the ARTS IIIA modification will be at the FAA Technical Center (FAATC) and then the FAST system will be tested and evaluated at the Dallas - Ft. Worth TRACON.

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1.0 IDENTIFICATION

This Specification defines the software test procedures for the modification to the ARTS IIIA system for the Final Approach Spacing Tool (FAST) system (CCD NXXXX) which will be implemented by patching the ARTS IIIA A3.05 program. Initial testing of the ARTS IIIA modification will be at the FAATC and then the ARTS IIIA modification and the FAST system will be tested and evaluated AT THE DALLAS/FT. WORTH TRACON.

1.1 Background

The Growth of air traffic has created capacity conditions at many of the airports that serve the National airspace System (NAS).

One resolution to the capacity problem is to improve the efficiency of the existing terminal operations. At high density airports, individual terminal air traffic controllers apply extraordinary skills in controlling the air traffic flow. Limits in equipment, metering and intrafacility coordination often prevent the full inherent capacity of the existing runways from being realized.

1.2 Scope

The conduct of metering (regularly spaced flow of air traffic) is one means of obtaining a needed increase in airport capacity.

The FAST system was developed to bring the proven benefits of metering into the terminal environment, creating a smooth air traffic flow all the way to the runway.

The FAST system will integrate with the ARTS IIIA single or dual beacon systems. The integration of the FAST system (auxiliary processing) with the ARTS IIIA system to form the ARTSIIIA/FAST system requires interfaces of both hardware and software. The FAST system will provide ATC advisories (heading and velocity) in the ARTS IIIA Full Data Block (FDB) to the individual terminal controllers that will create a smoother, better coordinated flow of air traffic to the runway. All controller advisories will be presented in the forth line of the FDB.

The controller interface with the FAST system will be through the ARTS Data Entry and Display System (DEDS). FAST DEDS entries (operational/training) shall not be processed by the ARTS IIIA system (except for the enable/disable FAST entries) but will be forwarded by the ARTS system to the FAST system for processing.

1.3 Introduction

The information contained within this document is organized into four sections.

1. IDENTIFICATION (Section 1) contains the following:

    a. The approved title and abbreviation of the test.

    b. The purpose of the function to be tested.

c. A top level summary of the contents of this document.

2. APPLICABLE DOCUMENTS (Section 2) contains a list of documents that pertain to this test.

3. RESOURCES REQUIRED (Section 3) contains an exact description of the ARTS IIIA system configuration that is required for this test.

4. ARTS IIIA MODIFICATION TEST PROCEDURES (Section 4) contains the following:

   a. Procedures needed to prepare the equipment for the test.

   b. Procedures needed to prepare the operational and support software for the test.

   c. Test data sheets defining each step in test execution.

   d. Detailed data reduction and analysis procedures necessary for evaluation of the test (if applicable).

   e. Listings of the test scenarios (if applicable).

2.0 APPLICABLE DOCUMENTS

The following documents include specifications, standards guidelines and other special publications. These documents form a part of this specification and are applicable to the extent specified herein.

2.1 Government Documents

The following documents form a part of this specification. Where the exact edition is not shown, the edition in effect on date of contract award shall apply.

2.1.1 Specifications

2.1.1.1 Federal Aviation Administration

DATE TBD	Design Data Specification for the Modification to the to the ARTS IIIA Program for the Final Approach Spacing Tool System
NAS-MD-631 A3.05	NAS En Route Stage A - ARTS IIIA
NAS-MD-632 A3.05	Conflict Alert Adaptation Standards and Guidelines
NAS-MD-633 A3.05	Standards for Defining and Adapting Values for MSAW site Variables
NAS-MD-634 A3.05	System Description and Specification series
NAS-MD-635 A3.05	Multiprocessor Executive (MPE)
NAS-MD-636 A3.05	Parallel SRAP Processing
NAS-MD-637 A3.05	Target Processing (Tracking) and ISL
NAS-MD-638 A3.05	Keyboard
NAS-MD-639 A3.05	Display Output Processing
NAS-MD-640	Interfacility Data Transfer

A3.05	
NAS-MD-641 A3.05	Bulk Store Flight Plans
NAS-MD-642 A3.05	ASR-37 Non-Executive Error and Status Messages
NAS-MD-643 A3.05	Site Adaptation and status Messages
NAS-MD-644 A3.05	MSAW and Altitude Tracking and Status Messages
NAS-MD-645 A3.05	ASR-37 Non-Executive Console Teletype Input Processing and On-Call Tasks
NAS-MD-646 A3.05	Builder/BUP and CDR Editor
NAS-MD-647 A3.05	Recovery
NAS-MD-648 A3.05	Continuous Data Recording Processing
NAS-MD-649 A3.05	Remote Display Processing

2.1.2 Other Publications

2.1.2.1 Federal Aviation Administration

NASP-2501-04 A3.05	ARTS IIIA Systems Operators Manual
ARTS IIIA Program Coding Specifications A3.05	Volume I of III
ARTS IIIA Program Coding Specifications A3.05	Volume II of III
ARTS IIIA Program Coding Specifications A3.05	Volume III of III
ARTS IIIA Program Source Listing A3.05	A3.05
ARTS/TIU Workshop Minutes	14 May 1991
TATCA Phased Approach Interface solution	7 June 1991
Specification for a modification of the ARTS Input/Output processor (IOP) software for the Final Approach Spacing Tool System	7 June 1991

CTAS ARTS/TIU Project Meeting	18 July 1991
CTAS Meeting Minutes	6 August 1991

2.1.2.2 Military

None

2.1.2.3 Other Government Activity

None

2.2 Non-Government Documents

None

3.0 RESOURCES REQUIRED

The personnel and additional equipment needed are described in the test section for each individual test. The following hardware and software is required for all testing. The setup of the hardware and software is described in sections 4.1 and 4.2.

3.1 Equipment Requirements

AMOUNT	DESCRIPTION
	FAATC HARDWARE LIST
4	Input/Output Processors "B" (IOPB)
14	Memory Modules (MMs)
1	Reconfiguration and Fault Detection Unit (RFDU)
5	TI Displays
1	Card Reader (CR)
2	Disc Control Unit (DCU)
2	Disc Drive Units (DDU)
1	Medium Speed Printer (MSP)
1	Magnetic Tape System (MTU)
1	Teletype (TTY)
1	TATCA Interface Unit (TIU)
2	Data Acquisition and Display Systems (DADS)

3.2 Software Requirements

- ARTS IIIA A3.05 Operational Program, Dual Sensor, Level 0 (AHR)
- ARTS IIIA A3.05 Operational Program, Dual Sensor, Level 0 with Event Recorder on (AHR).
- Retrack Program (AHR) Level 0
- Event Editor Program
- Editor Program

3.3 Personnel

The following personnel will be required for testing.

- Test Manager
- Test Conductors (2)

3.4 Test Location and Schedule

Testing is currently planned for early in 1993. Two test are planned, the first will be conducted at the FAA Technical Center (FAATC) and the second will be conducted at the Dallas/Ft. Worth TRACON.

3.5 Test Termination and Restart of Test

All tests will be run from beginning to the end without interruptions. If any interruptions occur that cause a need to repeat a step or steps, a determination at that point will be made by the test manager (after coordination with the FAA) to repeat the step or steps or the entire test.

4.0 TEST PROCEDURES FOR A MODIFICATION TO THE ARTS IIIA PROGRAM FOR FAST

The test procedures for the Final Approach Spacing Tool (FAST) consists of six major testing sections and are as follows:

1. Computer Utilization (Capacity) Test
2. Keyboard Entry Test
3. Interfacility Test
4. Central Track Store (CTS) Test
5. Fault Detection and Reconfiguration Test
6. Confidence and Stability Test

The design of the test procedures will be to allow for a logical break point every two hours. This is necessary in case computer time cannot be obtained for more than two hour blocks.

4.1 Hardware Set-UP Procedures

The following Power-on/Bring-up procedures are assumed to be from a completely powered down state. Since most test categories will be performed in an already operational site environment, equipment initialization will be a process of inspection and verification of the proper switch settings as indicated for each individual piece of equipment needed to support a particular test script. As a result of this inspection/verification process when needed, the appropriate switch set action indicated in the procedures will be performed.

4.1.1 Equipment Initialization

The following ARTS IIIA equipment initialization procedures should be followed in the sequence presented within, so that the operational program can be loaded and initialized.

4.1.1.1 Data Processing Subsystem (DPS) Cabinet Initialization

Perform the following at each Processor Cabinet Control Panel.

Step	Station	Description
1	DPS	ACTION: Set UTILITY circuit breaker to ON
2	DPS	ACTION: SET MAIN POWER CIRCUIT BREAKER TO ON
3	DPS	ACTION: Set FAN switch to ON
4	DPS	ACTION: Set DC POWER switch to ON
5	DPS	ACTION: Set OVERTEMP HORN switch to NORMAL
6	DPS	ACTION: Set CABINET POWER SHUT DOWN switch to NORMAL
7	DPS	ACTION: Set all CHANNEL BACK-TO-BACK (CBB) switches to the down position

Comments:

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4.1.1.2 Magnetic Tape Unit Initialization (MTU)

Perform the following at each of the MTU power control Panels:

Step	Station	Description
1	MTU	ACTION: Mount the program tape to be read on the MTU.
2	MTU	ACTION: Set the tape transport switch to MANUAL.
3	MTU	ACTION: Depress the forward indicator until the tape has passed the load point (Silver marker)
4	MTU	ACTION: Momentarily depress the REWIND indicator (BOT indicator should be lit.)
5	MTU	ACTION: Set the TAPE TRANSPORT switch to AUTO

Comments:

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4.1.1.3 Teletype Unit Initialization (TTY)

Perform the following at each of the TTY power control Panels:

Step	Station	Description
1	TTY	ACTION: Insure POWER is ON
2	TTY	ACTION: Insure TTY is on-line (Local lites are not lit)

Comments:

_____

_____

4.1.1.4 Input/Output Processor Model "B" Initialization (IOPB)

Step	Station	Description	
1	IOPB	ACTION:	Set AC/DC Regulator POWER switch to ON
		OBSERVE:	On the AC/DC converter, The amber DC output indicator illuminates.
		OBSERVE:	On the DC/DC converter, the green -5.5v indicator illuminates
2	IOPB	ACTION:	Set CONSOLE switch up to SET
3	IOPB	ACTION:	Set LSO/START switch to the middle position
4	IOPB	ACTION:	Set DEBUG/STOP switch down to STOP
		OBSERVE:	Green RUN light is off
5	IOPB	ACTION:	Press MASTER CLEAR button
6	IOPB	ACTION:	Set JUMP/STOP 1, 2, 3 switches down
7	IOPB	ACTION:	Set JUMP/STOP 4, 5, 6, 7 switches MIDDLE (jump)
8	IOPB	ACTION:	Set AUTO START switch up to AUTO START
9	IOPB	ACTION:	Set RTC ENABLE switch up to RTC ENABLE
10	IOPB	ACTION:	Set NDRO ENABLE DISABLE switch to ENABLE
11	IOPB	ACTION:	Rotate LOAD switch to I position
12	IOPB	ACTION:	Set I/O ACK LONG switch DOWN
13	IOPB	ACTION:	Set PARITY STOP switch DOWN
14	IOPB	ACTION:	Set FAULT STOP switch DOWN
15	IOPB	ACTION:	Set BUFFER STEP ENABLE switch DOWN
16	IOPB	ACTION:	Set DISABLE ADV P/FUNCT REPEAT switch to MIDDLE position
17	IOPB	ACTION:	Set switch DOWN at card 61H
16	IOPB	ACTION:	Set all BREAKPOINT PANEL switches to the DOWN position

Comments:

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4.1.1.5 IOPB Register Set Procedures

The following procedures are used when setting the contents of a central register on an IOPB. (Refer to the CENTRAL REGISTER area and CENTRAL REGISTER SELECT area of an IOPB.)

Step	Station	Description
		*Alter the contents of A-Register.
1	IOPB	ACTION: Press A at CENTRAL REGISTER SELECT area ACTION: Press CLR button at CENTRAL REGISTER area ACTION: Set appropriate bits (0-29) to represent the octal value to be inserted
		*Alter the contents of Q-Register
2	IOPB	ACTION: Press Q at CENTRAL REGISTER SELECT area ACTION: Press CLR button at CENTRAL REGISTER area ACTION: Set appropriate bits (0-29) to represent the octal value to be inserted
		*Alter the contents of a specific B-Register
3	IOPB	ACTION: Press ARITH/CM switch at CENTRAL REGISTER SELECT area ACTION: Press CLR button and appropriate buttons (0-5) at CM ADDRESS area to specify the octal value of the B register to be altered ACTION: Set appropriate bits (0-29) at CENTRAL REGISTER area to represent the octal value to be inserted in the selected B register
		*Alter the contents of extension (SR) Register
4	IOPB	ACTION: Press the appropriate button (SR0-SR2) at EXT REGISTER SELECT area ACTION: Press CLR button at EXT REGISTER area ACTION: Set appropriate bits (13-17) to represent the octal value to be inserted in the selected S register

Comments:

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4.1.1.6 Solid State Memory (SSM) Initialization

Perform the following at each of the SSM power supplys:

Step	Station	Description	
1	SSM	ACTION:	Set AC power supply switchs to ON for all power supplies in SSM 0 and 1
		OBSERVE:	Amber indicator illuminates and the green DC indicator illuminates + 5V
		OBSERVE:	On the DC/DC converter, the green -5.5v indicator illuminates

Comments:

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4.1.1.7 Disc Subsystem (DCU)

Perform the following at the DCU Rack Power Control Panel:

Step	Station	Description	
1	DCU	ACTION:	Set POWER UTILITY switch to ON
2	DCU	ACTION:	Set RACK POWER switch to ON
			* At the DCU Power Sequence Panel:
3	DCU	ACTION:	Set SEQUENCE POWER circuit breaker to ON
4	DCU	ACTION:	Set DISC POWER J1 circuit breaker to ON
			* At the DCU Maintenance Panel:
5	DCU	ACTION:	Set DCU DRIVE POWER switch down to OFF
6	DCU	ACTION:	Set BREAK POINT ADDRESS ENABLE switch DOWN
7	DCU	ACTION:	Set MICRO BRANCH switche DOWN
8	DCU	ACTION:	Set BITE DISABLE switch UP
9	DCU	ACTION:	Set PROGRAM TIME OUT ENABLE switch DOWN
10	DCU	ACTION:	Set OVER TEMP ENABLE/DISABLE switch up to ENABLE
11	DCU	ACTION:	Set IOP INTERFACE ENABLES switches up to ENABLE for all operational IOPBs
12	DCU	ACTION:	Set IOP INTERFACE ENABLES switches down to DISABLE for all intended off-line IOPBs
13	DCU	ACTION:	Set DISC NUMBER 0 and 1 switches to down
14	DCU	ACTION:	Set TEST/MONITOR 0 and 1 switches to down
15	DCU	ACTION:	Set ON-LINE DRIVE SELECTION switches up to ON for all operational discs
16	DCU	ACTION:	Set ON-line drive selection switches down to OFF for all off-line discs
17	DCU	ACTION:	Set ON-LINE/IN-LINE/OFF-LINE switch up to ON-LINE
18	DCU	ACTION:	Rotate FUNCTION switch to OFF
19	DCU	ACTION:	Set DATA PROTECT switch up to ON
20	DCU	ACTION:	Set DCU /DRIVE POWER switch up to ON
21	DCU	ACTION:	Set MICRO RUN switch to STOP (middle)
22	DCU	ACTION:	Press MASTER CLEAR button

23	DCU	ACTION:	Set MICRO RUN switch up to RUN
			* AT each Disc Drive

NOTE: Operational Program Disc should be mounted on DDU0 and DDU1

24	DCU	ACTION:	Mount the disc pack containing the desired programs
25	DCU	ACTION:	Press Start button
26	DCU	ACTION:	If READ ONLY indicator is on. press READ ONLY switch
		OBSERVE:	READ ONLY indicator goes off
27		ACTION:	Set PORT SELECTION switch to 1/2 (middle)

Comments:

4.1.1.8 Medium Speed Printer (MSP) Initialization

Perform the following at the MSP:

Step	Station	Description
1	MSP	ACTION: Set THE POWER switch to the ON position (Switch is located at left rear of printer)
2	MSP	ACTION: Select CHANNEL A-B at the MSP controller
3	MSP	ACTION: Set the POWER switch to the ON position at the MSP controller
4	MSP	ACTION: Press FORM ADVANCE switch to home paper

Comments:

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4.1.1.9 Card Reader (CR) Initialization

Perform the following at the CR Rack Power Control Panel.

Step	Station	Description
1	CR	ACTION: Set the 15 AMP UTILITY POWER breaker switch to the ON position
2	CR	ACTION: Set the 50 AMP RACK POWER breaker switch to the ON position
3	CR	ACTION: Ensure all of the RACK OUTLETS fuse indicators are not illuminated
		* At the CR Controller:
4	CR	ACTION: Set the POWER switch to the ON position
5	CR	ACTION: Set the COMPUTER SELECT switch to the DUPLEX ENABLE position
6	CR	ACTION: Press MASTER RESET switch
		* At the CR
7	CR	ACTION: Set the POWER Switch to the ON position
8	CR	ACTION: Press the RESET switch

Comments:

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4.1.1.10 Azimuth Distribution Unit (ADU) Initialization

Perform the following at each ADU (Set UTILITY and RACK POWER switches to ON).

Step	Station	Description
1	ADU	ACTION: Set POWER switch to the ON (up)
2	ADU	ACTION: Set MODE switch to APG
3	ADU	ACTION: Set UNIT switch to either A or B
4	ADU	ACTION: Set GATE switch to a predetermined site parameter value

Comments:

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4.1.1.11 Sensor Receiver and Processor (SRAP) Initialization

Perform the following at each SRAP rack power control panel.

Step	Station	Description
1	SRAP	ACTION: Set both the 15 and 35 AMP circuit breakers to ON
2	SRAP	ACTION: Verify that the SYSTEM POWER and BLOWER indicators are lit * At the maintenance panels of all modules
3	SRAP	ACTION: Set the CHANNEL SELECT toggle switches on the BDAS modules to the DUP position
4	SRAP	ACTION: Depress the STOP, MASTER CLEAR and RUN toggle switches

Comments:

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4.1.1.12 Reconfiguration Fault Detection Unit (RFDU) Initialization

Perform the following at the RFDU Power Supply.

Step	Station	Description
1	RFDU ACTION:	Set the power toggle switch on the AC/DC Regulator to the ON position
2	RFDU ACTION:	Ensure that the amber DC OUTPUT indicator on the AC-DC Regulator is illuminated
3	RFDU ACTION:	Ensure that the green -5.5 indicator on the DC-DC Converter is illuminated
		* At the RFDU panel
5	RFDU ACTION:	Set the MODE SELECT toggle switch to the MAINTENANCE position
6	RFDU ACTION:	Set the REPEAT/NORM/STEP switch to the NORM position
7	RFDU ACTION:	Set the RECONFIGURATION REGISTER switches to the NORM position
8	RFDU ACTION:	Set the PROCESSOR INTRPT L/O switches to the L/O position
9	RFDU ACTION:	Set all DISABLE MEMORY TIMEOUT switches to the NORMAL position
10	RFDU ACTION:	Press the SCATTER INTERRUPT ALARM RESET button
11	RFDU ACTION:	Set the SCATTER INTERRUPT AND ALARM ENBL switch to the DSBL position
12	RFDU ACTION:	Set the MODE SELECT switch to the operational position
13	RFDU ACTION:	Ensure that the toggle switch at card location 40C is in the downposition. (Scatter Interrupt Control)

Comments:

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4.1.1.13 ARTS IIIA Switch Setting Requirements at FAATC

Perform the following at the Switch Station:

Step	Station	Description
1	TSSF	ACTION: "CAPS LOCK" DEPRESSED
2	TSSF	ACTION: PRESS "A" TO DISPLAY MENU
3	TSSF	ACTION: ENTER CODE "TSSF" AND DEPRESS "ENTER"
4	TSSF	ACTION: MOVE CURSOR BY PRESSING APPROPRIATE ARROW KEYCAPS

Set panel according to the following:

SW #	ORIGIN	DEST A	DEST B	DEST C	DEST D
S1	BRITE	MDBM 0-2			
S2	CMCO-B	3A P0-13			
S3					
S4					
S5	MDBM1-A		3A P0-7		
S6	DEDS-7				
S7	DEDS-2				
S8	MDBM1-B	3A P1-7			
S9	MTS B				
S10	MTS A		3E P6-7		
S11	MSP 2B		3A P3-12		
S12	3A P3-10		S13 DEST B		
S13	DCU1-C		S12 DEST B		
S14	3A P1-4	SRAP0-B			
S15	SRAP2-A	3A P2-4			
S16	3A P1-5		S17 DEST B		
S17	SRAP3-A		S16 DEST B		
S18	3A P0-4	SRAP0-A			
S19	3A P0-5	SRAP1-A			

NOTE: After each selection press enter

5	TSSF	ACTION: PRESS "HOME"
6	TSSF	ACTION: ENTER CODE "TSSF" AND PRESS ENTER
7	TSSF	ACTION: ENTER CONTROL AND ERASE SIMULTANEOUSLY
8	TSSF	ACTION: PRESS "B" TO DISPLAY MENU
9	TSSF	ACTION: ENTER CODE "TSSF" AND DEPRESS "ENTER"
10	TSSF	ACTION: MOVE CURSOR BY PRESSING APPROPRIATE ARROW KEYCAPS

Set panel according to the following:

SW #	ORIGIN	DEST A	DEST B
S21	MDBM0-A		SW J DEST A
S22	MDBM0-B		3A P1-16
S23	MDBM1-A		SW K DEST A
S24	MDBM1-B		3A P1-17
S25	MDBM2-A		SW L DEST B
S26	MDBM2-B		SW M DEST B

NOTE: After each selection press enter

11 TSSF ACTION: PRESS "HOME"

12 TSSF ACTION: ENTER CODE "TSSF" AND PRESS ENTER

13 TSSF ACTION: ENTER CONTROL AND ERASE SIMULTANEOUSLY

In the center aisle, to the right of column E19 there are two manual switches that must be selected for ARTS IIIA so that MDBM 5 becomes part of the ARTS IIIA system. The two top sets of toggle switches must be selected for ARTS IIIA.

Perform the following at each of the FDADS:

Step	Station	Description
1	FDADS	ACTION: Set mode switch UP to ARTS IIIA mode located below the desk top directly in the middle of the panel.
2	FDADS	ACTION: Press the two red RESET buttons located above and to the right of the mode switch.

Comments: _____

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4.2 Software Loading and Start-up Procedures

This section describes the loading and start-up procedures for the Operational (OP) program, CDR editor, off-line programs and IOPB register settings procedures. Procedures are also provided for setting the ARTS IIIA to an operational state.

The equipment initialization procedures in section 4.1 will be referenced in this section but not repeated. Only deviations from the procedures in paragraph 4.1 will be noted.

4.2.1.1 Operational (OP) Program Cold Start or Restart

The operational program is loaded from DDU 0 if accessible, otherwise, DDU 1 is used.

The procedures in this subsection assume a first time or "cold " start. Therefore, no valid critical data is available.

Set up all the equipment available as described in paragraph 4.1.

Step	Station	Description
1	RFDU	ACTION: Set all RECONFIGURATION REGISTER switches to the INHB position and set the processors and memory modules to be accessed by the OP program to the NORM position.
2	RFDU	ACTION: Set the PROCESSOR INTRPT L,O switches to the NORM position for all processor to be accessed by the operational program (set all others to the L,O position)
3	RFDU	ACTION: Set all DISABLE MEMORY TIMEOUT switches to the DSBL position except those which will be accessed by the OP program (Set these to the NORM position)
4	RFDU	ACTION: Press SYSTEM START switch to the down position and release
	IOPB	OBSERVE: The system executes a scatter recovery, loads and initializes the operational program
6	CDT	OBSERVE: Recovery data is printed within 5-10 seconds after the system start switch is pressed
		CONDITIONAL BLOCK: Perform to purge old or invalid critical data from the disc pack. This step is to be used for a first time or cold start.
5	RFDU	ACTION: Press SYSTEM START switch to the down position again and release
		OBSERVE: The LOAD/START-UP of the operational program is completed with the new critical data on the disc
		END CONDITIONAL BLOCK:
6	IOPB	ACTION: When program is cycling, set all DEBUG MODE switches to the UP position when running in in the debug mode
7	RFDU	ACTION: Depress the ALARM RESET button

Comments:

4.2.1.2 Off-Line Program Load Procedures

The following procedures describe the steps required to manually load an off-line program from disc.

Step	Station	Description
1	DCU 0,1	ACTION: Mount the disc pack containing the desired off-line program on a available Disc Drive Unit (DDU)
2	DCU	ACTION: Verify the DDU used is enabled for the DCU to be used
3	DCU	ACTION: Set all IOPB INTERFACE ENABLE switches to the ENABLE position
4	DCU	ACTION: Set DISC NUMBER 0 and 1 switches to the up position
5	DCU	ACTION: Verify ON-LINE DRIVE SELECTION switches 0 and 1 are in the ON (up) position
6	RFDU	ACTION: Verify the RECONFIGURATION REGISTERS switches for the memory modules to be used are set to the NORM (down) position for the processors to be used
7	IOPB	ACTION: Press the DEBUG/STOP switch to off (down)
8	IOPB	ACTION: Rotate LOAD switch to I for load from disc
9	IOPB	ACTION: Set the STOP/JUMP 4 and 7 switch to STOP (up) position
10	IOPB	ACTION: Press the MASTER CLEAR button * Set Q-Register UPPER to the DDU number on which the off-line program is loaded and Q-Register LOWER to the file number assigned to the program by BUP
11	IOPB	ACTION: Press Q at CENTRAL REGISTER SELECT area ACTION: Press CLR button at CENTRAL REGISTER area ACTION: Set appropriate bits (15-29) for appropriate DDU number ACTION: Set appropriate bits (0-14) for file number assigned to the OP program CONDITIONAL BLOCK: Perform if memory module # 0 is not available
12	IOPB	ACTION: Press MLO button at CENTRAL REGISTER area ACTION: Press CLR button at CM ADDRESS area ACTION: Press CLR button at CENTRAL REGISTER area ACTION: Set bits (16-19) for available MMs ACTION: Press STATUS button at CENTRAL REGISTER SELECT area ACTION: Set bit 6

END CONDITIONAL BLOCK:

13 IOPB ACTION: Press the ENABLE/LOAD button

14 IOPB ACTION: Press the LSO/START switch to start (down)

OBSERVE: The OP program is read into memory

IOPB OBSERVE: STOP-7 light is on at the completion of read indicating successful read

OBSERVE: If STOP-4 light is on an error has occurred during the read operation

Comments:

4.2.1.3 CDR Editor Off-Line Program Load Procedures

The CDR Editor Off-Line Program will be used by test scripts to edit test data recorded during test conduct. The procedures below provide the step by step actions to set up and execute the program.

The following set up procedures must be performed for the off- line DCU and IOPB.

Step	Station	Description
1	DCU 0,1	ACTION: Mount the disc pack containing the CDR Editor off-line program on a available Disc Drive Unit (DDU)
2	DCU	ACTION: Verify the DDU used is enabled for the DCU to be used
3	IOPB	ACTION: Depress DEBUG MODE/STOP switch to STOP (down)
4	IOPB	ACTION: Set STOP JUMP switches 4 and 7 to STOP (up)
5	IOPB	ACTION: Press the MASTER CLEAR button
		* Set Q-Register UPPER to the DDU number on which the CDR Editor program is loaded and Q-Register LOWER to the file number assigned to the Editor by BUP
6	IOPB	ACTION: Press Q at CENTRAL REGISTER SELECT area ACTION: Press CLR button at CENTRAL REGISTER area ACTION: Set appropriate bits (15-29) for appropriate DDU number ACTION: Set appropriate bits (0-14) for file number assigned to the Editor by BUP
		CONDITIONAL BLOCK: Perform if memory module # 0 is not available
7	IOPB	ACTION: Press MLO button at CENTRAL REGISTER area ACTION: Press CLR button at CM ADDRESS area ACTION: Press CLR button at CENTRAL REGISTER area ACTION: Set bits (16-19) for available MMs ACTION: Press STATUS button at CENTRAL REGISTER SELECT area ACTION: Set bit 6
		END CONDITIONAL BLOCK:
8	IOPB	ACTION: Press the ENABLE/LOAD button
9	IOPB	ACTION: Press the ENABLE/LOAD button
10	IOPB	ACTION: Press the LSO/START switch to start (down)
		OBSERVE: The OP program is read into memory
	IOPB	OBSERVE: STOP-7 light is on at the completion of read indicating successful read
		OBSERVE: If STOP-4 light is on an error has occurred during the read operation, repeat

steps 1 through 10

11 DCU n ACTION: Mount disc to be edited on DDU n

* If back up disc used mount second disc

12 DCU n ACTION: Mount second disc to be edited on DDU n

13 IOPB ACTION: Press LSO/START switch to START (down)

CDT OBSERVE: The CDR Editor starts

OBSERVE: ED ENTER DEVICES
ED

* Select input device (X = disc number where data to be edited was mounted). Medium speed printer is the output device.

OPTIONS: D0, D1 or MT (TAPE).

14 CDT ACTION: Enter Dn or MT (no entry defaults to 0) and MP

ACTION: Press RETURN

OBSERVE: ED ENTER DATA CLASSES

ED

* Select DATA CLASSES to be edited (AA = data class designator; bb = second set or more data classes with no spaces between entries.)

OPTIONS: BT = Beacon Target Reports
RT = Radar Target Reports
RB = Radar Reinforced Target Reports
TG = Target Reports
DB = Duplicate Beacon Target Reports
TD = Tracking Data
RC = RT-BTL CTS Data
AT = Altitude Tracking Data
AF = Automatic Functions
KF = Keyboard Functions
MA = MSAW Alarms
MS = MSAW Display and Alarms
IF = Interfacility Messages
II = Interfacility (Input only)
IO = Interfacility (Output only)
MD = Memory Dumps
CA = Conflict Alert

15 CDT ACTION: Enter aabb (no entry - edit all classes

ACTION: Press enter

OBSERVE: ED ENTER FILTERS

ED

* Filters with the appropriate format can be entered at this time and repeated as necessary until all

requested filters have been entered. (X = filter code; aaa = filter format).

OPTIONS and Formats are as follows:

Filter Item	Code and Format
Aircraft ID	Aaaaaaaa,bbbbbbb,---Up to 5, (Seperated by commas)
Beacon Codes	Bbbbb,cccc,....Up to 5, (Non-discrete selects entire Block)
Controller Symbols	Csa,sb,sc,..Up to 30 with Subset (no commas or spaces between entries
Azimuth	Zbbb/eee = begin/end degrees
Disc Address	Dcccchhrrcccchhrr cylinder, head,record (ccc = 0-404, hh = 0-19, rr = 1-11)
ETG Data	E (block) or ETG (allow)
Interfacility Data	Icc (cc = data type) (Options: AM,CX,DA,DM,DR,DT, DX,FP,TA,TB,TI,TR,TU)
Altitude Limits	Llluuu (Lower/Upper hundreds/feet)
Range Limits	Rlluuu (Lower/Upper NMs)
Time Limits	TMMddyyhhmmssMMddyyhhmmss (Month,Day,Year,Hours,Minutes, Seconds)
Subsystems	Si (i = 0 or 1)
Associated/ Unassociated Tracks	U or UA or UU (U only deletes filter, UA = only assoc., UU = only unassoc.)
Non-Conflict Data	NC

16 CDT ACTION: Enter x(aaa) (Entry of Code x only will delete filter)

OBSERVE: ED

* Terminate filter entries.

17 CDT ACTION: Press RETURN

OBSERVE: ED ENTER COMMENTS
ED

* Enter comments (aaa...a = up to 40 characters allowed in a comment). After entering comments, CDR editor will automatically begin editing and continue until all data classes selected have been edited.

18	CDT	ACTION: Enter aaa...a ACTION: Press RETURN
		OBSERVE: Edited data printed out at the CDT
		OBSERVE: ED END OF DATA (when editing terminates) ED
		CONDITIONAL BLOCK: Perform if more editing is needed.
19	CDT	ACTION: Enter GO
		OBSERVE: ED ENTER DEVICE ED
		* Return to step 14 to select devices and repeat editor initialization process again.
		END CONDITIONAL BLOCK
		* Terminate CDR Editor
20	CDT	ACTION: Press RETURN
	IOPB	OBSERVE: Editor is terminated.

Comments:

4.2.1.4 IOPB Register Setting Procedures

The following procedures are used when setting the contents of a central register on an IOPB. (Refer to the CENTRAL REGISTER area and CENTRAL REGISTER SELECT area of an IOPB.)

Step	Station	Description
		*Alter the contents of A-Register.
1	IOPB	ACTION: Press A at CENTRAL REGISTER SELECT area ACTION: Press CLR button at CENTRAL REGISTER area ACTION: Set appropriate bits (0-29) to represent the value to be inserted
		*Alter the contents of Q-Register
2	IOPB	ACTION: Press Q at CENTRAL REGISTER SELECT area ACTION: Press CLR button at CENTRAL REGISTER area ACTION: Set appropriate bits (0-29) to represent the value to be inserted
		*Alter the contents of a specific B-Register
3	IOPB	ACTION: Press ARITH CM switch at CENTRAL REGISTER SELECT area ACTION: Press CLR button and appropriate buttons (0-5) at CM ADDRESS area to specify the B register to be altered ACTION: Set appropriate bits (0-29) at CENTRAL REGISTER area to represent the value to be inserted in the selected B register
		*Alter the contents of S-Register
4	IOPB	ACTION: Press the appropriate button (SR0-SR2) at EXT REGISTER SELECT area ACTION: Press CLR button at EXT REGISTER area ACTION: Set appropriate bits (13-17) to represent the value to be inserted in the selected S register

Comments:

_____

_____

4.3 Keyboard Entry Test Procedures

The second major test named "Keyboard Entries" has one test case.

4.3.1 Test Case 01 - Keyboard Entries

The keyboard entry test will test to insure that the following six objectives have been satisfied.

1. To ensure that the FAST system has received all of the intended. valid ARTS IIIA keyboard entries and all of the ARTS IIIA FAST keyboard entries, valid and invalid. Keyboard entries will be tested under the following conditions.

    - Valid ARTS IIIA keyboard entries with FAST disabled
    - Valid FAST keyboard entries with FAST disabled
    - Valid ARTS IIIA keyboard entries with FAST enabled and CDR disabled
    - Valid FAST keyboard entries with FAST enabled and CDR disabled
    - Valid ARTS IIIA keyboard entries with FAST enabled and CDR enabled
    - Valid FAST keyboard entries with FAST enabled and CDR enabled
    - Invalid ARTS IIIA keyboard entries with FAST enabled and CDR enabled
    - Invalid FAST keyboard entries with FAST enabled and CDR enabled

2. To ensure that when a Track Drop occurs that a Trackdrop message is transmitted by ARTS to the FAST system.

3. To ensure that when a Associated track is disassociated from the associated thread that a tread drop message is transmitted by ARTS to the FAST system.

4. To ensure that when a display is off centered or the display centering has been moved that FAST receives the new "X" and "Y" display centering values.

5. To ensure that the FAST system recognizes valid and invalid FAST keyboard entries.

6. To ensure that the values in the ARTS IIIA message counters are identical to the values in the message counters that are in the TIU.

4.3.1.1 Definitions

SYSTEM DATA AREA	SDA
TELETYPE	TTY
DADS WORKSTATION	DWS
TI DISPLAY 27, DESK TOP KEYBOARD	3O
TI DISPLAY 28, DESK TOP KEYBOARD	3K
TI DISPLAY 29, DESK TOP KEYBOARD	3L

4.3.1.2 Software Preparation

Load and start the operational program using the initial start up procedures described in the Software Loading and Start-Up Procedures, Section 4.2.

4.3.1.3 Test Execution Procedures

The following test data sheets define the detail steps to be executed in the Keyboard Entry Test Case 01, Keyboard entries.

These data sheets will be used to score the results of each of the test steps.

KEYBOARD ENTRY TEST CASE 01,

Step	Work Station	Description	
----	-------	-------------	

****

The Following Is Entered At The TIU

****

Step	Work Station		
		* Select TIU "A"	
1	TWS	ACTION:	Depress all "A" switches
	TWS	ACTION:	Depress reset button
1A		OBSERVE:	No other ARTS interference
		SCORE:	PASS / FAIL

Comments: ____

= =

Step	Work Station		
		* Valid DWS Keyboard Entries to idle the TIU program	
2	DWS	ACTION:	ENTER Any key
2A	DWS	OBSERVE:	Name faatc Password: Enter password to unlock; select ICON to lock.
		SCORE:	PASS / FAIL
2B	DWS	ACTION:	ENTER tiufaa
2C	DWS	OBSERVE:	After a couple of seconds the DADS and the keyboard windows are displayed
		SCORE:	PASS / FAIL
2D	DWS	INSURE:	In the keyboard window that the TIU is in IDLE
		SCORE:	PASS / FAIL

Comments: ____

= =

* Valid DWS Keyboard Entries to enable the TIU program

Using the mouse move the arrow to the keyboard window

3 DWS ACTION: SELECT RUN and CLICK

3A DWS OBSERVE: In the keyboard window the TIU is in RUN state

SCORE: PASS / FAIL

Comments: ______________________________

= =

* Load the ETG program

4 TTY ACTION: ENTER TK IA TG

4A TTY OBSERVE: TK IA TG L-001

SCORE: PASS FAIL

4B TTY OBSERVE: HH:MM:SS OK 001 TK IA TG

SCORE: PASS / FAIL

Comments: ______________________________

= =

****

The Following Is Entered Manually From Keyboard 3L

****

* Remove Display 29 from Training

5 3L ACTION: ENTER <F15>ZM

5A TTY OBSERVE: HH:MM:SS STAT 1N 29=ACT

SCORE: PASS / FAIL

Comments: ______________________________

= =

* Valid ARTS Keyboard Entries

6 3L ACTION: ENTER <F7>1FEE

6A TTY OBSERVE: HH:MM:SS CKEY 3L FEE

SCORE: PASS / FAIL

Comments: ______________________________

= =

* Valid ARTS Keyboard Entries

7 3L ACTION: ENTER <F7>1FD26E

7A TTY OBSERVE: HH:MM:SS CKEY 3L FD26E

SCORE: PASS / FAIL

Comments: ______________________________

= =

* Valid ARTS Keyboard Entries

8 3L ACTION: ENTER <F7>1FD27E

8A TTY OBSERVE: HH:MM:SS CKEY 3L FD27E

SCORE: PASS / FAIL

Comments: ______________________________

= =

* Valid ARTS Keyboard Entries

9 3L ACTION: ENTER <F7>1FD29E

9A TTY OBSERVE: HH:MM:SS CKEY 3L FD29E

SCORE: PASS / FAIL

Comments: ______________________________

= =

* Valid ARTS Keyboard Entries

10 3L ACTION: ENTER <F7>1FD30E

10A TTY OBSERVE: HH:MM:SS CKEY 3L FD30E

SCORE: PASS / FAIL

Comments: ______________________________

= =

* Enable Memory Readout

11 3K ACTION: ENTER M<F7>R

11A 3K OBSERVE: KEYBOARD ENTRY IS ACCEPTED

SCORE: PASS / FAIL

Comments: ______________________________

= =

* Change error condition to allow duplicate ETG targets

12 3K ACTION: ENTER < F7 > R265007

12A 3K OBSERVE: In the SDA 265007 6104067056

SCORE: PASS FAIL

Comments: ______________________________

= =

13 3K ACTION: ENTER < F7 > R265007 1200000000

13A 3K OBSERVE: In the SDA 265007 1200000000

SCORE: PASS FAIL

13B TTY OBSERVE: HH:MM:SS MEM 3K 265007 1200000000

SCORE: PASS FAIL

Comments: ______________________________

= =

* Disable Memory Readout

14 3K ACTION: ENTER M < F7 > *

14A 3K OBSERVE: All memory readouts disabled

SCORE: PASS . FAIL

Comments: ______________________________

= =

* Readout message counters

15 3K ACTION: ENTER 640003 9

15A 3K OBSERVE: In the SDA
640003 = 0000000000 (CTS Messages)
640004 = 0000000000 (Thread Drop Messages).
640005 = 0000000000 (Track Drop Messages)
640006 = 0000000000 (Keyboard Entry Messages)
640007 = 0000000000 (TROUT Demarcation Messages SS0)
640010 = 0000000000 (TROUT Demarcation Messages SS1)
640011 = 0000000000 (Interfacility Messages)
640012 = 0000000000 (Leader Change Messages)
640013 = 0000000000 (Offset Change Messages)

SCORE: PASS / FAIL

Comments: ______________________________

= =

* Valid ARTS IIIA Keyboard Entries

16	3L	ACTION: ENTER <F7>S/MMDDYY
16A	TTY	OBSERVE: HH:MM:SS DATE 3K mmddyy
		SCORE: PASS / FAIL

Comments: ______________________________

= =

* Valid ARTS IIIA Keyboard Entries

17	3L	ACTION: ENTER <F7>I10SCR
17B	MSP	OBSERVE: HH:MM:SS CKEY 3K I0SCR and HH:MM:SS CDR DISC 0 0250003
		SCORE: PASS FAIL

NOTE: The keyboard packets that were sent to FAST were prepared by the FAST modification to the ARTS program. When CDR is enabled the keyboard packets prepared by the CDR routine will be sent to FAST. The only difference is that the FAST modification will add another header word to the packet that is sent to FAST.

Comments: ______________________________

= =

* Consolidate 3M with 37

18	3L	ACTION: ENTER <F7>C373M+
18A	TTY	OBSERVE: HH:MM:SS FCON 3L 37 = 3L
		SCORE: PASS / FAIL

Comments: ______________________________

= =

* Consolidate 3W with 37

19	3L	ACTION: ENTER <F7>C373W+
19A	TTY	OBSERVE: HH:MM:SS FCON 3L 37 = 3W
		SCORE: PASS / FAIL

Comments: ______________________________

= =

* Consolidate 3L with 37

20	3L	ACTION: ENTER <F7>C373L+

20A TTY OBSERVE: HH:MM:SS FCON 3L 37 = 3L

SCORE: PASS / FAIL

Comments: ______________________________

= =

* Remove Display 29 from Operational Status

21 3L ACTION: ENTER <F15>XM

21A TTY OBSERVE: HH:MM:SS STAT IN 29=TRG

SCORE: PASS / FAIL

Comments: ______________________________

= =

* Valid FAST Keyboard Entries

22 3K ACTION: ENTER <F12>E

22A TTY OBSERVE: HH:MM:SS FAST 3K ENABLE !! TRNG

SCORE: PASS / FAIL

Comments: ______________________________

= =

* Valid ARTS Keyboard Entries

23 3K ACTION: ENTER <F7>R642066

23A 3K OBSERVE: Address 642066 and contents 0000000062 are displayed

KBD MSG counter (640006) is incremented by one

SCORE: PASS / FAIL

Comments: ______________________________

= =

* Make keyboard 3O invalid FAST keyboard

24 3K ACTION: ENTER <F7>R642066 0000000010

24A 3K OBSERVE: Address 642066 and contents 0000000010 are displayed

KBD MSG counter (640006) is incremented by one

SCORE: PASS / FAIL

24B TTY OBSERVE: HH:MM:SS MEM 3K 642066 0000000010

SCORE: PASS / FAIL

Comments: ____________________

= =

* Invalid FAST Keyboard Entries, invalid FAST keyboard

25 3O ACTION: ENTER <F12>V

25A 3O OBSERVE: In the PREVIEW AREA "ILL POS"

SCORE: PASS / FAIL

25B 3O OBSERVE: In the SDA KBD MSG counter (640006) is not incremented

SCORE: PASS / FAIL

Comments: ____________________

= =

* Invalid FAST Keyboard Entries, invalid FAST keyboard

26 3O ACTION: ENTER <F12>W

26A 3O OBSERVE: In the PREVIEW AREA "ILL POS"

SCORE: PASS / FAIL

26B 3O OBSERVE: In the SDA KBD MSG counter (640006) is not incremented

SCORE: PASS / FAIL

Comments: ____________________

= =

* Invalid FAST Keyboard Entries, invalid FAST keyboard

27 3O ACTION: ENTER <F12>Y

27A 3O OBSERVE: In the PREVIEW AREA "ILL POS"

SCORE: PASS / FAIL

27B 3O OBSERVE: In the SDA KBD MSG counter (640006) is not incremented

SCORE: PASS / FAIL

Comments: ____________________

= =

* Valid FAST Keyboard Entries, invalid FAST keyboard

28 3O ACTION: ENTER <F12>F

28A 3O OBSERVE: In the PREVIEW AREA "ILL POS"

SCORE: PASS / FAIL

28B 3O OBSERVE: In the SDA KBD MSG counter (640006) is not incremented

SCORE: PASS / FAIL

Comments: ______________________________

= =

* Valid FAST Keyboard Entries, invalid FAST keyboard

29 3O ACTION: ENTER <F12>O

29A 3O OBSERVE: In the PREVIEW AREA "ILL POS"

SCORE: PASS FAIL

29B 3O OBSERVE: In the SDA KBD MSG counter (640006) is not incremented

SCORE: PASS / FAIL

Comments: ______________________________

= =

* Make keyboard 3O valid FAST keyboard

30 3K ACTION: ENTER <F7> R642066 0000000062

30A 3K OBSERVE: In the SDA KBD MSG counter (640006) incremented by one address 642066 and contents 0000000062 are displayed

SCORE: PASS / FAIL

30B TTY OBSERVE: HH:MM:SS MEM 3K 642066 0000000062

SCORE: PASS / FAIL

Comments: ______________________________

= =

* Inhibit memory read for one address

31 3K ACTION: ENTER <F7> R642066

31A 3K OBSERVE: Address 642066 and contents are inhibited

SCORE: PASS / FAIL

31B TTY OBSERVE: HH:MM:SS MEM 3K 642066 0000000062

SCORE: PASS / FAIL

Comments: ____

= =

* Readout message counters

32 3K ACTION: ENTER <F7> R 640014

32A 3K OBSERVE: In the SDA In the SDA KBD MSG counter (640006)
incremented by one
Address 640014 = Unknown (TYP1T Messages)

SCORE: PASS FAIL

Comments: ____

= =

* Valid ARTS IIIA FAST Keyboard Entry

33 3K ACTION: ENTER <F12> I

33A TTY OBSERVE: HH:MM:SS FAST 3K DISABLED **

SCORE: PASS / FAIL

33B DWS OBSERVE: Disabled message received...

SCORE: PASS / FAIL

33C 3K OBSERVE: In the SDA All MSG. counters have stopped incrementing

SCORE: PASS / FAIL

Comments: ____

= =

* Valid FAST Keyboard Entries

34 3K ACTION: ENTER <F12> E

34A TTY OBSERVE: HH:MM:SS FAST 3K ENABLE !! TRNG

SCORE: PASS / FAIL

34B 3K OBSERVE: In the SDA, all counters are cleared

SCORE: PASS / FAIL

Comments: ____

= =

This keyboard entry will enable a scenario. The run time for this scenario is 28 minutes. The primary purpose of this scenario is to create capacity conditions for the transfer of messages to FAST. See APPENDIX "A" for the listing of the scenario.

* Valid ARTS IIIA Keyboard Entries

35 3K ACTION: ENTER <F15>XIT

35A 3K OBSERVE: IN the preview area "SCENARIO ACTIVE"

In the SDA KBD MSG counter (640006) incremented by one

SCORE: PASS / FAIL

The approximate nunber (decimal) of messages that will be generated during the test.

1. Message code 011 KYBD MSGs, 439
2. Message code 012 CTS DATA, 24,980
3. Message code 013 INTERFACILITY MSGs, Unknown
4. Message code 021 THREAD DROP MSGs. 260
5. Message code 022 TRACK DROP MSGs. 276
6. Message code 024 TYPIT MSGs. Unknown
7. Message code 040 TROUT DEMARC S0, Dependent on run time
8. Message code 041 TROUT DEMARC S1, Dependent on run time

Comments: ____

= =

When "SCENARIO OFF" is displayed in the SDA at approximately 1617 hours. Execute the following Keyboard entry.

* Valid ARTS IIIA/FAST Keyboard Entry

36 3K ACTION: ENTER <F12>I

36A MSP OBSERVE: HH:MM:SS FAST 3K DISABLED **

SCORE: PASS / FAIL

36B DWS OBSERVE: Disabled message received...

SCORE: PASS / FAIL

36C 3K OBSERVE: In the SDA All MSG. counters have stopped incrementing

SCORE: PASS / FAIL

Comments: ____

= =

* Valid ARTS IIIA/FAST Keyboard Entry

37 3K ACTION: ENTER <F7>R640003 PI0

37A MSP OBSERVE: Message counters are printed on the MSP

SCORE: PASS / FAIL

37B	MSP	ACTION:	Fetch the hard copy print out of the message counters and save.
		SCORE:	PASS / FAIL

Comments: ____

= =

* Valid DWS Keyboard Entries to IDLE the TIU program

Using the mouse move the arrow to the keyboard window

38	DWS	ACTION:	SELECT IDLE and CLICK
38A	DWS	OBSERVE:	In the keyboard window the TIU is in IDLE state
		SCORE:	PASS / FAIL

Comments: ____

= =

* Valid DWS Keyboard Entries to obtain the TIU message counters

Using the mouse move the arrow to the keyboard window

39	DWS	ACTION:	SELECT COUNT and CLICK
39A	DWS	OBSERVE:	In the DADS window the TIU message counter values
		SCORE:	PASS / FAIL

Comments: ____

= =

* DWS entries to obtain a hard copy of message counters

40	DWS	ACTION:	SELECT Console window
40A	DWS	OBSERVE:	Console window opened and tatca9% prompt
40B	DWS	ACTION:	ENTER screendump scrn.dmp
40C	DWS	OBSERVE:	At the prompt
40D	DWS	ACTION:	ENTER lpr -Plp scrn.dmp

Pick up the hard copy of message counters in the TATCA lab.

SCORE: PASS / FAIL

Comments: ____

= =

• Compare ARTS message counters to the FAST message counters

41	DWS	ACTION:	Select the Calculator
41A	DWS	ACTION:	Convert the DADS decimal counters to OCTAL and compare to the ARTS message counters
		SCORE:	PASS / FAIL
41B	DWS	ACTION:	Insure That the DADS message counters for the following message types are in agreement Initialization message MC20 = 1 Disable FAST message MC25 = 1
		SCORE:	PASS / FAIL

Comments: ____

= =

• Valid DWS Keyboard Entries to close console window

Using the mouse move the arrow to the left corner of console window

42	DWS	ACTION:	Depress and hold down right button
42A	DWS	OBSERVE:	Menu appears
		SCORE:	PASS / FAIL

Move the mouse and select close

42B	DWS	ACTION:	Release right button
42C	DWS	OBSERVE:	Console window closed
		SCORE:	PASS / FAIL

Comments: ____

= =

COLD START THE OPERATIONAL PROGRAM FOR PART 2

* Load the TTG program

43 TTY ACTION: ENTER TK IA TG

43A TTY OBSERVE: TK IA TG L-001

SCORE: PASS / FAIL

43B TTY OBSERVE: HH:MM:SS OK 001 TK IA TG

SCORE: PASS / FAIL

Comments: _____

****
The Following Is Entered Manually From Keyboard 3L
****

* Remove Display 29 from Training

44 3L ACTION: ENTER <F15>ZM

44A TTY OBSERVE: HH:MM:SS STAT IN 29=ACT

SCORE: PASS / FAIL

Comments: _____

* Valid ARTS Keyboard Entries

45 3L ACTION: ENTER <F7>1FEE

45A TTY OBSERVE: HH:MM:SS CKEY 3L FEE

SCORE: PASS / FAIL

Comments: _____

* Valid ARTS Keyboard Entries

46 3L ACTION: ENTER <F7>1FD26E

46A TTY OBSERVE: HH:MM:SS CKEY 3L FD26E

SCORE: PASS / FAIL

Comments: ______________________________

= =

• Valid ARTS Keyboard Entries

47 3L ACTION: ENTER <F7> IFD27E

47A TTY OBSERVE: HH:MM:SS CKEY 3L FD27E

SCORE: PASS / FAIL

Comments: ______________________________

= =

• Valid ARTS Keyboard Entries

48 3L ACTION: ENTER <F7> IFD29E

48A TTY OBSERVE: HH:MM:SS CKEY 3L FD29E

SCORE: PASS / FAIL

Comments: ______________________________

= =

• Valid ARTS Keyboard Entries

49 3L ACTION: ENTER <F7> IFD30E

49A TTY OBSERVE: HH:MM:SS CKEY 3L FD30E

SCORE: PASS / FAIL

Comments: ______________________________

= =

• Valid DWS Keyboard Entries to idle the TIU program

Using the mouse move the arrow to the keyboard window

50 DWS ACTION: SELECT RUN and CLICK

50A DWS OBSERVE: WARNING: file "pipe.c" line 512: connection reset by peer

#Warn io.c @ 273 : system call failure

#Warn main.c @ 389 : tiu disconnected

#Warn main.c @ 233 : tiu connected

#Warn main.c @ 454 : tiu idling

SCORE: PASS / FAIL

50B DWS OBSERVE: In the keyboard window that the TIU is in IDLE

SCORE: PASS / FAIL

Comments: ______________________________

= =

* Valid DWS Keyboard Entries to Change ARTS/TIU channels

Using the mouse move the arrow to the PORT 1 window

51 DWS ACTION: CLICK left button

51A DWS OBSERVE: In the DADS window

TIU STATUS: TAP IS NOW SET TO USE PIM #1

SCORE: PASS / FAIL

Comments: ______________________________

= =

* Select Alternate FAST channel

52 3L ACTION: ENTER <F7>2F

52A TTY OBSERVE: HH:MM:SS RCFG 3L FAST CHAN SELEC ALT

SCORE: PASS / FAIL

Comments: ______________________________

= =

* Enable Memory Readout

53 3K ACTION: ENTER M <F7> R

53A 3K OBSERVE: KEYBOARD ENTRY IS ACCEPTED

SCORE: PASS / FAIL

Comments: ______________________________

= =

* Change error condition to allow duplicate ETG targets

54 3K ACTION: ENTER <F7> R265007

54A 3K OBSERVE: In the SDA 265007 6104067056

SCORE: PASS / FAIL

Comments: ____

= =

55 3K ACTION: ENTER < F7 > R265007 1200000000

55A 3K OBSERVE: In the SDA 265007 1200000000

SCORE: PASS / FAIL

55B TTY OBSERVE: HH:MM:SS MEM 3K 265007 1200000000

SCORE: PASS / FAIL

Comments: ____

= =

* Disable Memory Readout

56 3K ACTION: ENTER M < F7 > *

56A 3K OBSERVE: All memory readouts disabled

SCORE: PASS / FAIL

Comments: ____

= =

* Readout FAST Flag

57 3K ACTION: ENTER 640000

57A 3K OBSERVE: In the SDA
640000 = 000000000 (FAST FLAG)

SCORE: PASS / FAIL

Comments: ____

= =

* Readout message counters

58 3K ACTION: ENTER 640003 6

58A 3K OBSERVE: In the SDA
640003 = 0000000000 (CTS Messages)
640004 = 0000000000 (Thread Drop Messages)
640005 = 0000000000 (Track Drop Messages)
640006 = 0000000000 (Keyboard Entry Messages)
640007 = 0000000000 (TROUT Demarcation Messages SS0)
640010 = 0000000000 (TROUT Demarcation Messages SS1)

SCORE: PASS / FAIL

Comments: ____________________

= =

* Readout message counters

59 3K ACTION: ENTER 640012 3

59A 3K OBSERVE: In the SDA
640012 = 0000000000 (Leader Change Messages)
640013 = 0000000000 (Offset Change Messages)
640014 = 0000000000 (TYP1 Messages)

SCORE: PASS / FAIL

NOTES:

1. The interfacility Message Counter is not displayed, this test will use interfacility messages of opportunity. The contents of the interfacily message counter will be printed at the end of the test and the contents of this counter must be in agreement with the interfacility counter in the FAST system.

2. The contents of all of the counters will remain at 0000000000 until the FAST function is enabled.

Comments: ____________________

= =

* Valid ARTS IIIA Keyboard Entries

60 3K ACTION: ENTER < F1 > AA1 4101

60A 3K OBSERVE: AA1 is displayed in the Tabular list. tab line ID = A,
Message counters remain zero

SCORE: PASS FAIL

Comments: ____________________

= =

* Valid ARTS IIIA Keyboard Entries

61 3K ACTION: ENTER < F15 > 01A030B4101 SLEW 12 nm NE

61A 3K OBSERVE: Target 1 is displayed 12 nm NE, AA1 Acquires
on target 1, Message counters remain zero

SCORE: PASS / FAIL

Comments: ____________________

= =

* Valid ARTS IIIA Keyboard Entries

62 3K ACTION: ENTER < F15 > 02A030B4102 SLEW 15 nm NE

62A 3K OBSERVE: Target 2 is displayed 15 nm NE,
Message counters remain zero

SCORE: PASS / FAIL

Comments: _____

---

* Valid ARTS IIIA Keyboard Entries

63 3K ACTION: ENTER <F2> SLEW to AA1

63A 3K ACTION: ENTER SLEW to Target 2

63B 3K OBSERVE: AA1 is repositioned on target 2 and the RBC is
flashing in line two of the FDB. Message counters remain zero.

SCORE: PASS FAIL

Comments: _____

---

* Valid ARTS IIIA Keyboard Entries

64 3K ACTION: SLEW to AA1

64A 3K OBSERVE: The RBC becomes the ABC for AA1,
Message counters remain zero

SCORE: PASS / FAIL

Comments: _____

---

* Valid ARTS IIIA Keyboard Entries

65 3K ACTION: ENTER <F3> SLEW to AA1

65A 3K OBSERVE: AA1 is displayed in the CST/Suspend list, tab line ID is 0,
Message counters remain zero

SCORE: PASS / FAIL

Comments: _____

---

* Valid ARTS IIIA Keyboard Entries

66 3K ACTION: ENTER <F1> AA1

66A 3K OBSERVE: AA1 acquires on target 2, Message counters remain zero

SCORE: PASS / FAIL

Comments: ____

= =

* Valid ARTS IIIA Keyboard Entries

67 3K ACTION: ENTER <F5>3O SLEW to AA1

67A 3K OBSERVE: AA1 in handoff to 3O and
Message counters remain zero

67B 3O OBSERVE: Blinking FDB for AA1

SCORE: PASS / FAIL

Comments: ____

= =

* Enable Memory Readout

68 3O ACTION: ENTER <F7>R

68A 3O OBSERVE: Ten memory locations are displayed in the SDA

SCORE: PASS / FAIL

Comments: ____

= =

* Valid ARTS IIIA Keyboard Entries

69 3O ACTION: ENTER <F5>SLEW to AA1

69A 3O OBSERVE: AA1 control position symbol is 3O and
Message counters remain zero

69B 3K OBSERVE: Blinking FDB for AA1

SCORE: PASS / FAIL

Comments: ____

= =

* Valid ARTS IIIA Keyboard Entries

70 3O ACTION: ENTER <F6>AA2 4103

70A 3O OBSERVE: AA2 in tabular list, tab line ID is A
and Message counters remain zero

SCORE: PASS / FAIL

Comments: ____

---

* Valid ARTS IIIA Keyboard Entries

71 3O ACTION: ENTER < F4 > AA2

71A 3O OBSERVE: AA2 is dropped from tab list
and Message counters remain zero

SCORE: PASS FAIL

Comments: ______________________________

---

* Valid ARTS IIIA Keyboard Entries

72 3O ACTION: ENTER < F7 > B01

72A 3O OBSERVE: In the SDA 01 added to selected code list
and Message counters remain zero

SCORE: PASS FAIL

Comments: ______________________________

---

* Valid ARTS IIIA Keyboard Entries

73 3O ACTION: ENTER < F7 > YSCR SLEW to AA1

73A 3O OBSERVE: SCR is time sharing in line 2 in AA1 FDB
and Message counters remain zero

SCORE: PASS FAIL

Comments: ______________________________

---

* Valid ARTS IIIA Keyboard Entries

74 3O ACTION: ENTER < F10 > DR

74A TTY OBSERVE: HH:MM:SS IF 3O SEL DR

SCORE: PASS FAIL

74B 3O OBSERVE: Message counters in SDA remain zero

SCORE: PASS FAIL

Comments: ______________________________

---

* Valid ARTS IIIA Keyboard Entries

75 3O ACTION: ENTER <F10> DR

75A TTY OBSERVE: HH:MM:SS IF 3O INH DR

SCORE: PASS FAIL

75B 3O OBSERVE: Message counters in SDA remain zero

SCORE: PASS FAIL

Comments: ______________________________

---

* Valid FAST Keyboard Entries

76 3O ACTION: ENTER <F12>O

76A 3O OBSERVE: In the display readout area ILL POS
and Message counters remain zero

SCORE: PASS / FAIL

Comments: ______________________________

---

* Valid FAST Keyboard Entries

77 3O ACTION: ENTER <F12>F

77A 3O OBSERVE: In the display readout area ILL POS
and Message counters remain zero

SCORE: PASS / FAIL

Comments: ______________________________

---

* Valid FAST Keyboard Entries

78 3O ACTION: ENTER <F12>E

78A TTY OBSERVE: HH:MM:SS FAST 3O ENABLE !! TRNG

SCORE: PASS / FAIL

78B 3O OBSERVE: Memory readout inhibited and
FAST FAIL blinking in the SDA for all displays

SCORE: PASS / FAIL

78C TTY OBSERVE: HH:MM:SS TIU HEARTBEAT FAILURE XXXX

SCORE: PASS / FAIL

78D TTY OBSERVE: HH:MM:SS TIU SYSTEM FAILURE

SCORE: PASS / FAIL

78E 3O OBSERVE: FAST FAIL inhibited in the SDA after 15 seconds
and memory readout enabled

SCORE: PASS / FAIL

NOTE: Some message counters may get incremented, however the messages were not sent to FAST because the TIU was not enabled.

Comments: ______________________________

* Valid ARTS IIIA Keyboard Entries

79 3O ACTION: ENTER <F14> 0

79A 3O OBSERVE: Interfacility test is enabled
and Message counters are unchanged

SCORE: PASS / FAIL

79W TTY OBSERVE: HH:MM:SS IF TEST PROGRAM SELECT

SCORE: PASS / FAIL

Comments: ______________________________

* Valid ARTS IIIA Keyboard Entries

80 3O ACTION: ENTER <F14> 0

80A 3O OBSERVE: Interfacility test is disabled
and Message counters are unchanged

SCORE: PASS / FAIL

80B TTY OBSERVE: HH:MM:SS IF TEST PROGRAM INHIBIT

SCORE: PASS / FAIL

Comments: ______________________________

* Valid ARTS IIIA Keyboard Entries

81 3O ACTION: ENTER <F16> SLEW to AA1

81A 3O OBSERVE: IN the SDA
Beginning CTS (CTST) address for AA1, controller symbol, firmness, flags, tracks RDR/BCN history for the last ten scans and tracks Status

SCORE: PASS / FAIL

Comments: ______________________________

= =

• Valid ARTS IIIA Keyboard Entries

82 3O ACTION: ENTER <F16>

82B 3O OBSERVE: All data pertaining to AA1 is inhibited in the SDA

SCORE: PASS / FAIL

Comments: ______________________________

= =

• Enable Memory Readout

83 3O ACTION: ENTER <F7> R

83A 3O OBSERVE: Ten memory locations are displayed in the SDA and message counters are unchanged

SCORE: PASS / FAIL

Comments: ______________________________

= =

• Valid ARTS IIIA Keyboard Entries

84 3O ACTION: ENTER <F4> AA1

84A 3O OBSERVE: AA1 FDB is dropped and Message counters are unchanged

SCORE: PASS / FAIL

Comments: ______________________________

= =

The keyboard packets that are used for FAST are built in the CDR routine CDKEYF. These packets are almost identical to the keyboard packets used for CDR. The only difference is that FAST requires an additional header word. The following steps will demonstrate that FAST keyboard packets will be built and transmitted to FAST with CDR disabled.

• Valid DWS Keyboard Entries to enable the TIU program

Using the mouse move the arrow to the keyboard window

85 DWS ACTION: SELECT RUN and CLICK

85A DWS OBSERVE: In the keyboard window the TIU is in RUN state

SCORE: PASS / FAIL

Comments: ______________________________

= =

• Valid ARTS IIIA FAST Keyboard Entry

86 3O ACTION: ENTER <F7> R225422 P60

86A MSP OBSERVE: Memory dump of PAIRT on the MSP

SCORE: PASS / FAIL

Comments: ______________________________

= =

• Valid ARTS IIIA FAST Keyboard Entry

87 3O ACTION: ENTER <F7> R225516 P60

87A MSP OBSERVE: Memory dump of QUIKT on the MSP

SCORE: PASS / FAIL

Comments: ______________________________

= =

• Valid ARTS IIIA FAST Keyboard Entry

88 3O ACTION: ENTER <F7> R225612 P60

88A MSP OBSERVE: Memory dump of SYMT on the MSP

SCORE: PASS / FAIL

Comments: ______________________________

= =

• Valid ARTS IIIA FAST Keyboard Entry

89 3O ACTION: ENTER <F7> R226122 P60

89A MSP OBSERVE: Memory dump of PREVT on the MSP

SCORE: PASS / FAIL

Comments: ______________________________

= =

• Valid ARTS IIIA/FAST Keyboard Entry

90 3O ACTION: ENTER <F7> R226266 P60

90A MSP OBSERVE: Memory dump of PULST on the MSP

SCORE: PASS / FAIL

Comments: ____________________

= =

• Valid ARTS IIIA/FAST Keyboard Entry

91 3O ACTION: ENTER <F7> R221620 P60

91A MSP OBSERVE: Memory dump of DCONT and DFLAG on the MSP

SCORE: PASS / FAIL

Comments: ____________________

= =

• Valid ARTS IIIA/FAST Keyboard Entry

92 3O ACTION: ENTER <F7> R223176 P30

92A MSP OBSERVE: Memory dump of TYPIT on the MSP

SCORE: PASS / FAIL

92B MSP ACTION: FETCH and SAVE the hard copy print outs from Steps 81 through 87. They will be used at the end of the TEST.

Comments: ____________________

= =

• Valid ARTS IIIA/FAST Keyboard Entry

93 3O ACTION: ENTER <F12>E

93A TTY OBSERVE: HH:MM:SS FAST 3K ENABLE !! TRNG

SCORE: PASS / FAIL

93B DWS OBSERVE: Initialization message received...

SCORE: PASS / FAIL

93C 3O OBSERVE: IN the SDA
640000 = 7777777777
640003 = 0000000000
640004 = 0000000000
640005 = 0000000000

640006 = 0000000000
640007 = Incrementing
640010 = Incrementing
640012 = 0000000000
640013 = 0000000000
640014 = May be incrementing

SCORE: PASS / FAIL

A DEDS may generate continuous TYP1 words with "X" and "y" changes because of a hardware malfunction. These changes to these TYP1 words will cause the counter in address 640014 to be continuously incremented. To correct the situation identify the DEDS that is causing the problem, off center the DEDS and then center DEDS. However, it is suggested not to correct the situation. This will provide for a large value in the TYP1 counter at the end of the test and the TIU counter must match exactly.

NOTE: Address 640000 will contains all 7' for the remainder of the test or until FAST is disabled.

Comments: ______________________________

= =

* Valid ARTS IIIA Keyboard Entries

94 3O ACTION: ENTER <F1> AAL874 4101

94A 3O OBSERVE: AAL874 acquires on target 1,

In the SDA
640000 = 7777777777
640003 = Incrementing
640006 = 0000000001
640007 = Incrementing
640010 = Incrementing
640014 = May be incrementing

SCORE: PASS / FAIL

Address 640003 will increment until AAL874 is dropped. Addresses 640007 and 640010 will be incrementing for the remainder of the test.

Comments: ______________________________

= =

* Valid ARTS IIIA Keyboard Entries

95 3O ACTION: ENTER <F7> YSCR SLEW to AAL874

95A 3O OBSERVE: SCR is time sharing in line 2 for AAL874

In the SDA KBD MSG counter (640006) incremented by one

SCORE: PASS / FAIL

Comments: ______________________________

= =

• Valid ARTS IIIA Keyboard Entries

96 3O ACTION: ENTER <F2>SLEW to AAL874

3O ACTION: ENTER SLEW to Target 2

96A 3O OBSERVE: AAL874 is repositioned on target 2 and the RBC is flashing in line two of the FDB.

In the SDA KBD MSG counter (640006) incremented by one
TRK DRP counter (640005) incremented by one

SCORE: PASS / FAIL

Comments: ______________________________

==

• Valid ARTS IIIA Keyboard Entries

97 3O ACTION: SLEW to AAL874

97A 3O OBSERVE: The RBC becomes the ABC for AAL874,

In the SDA KBD MSG counter (640006) incremented by one

SCORE: PASS / FAIL

Comments: ______________________________

==

• Valid ARTS IIIA Keyboard Entries

98 3O ACTION: ENTER <F3>SLEW to AAL874

98A 3O OBSERVE: AAL874 is displayed in the CST/Suspend list, tab line ID is 0,

In the SDA KBD MSG counter (640006) incremented by one

SCORE: PASS / FAIL

Comments: ______________________________

==

• Valid ARTS IIIA Keyboard Entries

99 3O ACTION: ENTER <F1>AAL874

99A 3O OBSERVE: AAL874 acquires on target 2

In the SDA KBD MSG counter (640006) incremented by one

SCORE: PASS / FAIL

Comments: ______________________________

= =

* Valid ARTS IIIA Keyboard Entries

100 3O ACTION: ENTER <F5>3K SLEW to AAL874

100A 3O OBSERVE: AAL874 in handoff to 3K

In the SDA KBD MSG counter (640006) incremented by one

100B 3K OBSERVE: Blinking FDB for AAL874

SCORE: PASS / FAIL

Comments: ______________________________

= =

* Valid ARTS IIIA Keyboard Entries

101 3K ACTION: ENTER <F5>SLEW to AAL874

101A 3K OBSERVE: AAL874 control position symbol is 3K

In the SDA KBD MSG counter (640006) incremented by one

101B 3O OBSERVE: Blinking FDB for AAL874

SCORE: PASS / FAIL

Comments: ______________________________

= =

* Valid ARTS IIIA Keyboard Entries

102 3K ACTION: ENTER <F6>AA2 4103

102A 3K OBSERVE: AA2 in tabular list, tab line ID is A

In the SDA KBD MSG counter (640006) incremented by one

SCORE: PASS / FAIL

Comments: ______________________________

= =

* Valid ARTS IIIA Keyboard Entries

103 3K ACTION: ENTER <F4>AA2

103A 3K OBSERVE: AA2 is dropped from tab list

In the SDA KBD MSG counter (640006) incremented by one
TRK DRP MSG counter (640005) incremented by one

SCORE: PASS / FAIL

Comments: ____

= =

• Valid ARTS IIIA Keyboard Entries

104 3K ACTION: ENTER <F10> DR

104A MSP OBSERVE: HH:MM:SS IF 3K SEL DR

SCORE: PASS / FAIL

104B 3K OBSERVE: In the SDA KBD MSG counter (640006) incremented by one

SCORE: PASS / FAIL

Comments: ____

= =

• Valid ARTS IIIA Keyboard Entries

105 3K ACTION: ENTER <F10> DR

105A MSP OBSERVE: HH:MM:SS IF 3K INH DR

SCORE: PASS FAIL

105B 3K OBSERVE: In the SDA KBD MSG counter (640006) incremented by one

SCORE: PASS / FAIL

Comments: ____

= =

• Valid FAST Keyboard Entries

106 3K ACTION: ENTER <F12> O

106A 3K OBSERVE: In the SDA KBD MSG counter (640006) incremented by one

SCORE: PASS / FAIL

Comments: ____

= =

• Valid FAST Keyboard Entries

107 3K ACTION: ENTER <F12> F

107A 3K OBSERVE: In the SDA KBD MSG counter (640006) incremented by one

SCORE: PASS / FAIL

Comments: ____

= =

* Valid ARTS IIIA Keyboard Entries

108 3K ACTION: ENTER <F14> 0

108A 3K OBSERVE: In the SDA KBD MSG counter (640006) incremented by one

SCORE: PASS FAIL

108B MSP OBSERVE: HH:MM:SS IF TEST PROGRAM SELECT

SCORE: PASS / FAIL

Comments: ____

= =

* Valid ARTS IIIA Keyboard Entries

109 3K ACTION: ENTER <F14> 0

109A 3K OBSERVE: In the SDA KBD MSG counter (640006) incremented by one

SCORE: PASS FAIL

109B MSP OBSERVE: HH:MM:SS IF TEST PROGRAM INHIBIT

SCORE: PASS / FAIL

Comments: ____

= =

* Valid ARTS IIIA Keyboard Entries

110 3K ACTION: ENTER <F16> SLEW to AAL874

110A 3K OBSERVE: In the SDA, memory readout inhibited
Beginning CTS (CTST) address for AAL874, controller symbol, firmness, flags, tracks RDR/BCN history for the last ten scans and tracks Status

SCORE: PASS / FAIL

Comments: ____

= =

* Valid ARTS IIIA Keyboard Entries

111 3K ACTION: ENTER <F16>

111A 3K OBSERVE: In the SDA All data pertaining to AAL874 is inhibited

SCORE: PASS / FAIL

Comments: ______________________________

= =

• Enable Memory Readout

112 3K ACTION: ENTER <F7>R

112A 3K OBSERVE: Ten memory locations are displayed in the SDA and address 640006 contains 0000000022

SCORE: PASS / FAIL

Comments: ______________________________

= =

• Valid ARTS IIIA Keyboard Entries

113 3K ACTION: ENTER <F15>02

113A 3K OBSERVE: Target 2 is dropped, AAL874 CST

In the SDA KBD MSG counter (640006) incremented by one

SCORE: PASS / FAIL

NOTE: Wait for AAL874 to CST into the CST tab list.

113B 3K OBSERVE: AA874 in CST list, tab line ID 0

In the SDA THRD DRP MSG counter (640004) incremented by one

SCORE: PASS / FAIL

Comments: ______________________________

= =

• Valid ARTS IIIA Keyboard Entries

114 3K ACTION: ENTER <F4>AAL874

114A 3K OBSERVE: AAL874 is dropped from tab list

In the SDA KBD MSG counter (640006) incremented by one
TRK DRP MSG counter (640005) is incremented by one

SCORE: PASS / FAIL

Comments: ______________________________

= =

• Valid ARTS IIIA Keyboard Entries

115 3L ACTION: ENTER <F7>S MMDDYY

115A TTY OBSERVE: HH:MM:SS DATE 3K mmddyy

SCORE: PASS / FAIL

Comments: ____________________

= =

* Valid ARTS IIIA Keyboard Entries

116 3L ACTION: ENTER <F7> 110SCR

116B MSP OBSERVE: HH:MM:SS CKEY 3K 10SCR and
HH:MM:SS CDR DISC 0 0250003

SCORE: PASS / FAIL

NOTE: The keyboard packets that were sent to FAST were prepared by the FAST modification to the ARTS program. When CDR is enabled the keyboard packets prepared by the CDR routine will be sent to FAST. The only difference is that the FAST modification will add another header word to the packet that is sent to FAST.

Comments: ____________________

= =

* Invalid FAST Keyboard Entries

117 3K ACTION: ENTER M <F12> and 32 "A"s, space and 6 "A"s

117A 3K OBSERVE: In the SDA KBD MSG counter (640006) incremented by one

SCORE: PASS / FAIL

Comments: ____________________

= =

* Invalid FAST Keyboard Entries

118 3K ACTION: ENTER 32 "A"s

118A 3K OBSERVE: In the SDA KBD MSG counter (640006) incremented by one

SCORE: PASS / FAIL

Comments: ____________________

= =

* Invalid FAST Keyboard Entries

119 3K ACTION: ENTER EA

119A 3K OBSERVE: In the SDA KBD MSG counter (640006) incremented by one

SCORE: PASS / FAIL

Comments: ______________________________

= =

* Invalid FAST Keyboard Entries

120 3K ACTION: ENTER B

120A 3K OBSERVE: In the SDA KBD MSG counter (640006) incremented by one

SCORE: PASS / FAIL

Comments: ______________________________

= =

* Invalid FAST Keyboard Entries

121 3K ACTION: ENTER C

121A 3K OBSERVE: In the SDA KBD MSG counter (640006) incremented by one

SCORE: PASS / FAIL

Comments: ______________________________

= =

* Invalid FAST Keyboard Entries

122 3K ACTION: ENTER D

122A 3K OBSERVE: In the SDA KBD MSG counter (640006) incremented by one

SCORE: PASS / FAIL

Comments: ______________________________

= =

* Invalid FAST Keyboard Entries

123 3K ACTION: ENTER G

123A 3K OBSERVE: In the SDA KBD MSG counter (640006) incremented by one

SCORE: PASS / FAIL

Comments: ______________________________

= =

* Invalid FAST Keyboard Entries

124 3K ACTION: ENTER H

124A 3K OBSERVE: In the SDA KBD MSG counter (640006) incremented by one

SCORE: PASS / FAIL

Comments: ______________________________

= =

* Invalid FAST Keyboard Entries

125 3K ACTION: ENTER J

125A 3K OBSERVE: In the SDA KBD MSG counter (640006) incremented by one

SCORE: PASS / FAIL

Comments: ______________________________

= =

* Invalid FAST Keyboard Entries

126 3K ACTION: ENTER K

126A 3K OBSERVE: In the SDA KBD MSG counter (640006) incremented by one

SCORE: PASS / FAIL

Comments: ______________________________

= =

* Invalid FAST Keyboard Entries

127 3K ACTION: ENTER L

127A 3K OBSERVE: In the SDA KBD MSG counter (640006) incremented by one

SCORE: PASS / FAIL

Comments: ______________________________

= =

* Invalid FAST Keyboard Entries

128 3K ACTION: ENTER M

128A 3K OBSERVE: In the SDA KBD MSG counter (640006) incremented by one

SCORE: PASS / FAIL

Comments: ______________________________

= =

* Invalid FAST Keyboard Entries

129 3K ACTION: ENTER N

129A 3K OBSERVE: In the SDA KBD MSG counter (640006) incremented by one

SCORE: PASS / FAIL

Comments: ______________________________

= =

* Invalid FAST Keyboard Entries

130 3K ACTION: ENTER P

130A 3K OBSERVE: In the SDA KBD MSG counter (640006) incremented by one

SCORE: PASS FAIL

Comments: ______________________________

= =

* Invalid FAST Keyboard Entries

131 3K ACTION: ENTER Q

131A 3K OBSERVE: In the SDA KBD MSG counter (640006) incremented by one

SCORE: PASS / FAIL

Comments: ______________________________

= =

* Invalid FAST Keyboard Entries

132 3K ACTION: ENTER S

132A 3K OBSERVE: In the SDA KBD MSG counter (640006) incremented by one

SCORE: PASS / FAIL

Comments: ______________________________

= =

* Invalid FAST Keyboard Entries

133 3K ACTION: ENTER T

133A 3K OBSERVE: In the SDA KBD MSG counter (640006) incremented by one

SCORE: PASS / FAIL

Comments: ______________________________

==

* Invalid FAST Keyboard Entries

134 3K ACTION: ENTER U

134A 3K OBSERVE: In the SDA KBD MSG counter (640006) incremented by one

SCORE: PASS / FAIL

Comments: ____

==

* Invalid FAST Keyboard Entries

135 3K ACTION: ENTER V

135A 3K OBSERVE: In the SDA KBD MSG counter (640006) incremented by one

SCORE: PASS / FAIL

Comments: ____

==

* Invalid FAST Keyboard Entries

136 3K ACTION: ENTER W

136A 3K OBSERVE: In the SDA KBD MSG counter (640006) incremented by one

SCORE: PASS / FAIL

Comments: ____

==

* Invalid FAST Keyboard Entries

137 3K ACTION: ENTER Y

137A 3K OBSERVE: In the SDA KBD MSG counter (640006) incremented by one

SCORE: PASS / FAIL

Comments: ____

==

* Invalid FAST Keyboard Entries

138 3K ACTION: ENTER Z

138A 3K OBSERVE: In the SDA KBD MSG counter (640006) incremented by one

SCORE: PASS / FAIL

Comments: ____

= =

• Invalid FAST Keyboard Entries

139 3K ACTION: ENTER +

139A 3K OBSERVE: In the SDA KBD MSG counter (640006) incremented by one

SCORE: PASS / FAIL

Comments: ____

= =

• Invalid FAST Keyboard Entries

140 3K ACTION: ENTER *

140A 3K OBSERVE: In the SDA KBD MSG counter (640006) incremented by one

SCORE: PASS FAIL

Comments: ____

= =

• Invalid FAST Keyboard Entries

141 3K ACTION: ENTER Delta

141A 3K OBSERVE: In the SDA KBD MSG counter (640006) incremented by one

SCORE: PASS / FAIL

Comments: ____

= =

• Invalid FAST Keyboard Entries

142 3K ACTION: ENTER Period

142A 3K OBSERVE: In the SDA KBD MSG counter (640006) incremented by one

SCORE: PASS / FAIL

Comments: ____

= =

• **Invalid ARTS/FAST Keyboard Entries**

143 3K ACTION: ENTER <F12>E

143A 3K OBSERVE: In the SDA KBD MSG counter (640006) has not incremented

In the display readout area ILL FNCT

SCORE: PASS / FAIL

Comments: ______________________________

* Valid ARTS IIIA Keyboard Entries

144 3K ACTION: ENTER < F15 > 02A030B4102 SLEW 15 nm NE

144A 3K OBSERVE: Target 2 is displayed 15 nm NE

In the SDA KBD MSG counter (640006) incremented by one

SCORE: PASS / FAIL

Comments: ______________________________

= =

* Valid ARTS IIIA Keyboard Entries

145 3K ACTION: ENTER < F15 > 03A030B4103 SLEW 18 nm NE

145A 3K OBSERVE: Target 3 is displayed 18 nm NE

In the SDA KBD MSG counter (640006) incremented by one

SCORE: PASS / FAIL

Comments: ______________________________

= =

* Valid ARTS IIIA Keyboard Entries

146 3K ACTION: ENTER < F1 > AAL1256 4101

146A 3K OBSERVE: AAL1256 is displayed in the Tabular list, tab line ID = A,

In the SDA KBD MSG counter (640006) incremented by one

In two scans AAL1256 acquires on target 1

SCORE: PASS / FAIL

Comments: ______________________________

= =

* Valid ARTS IIIA Keyboard Entries

147 3K ACTION: ENTER < F1 > TWA525 4102

147A 3K OBSERVE: TWA525 is displayed in the Tabular list, tab line ID = A,

In the SDA KBD MSG counter (640006) incremented by one

In two scans TWA525 acquires on target 2

SCORE: PASS / FAIL

Comments: ____

= =

* Valid ARTS IIIA Keyboard Entries

148 3K ACTION: ENTER <F1> DAL511 4103

148A 3K OBSERVE: DAL511 is displayed in the Tabular list, tab line ID = A,

In the SDA KBD MSG counter (640006) incremented by one

In two scans DAL511 acquires on target 3

SCORE: PASS / FAIL

Comments: ____

= =

* Valid FAST Keyboard Entries

149 3K ACTION: ENTER M <F12> T1

149A 3K OBSERVE: In the SDA KBD MSG counter (640006) incremented by one

SCORE: PASS / FAIL

Comments: ____

= =

* Valid FAST Keyboard Entries

150 3K ACTION: ENTER T15

150A 3K OBSERVE: In the SDA KBD MSG counter (640006) incremented by one

SCORE: PASS / FAIL

Comments: ____

= =

* Valid FAST Keyboard Entries

151 3K ACTION: ENTER T19

151A 3K OBSERVE: In the SDA KBD MSG counter (640006) incremented by one

SCORE: PASS / FAIL

Comments: ______________________________

= =

• Valid FAST Keyboard Entries

152 3K ACTION: ENTER T2

152A 3K OBSERVE: In the SDA KBD MSG counter (640006) incremented by one

SCORE: PASS FAIL

Comments: ______________________________

= =

• Valid FAST Keyboard Entries

153 3K ACTION: ENTER T25

153A 3K OBSERVE: In the SDA KBD MSG counter (640006) incremented by one

SCORE: PASS / FAIL

Comments: ______________________________

= =

• Valid FAST Keyboard Entries

154 3K ACTION: ENTER T29

154A 3K OBSERVE: In the SDA KBD MSG counter (640006) incremented by one

SCORE: PASS / FAIL

Comments: ______________________________

= =

• Valid FAST Keyboard Entries

155 3K ACTION: ENTER T3

155A 3K OBSERVE: In the SDA KBD MSG counter (640006) incremented by one

SCORE: PASS / FAIL

Comments: ______________________________

= =

• Valid FAST Keyboard Entries

156 3K ACTION: ENTER T35

156A 3K OBSERVE: In the SDA KBD MSG counter (640006) incremented by one

SCORE: PASS / FAIL

Comments: ____________________

= =

* Valid FAST Keyboard Entries

157 3K ACTION: ENTER T39

157A 3K OBSERVE: In the SDA KBD MSG counter (640006) incremented by one

SCORE: PASS / FAIL

Comments: ____________________

= =

* Valid FAST Keyboard Entries

158 3K ACTION: ENTER T4

158A 3K OBSERVE: In the SDA KBD MSG counter (640006) incremented by one

SCORE: PASS / FAIL

Comments: ____________________

= =

* Valid FAST Keyboard Entries

159 3K ACTION: ENTER R SLEW to AAL1256

159A 3K OBSERVE: In the SDA KBD MSG counter (640006) incremented by one

SCORE: PASS / FAIL

Comments: ____________________

= =

* Valid FAST Keyboard Entries

160 3K ACTION: ENTER R SLEW to TWA525

160A 3K OBSERVE: In the SDA KBD MSG counter (640006) incremented by one

SCORE: PASS / FAIL

Comments: ____________________

= =

* Valid FAST Keyboard Entries

161 3K ACTION: ENTER R SLEW to DAL511

161A 3K OBSERVE: In the SDA KBD MSG counter (640006) incremented by one

SCORE: PASS / FAIL

Comments: ______________________________

= =

* Valid FAST Keyboard Entries

162 3K ACTION: ENTER R SLEW to AAL1256

162A 3K OBSERVE: In the SDA KBD MSG counter (640006) incremented by one

SCORE: PASS / FAIL

Comments: ______________________________

= =

* Valid FAST Keyboard Entries

163 3K ACTION: ENTER R SLEW to TWA525

163A 3K OBSERVE: In the SDA KBD MSG counter (640006) incremented by one

SCORE: PASS / FAIL

Comments: ______________________________

= =

* Valid FAST Keyboard Entries

164 3K ACTION: ENTER R SLEW to DAL511

164A 3K OBSERVE: In the SDA KBD MSG counter (640006) incremented by one

SCORE: PASS / FAIL

Comments: ______________________________

= =

* Valid FAST Keyboard Entries

165 3K ACTION: ENTER X SLEW to AAL1256

165A 3K OBSERVE: In the SDA KBD MSG counter (640006) incremented by one

SCORE: PASS / FAIL

Comments: ______________________________

= =

* Valid FAST Keyboard Entries

166 3K ACTION: ENTER X SLEW to TWA525

166A 3K OBSERVE: In the SDA KBD MSG counter (640006) incremented by one

SCORE: PASS / FAIL

Comments: ____________________

= =

* Valid FAST Keyboard Entries

167 3K ACTION: ENTER X SLEW to DAL511

167A 3K OBSERVE: In the SDA KBD MSG counter (640006) incremented by one

SCORE: PASS / FAIL

Comments: ____________________

= =

* Valid FAST Keyboard Entries

168 3K ACTION: ENTER X SLEW to AAL1256

168A 3K OBSERVE: In the SDA KBD MSG counter (640006) incremented by one

SCORE: PASS / FAIL

Comments: ____________________

= =

* Valid FAST Keyboard Entries

169 3K ACTION: ENTER X SLEW to TWA525

169A 3K OBSERVE: In the SDA KBD MSG counter (640006) incremented by one

SCORE: PASS / FAIL

Comments: ____________________

= =

* Valid FAST Keyboard Entries

170 3K ACTION: ENTER X SLEW to DAL511

170A 3K OBSERVE: In the SDA KBD MSG counter (640006) incremented by one

SCORE: PASS / FAIL

Comments: ____________________

---

* Valid FAST Keyboard Entries

171 3K ACTION: ENTER O

171A 3K OBSERVE: In the SDA KBD MSG counter (640006) incremented by one

SCORE: PASS / FAIL

Comments: ____

---

* Valid FAST Keyboard Entries

172 3K ACTION: ENTER O

172A 3K OBSERVE: In the SDA KBD MSG counter (640006) incremented by one

SCORE: PASS / FAIL

Comments: ____

The CDR function builds keyboard packets for invalid ARTS keyboard entries. these keyboard packets will not be sent to the FAST system.

* Invalid ARTS Keyboard Entries

173 3K ACTION: ENTER <F7>J

173A 3K OBSERVE: In the SDA KBD MSG counter (640006) is not incremented

In the display readout area ILL FNCT

SCORE: PASS / FAIL

Comments: ____

---

* Invalid ARTS Keyboard Entries

174 3K ACTION: ENTER <F7>U

174A 3K OBSERVE: In the SDA KBD MSG counter (640006) is not incremented

In the display readout area ILL FNCT

SCORE: PASS / FAIL

Comments: ____

---

* Invalid ARTS Keyboard Entries

175 3K ACTION: ENTER <F7>A11

175A 3K OBSERVE: In the SDA KBD MSG counter (640006) is not incremented
In the display readout area FORMAT

SCORE: PASS / FAIL

Comments: ______________________________

==

* Invalid ARTS Keyboard Entries

176 3K ACTION: ENTER <F7>AAA

176A 3K OBSERVE: In the SDA KBD MSG counter (640006) is not incremented
In the display readout area FORMAT

SCORE: PASS / FAIL

Comments: ______________________________

==

* Invalid ARTS Keyboard Entries

177 3K ACTION: ENTER <F7>B SLEW 10 nm south

177A 3K OBSERVE: In the SDA KBD MSG counter (640006) is not incremented
In the display readout area ILL TRK

SCORE: PASS / FAIL

Comments: ______________________________

==

* Invalid ARTS Keyboard Entries

178 3K ACTION: ENTER <F7>D SLEW 10 nm south

178A 3K OBSERVE: In the SDA KBD MSG counter (640006) is not incremented
In the display readout area ILL TRK

SCORE: PASS / FAIL

Comments: ______________________________

==

* Valid ARTS Keyboard Entries

179 3K ACTION: ENTER <F7>2VE

179A 3K OBSERVE: In the SDA KBD MSG counter (640006) incremented by one

SCORE: PASS FAIL

179B TTY OBSERVE: HH:MM:SS RCFG 3K SUPR CNTR SEL

SCORE: PASS FAIL

Comments: ______________________________

= =

• Valid ARTS Keyboard Entries

180 3K ACTION: ENTER <F7>P 3K

180A 3K OBSERVE: In the SDA KBD MSG counter (640006) incremented by one

In the readout area POS 3K NOT SUP

SCORE: PASS FAIL

180B TTY OBSERVE: HH:MM:SS STAT 3K 3K=CLR

SCORE: PASS FAIL

Comments: ______________________________

= =

• Invalid ARTS Keyboard Entries

181 3K ACTION: ENTER <F7>G1

181A 3K OBSERVE: In the SDA KBD MSG counter (640006) is not incremented

In the readout area ILL FNCT

SCORE: PASS FAIL

Comments: ______________________________

= =

• Invalid ARTS Keyboard Entries

182 3K ACTION: ENTER <F7>S230000

182A 3K OBSERVE: In the SDA KBD MSG counter (640006) is not incremented

In the readout area ILL POS

SCORE: PASS / FAIL

Comments: ______________________________

---

* Valid ARTS Keyboard Entries

183 3K ACTION: ENTER <F7>P3K

183A 3K OBSERVE: In the SDA KBD MSG counter (640006) incremented by one

In the readout area POS 3K IS NOT SUP

SCORE: PASS / FAIL

183B TTY OBSERVE: HH:MM:SS 3K STAT 3K=CLEAR

SCORE: PASS / FAIL

Comments: ______________________________

---

* Valid ARTS Keyboard Entries

184 3K ACTION: ENTER <F7>P3K

184A 3K OBSERVE: In the SDA KBD MSG counter (640006) incremented by one

In the readout area POS 3K IS SUP

SCORE: PASS / FAIL

184B TTY OBSERVE: HH:MM:SS 3K STAT 3K=SET

SCORE: PASS / FAIL

Comments: ______________________________

---

* Invalid ARTS Keyboard Entries

185 3K ACTION: ENTER <F7>P1

185A 3K OBSERVE: In the SDA KBD MSG counter (640006) is not incremented

In the readout area ILL FNCT

SCORE: PASS / FAIL

Comments: ______________________________

---

* Invalid ARTS Keyboard Entries

186 3K ACTION: ENTER <F6>AAL1256

186A 3K OBSERVE: In the SDA KBD MSG counter (640006) is not incremented

In the readout area DUP ID

SCORE: PASS / FAIL

Comments: ____

= =

* Invalid ARTS Keyboard Entries

187 3K ACTION: ENTER <F6> DAL511

187A 3K OBSERVE: In the SDA KBD MSG counter (640006) is not incremented

In the readout area DUP ID

SCORE: PASS / FAIL

Comments: ____

= =

* Invalid ARTS Keyboard Entries

188 3K ACTION: ENTER <F7> B15

188A 3K OBSERVE: In the SDA KBD MSG counter (640006) is not incremented

In the readout area CAPACITY

SCORE: PASS / FAIL

Comments: ____

= =

* Valid ARTS Keyboard Entries

189 3K ACTION: ENTER <F7> R640013 2

189A 3K OBSERVE: In the SDA KBD MSG counter (640006) incremented by one

Memory readout for 640013 and 640014 is inhibited

SCORE: PASS / FAIL

Comments: ____

= =

* Valid ARTS Keyboard Entries

190 3K ACTION: ENTER <F7> R232675

190A 3K OBSERVE: In the SDA KBD MSG counter (640006) incremented by one

address 232675 and contents 0046700402 are displayed

SCORE: PASS / FAIL

Comments: ____

= =

* Valid ARTS Keyboard Entries

191 3K ACTION: ENTER <F7> R232703

191A 3K OBSERVE: In the SDA KBD MSG counter (640006) incremented by one address 232703 and contents 0006400402 are displayed

SCORE: PASS / FAIL

Comments: ____

= =

* Valid ARTS Keyboard Entries

192 3K ACTION: ENTER <F7> R232675 0040300402

192A 3K OBSERVE: In the SDA KBD MSG counter (640006) incremented by one address 232675 and contents 0040300402 are displayed

SCORE: PASS / FAIL

192B TTY OBSERVE: HH:MM:SS MEM 3K 232675 0040300402

SCORE: PASS / FAIL

Comments: ____

= =

* Valid ARTS Keyboard Entries

193 3K ACTION: ENTER <F7> R232703 0000100402

193A 3K OBSERVE: In the SDA KBD MSG counter (640006) incremented by one address 232703 and contents 0000100402 are displayed

SCORE: PASS / FAIL

193B TTY OBSERVE: HH:MM:SS MEM 3K 232703 0000100402

SCORE: PASS / FAIL

Comments: ____

= =

* Invalid ARTS Keyboard Entries

194 3K ACTION: ENTER <F6> DAL513 /

194A 3K OBSERVE: In the SDA KBD MSG counter (640006) incremented by one

In the TAB list DAL513 1201

SCORE: PASS FAIL

Comments: ______________________________

= =

* Invalid ARTS Keyboard Entries

195 3K ACTION: ENTER <F6> DAL514 /

195A 3K OBSERVE: In the SDA KBD MSG counter (640006) is not incremented

In the readout area CAPACITY

SCORE: PASS FAIL

Comments: ______________________________

= =

* Valid ARTS Keyboard Entries

196 3K ACTION: ENTER <F7> R232675 0046700402

196A 3K OBSERVE: In the SDA KBD MSG counter (640006) incremented by one

address 232675 and contents 0046700402 are displayed

SCORE: PASS / FAIL

196B TTY OBSERVE: HH:MM:SS MEM 3K 232675 0046700402

SCORE: PASS / FAIL

Comments: ______________________________

= =

* Valid ARTS Keyboard Entries

197 3K ACTION: ENTER <F7> R232703 0006400402

197A 3K OBSERVE: In the SDA KBD MSG counter (640006) incremented by one

address 232703 and contents 0006700402 are displayed

SCORE: PASS / FAIL

197B TTY OBSERVE: HH:MM:SS MEM 3K 232703 0006700402

SCORE: PASS / FAIL

Comments: ______________________________

* Valid ARTS Keyboard Entries

198 3K ACTION: ENTER < F7 > R232675

198A 3K OBSERVE: In the SDA KBD MSG counter (640006) incremented by one address 232675 and contents are inhibited

SCORE: PASS / FAIL

Comments: _____

* Valid ARTS Keyboard Entries

199 3K ACTION: ENTER < F7 > R232703

199A 3K OBSERVE: In the SDA KBD MSG counter (640006) incremented by one address 232703 and contents are inhibited

SCORE: PASS / FAIL

Comments: _____

* Valid ARTS Keyboard Entries

200 3K ACTION: ENTER < F7 > R640013 2

200A 3K OBSERVE: In the SDA KBD MSG counter (640006) incremented by one addresses 640013 and 640014 are displayed

SCORE: PASS / FAIL

Comments: _____

* Valid ARTS Keyboard Entries

201 3K ACTION: ENTER < F7 > A1

201A 3K OBSERVE: In the SDA KBD MSG counter (640006) incremented by one and a 1 is displayed in line 2 of SDA

SCORE: PASS / FAIL

Comments: _____

* Valid ARTS Keyboard Entries

202 3K ACTION: ENTER <F7>A0

202A 3K OBSERVE: In the SDA KBD MSG counter (640006) incremented by one and the 1 in line 2 of the SDA is inhibited

SCORE: PASS FAIL

Comments: ______________________________

---

* Valid ARTS IIIA FAST Keyboard Entry

203 3K ACTION: ENTER <F7>2M

203A 3K OBSERVE: In the SDA KBD MSG counter (640006) incremented by one

SCORE: PASS / FAIL

203B MSP OBSERVE: All printouts directed to the MSP

SCORE: PASS / FAIL

Comments: ______________________________

---

* Valid ARTS Keyboard Entries

204 3K ACTION: ENTER <F7>CP1

204A 3K OBSERVE: In the SDA KBD MSG counter (640006) incremented by one

SCORE: PASS / FAIL

204B MSP OBSERVE: CFG 1 is listed on the MSP

SCORE: PASS / FAIL

Comments: ______________________________

---

* Valid ARTS Keyboard Entries

205 3K ACTION: ENTER <F7>CP2

205A 3K OBSERVE: In the SDA KBD MSG counter (640006) incremented by one

SCORE: PASS / FAIL

205B MSP OBSERVE: CFG 2 is listed on the MSP

SCORE: PASS / FAIL

Comments: _____

= =

* Valid ARTS IIIA FAST Keyboard Entry

206 3O ACTION: ENTER < F7 > 2T

206A TTY OBSERVE: All printouts directed to the TTY

SCORE: PASS / FAIL

Comments: _____

= =

* Valid ARTS Keyboard Entries

207 3K ACTION: ENTER < F7 > D DAL513

207A 3K OBSERVE: In the SDA KBD MSG counter (640006) incremented by one

In the PREVIEW AREA Is the flight plan for DAL513

In the READOUT AREA DAL513 is in the modify mode

SCORE: PASS / FAIL

Comments: _____

= =

* Valid ARTS Keyboard Entries

208 3K ACTION: ENTER 4104

208A 3K OBSERVE: In the SDA KBD MSG counter (640006) incremented by one

In the PREVIEW AREA Beacon code for DAL513 is 4104

SCORE: PASS / FAIL

Comments: _____

= =

* Valid ARTS Keyboard Entries

209 3K ACTION: ENTER < F7 > F

209A 3K OBSERVE: In the SDA KBD MSG counter (640006) incremented by one

In the PREVIEW AREA
Lower/upper filter limits associated tracks
Lower/upper filter limits unassociated tracks

SCORE: PASS / FAIL

Comments: ______________________________

= =

NOTE: Multifunction function G ((Beacon Reports and Tracking Summary)BRATS) will not be tested during this test. It requires the BRATS on call program to be resident and only one on call program can be resident. The on call ETG program is currently resident.

* Valid ARTS Keyboard Entries

210 3K ACTION: ENTER <F7>HH SLEW to AAL1256

210A 3K OBSERVE: Heavy indicator in the 2nd line, position 8 of AAL1256 FDB

In the SDA KBD MSG counter (640006) incremented by one

SCORE: PASS / FAIL

Comments: ______________________________

= =

* Valid ARTS Keyboard Entries

211 3K ACTION: ENTER <F7>HB737 SLEW to TWA525

211A 3K OBSERVE: B737 displayed in line two. field four of TWA5256 FDB

In the SDA KBD MSG counter (640006) incremented by one

SCORE: PASS / FAIL

Comments: ______________________________

= =

NOTE: The multifunction I capabilities will not be tested because the Bulk Store Flight Plan Maintenance program is not available and this function is will be removed in A3.06.

NOTE: Multifunction J is currently undefined.

* Valid ARTS IIIA Keyboard Entries

212 3K ACTION: ENTER <F7>K

212A 3K OBSERVE: Auto offset is enabled

In the SDA KBD MSG counter (640006) incremented by one and 640013 is incrementing for each leader direction change

SCORE: PASS / FAIL

Comments: ______________________________

= =

* Valid ARTS IIIA Keyboard Entries

213 3K ACTION: ENTER <F7>O

213A 3K OBSERVE: Auto offset is disabled

In the SDA KBD MSG counter (640006) incremented by one and 640013 has stopped incrementing

SCORE: PASS / FAIL

Comments: ______________________________

= =

Insure that the direction toggle is in the "X" position

* Valid ARTS IIIA Keyboard Entries

214 3K ACTION: ENTER <F7>L1 SLEW to AAL1257

214A 3K OBSERVE: AAL1257 leader direction is northwest

In the SDA KBD MSG counter (640006) incremented by one 640013 was incrementing by one

SCORE: PASS / FAIL

Comments: ______________________________

= =

* Valid ARTS IIIA Keyboard Entries

215 3K ACTION: ENTER <F7>L7

215A 3K OBSERVE: Leader direction for all FDBs is South West

In the SDA KBD MSG counter (640006) incremented by one 640012 was incrementing by three

SCORE: PASS / FAIL

Comments: ______________________________

= =

* Valid ARTS IIIA Keyboard Entries

216 3K ACTION: ENTER <F7>M3O SLEW TO DAL511

216A 3O OBSERVE: DAL511 is controlled by position 3O
The FDB remains at 3K

In the SDA KBD MSG counter (640006) incremented by one

SCORE: PASS / FAIL

Comments: ______________________________

==

* Valid ARTS IIIA Keyboard Entries

217 3O ACTION: ENTER <F7> M3K SLEW TO DAL511

217A 3K OBSERVE: DAL511 is controlled by position 3K

In the SDA KBD MSG counter (640006) incremented by one

SCORE: PASS / FAIL

Comments: ______________________________

==

* Valid ARTS IIIA Keyboard Entries

218 3K ACTION: ENTER <F7> M3L SLEW TO DAL511

218A 3L OBSERVE: DAL511 is controlled by position 3L

In the SDA KBD MSG counter (640006) incremented by one

SCORE: PASS FAIL

Comments: ______________________________

==

* Valid ARTS IIIA Keyboard Entries

219 3L ACTION: ENTER <F7> M3KSLEW TO DAL511

219A 3K OBSERVE: DAL511 is controlled by position 3K

In the SDA KBD MSG counter (640006) incremented by one

SCORE: PASS / FAIL

Comments: ______________________________

==

* Valid ARTS IIIA Keyboard Entries

220 3K ACTION: ENTER <F7> N

220A 3K OBSERVE: In the SDA GHOST OFF is displayed

In the SDA KBD MSG counter (640006) incremented by one

SCORE: PASS / FAIL

Comments: ______________________________

==

* Valid ARTS IIIA Keyboard Entries

221 3K ACTION: ENTER <F7>N

221A 3K OBSERVE: In the SDA GHOST OFF is inhibited

In the SDA KBD MSG counter (640006) incremented by one

SCORE: PASS FAIL

Comments: ______________________________

= =

* Valid ARTS IIIA Keyboard Entries

222 3K ACTION: ENTER <F7>O

222A 3K OBSERVE: Auto offset is enabled

In the SDA KBD MSG counter (640006) incremented by one and 640013 is incrementing for each leader direction change

SCORE: PASS . FAIL

Comments: ______________________________

= =

* Valid ARTS IIIA Keyboard Entries

223 3K ACTION: ENTER <F7>O

223A 3K OBSERVE: Auto offset is disabled

In the SDA KBD MSG counter (640006) incremented by one and 640013 has stopped incrementing

SCORE: PASS / FAIL

Comments: ______________________________

= =

* Valid ARTS IIIA Keyboard Entries

224 3K ACTION: ENTER <F15>01A005F

224A 3K OBSERVE: AAL1256 descending to 500 feet

In the LA/CA TAB AAL1256
Line 0 of AAL1256 FDB contains LA
MSAW alarm enabled

SCORE: PASS / FAIL

Comments: ______________________________

= =

NOTE: Multifunction P has been tested in steps 173 and 176

* Valid ARTS IIIA Keyboard Entries

225	3K	ACTION: ENTER <F7>Q SLEW to AAL1256
225A	3K	OBSERVE: An asterisk is displayed following AAL1256
		In the LA CA TAB AAL1256 inhibited
		In the SDA KBD MSG counter (640006) incremented by one
		SCORE: PASS / FAIL
225B	TTY	OBSERVE: HH:MM:SS MSAWD 3K INHIB AAL1256
		SCORE: PASS FAIL

Comments: ____

= =

NOTE: Multifunction R has been tested in steps 182 through 186 and 226 through 193.

* Valid ARTS IIIA Keyboard Entries

227	3K	ACTION: ENTER <F7>S SLEW to 45 nm West
227A	3K	OBSERVE: The SDA is move from north to west
		In the SDA KBD MSG counter (640006) incremented by one
		SCORE: PASS / FAIL

Comments: ____

= =

* Valid ARTS IIIA Keyboard Entries

228	3K	ACTION: ENTER <F7>S SLEW to 45 nm North
228A	3K	OBSERVE: The SDA is move from West to North
		In the SDA KBD MSG counter (640006) incremented by one
		SCORE: PASS / FAIL

Comments: ____

= =

* Valid ARTS IIIA Keyboard Entries

229	3K	ACTION: ENTER <F7>T SLEW to 45 nm West

229A 3K OBSERVE: The Tabular list is repositioned 45 nm west

In the SDA KBD MSG counter (640006) incremented by one

SCORE: PASS / FAIL

Comments: ______________________________

---

* Valid ARTS IIIA Keyboard Entries

230 3K ACTION: ENTER <F7>T SLEW to 45 nm North East

230A 3K OBSERVE: The Tabular list is repositioned 45 nm North East

In the SDA KBD MSG counter (640006) incremented by one

SCORE: PASS / FAIL

Comments: ______________________________

---

* Valid ARTS IIIA Keyboard Entries

231 3K ACTION: ENTER <F3>DAL513

231A 3K OBSERVE: DAL513 in the coast suspend list ID = 0

In the SDA KBD MSG counter (640006) incremented by one

SCORE: PASS / FAIL

Comments: ______________________________

---

* Valid ARTS IIIA Keyboard Entries

232 3K ACTION: ENTER <F7>VMI

232A 3K OBSERVE: MSAW processing is inhibited

In the SDA KBD MSG counter (640006) incremented by one
The asterisk in AAL1256 FDB and MSAW alarm inhibited

SCORE: PASS / FAIL

232B TTY OBSERVE: HH:MM:SS MSAW 3K INB

SCORE: PASS / FAIL

Comments: ______________________________

---

* Valid ARTS IIIA Keyboard Entries

233 3K ACTION: ENTER <F7>VME

233A 3K OBSERVE: MSAW processing is enabled

In the SDA KBD MSG counter (640006) incremented by one
AAL1256 in MSAW alert
In the LA/CA TAB AAL1256
MSAW alarm enabled

SCORE: PASS / FAIL

233B TTY OBSERVE: HH:MM:SS MSAW 3K SEL

SCORE: PASS / FAIL

Comments: ____

= =

* Valid ARTS IIIA Keyboard Entries

234 3K ACTION: ENTER <F15>01A030F

234A 3K OBSERVE: AAL1256 Climbing to 3000 feet

In the MSAW TAB AAL1256 is inhibited
AAL1256 FDB does not contain line 0

SCORE: PASS / FAIL

Comments: ____

= =

* Valid ARTS IIIA Keyboard Entries

235 3K ACTION: ENTER <F4>ALL

235A 3K OBSERVE: ALL FDBs and FPs are Dropped

In the SDA KBD MSG counter (640006) incremented by one and
TRK DRP MSG counter (640005) incremented by four

SCORE: PASS / FAIL

Comments: ____

= =

* Valid ARTS IIIA Keyboard Entries

236 3K ACTION: ENTER <F15>1

236A 3K OBSERVE: Target 1 is Dropped

In the SDA KBD MSG counter (640006) incremented by one and

SCORE: PASS / FAIL

Comments: ____

= =

* Valid ARTS IIIA Keyboard Entries

237 3K ACTION: ENTER <F15> 2

237A 3K OBSERVE: Target 2 is Dropped

In the SDA KBD MSG counter (640006) incremented by one and

SCORE: PASS / FAIL

Comments: ____

= =

* Valid ARTS IIIA Keyboard Entries

238 3K ACTION: ENTER <F15> 3

238A 3K OBSERVE: Target 3 is Dropped

In the SDA KBD MSG counter (640006) incremented by one and

SCORE: PASS / FAIL

Comments: ____

= =

* Consolidate 3M with 37

239 3L ACTION: ENTER <F7> C373M+

239A TTY OBSERVE: HH:MM:SS FCON 3L 37 = 3L

SCORE: PASS / FAIL

Comments: ____

= =

* Consolidate 3W with 37

240 3L ACTION: ENTER <F7> C373W+

240A TTY OBSERVE: HH:MM:SS FCON 3L 37 = 3W

SCORE: PASS / FAIL

Comments: ____

= =

* Consolidate 3L with 37

241 3L ACTION: ENTER <F7>C373L+

241A TTY OBSERVE: HH:MM:SS FCON 3L 37 = 3L

SCORE: PASS / FAIL

Comments: ____

= =

* Remove Display 29 from Operational Status

242 3L ACTION: ENTER <F15>XM

242A TTY OBSERVE: HH:MM:SS STAT IN 29=TRG

SCORE: PASS / FAIL

Comments: ____

= =

This keyboard entry will enable a scenario. The run time for this scenario is 17 minutes and will generate 316 associate targets and 316 unassociated targets. The primary purpose of this scenario is to increase the volume of ARTS messages that will be transmitted to FAST. See APPENDIX "A" for the listing of the scenario.

* Valid ARTS IIIA Keyboard Entries

243 3K ACTION: ENTER <F15>XIT

243A 3K OBSERVE: IN the preview area "SCENARIO ACTIVE"

In the SDA KBD MSG counter (640006) incremented by one and

SCORE: PASS / FAIL

The following is the number of messages that were generated by this scenario during a dry run test.

1. Message code 011 KYBD MSGs, 770
2. Message code 012 CTS DATA, 26,459
3. Message code 021 TREAD DROP, 328
4. Message code 022 TRACK DROP, 269
5. Message code 024 TYPIT MSGs, Unknown
6. Message code 040 TROUT DEMARC S0, Dependent on run time
7. Message code 041 TROUT DEMARC S1, Dependent on run time

NOTE: Message code 024, TYPIT messages are generate because of a hardware problem with one of the displays. The volume of messages for this message type may vary.

Comments: ____

= =

When "SCENARIO OFF" is displayed in the SDA at approximately 1617 hours. Execute the following Keyboard entry.

* Valid ARTS IIIA/FAST Keyboard Entry

244 3K ACTION: ENTER <F12>I

244A MSP OBSERVE: HH:MM:SS FAST 3K DISABLED **

SCORE: PASS / FAIL

244B DWS OBSERVE: Disabled message received...

SCORE: PASS / FAIL

244C 3K OBSERVE: In the SDA All MSG. counters have stopped incrementing

SCORE: PASS / FAIL

Comments: ______________________________

= =

* Valid ARTS IIIA FAST Keyboard Entry

245 3K ACTION: ENTER <F7>R640003 P10

245A MSP OBSERVE: Message counters are printed on the MSP

SCORE: PASS / FAIL

245B MSP ACTION: Fetch the hard copy print out of the message counters, they will be used for a compare to the TIU counters.

SCORE: PASS / FAIL

245C 3K OBSERVE: In the SDA All MSG. counters have stopped incrementing

SCORE: PASS / FAIL

Comments: ______________________________

= =

* Valid DWS Keyboard Entries to IDLE the TIU program

Using the mouse move the arrow to the keyboard window

246 DWS ACTION: SELECT IDLE and CLICK

246A DWS OBSERVE: In the keyboard window the TIU is in IDLE state

SCORE: PASS / FAIL

Comments: ______________________________

= =

• Valid DWS Keyboard Entries to obtain the TIU message counters

Using the mouse move the arrow to the keyboard window

247 DWS ACTION: SELECT COUNT and CLICK

247A DWS OBSERVE: In the DADS window the TIU message counter values

SCORE: PASS / FAIL

Comments: ____

= =

• DWS entries to obtain a hard copy of message counters

248 DWS ACTION: SELECT Console window

248A DWS OBSERVE: Console window opened and tatca9% prompt

248B DWS ACTION: ENTER screendump scrn.dmp

248C DWS OBSERVE: At the prompt

248D DWS ACTION: ENTER lpr -Plp scrn.dmp

Pick up the hard copy of message counters in the TATCA lab.

SCORE: PASS / FAIL

Comments: ____

= =

• Compare ARTS message counters to the FAST message counters

249 DWS ACTION: Select the Calculator

249A DWS ACTION: Convert the DADS decimal counters to OCTAL and compare to the ARTS message counters

SCORE: PASS / FAIL

249B DWS ACTION: Insure That the DADS message counters for the following message types are in agreement

Initialization message MC20 = 1
Disable FAST message MC25 = 1
Test pattern one message MC26 = 3
Test pattern two message MC27 = 3
Test pattern Three message MC30 = 3
Test pattern four message MC31 = 1

SCORE: PASS / FAIL

Comments: ____

= =

• Valid DWS Keyboard Entries to close console window

Using the mouse move the arrow to the left corner of console window

250 DWS ACTION: CLICK right button

250A DWS OBSERVE: Menu appears

SCORE: PASS / FAIL

Move the mouse and select close

250B DWS ACTION: CLICK right button

250C DWS OBSERVE: Console window closed

SCORE: PASS FAIL

Comments: ____

= =

• Valid DWS Keyboard Entries to close TIU window

Using the mouse move the arrow to the desk top (blue) area

251 DWS ACTION: Depress and hold down right button

251A DWS OBSERVE: Menu appears

SCORE: PASS / FAIL

Move the mouse and select utilities

251B DWS ACTION: Continue to hold right button down

251C DWS OBSERVE: Menu appears

SCORE: PASS / FAIL

Move the mouse and select lock screen

251D DWS ACTION: Release the right button

251E DWS OBSERVE: TIU window locked

SCORE: PASS / FAIL

Comments: ____

252 IOP0 ACTION: Load/start the Editor program using the CDR
Editor off-line program load procedures defined in section 4.2.1.3.

252A TTY OBSERVE: ED ENTER DEVICES

252B TTY ENTER: D0MP, CONTROL EOT

252C TTY OBSERVE: ED ENTER DATA CLASSES

252D TTY ENTER: KF, IF CONTROL EOT

252E TTY OBSERVE: ED ENTER FILTERS

252F TTY ENTER: CONTROL EOT

252O TTY OBSERVE: ED ENTER COMMENTS

252H TTY ENTER: FAST KEYBOARD ENTRY TEST, CONTROL EOT

252I MSP ACTION: Retrieve and save the hardcopy printout
of the keyboard and Interfacility messages.

SCORE: PASS / FAIL

Analyze the hard copy printout provided by the EDITOR program for the keyboard and interfacility messages. Compare some of the keyboard and interfacility messages with the hard copy of keyboard and interfacility messages that was provided by the FAST system.

Comments: _____

* Compare ARTS initialization message to the FAST initialization message

253 TWS ACTION: Provide hard copy of the initialization message.

Compare the hard copy of the initialization message received from the TIU to the hard copy received from the ARTS system and the assembly listing of elements SDB2 and CNFGD.

SCORE: PASS / FAIL

Comments: _____

* Compare Formats

254 TWS ACTION: Provide a hard copy of at least Two of the Following message types (except for message code 031, provide one).

MC 012 CTS Data message
MC 013 Interfacility Data message
MC 021 Thread drop Data message
MC 022 Track drop Data message
MC 024 TYPIT Data message
MC 025 Disable FAST Data message
MC 026 Test pattern one Data message

MC 027 Test pattern two Data message
MC 030 Test pattern three Data message
MC 031 Test pattern four Data message
MC 040 TROUT Demarc SS0 Data message
MC 041 TROUT Demarc SS1 Data message
MC 050 Automatic off set Data message
MC 051 Leader direction change Data message

254A ACTION: Compare all of the data messages to the formats contained in Appendix "B"

SCORE: PASS / FAIL

Comments: ____

= =

4.4 Central Track Store (CTS(Tracking)) Test Procedures

The second major test named "Central Track Store (CTS)" has one test case and consist of two parts.

4.4.1 Test Case 01 - Central Track Store (CTS)

The Central Track Store (Tracking) test will insure that the following objective is satisfied.

1. To ensure that FAST is capable of processing high volumes data messages under ARTS capacity conditions and that no messages are lost in the transfer of the data.

4.4.1.1 Definitions

SYSTEM DATA AREA	SDA
TELETYPE	TTY
DADS WORK STATION	DWS
TIU WORK STATION	TWS
TI DISPLAY 27, DESK TOP KEYBOARD	3O
TI DISPLAY 28, DESK TOP KEYBOARD	3K
TI DISPLAY 29, DESK TOP KEYBOARD	3L

4.4.1.2 Software Preparation

Load and start the operational program using the initial start up procedures described in the Software Loading and Start-Up Procedures, Section 4.2.

4.4.1.3 Test Execution Procedures

The following test data sheets define the detail steps to be executed in the CTS Test Case 01.

These data sheets will be used to score the results of each of the test steps.

CTS TEST CASE 01.

Step	Work Station	Description
		* Select TIU "B"
1	TWS	ACTION: Depress all "B" switches
	TWS	ACTION: Depress reset button
1A		OBSERVE: No other ARTS interference
		SCORE: PASS / FAIL

Comments: ____

= =

Step	Work Station	Description
		* Load the ETG program
2	TTY	ACTION: ENTER TK IA TG
2A	TTY	OBSERVE: TK IA TG L-001
		SCORE: PASS / FAIL
2B	TTY	OBSERVE: HH:MM:SS OK 001 TK IA TG
		SCORE: PASS / FAIL

Comments: ____

= =

****

The Following Is Entered Manually From Keyboard 3L

****

Step	Work Station	Description
		* Remove Display 29 from Training
3	3L	ACTION: ENTER <F15>ZM
3A	TTY	OBSERVE: HH:MM:SS STAT IN 29=ACT
		SCORE: PASS / FAIL

Comments: ____

= =

Step	Work Station	Description
		* Valid ARTS Keyboard Entries
4	3L	ACTION: ENTER <F7>1D
4A	TTY	OBSERVE: HH:MM:SS CKEY 3L D
		SCORE: PASS / FAIL

Comments: ____

= =

* Valid ARTS Keyboard Entries

5 3L ACTION: ENTER <F7> 1E CT

5A TTY OBSERVE: HH:MM:SS CKEY 3L E CT

SCORE: PASS / FAIL

Comments: ____

= =

* Valid ARTS Keyboard Entries

6 3L ACTION: ENTER <F7> 1FR25

6A TTY OBSERVE: HH:MM:SS CKEY 3L FR25

SCORE: PASS / FAIL

Comments: ____

= =

* Valid ARTS Keyboard Entries

7 3L ACTION: ENTER <F7> 1FA030

7A TTY OBSERVE: HH:MM:SS CKEY 3L FA030

SCORE: PASS / FAIL

Comments: ____

= =

* Valid ARTS Keyboard Entries

8 3L ACTION: ENTER <F7> 1FCA

8A TTY OBSERVE: HH:MM:SS CKEY 3L FCA

SCORE: PASS / FAIL

Comments: ____

= =

* Valid ARTS Keyboard Entries

9 3L ACTION: ENTER <F7> 1FEE

9A TTY OBSERVE: HH:MM:SS CKEY 3L FEE

SCORE: PASS / FAIL

Comments: ____

= =

* Valid ARTS Keyboard Entries

10 3L ACTION: ENTER < F7 > IFD26E

10A TTY OBSERVE: HH:MM:SS CKEY 3L FD26E

SCORE: PASS / FAIL

Comments: ____

= =

* Valid ARTS Keyboard Entries

11 3L ACTION: ENTER < F7 > IFD27E

11A TTY OBSERVE: HH:MM:SS CKEY 3L FD27E

SCORE: PASS FAIL

Comments: ____

= =

* Valid ARTS Keyboard Entries

12 3L ACTION: ENTER < F7 > IFD29E

12A TTY OBSERVE: HH:MM:SS CKEY 3L FD29E

SCORE: PASS / FAIL

Comments: ____

= =

* Valid ARTS Keyboard Entries

13 3L ACTION: ENTER < F7 > IFD30E

13A TTY OBSERVE: HH:MM:SS CKEY 3L FD30E

SCORE: PASS / FAIL

Comments: ____

= =

* Valid ARTS IIIA Keyboard Entries

14 3L ACTION: ENTER < F7 > S/MMDDYY

14A TTY OBSERVE: HH:MM:SS DATE 3L mmddyy

SCORE: PASS / FAIL

Comments: ____

= =

* Valid ARTS IIIA Keyboard Entries

15 3L ACTION: ENTER <F7> HSCR

15A TTY OBSERVE: HH:MM:SS CKEY 3L HSCR and
HH:MM:SS CDR DISC 1 0250003?

SCORE: PASS FAIL

Comments: ____

= =

* Enable Memory Readout

16 3L ACTION: ENTER M <F7> R

16A 3L OBSERVE: KEYBOARD ENTRY IS ACCEPTED

SCORE: PASS / FAIL

Comments: ____

= =

* Change error condition to allow duplicate ETG targets

17 3L ACTION: ENTER <F7> R265007

17A 3L OBSERVE: In the SDA 265007 6104067056

SCORE: PASS / FAIL

Comments: ____

= =

18 3L ACTION: ENTER <F7> R265007 1200000000

18A 3L OBSERVE: In the SDA 265007 1200000000

SCORE: PASS / FAIL

18B TTY OBSERVE: HH:MM:SS MEM 3L 265007 1200000000

SCORE: PASS / FAIL

Comments: ______________________________

= =

* Make keyboard 3L an invalid FAST position

19 3L ACTION: ENTER < F7 > R642074

19A 3L OBSERVE: In the SDA 642074 0000000070

SCORE: PASS / FAIL

Comments: ______________________________

= =

20 3L ACTION: ENTER < F7 > R642074 0000000000

20A 3L OBSERVE: In the SDA 642074 0000000000

SCORE: PASS / FAIL

20B TTY OBSERVE: HH:MM:SS MEM 3L 642074 0000000000

SCORE: PASS / FAIL

Comments: ______________________________

= =

* Select Alternate FAST channel. Invalid FAST keyboard

21 3L ACTION: ENTER < F7 > 2F

21A 3L OBSERVE: In the preview area "ILL FNCT"

SCORE: PASS / FAIL

Comments: ______________________________

= =

22 3L ACTION: ENTER < F7 > R642074 0000000070

22A 3L OBSERVE: In the SDA 642074 0000000070

SCORE: PASS / FAIL

22B TTY OBSERVE: HH:MM:SS MEM 3L 642074 0000000070

SCORE: PASS / FAIL

Comments: ______________________________

= =

* Select Alternate FAST channel

23 3L ACTION: ENTER <F7>2F

23A TTY OBSERVE: HH:MM:SS RCFG 3L FAST CHAN SELEC ALT

SCORE: PASS / FAIL

Comments: ______________________________

= =

* Disable Memory Readout

24 3L ACTION: ENTER M<F7>*

24A 3L OBSERVE: Memory readout inhibited

SCORE: PASS / FAIL

Comments: ______________________________

= =

* Readout message counters

25 3L ACTION: ENTER 640003 0

25A 3L OBSERVE: In the SDA

640003 = 0000000000 (CTS Messages)
640004 = 0000000000 (Thread Drop Messages)
640005 = 0000000000 (Track Drop Messages)
640006 = 0000000000 (Keyboard Entry Messages)
640007 = 0000000000 (TROUT Demarcation Messages SS0)
640010 = 0000000000 (TROUT Demarcation Messages SS1)
640011 = 0000000000 (Interfacility Messages)
640012 = 0000000000 (Leader Change Messages)
640013 = 0000000000 (Offset Change Messages)
640014 = 0000000000 (TYP1 Messages)

SCORE: PASS / FAIL

Comments: ______________________________

= =

* Consolidate 3M with 37

26 3L ACTION: ENTER <F7>C373M+

26A TTY OBSERVE: HH:MM:SS FCON 3L 37 = 3L

SCORE: PASS / FAIL

Comments: ______________________________

= =

* Consolidate 3W with 37

27 3L ACTION: ENTER <F7>C373W+

27A TTY OBSERVE: HH:MM:SS FCON 3L 37 = 3W

SCORE: PASS / FAIL

Comments: ______________________________

==

* Consolidate 3L with 37

28 3L ACTION: ENTER <F7>C373L+

28A TTY OBSERVE: HH:MM:SS FCON 3L 37 = 3L

SCORE: PASS / FAIL

Comments: ______________________________

==

* Remove Display 29 from Operational Status

29 3L ACTION: ENTER <F15>XM

29A TTY OBSERVE: HH:MM:SS STAT 1N 29=TRG

SCORE: PASS / FAIL

Comments: ______________________________

==

* Valid DWS Keyboard Entries to idle the TIU program

30 DWS ACTION: ENTER Any key

30A DWS OBSERVE: Name faatc
Password
Enter password to unlock: select ICON to lock.

SCORE: PASS / FAIL

30B DWS ACTION: ENTER tiufaa

30C DWS OBSERVE: After a couple of seconds the DADS and the keyboard windows are displayed

SCORE: PASS / FAIL

30D DWS INSURE: In the keyboard window that the TIU is in IDLE

SCORE: PASS / FAIL

Comments: ______________________________

==

* Valid DWS Keyboard Entries to Change ARTS/TIU channels

Using the mouse move the arrow to the PORT 1 window

31 DWS ACTION: CLICK left button

31A DWS OBSERVE: In the DADS window

TIU STATUS: TAP IS NOW SET TO USE PIM #1

SCORE: PASS FAIL

Comments: ____________________

= =

* Valid DWS Keyboard Entries to enable the TIU program

Using the mouse move the arrow to the keyboard window

32 DWS ACTION: SELECT RUN and CLICK

32A DWS OBSERVE: In the keyboard window the TIU is in RUN state

SCORE: PASS FAIL

Comments: ____________________

= =

* Valid FAST Keyboard Entries

33 3K ACTION: ENTER <F12>E

33A TTY OBSERVE: HH:MM:SS FAST 3K ENABLE !! OPNL

SCORE: PASS, FAIL

Comments: ____________________

= =

This keyboard entry will enable a scenario. The run time for this scenario is 26 minutes. The primary purpose of this scenario is to create capacity conditions for the transfer of messages to FAST. See APPENDIX "C" for the listing of the scenario.

* Valid ARTS IIIA Keyboard Entries

34 3K ACTION: ENTER <F15>XIT

34A 3K OBSERVE: IN the preview area "SCENARIO ACTIVE"

In the SDA KBD MSG counter (640006) incremented by one

SCORE: PASS, FAIL

The following nunber of messages will be generated during the test.

1. Message code 011 KYBD MSGs 537
2. Message code 012 CTS DATA 64.555
3. Message code 013 INTERFACILITY MSGs unknown
4. Message code 021 THREAD DROP MSGs 240
5. Message code 022 TRACK DROP MSGs 244
6. Message code 024 TYP1T MSGs unknown
7. Message code 040 TROUT DEMARC S0 dependent on run time
8. Message code 041 TROUT DEMARC S1 dependent on run time
9. Message code 050 LEADER DIRECTION CHANGE 3,893

Comments: ____

When "SCENARIO OFF" is displayed in the SDA at approximately 1637 hours. Execute the following Keyboard entry.

		* Valid ARTS IIIA/FAST Keyboard Entry	
35	3K	ACTION:	ENTER <F12>I
35A	TTY	OBSERVE:	HH:MM:SS FAST 3K DISABLED **
		SCORE:	PASS / FAIL
35B	DWS	OBSERVE:	Disabled message received...
		SCORE:	PASS / FAIL
35C	3K	OBSERVE:	In the SDA All MSG. counters have stopped incrementing
		SCORE:	PASS / FAIL

Comments: ____

---

		* Valid ARTS IIIA/FAST Keyboard Entry	
36	3K	ACTION:	ENTER <F7>R640003 P10
36A	TTY	OBSERVE:	Message counters are printed on the MSP
		SCORE:	PASS / FAIL
36B	MSP	ACTION:	Fetch the hard copy print out of the message counters.
		SCORE:	PASS / FAIL

Comments: ____

= =

* Valid DWS Keyboard Entries to IDLE the TIU program

Using the mouse move the arrow to the keyboard window

37 DWS ACTION: SELECT IDLE and CLICK

37A DWS OBSERVE: In the keyboard window the TIU is in IDLE state

SCORE: PASS / FAIL

Comments: ____

= =

* Valid DWS Keyboard Entries to obtain the TIU message counters

Using the mouse move the arrow to the keyboard window

38 DWS ACTION: SELECT COUNT and CLICK

38A DWS OBSERVE: In the DADS window the TIU message counter values

SCORE: PASS FAIL

Comments: ____

= =

* DWS entries to obtain a hard copy of message counters

39 DWS ACTION: SELECT Console window

39A DWS OBSERVE: Console window opened and tatca9% prompt

39B DWS ACTION: ENTER screendump scrn.dmp

39C DWS OBSERVE: At the prompt

39D DWS ACTION: ENTER lpr -Plp scrn.dmp

Pick up the hard copy of message counters in the TATCA lab.

SCORE: PASS / FAIL

Comments: ____

= =

* Compare ARTS message counters to the FAST message counters

40 DWS ACTION: Select the Calculator

40A DWS ACTION: Convert the DADS decimal counters to OCTAL

and compare to the ARTS message counters

SCORE: PASS / FAIL

40B DWS ACTION: Insure That the DADS message counters for the following message types are in agreement

Initialization message MC20 = 1
Disable FAST message MC25 = 1

SCORE: PASS / FAIL

Comments: ____

= =

= =
= =

COLD START THE OPERATIONAL PROGRAM FOR PART 2

= =
= =

* Load the ETG program

41 TTY ACTION: ENTER TK IA TG

41A TTY OBSERVE: TK IA TG L-001

SCORE: PASS / FAIL

41B TTY OBSERVE: HH:MM:SS OK 001, TK IA TG

SCORE: PASS / FAIL

Comments: ____

= =

****

The Following Is Entered Manually From Keyboard 3L

****

* Remove Display 29 from Training

42 3L ACTION: ENTER <F15>ZM

42A TTY OBSERVE: HH:MM:SS STAT 1N 29=ACT

SCORE: PASS / FAIL

Comments: ____

= =

* Valid ARTS Keyboard Entries

43 3L ACTION: ENTER <F7>1D

43A TTY OBSERVE: HH:MM:SS CKEY 3L D

SCORE: PASS / FAIL

Comments: ____

= =

* Valid ARTS Keyboard Entries

44 3L ACTION: ENTER <F7>1E CT

44A TTY OBSERVE: HH:MM:SS CKEY 3L E CT

SCORE: PASS / FAIL

Comments: ____

= =

* Valid ARTS Keyboard Entries

45 3L ACTION: ENTER <F7> 1FR25

45A TTY OBSERVE: HH:MM:SS CKEY 3L FR25

SCORE: PASS / FAIL

Comments: ____

= =

* Valid ARTS Keyboard Entries

46 3L ACTION: ENTER <F7> 1FA030

46A TTY OBSERVE: HH:MM:SS CKEY 3L FA030

SCORE: PASS / FAIL

Comments: ____

= =

* Valid ARTS Keyboard Entries

47 3L ACTION: ENTER <F7> 1FCA

47A TTY OBSERVE: HH:MM:SS CKEY 3L FCA

SCORE: PASS / FAIL

Comments: ____

= =

* Valid ARTS Keyboard Entries

48 3L ACTION: ENTER <F7> 1FEE

48A TTY OBSERVE: HH:MM:SS CKEY 3L FEE

SCORE: PASS / FAIL

Comments: ____

= =

* Valid ARTS Keyboard Entries

49 3L ACTION: ENTER <F7> 1FD26E

49A TTY OBSERVE: HH:MM:SS CKEY 3L FD26E

SCORE: PASS / FAIL

Comments: ____

= =

* Valid ARTS Keyboard Entries

50 3L ACTION: ENTER <F7>1FD27E

50A TTY OBSERVE: HH:MM:SS CKEY 3L FD27E

SCORE: PASS FAIL

Comments: ____

= =

* Valid ARTS Keyboard Entries

51 3L ACTION: ENTER <F7>1FD29E

51A TTY OBSERVE: HH:MM:SS CKEY 3L FD29E

SCORE: PASS FAIL

Comments: ____

= =

* Valid ARTS Keyboard Entries

52 3L ACTION: ENTER <F7>1FD30E

52A TTY OBSERVE: HH:MM:SS CKEY 3L FD30E

SCORE: PASS / FAIL

Comments: ____

= =

* Valid ARTS IIIA Keyboard Entries

53 3L ACTION: ENTER <F7>S MMDDYY

53A TTY OBSERVE: HH:MM:SS DATE 3L mmddyy

SCORE: PASS FAIL

Comments: ____

= =

* Valid ARTS IIIA Keyboard Entries

54 3L ACTION: ENTER <F7>110SCR

54A TTY OBSERVE: HH:MM:SS CKEY 3L I0SCR
HH:MM:SS CDR DISC 0 02500037

SCORE: PASS / FAIL

Comments: ____

= =

* Enable Memory Readout

55 3L ACTION: ENTER M < F7 > R

55A 3L OBSERVE: KEYBOARD ENTRY IS ACCEPTED

SCORE: PASS / FAIL

Comments: ____

= =

* Change error condition to allow duplicate ETG targets

56 3L ACTION: ENTER < F7 > R265007

56A 3L OBSERVE: In the SDA 265007 6104067056

SCORE: PASS / FAIL

Comments: ____

= =

57 3L ACTION: ENTER < F7 > R265007 1200000000

57A 3L OBSERVE: In the SDA 265007 1200000000

SCORE: PASS / FAIL

57B TTY OBSERVE: HH:MM:SS MEM 3L 265007 1200000000

SCORE: PASS / FAIL

Comments: ____

= =

* Select Primary FAST channel

58 3L ACTION: ENTER < F7 > 2F

58A TTY OBSERVE: HH:MM:SS RCFG 3L FAST CHAN SELEC PRIM

SCORE: PASS / FAIL

Comments: ______________________________

* Consolidate 3M with 37

59 3L ACTION: ENTER <F7>C373M+

59A TTY OBSERVE: HH:MM:SS FCON 3L 37 = 3L

SCORE: PASS / FAIL

Comments: ______________________________

* Consolidate 3W with 37

60 3L ACTION: ENTER <F7>C373W+

60A TTY OBSERVE: HH:MM:SS FCON 3L 37 = 3W

SCORE: PASS / FAIL

Comments: ______________________________

* Consolidate 3L with 37

61 3L ACTION: ENTER <F7>C373L+

61A TTY OBSERVE: HH:MM:SS FCON 3L 37 = 3L

SCORE: PASS / FAIL

Comments: ______________________________

* Remove Display 29 from Operational Status

62 3L ACTION: ENTER <F15>XM

62A TTY OBSERVE: HH:MM:SS STAT IN 29=TRG

SCORE: PASS / FAIL

Comments: ______________________________

* Valid DWS Keyboard Entries to idle the TIU program

Using the mouse move the arrow to the keyboard window

63 DWS ACTION: SELECT RUN and CLICK

63A DWS OBSERVE: WARNING: file "pipe.c" line 512: connection reset by peer

#Warn io.c @ 273 : system call failure

#Warn main.c @ 389 : tiu disconnected

#Warn main.c @ 233 : tiu connected

#Warn main.c @ 454 : tiu idling

SCORE: PASS / FAIL

63B DWS OBSERVE: In the keyboard window that the TIU is in IDLE

SCORE: PASS / FAIL

Comments: ____

= =

• Valid DWS Keyboard Entries to Change ARTS/TIU channels

Using the mouse move the arrow to the PORT 0 window

64 DWS ACTION: CLICK left button

64A DWS OBSERVE: In the DADS window

TIU STATUS: TAP IS NOW SET TO USE PIM #0

SCORE: PASS / FAIL

Comments: ____

= =

• Valid DWS Keyboard Entries to enable the TIU program

Using the mouse move the arrow to the keyboard window

65 DWS ACTION: SELECT RUN and CLICK

65A DWS OBSERVE: In the keyboard window the TIU is in RUN state

SCORE: PASS / FAIL

Comments: ____

= =

• Valid FAST Keyboard Entries

66 3K ACTION: ENTER <F12>E

66A TTY OBSERVE: HH:MM:SS FAST 3K ENABLE !! OPNL

SCORE: PASS / FAIL

Comments: ______________________________

= =

This keyboard entry will enable a scenario. The run time for this scenario is 26 minutes. The primary purpose of this scenario is to create capacity conditions for the transfer of messages to FAST. See APPENDIX "C" for the listing of the scenario.

• Valid ARTS IIIA Keyboard Entries

67 3K ACTION: ENTER <F15>XIT

67A 3K OBSERVE: In the preview area "SCENARIO ACTIVE"

In the SDA KBD MSG counter (640006) incremented by one

SCORE: PASS / FAIL

The following nunber of messages will be generated during the test.

1. Message code 011 KYBD MSGs 537
2. Message code 012 CTS DATA 64.555
3. Message code 013 INTERFACILITY MSGs unknown
4. Message code 021 THREAD DROP MSGs 240
5. Message code 022 TRACK DROP MSGs 274
6. Message code 024 TYP1T MSGs unknown
7. Message code 040 TROUT DEMARC S0 dependent on run time
8. Message code 041 TROUT DEMARC S1 dependent on run time
9. Message code 050 LEADER DIRECTION CHANGE 3,893

Comments: ______________________________

= =

When "SCENARIO OFF" is displayed in the SDA at approximately 1637 hours. Execute the following Keyboard entry.

• Valid ARTS IIIA/FAST Keyboard Entry

68 3K ACTION: ENTER <F12>I

68A TTY OBSERVE: HH:MM:SS FAST 3K DISABLED **

SCORE: PASS / FAIL

68B DWS OBSERVE: Disabled message received...

SCORE: PASS / FAIL

68C 3K OBSERVE: In the SDA All MSG. counters have stopped incrementing

SCORE: PASS / FAIL

Comments: ______________________________

= =

* Valid ARTS IIIA/FAST Keyboard Entry

69 3K ACTION: ENTER <F7> R640003 P10

69A MSP OBSERVE: Message counters are printed on the MSP

SCORE: PASS / FAIL

69B MSP ACTION: Fetch the hard copy print out of the message counters.

SCORE: PASS / FAIL

Comments: ______________________________

= =

* Valid DWS Keyboard Entries to IDLE the TIU program

Using the mouse move the arrow to the keyboard window

70 DWS ACTION: SELECT IDLE and CLICK

70A DWS OBSERVE: In the keyboard window the TIU is in IDLE state

SCORE: PASS / FAIL

Comments: ______________________________

= =

* Valid DWS Keyboard Entries to obtain the TIU message counters

Using the mouse move the arrow to the keyboard window

71 DWS ACTION: SELECT COUNT and CLICK

71A DWS OBSERVE: In the DADS window the TIU message counter values

SCORE: PASS / FAIL

Comments: ______________________________

= =

* DWS entries to obtain a hard copy of message counters

72 DWS ACTION: SELECT Console window

72A	DWS	OBSERVE:	Console window opened and tatca9% prompt
72B	DWS	ACTION:	ENTER screendump scrn.dmp
72C	DWS	OBSERVE:	At the prompt
72D	DWS	ACTION:	ENTER lpr -Plp scrn.dmp

Pick up the hard copy of message counters in the TATCA lab.

SCORE: PASS / FAIL

Comments: ______________________________

= =

• Compare ARTS message counters to the FAST message counters

73	DWS	ACTION:	Select the Calculator
73A	DWS	ACTION:	Convert the DADS decimal counters to OCTAL and compare to the ARTS message counters
		SCORE:	PASS / FAIL
73B	DWS	ACTION:	Insure That the DADS message counters for the following message types are in agreement Initialization message MC20 = 1 Disable FAST message MC25 = 1
		SCORE:	PASS / FAIL

Comments: ______________________________

= =

• Valid DWS Keyboard Entries to close console window

Using the mouse move the arrow to the left corner of console window

74	DWS	ACTION:	Depress and hold down right button
74A	DWS	OBSERVE:	Menu appears
		SCORE:	PASS / FAIL

Move the mouse and select close

74B	DWS	ACTION:	Release right button
74C	DWS	OBSERVE:	Console window closed
		SCORE:	PASS / FAIL

Comments: ______________________________

= =

* Valid DWS Keyboard Entries to close TIU window

Using the mouse move the arrow to the desk top (blue) area

75 DWS ACTION: Depress and hold down right button

75A DWS OBSERVE: Menu appears

SCORE: PASS / FAIL

Move the mouse and select utilities

75B DWS ACTION: continue to hold right button down

75C DWS OBSERVE: Menu appears

SCORE: PASS FAIL

Move the mouse and select lock screen

75D DWS ACTION: Release the right button

75E DWS OBSERVE: TIU window locked

SCORE: PASS / FAIL

Comments: ____

= =

* Compare Formats

76 TWS ACTION: Provide a hard copy of at least two of the following message types

MC 012 CTS Data message
MC 013 Interfacility Data message
MC 021 Thread drop Data message
MC 022 Track drop Data message
MC 024 TYP1T Data message
MC 025 Disable FAST Data message
MC 040 TROUT Demarc SS0 Data message
MC 041 TROUT Demarc SS1 Data message

76A ACTION: Compare all of the data messages to the formats contained in Appendix "B"

SCORE: PASS / FAIL

Comments: ____

= =

77 IOP0 ACTION: Load/start the Editor program using the CDR Editor off-line program load procedures defined in section 4.2.1.3.

77A	TTY	OBSERVE:	ED ENTER DEVICES
77B	TTY	ENTER:	D0MP. CONTROL EOT
77C	TTY	OBSERVE:	ED ENTER DATA CLASSES
77D	TTY	ENTER:	RC. CONTROL EOT
77E	TTY	OBSERVE:	ED ENTER FILTERS
77F	TTY	ENTER:	ACTS1,CTS2 CONTROL EOT
77G	TTY	OBSERVE:	ED ENTER COMMENTS
77H	TTY	ENTER:	CTS TEST, CONTROL EOT
77I	MSP	ACTION:	Retrieve and save the hard copy printout of the keyboard entries.
		SCORE:	PASS FAIL

Save the hard copy printout provided by the EDITOR program for the CTS messages that were recorded after CDR was enabled.

Comments: ____

= =

4.5 *Fault Detection Test Procedures*

The third major test named "Fault detection" has one test case.

4.5.1 Test Case 01 - Fault Detection

The Fault Detection test will insure that the following objectives are satisfied.

1. To ensure that the integrity of the ARTS IIIA program has not been derogated
2. To ensure that the TIU FAST processors can be isolated from the IOPBs.
3. To ensure that ARTS/TIU interface does not affect the ARTS recovery capability
4. That FAST will be disabled when ARTS messages to FAST contain parity errors
5. That FAST will be disabled when FAST messages to ARTS contain parity errors
6. That FAST will be disabled when ARTS messages are not accepted by FAST
7. That FAST will be disabled when ARTS Tracking is four sectors behind
8. That FAST will be disabled when ARTS high priority stack overflows
9. That FAST will be disabled when ARTS low priority stack overflows
10. That FAST will be disabled when TIU detects a bad message code
11. To ensure that ARTS IIIA will not be derogated by a TIU power failure

4.5.1.1 Definitions

SYSTEM DATA AREA	SDA
TELETYPE	TTY
DADS WORK STATION	DWS
TIU WORK STATION	TWS
CHANNEL BACK TO BACK SWITCHES	CBB
FDAD 27, DESK TOP KEYBOARD	3K

4.5.1.2 Software Preparation

Load and start the operational program using the initial start up procedures described in the Software Loading and Start-Up Procedures, Section 4.2.

4.5.1.3 Test Execution Procedures

The following test data sheets define the detail steps to be executed in the Fault Detection test Case 01.

These data sheets will be used to score the results of each of the test steps.

FAULT DETECTION TEST CASE 01,

Step	Work Station	Description
		* Training enables FAST
1	3K	ACTION: ENTER < F12 > E
1A	3K	OBSERVE: In the preview "ILL FNCT"
		SCORE: PASS / FAIL

On call ETG program has not been enabled

Comments: ______________________________

= =

Step	Work Station	Description
		* Load the ETG program
2	TTY	ACTION: ENTER TK IA TG
2A	TTY	OBSERVE: TK IA TG L-001
		SCORE: PASS / FAIL
2B	TTY	OBSERVE: HH:MM:SS OK 001 TK IA TG
		SCORE: PASS / FAIL

Comments: ______________________________

= =

Step	Work Station	Description
		* Change error condition to allow duplicate ETG targets
3	3K	ACTION: ENTER < F7 > R265007 •
3A	3K	OBSERVE: In the SDA 265007 6104067056
		SCORE: PASS / FAIL

Comments: ______________________________

= =

Step	Work Station	Description
4	3K	ACTION: ENTER < F7 > R265007 1200000000
4A	3K	OBSERVE: In the SDA 265007 1200000000
		SCORE: PASS / FAIL
4B	TTY	OBSERVE: HH:MM:SS MEM 3K 265007 1200000000

SCORE: PASS / FAIL

Comments: ____

When the TIU/FAST system is isolated from the ARTS system or when the FAST system is in Idle mode. one of the following two error conditions will be detected by the ARTS program when FAST is enabled and the ARTS program will automatically disable FAST.

1. The ARTS output data is not being accepted by the FAST system
2. The ARTS system is not receiving the heartbeat message from FAST.

To control the error conditions under which the FAST system will be disabled, memory changes to system parameters must be made.

* Time out parameter for "TIU HEARTBEAT FAILURE"

5	3K	ACTION: ENTER <F7>R
5A	3K	OBSERVE: Memory read out enabled
		SCORE: PASS / FAIL

Comments: ____

---

* Time out parameter for "TIU HEARTBEAT FAILURE" is 5 seconds

6	3K	ACTION: ENTER <F7>R644046
6A	3K	OBSERVE: In the SDA 644046 2160012000
		SCORE: PASS / FAIL

Comments: ____

---

* Decrease Time out parameter for "TIU HEARTBEAT FAILURE" from 5 seconds to 2 seconds. This will increase the chances of getting a TIU HEARTBEAT FAILURE error.

7	3K	ACTION: ENTER <F7>R644046 2160004000
7A	3K	OBSERVE: In the SDA 644046 2160004000
		SCORE: PASS / FAIL
7B	TTY	OBSERVE: HH:MM:SS MEM 3K 644046 2160004000
		SCORE: PASS / FAIL

Comments: ____

---

* Time out parameter for "TIU OUTPUT CHANNEL TIMEOUT" is 50 seconds

8 3K ACTION: ENTER < F7 > R641547

8A 3K OBSERVE: In the SDA 641547 0000144000

SCORE: PASS , FAIL

Comments: ______________________________

---

* Increase Time out parameter for "TIU OUTPUT CHANNEL TIMEOUT" from 50 seconds to 1 minute. This will increase the chances of getting a TIU HEARTBEAT FAILURE error.

9 3K ACTION: ENTER < F7 > R641547 0000170000

9A 3K OBSERVE: In the SDA 641547 0000170000

SCORE: PASS . FAIL

9B TTY OBSERVE: HH:MM:SS MEM 3K 641547 0000170000

SCORE: PASS . FAIL

Comments: ______________________________

---

* Valid DWS Keyboard Entries to IDLE the TIU program

10 DWS ACTION: ENTER Any key

10A DWS OBSERVE: Name faatc
Password
Enter password to unlock: select ICON to lock.

SCORE: PASS / FAIL

10B DWS ACTION: ENTER tiufaa

10C DWS OBSERVE: After a couple of seconds the DADS and the keyboard windows are displayed

SCORE: PASS / FAIL

10D DWS INSURE: In the keyboard window insure that the TIU is in IDLE

SCORE: PASS / FAIL

Comments: ______________________________

---

* Enable FAST in the Training mode

11 3K ACTION: ENTER <F12>E

11A TTY OBSERVE: HH:MM:SS FAST 3K ENABLED !! TRNG

SCORE: PASS FAIL

11B 3K OBSERVE: In the SDA Flashing FAST FAIL

SCORE: PASS FAIL

11C TTY OBSERVE: HH:MM:SS TIU HEARTBEAT FAILURE 01

SCORE: PASS FAIL

11D TTY OBSERVE: HH:MM:SS TIU SYSTEM FAILURE

SCORE: PASS FAIL

Comments: ______________________________

---

* Valid DWS Keyboard Entries to enable the TIU program

Using the mouse move the arrow to the keyboard window

12 DWS ACTION: SELECT RUN and CLICK

12A DWS OBSERVE: In the keyboard window the TIU is in RUN state

SCORE: PASS FAIL

Comments: ______________________________

---

* Enable FAST in the Training Mode

13 3K ACTION: ENTER <F12>E

13A TTY OBSERVE: HH:MM:SS FAST 3K ENABLED !! TRNG

SCORE: PASS FAIL

Comments: ______________________________

---

* Valid DWS Keyboard Entries to IDLE the TIU program

Using the mouse move the arrow to the keyboard window

14 DWS ACTION: SELECT IDLE and CLICK

14A DWS OBSERVE: In the keyboard window the TIU is in IDLE state

SCORE: PASS FAIL

14B	3K	OBSERVE: In the SDA Flashing FAST FAIL
		SCORE: PASS / FAIL
14C	TTY	OBSERVE: HH:MM:SS TIU HEARTBEAT FAILURE 01
		SCORE: PASS / FAIL
14D	TTY	OBSERVE: HH:MM:SS TIU SYSTEM FAILURE
		SCORE: PASS / FAIL

Comments: ____

= =

* Valid DWS Keyboard Entries to enable the TIU program

Using the mouse move the arrow to the keyboard window

15	DWS	ACTION: SELECT RUN and CLICK
15A	DWS	OBSERVE: In the keyboard window the TIU is in RUN state
		SCORE: PASS / FAIL

Comments: ____

= =

* Enable FAST in the Training mode

16	3K	ACTION: ENTER <F12>E
16A	TTY	OBSERVE: HH:MM:SS FAST 3K ENABLED !! TRNG
		SCORE: PASS / FAIL

Comments: ____

= =

* Isolate the TIU from the ARTS using the channel back to back switches

17	IOP2	ACTION: Toggle the Channel back to back switches for channel 14 to the up position
17A	3K	OBSERVE: In the SDA Flashing FAST FAIL
		SCORE: PASS / FAIL
17B	TTY	OBSERVE: HH:MM:SS TIU HEARTBEAT FAILURE 01
		SCORE: PASS / FAIL
17C	TTY	OBSERVE: HH:MM:SS TIU SYSTEM FAILURE

SCORE: PASS / FAIL

Comments: ____

= =

* Unite the FAST system with the ARTS system

18 IOP2 ACTION: Toggle the Channel back to back switches for channel 12 to the down position

SCORE: PASS / FAIL

Comments: ____

= =

* Valid DWS Keyboard Entries to enable the TIU program

Using the mouse move the arrow to the keyboard window

19 DWS ACTION: SELECT RUN and CLICK

19A DWS OBSERVE: In the keyboard window the TIU is in RUN state

SCORE: PASS / FAIL

Comments: ____

= =

* Enable FAST in the Training mode

20 3K ACTION: ENTER <F12>E

20A TTY OBSERVE: HH:MM:SS FAST 3K ENABLED !! TRNG

SCORE: PASS / FAIL

A error may occur because of steps 15 and 16 (toggling the back to back switches), if so redo steps 17 and 18.

Comments: ____

= =

* Generate Parity Error

21 IOP2 ACTION: Group 3, card slot 42A, Jumper TP 07 to GRD

21A 3K OBSERVE: In the SDA Flashing FAST FAIL

SCORE: PASS / FAIL

21b TTY OBSERVE: HH:MM:SS TIU RECEIVED DATA WITH BAD PARITY 01

SCORE: PASS / FAIL

21C TTY OBSERVE: HH:MM:SS TIU SYSTEM FAILURE

SCORE: PASS FAIL

21D DWS OBSERVE: RED window indicating ARTS parity error

SCORE: PASS FAIL

Comments: ____

= =

* Valid DWS Keyboard Entries to enable the TIU program

Using the mouse move the arrow to the keyboard window

22 DWS ACTION: SELECT RUN and CLICK

22A DWS OBSERVE: In the keyboard window the TIU is in RUN state

SCORE: PASS FAIL

Comments: ____

= =

* Enable FAST in the Training Mode

23 3K ACTION: ENTER <F12>E

23A TTY OBSERVE: HH:MM:SS FAST 3K ENABLED !! TRNG

SCORE: PASS . FAIL

Comments: ____

= =

* Valid DWS Keyboard Entries for the TIU program

Using the mouse move the arrow to the keyboard window

24 DWS ACTION: SELECT FORCE PARITY ERROR and CLICK

24A DWS OBSERVE: In the keyboard window CONFIRMATION prompt

SCORE: PASS / FAIL

Using the mouse move the arrow to Confirm window

24B DWS ACTION: SELECT CONFIRM and CLICK

SCORE: PASS / FAIL

24C 3K OBSERVE: In the SDA Flashing FAST FAIL

SCORE: PASS / FAIL

24D TTY OBSERVE: HH:MM:SS TIU HEARTBEAT SEQUENCE FAILURE 01 and
HH:MM:SS TIU INPUT BUFFER PARITY 01

SCORE: PASS / FAIL

24E TTY OBSERVE: HH:MM:SS TIU SYSTEM FAILURE

SCORE: PASS / FAIL

Comments: ____

= =

* Increase Time out parameter for "TIU HEARTBEAT FAILURE" from 2 seconds to 1 minute. In step 7 the parameter for TIU OUTPUT CHANNEL TIMEOUT was set to 1 minute. With these 2 parameters set to 1 minute it will increase the chances of getting a TIU SYSTEM FAILURE error.

25 3K ACTION: ENTER < F7 > R644046 2160170000

25A 3K OBSERVE: In the SDA 644046 2160170000

SCORE: PASS / FAIL

25B TTY OBSERVE: HH:MM:SS MEM 3K 644046 2160170000

SCORE: PASS / FAIL

Comments: ____

= =

* Enable FAST in the Training mode

26 3K ACTION: ENTER < F12 > E

26A TTY OBSERVE: HH:MM:SS FAST 3K ENABLED !! TRNG

SCORE: PASS / FAIL

26B 3K OBSERVE: In the SDA Flashing FAST FAIL

SCORE: PASS / FAIL

26C TTY OBSERVE: HH:MM:SS TIU SYSTEM FAILURE

SCORE: PASS / FAIL

Comments: ____

= =

* Decrease Time out parameter for "TIU OUTPUT CHANNEL TIMEOUT" from 1 minute to 2 seconds. In step 23 the parameter for

TIU HEARTBEAT FAILURE was set to 1 minute. Decreasing this parameter will increase the chances of getting a TIU OUTPUT CHANNEL TIMEOUT error.

27 3K ACTION: ENTER <F7>R641547 0000004000

27A 3K OBSERVE: In the SDA 641547 0000004000

SCORE: PASS / FAIL

27B TTY OBSERVE: HH:MM:SS MEM 3K 641547 0000004000

SCORE: PASS / FAIL

Comments: ______________________________

= =

* Valid DWS Keyboard Entries to enable the TIU program

Using the mouse move the arrow to the keyboard window

28 DWS ACTION: SELECT RUN and CLICK

28A DWS OBSERVE: In the keyboard window the TIU is in RUN state

SCORE: PASS / FAIL

Comments: ______________________________

= =

* Enable FAST in the Training Mode

29 3K ACTION: ENTER <F12>E

29A TTY OBSERVE: HH:MM:SS FAST 3K ENABLED !! TRNG

SCORE: PASS / FAIL

Comments: ______________________________

= =

* Valid DWS Keyboard Entries to IDLE the TIU program

Using the mouse move the arrow to the keyboard window

30 DWS ACTION: SELECT IDLE and CLICK

30A DWS OBSERVE: In the keyboard window the TIU is in IDLE state

SCORE: PASS / FAIL

30B 3K OBSERVE: In the SDA Flashing FAST FAIL

SCORE: PASS / FAIL

30C TTY OBSERVE: HH:MM:SS TIU OUTPUT CHANNEL TIMEOUT 01

SCORE: PASS FAIL

30D TTY OBSERVE: HH:MM:SS TIU SYSTEM FAILURE

SCORE: PASS FAIL

Comments: ______________________________

= =

* Return Time out parameter for "TIU HEARTBEAT FAILURE" to 5 seconds

31 3K ACTION: ENTER <F7> R644046 2160012000

31A 3K OBSERVE: In the SDA 644046 2160012000

SCORE: PASS FAIL

31B TTY OBSERVE: HH:MM:SS MEM 3K 644046 2160012000

SCORE: PASS FAIL

Comments: ______________________________

= =

* Return Time out parameter for "TIU OUTPUT CHANNEL TIMEOUT" to 50 seconds

32 3K ACTION: ENTER <F7> R641547 0000144000

32A 3K OBSERVE: In the SDA 641547 0000144000

SCORE: PASS FAIL

32B TTY OBSERVE: HH:MM:SS MEM 3K 641547 0000144000

SCORE: PASS FAIL

Comments: ______________________________

= =

* Valid DWS Keyboard Entries to enable the TIU program

Using the mouse move the arrow to the keyboard window

33 DWS ACTION: SELECT RUN and CLICK

33A DWS OBSERVE: In the keyboard window the TIU is in RUN state

SCORE: PASS FAIL

Comments: ____

= =

* Message code for DEMARC message, sensor one is 41

34 3K ACTION: ENTER <F7>R640045

34A 3K OBSERVE: In the SDA 640045 0000000041

SCORE: PASS / FAIL

Comments: ____

= =

* Change message code from 41 to 1
for "TIU DETECTED BAD MESSAGE CODE" error

35 3K ACTION: ENTER <F7>R640045 0000000001

35A 3K OBSERVE: In the SDA 640045 0000000001

SCORE: PASS / FAIL

35B TTY OBSERVE: HH:MM:SS MEM 3K 640045 0000000001

SCORE: PASS / FAIL

Comments: ____

= =

* Enable FAST in the Training mode

36 3K ACTION: ENTER <F12>E

36A TTY OBSERVE: HH:MM:SS FAST 3K ENABLED !! TRNG

SCORE: PASS / FAIL

36B 3K OBSERVE: In the SDA Flashing FAST FAIL

SCORE: PASS / FAIL

36C TTY OBSERVE: HH:MM:SS TIU DETECTED BAD MESSAGE CODE 01

SCORE: PASS / FAIL

36D TTY OBSERVE: HH:MM:SS TIU SYSTEM FAILURE

SCORE: PASS / FAIL

Comments: ____

= =

* Valid DWS Keyboard Entries to enable the TIU program

Using the mouse move the arrow to the keyboard window

37 DWS ACTION: SELECT RUN and CLICK

37A DWS OBSERVE: In the keyboard window the TIU is in RUN state

SCORE: PASS / FAIL

Comments: ______________________________

= =

* Return message code for DEMARC message, sensor 1 to 041

38 3K ACTION: ENTER < F7 > R640045 0000000041

38A 3K OBSERVE: In the SDA 640045 0000000041

SCORE: PASS / FAIL

38B TTY OBSERVE: HH:MM:SS MEM 3K 640045 0000000041

SCORE: PASS FAIL

Comments: ______________________________

= =

* Message code for TIU heartbeat is 01

39 3K ACTION: ENTER < F7 > R644000

39A 3K OBSERVE: In the SDA 644000 2150000001

SCORE: PASS / FAIL

Comments: ______________________________

= =

* Change message code from 01 to 02
for "TIU ILLEGAL INPUT MESSAGE CODE" error

40 3K ACTION: ENTER < F7 > R644000 2150000002

40A 3K OBSERVE: In the SDA 644000 2150000002

SCORE: PASS / FAIL

40B TTY OBSERVE: HH:MM:SS MEM 3K 644000 2150000002

SCORE: PASS / FAIL

Comments: ______________________________

= =

* Enable FAST in the Training mode

41 3K ACTION: ENTER <F12>E

41A TTY OBSERVE: HH:MM:SS FAST 3K ENABLED !! TRNG

SCORE: PASS / FAIL

41B 3K OBSERVE: In the SDA Flashing FAST FAIL

SCORE: PASS / FAIL

41C TTY OBSERVE: HH:MM:SS TIU ILLEGAL INPUT MESSAGE CODE 01

SCORE: PASS / FAIL

41D TTY OBSERVE: HH:MM:SS TIU SYSTEM FAILURE

SCORE: PASS / FAIL

Comments: ______________________________

= =

* Valid DWS Keyboard Entries to enable the TIU program

Using the mouse move the arrow to the keyboard window

42 DWS ACTION: SELECT RUN and CLICK

42A DWS OBSERVE: In the keyboard window the TIU is in RUN state

SCORE: PASS / FAIL

Comments: ______________________________

= =

* Return message code for TIU ILLEGAL INPUT
MESSAGE CODE to 01

43 3K ACTION: ENTER <F7>R644000 2150000001

43A 3K OBSERVE: In the SDA 644000 2150000001

SCORE: PASS / FAIL

43B TTY OBSERVE: HH:MM:SS MEM 3K 644000 2150000001

SCORE: PASS / FAIL

Comments: ______________________________

= =

* Enable FAST in the Training mode

44 3K ACTION: ENTER <F12>E

44A TTY OBSERVE: HH:MM:SS FAST 3K ENABLED !! TRNG

SCORE: PASS / FAIL

Comments: ______________________________

= =

* Current sequence number for the TIU heartbeat
is in the upper half of the word

45 3K ACTION: ENTER <F7>R641551

45A 3K OBSERVE: In the SDA 641551 ?????00000

SCORE: PASS / FAIL

Comments: ______________________________

= =

* Change Sequence number for the TIU heartbeat

46 3K ACTION: ENTER <F7>R641551 7777700000

46A 3K OBSERVE: In the SDA 641551 7777700000

SCORE: PASS / FAIL

46B TTY OBSERVE: HH:MM:SS MEM 3K 641551 7777700000

SCORE: PASS / FAIL

46C 3K OBSERVE: In the SDA Flashing FAST FAIL

SCORE: PASS / FAIL

46D TTY OBSERVE: HH:MM:SS TIU HEARTBEAT SEQUENCE FAIL 01

SCORE: PASS / FAIL

46E TTY OBSERVE: HH:MM:SS TIU SYSTEM FAILURE

SCORE: PASS / FAIL

Comments: ______________________________

= =

* Valid DWS Keyboard Entries to enable the TIU program

Using the mouse move the arrow to the keyboard window

47 DWS ACTION: SELECT RUN and CLICK

47A DWS OBSERVE: In the keyboard window the TIU is in RUN state

SCORE: PASS · FAIL

Comments: ____

= =

* Enable FAST in the Training Mode

48 3K ACTION: ENTER <F12>E

48A TTY OBSERVE: HH:MM:SS FAST 3K ENABLED !! TRNG

SCORE: PASS FAIL

Comments: ____.

= =

* Reduce BCWS for "TIU HIGH PRIORITY OUTPUT STACK OVERFLOW" error

49 3K ACTION: ENTER <F7>R640762

49A 3K OBSERVE: In the SDA 640762 0166640764

SCORE: PASS FAIL

Comments: ____

= =

* Reduce BCWs for "TIU HIGH PRIORITY OUTPUT STACK OVERFLOW" error

50 3K ACTION: ENTER <F7>R640762 0000640764

50A 3K OBSERVE: In the SDA 640762 0000640764

SCORE: PASS FAIL

50B TTY OBSERVE: HH:MM:SS MEM 3K 640762 0000670764

SCORE: PASS FAIL

Comments: ____

= =

This keyboard entry will enable a scenario. The run time for this scenario is 38 minutes.

* Valid ARTS IIIA Keyboard Entries

51 3K ACTION: ENTER <F15>XIT

51A 3K OBSERVE: In the preview area "SCENARIO ACTIVE"

SCORE: PASS / FAIL

twenty seconds after the start of the scenario keyboard entries will start and cause the following:

51B 3K OBSERVE: In the SDA Flashing FAST FAIL

SCORE: PASS / FAIL

51C TTY OBSERVE: HH:MM:SS TIU HIGH PRIORITY OUTPUT STACK OVERFLOW 01

SCORE: PASS FAIL

51D TTY OBSERVE: HH:MM:SS TIU SYSTEM FAILURE

SCORE: PASS / FAIL

Comments: ____

= =

* Return BCWs for "TIU HIGH PRIORITY OUTPUT STACK"

52 3K ACTION: ENTER <F7> R640762 0166640764

52A 3K OBSERVE: In the SDA 640762 0166640764

SCORE: PASS FAIL

52B TTY OBSERVE: HH:MM:SS MEM 3K 640762 0166640764

SCORE: PASS / FAIL

Comments: ____

= =

* Valid DWS Keyboard Entries to enable the TIU program

Using the mouse move the arrow to the keyboard window

53 DWS ACTION: SELECT RUN and CLICK

53A DWS OBSERVE: In the keyboard window the TIU is in RUN state

SCORE: PASS / FAIL

Comments: ____

= =

* Enable FAST in the Training Mode

54 3K ACTION: ENTER <F12> E

54A TTY OBSERVE: HH:MM:SS FAST 3K ENABLED !! OPNL

SCORE: PASS / FAIL

Comments: ____

= =

* Reduce BCWs for "TIU LOW PRIORITY OUTPUT STACK OVERFLOW" error

55 3K ACTION: ENTER <F7> R641156

55A 3K OBSERVE: In the SDA 641156 0250641163

SCORE: PASS / FAIL

Comments: ____

= =

* Reduce BCWS for "TIU LOW PRIORITY OUTPUT STACK OVERFLOW" error

56 3K ACTION: ENTER <F7> R641156 0000641163

56A 3K OBSERVE: In the SDA 641156 0000641163

SCORE: PASS / FAIL

56B TTY OBSERVE: HH:MM:SS MEM 3K 641156 0000641163

SCORE: PASS / FAIL

When track association occurs on about 24 targets the following will occur.

56C 3K OBSERVE: In the SDA Flashing FAST FAIL

SCORE: PASS / FAIL

56D TTY OBSERVE: HH:MM:SS TIU LOW PRIORITY OUTPUT STACK OVERFLOW 01

SCORE: PASS / FAIL

56F TTY OBSERVE: HH:MM:SS TIU SYSTEM FAILURE

SCORE: PASS / FAIL

Comments: ____

= =

* Return BCWS for "TIU LOW PRIORITY OUTPUT STACK"

57 3K ACTION: ENTER <F7> R641156 0250641163

57A 3K OBSERVE: In the SDA 641156 0250641163

SCORE: PASS / FAIL

57B TTY OBSERVE: HH:MM:SS MEM 3K 641156 0250671163

SCORE: PASS / FAIL

Comments: ____

= =

* Valid DWS Keyboard Entries to enable the TIU program

Using the mouse move the arrow to the keyboard window

58 DWS ACTION: SELECT RUN and CLICK

58A DWS OBSERVE: In the keyboard window the TIU is in RUN state

SCORE: PASS / FAIL

Comments: ____

= =

* Enable FAST in the Training Mode

59 3K ACTION: ENTER <F12> F

59A TTY OBSERVE: HH:MM:SS FAST 3K ENABLE !! OPNL

SCORE: PASS / FAIL

Comments: ____

= =

* Sectors behind parameter for "TIU AUTO DISABLE SECTORS BEHIND" is 5 scans

60 3K ACTION: ENTER <F7> R640373

60A 3K OBSERVE: In the SDA 640373 0000000005

SCORE: PASS / FAIL

Comments: ____

= =

* Change Sectors behind parameter for "TIU AUTO DISABLE SECTORS BEHIND" from 5 sectors to 1 sector

61 3K ACTION: ENTER <F7> R640373 0000000001

61A 3K OBSERVE: In the SDA 640373 0000000001

SCORE: PASS / FAIL

61B TTY OBSERVE: HH:MM:SS MEM 3K 640373 0000000001

SCORE: PASS / FAIL

61C 3K OBSERVE: In the SDA flashing FAST FAIL

SCORE: PASS / FAIL

61D TTY OBSERVE: HH:MM:SS TIU AUTO DISABLE SECTORS BEHIND 01

SCORE: PASS / FAIL

61E TTY OBSERVE: HH:MM:SS TIU SYSTEM FAILURE

SCORE: PASS / FAIL

Comments: ____

= =

When "TIU AUTO DISABLE SECTORS BEHIND" is printed on the TTY execute the following Keyboard entry to disable the scenario.

* Valid ARTS IIIA/FAST Keyboard Entry

62 3K ACTION: ENTER <F15>ZI

62A 3K OBSERVE: In the preview area "SCENARIO OFF"

SCORE: PASS / FAIL

Comments: ____

= =

* Return Sectors behind parameter for "TIU AUTO DISABLE SECTORS BEHIND" to normal

63 3K ACTION: ENTER <F7>R640373 0000000005

63A 3K OBSERVE: In the SDA 640373 0000000005

SCORE: PASS / FAIL

63B TTY OBSERVE: HH:MM:SS MEM 3K 640373 0000000005

SCORE: PASS / FAIL

Comments: ____

= =

* Valid DWS Keyboard Entries to enable the TIU program

Using the mouse move the arrow to the keyboard window

64 DWS ACTION: SELECT RUN and CLICK

64A DWS OBSERVE: In the keyboard window the TIU is in RUN state

SCORE: PASS FAIL

Comments: ______________________________

• Clear memory read out in the SDA
to normal

65 3K ACTION: ENTER < F7 > R•

65A 3K OBSERVE: In the SDA All memory read out cleared

SCORE: PASS . FAIL

Comments: ______________________________

• Display FAST FLAG in memory read out

66 3K ACTION: ENTER < F7 > R640000

66A 3K OBSERVE: In the SDA 640000 0000000000

SCORE: PASS FAIL

Comments: ______________________________

• Enable FAST in the Training Mode

67 3K ACTION: ENTER < F12 > E

67A TTY OBSERVE: HH:MM:SS FAST 3K ENABLED !! OPNL

SCORE: PASS , FAIL

67A 3K OBSERVE: In the SDA 640000 7777777777

SCORE: PASS / FAIL

Comments: ______________________________

• Change RTC to create scatter

68 3K ACTION: ENTER < F7 > R001210

68A 3K OBSERVE: In the SDA 001210 Contents of real time clock

SCORE: PASS / FAIL

Comments: ______________________________

= =

* Create Scatter

69 3K ACTION: ENTER <F7> R001210 0000000000

69A 3K OBSERVE: System Faults and recovers

SCORE: PASS / FAIL

69B 3K OBSERVE: System in operational mode

SCORE: PASS / FAIL

After all recoveries the FAST capability will always be disabled and the TIU will be in the idle mode.

Comments: ____

= =

* Create Scatter

70 3K ACTION: ENTER <F7> R001210 0000000000

70A 3K OBSERVE: System Faults and recovers

SCORE: PASS / FAIL

70B 3K OBSERVE: System in operational mode

SCORE: PASS / FAIL

Comments: ____

= =

* Valid DWS Keyboard Entries to enable the TIU program

Using the mouse move the arrow to the keyboard window

71 DWS ACTION: SELECT RUN and CLICK

71A DWS OBSERVE: In the keyboard window the TIU is in RUN state

SCORE: PASS / FAIL

Comments: ____

= =

* Valid FAST Keyboard Entries

72 3K ACTION: ENTER <F12>E

72A TTY OBSERVE: HH:MM:SS FAST 3K ENABLE !! OPNL

SCORE: PASS / FAIL

Comments: ____

= =

* POWER OFF the TIU SYSTEM

73 TWS ACTION: TOGGLE POWER OFF

73A 3K OBSERVE: In the SDA flashing FAST FAIL

SCORE: PASS / FAIL

Either one of the following messages will appear on the TTY

73B TTY OBSERVE: HH:MM:SS TIU OUTPUT CHANNEL TIMEOUT 01 or
TIU HEARTBEAT FAILURE 01

SCORE: PASS FAIL

73C TTY OBSERVE: HH:MM:SS TIU SYSTEM FAILURE

SCORE: PASS / FAIL

73D OBSERVE: No other ARTS interference

SCORE: PASS FAIL

Comments: ____

= =

* POWER ON the TIU SYSTEM

74 TWS ACTION: TOGGLE POWER ON

74A 3K OBSERVE: NO ARTS interference

SCORE: PASS / FAIL

DWS OBSERVE: In the keyboard window the TIU is in RUN

SCORE: PASS / FAIL

Comments: ____

= =

* Valid DWS Keyboard Entries to idle the TIU program

Using the mouse move the arrow to the keyboard window

75 DWS ACTION: SELECT RUN and CLICK

75A DWS OBSERVE: WARNING: file "pipe.c" line 512: connection
reset by peer

#Warn io.c @ 273 : system call failure

#Warn main.c @ 389 : tiu disconnected

#Warn main.c @ 233 : tiu connected

#Warn main.c @ 454 : tiu idling

SCORE: PASS FAIL

75B DWS OBSERVE: In the keyboard window that the TIU is in IDLE

SCORE: PASS FAIL

Comments: ____________________

= =

* POWER OFF the TIU SYSTEM

76 TWS ACTION: TOGGLE POWER OFF

76A OBSERVE: No other ARTS interference

SCORE: PASS FAIL

Comments: ____________________

= =

* POWER ON the TIU SYSTEM

77 TWS ACTION: TOGGLE POWER ON

77A 3K OBSERVE: NO ARTS interference

SCORE: PASS FAIL

DWS OBSERVE: In the keyboard window the TIU is in IDLE

SCORE: PASS FAIL

Comments: ____________________

= =

* Valid DWS Keyboard Entries to idle the TIU program

Using the mouse move the arrow to the keyboard window

78 DWS ACTION: SELECT RUN and CLICK

78A DWS OBSERVE: WARNING: file "pipe.c" line 512: connection reset by peer

#Warn io.c @ 273 : system call failure

#Warn main.c @ 389 : tiu disconnected

#Warn main.c @ 233 : tiu connected

#Warn main.c @ 454 : tiu idling

SCORE: PASS / FAIL

78B DWS)BSERVE: In the keyboard window that the TIU is in IDLE

SCORE: PASS / FAIL

Comments: ____

= =

* Valid DWS Keyboard Entries to close TIU window

Using the mouse move the arrow to the desk top (blue) area

79 DWS ACTION: Depress and hold down right button

79A DWS OBSERVE: Menu appears

SCORE: PASS / FAIL

Move the mouse and select utilities

79B DWS ACTION: continue to hold right button down

79C DWS OBSERVE: Menu appears

SCORE: PASS / FAIL

Move the mouse and select lock screen

79D DWS ACTION: Release the right button

79E DWS OBSERVE: TIU window locked

SCORE: PASS / FAIL

Comments: ____

= =

5.0 APPENDICES

5.1 Appendix "A"

```
Q1          .72M.J
Q1          .7S155800.J
Q2  *       .7FC001049.J                                    155820
Q3  *       .7FC001049.J                                    155822
R1  *       .7FC001049.J                                    155824
R2  *       .7FC001049.J                                    155826
R3  *       .7FC001049.J                                    155828
S1  *       .7FC001049.J                                    155830
S2  *       .7FC001049.J                                    155833
S3  *       .7FC001049.J                                    155834
T1  *       .7FC001049.J                                    155836
T2  *       .7FC001049.J                                    155840
T3  *       .7FC001049.J                                    155842
U1  *       .7FC001049.J                                    155844
U2  *       .7FC001049.J                                    155846
R1  *P45000.F00B0101H180V000A020.K                          160001
R1  *       .6LSLK701 0101.J                                160002
R1  *       .6LSLK702 0102.J                                160003
R1  *       .6LSLK703 0103.J                                160005
R1  *       .6LSLK704 0104.J                                160007
R1  *       .6LSLK705 0105.J                                160008
R1  *       .6LSLK706 0106.J                                160010
R1  *       .6LSLK707 0107.J                                160011
R1  *       .F00D6.J                                        160013
S1  *P22010.F01B1101H010V000A030.K                          160014
S1  *       .6JSK111 1101.J                                 160016
S1  *       .6JSK112 1102.J                                 160017
S1  *       .6JSK113 1103.J                                 160019
S1  *       .6JSK114 1104.J                                 160020
S1  *       .6JSK115 1105.J                                 160022
S1  *       .6JSK116 1106.J                                 160023
S1  *       .6JSK117 1107.J                                 160025
S1  *       .F01D6.J                                        160026
T1  *P45020.F02B0201H200V000A040.K                          160029
T1  *       .6BDT21 0201.J                                  160030
T1  *       .6BDT22 0202.J                                  160032
T1  *       .6BDT23 0203.J                                  160033
T1  *       .6BDT24 0204.J                                  160035
T1  *       .6BDT25 0205.J                                  160036
T1  *       .6BDT26 0206.J                                  160038
T1  *       .6BDT27 0207.J                                  160039
T1  *       .F02D6.J                                        160040
U1  *P22030.F03B1201H030V000A050.K                          160041
U1  *       .6QMK121 1201.J                                 160043
U1  *       .6QMK122 1202.J                                 160044
U1  *       .6QMK123 1203.J                                 160046
U1  *       .6QMK124 1204.J                                 160047
U1  *       .6QMK125 1205.J                                 160049
U1  *       .6QMK126 1206.J                                 160050
U1  *       .6QMK127 1207.J                                 160051
U1  *       .F03D6.J                                        160052
```

5.1 Appendix "A" (Cont).

```
R1 *P45040.F04B0301H220V000A060.K                    160055
R1 *       .6PPLK708 0301.J                          160056
R1 *       .6PPLK709 0302.J                          160058
R1 *       .6PPLK710 0303.J                          160059
R1 *       .6PPLK711 0304.J                          160100
R1 *       .6PPLK712 0305.J                          160102
R1 *       .6PPLK713 0306.J                          160103
R1 *       .6PPLK714 0307.J                          160105
R1 *       .F04D6.J                                  160106
S1 *P22050.F05B1301H050V000A070.K                    160108
S1 *       .6LES131 1301.J                           160109
S1 *       .6LES132 1302.J                           160111
S1 *       .6LES133 1303.J                           160112
S1 *       .6LES134 1304.J                           160114
S1 *       .6LES135 1305.J                           160115
S1 *       .6LES136 1306.J                           160116
S1 *       .6LES137 1307.J                           160117
S1 *       .F05D6.J                                  160119
T1 *P45060.F06B0401H240V000A080.K                    160121
T1 *       .6UAL41 0401.J                            160122
T1 *       .6UAL42 0402.J                            160123
T1 *       .6UAL43 0403.J                            160125
T1 *       .6UAL44 0404.J                            160126
T1 *       .6UAL45 0405.J                            160128
T1 *       .6UAL46 0406.J                            160129
T1 *       .6UAL47 0407.J                            160129
T1 *       .F06D6.J                                  160131
U1 *P22070.F07B1401H070V000A090.K                    160135
U1 *       .6ASP141 1401.J                           160137
U1 *       .6ASP142 1402.J                           160138
U1 *       .6ASP143 1403.J                           160140
U1 *       .6ASP144 1404.J                           160141
U1 *       .6ASP145 1405.J                           160143
U1 *       .6ASP146 1406.J                           160144
U1 *       .6ASP147 1407.J                           160145
U1 *       .F07D6.J                                  160147
R1 *P45080.F08B0501H260V000A100.K                    160149
R1 *       .6ZSLK722 0501.J                          160151
R1 *       .6ZSLK723 0502.J                          160152
R1 *       .6ZSLK724 0503.J                          160154
R1 *       .6ZSLK725 0504.J                          160155
R1 *       .6ZSLK726 0505.J                          160156
R1 *       .6ZSLK727 0506.J                          160157
R1 *       .6ZSLK728 0507.J                          160159
R1 *       .F08D6.J                                  160201
S1 *P22090.F09B1501H090V000A110.K                    160202
S1 *       .6SST151 1501.J                           160204
S1 *       .6SST152 1502.J                           160205
S1 *       .6SST153 1503.J                           160207
S1 *       .6SST154 1504.J                           160208
S1 *       .6SST155 1505.J                           160209
```

5.1 Appendix "A" (Cont).

```
S1 *       .6SST156 1506.J                                  160211
S1 *       .6SST157 1507.J                                  160212
S1 *       .F09D6.J                                         160214
T1 *P45100.F10B0601H280V000A120.K                           160215
T1 *       .6LUF61 0601.J                                   160217
T1 *       .6LUF62 0602.J                                   160218
T1 *       .6LUF63 0603.J                                   160219
T1 *       .6LUF64 0604.J                                   160221
T1 *       .6LUF65 0605.J                                   160222
T1 *       .6LUF66 0606.J                                   160224
T1 *       .6LUF67 0607.J                                   160225
T1 *       .F10D6.J                                         160226
U1 *P22110.F11B1601H110V000A020.K                           160228
U1 *       .6JJR161 1601.J                                  160229
U1 *       .6JJR162 1602.J                                  160231
U1 *       .6JJR163 1603.J                                  160232
U1 *       .6JJR164 1604.J                                  160234
U1 *       .6JJR165 1605.J                                  160235
U1 *       .6JJR166 1606.J                                  160237
U1 *       .6JJR167 1607.J                                  160238
U1 *       .F11D6.J                                         160240
R1 *P45120.F12B0701H300V000A030.K                           160241
R1 *       .6NSLK729 0701.J                                 160243
R1 *       .6NSLK730 0702.J                                 160244
R1 *       .6NSLK731 0703.J                                 160246
R1 *       .6NSLK732 0704.J                                 160247
R1 *       .6NSLK733 0705.J                                 160249
R1 *       .6NSLK734 0706.J                                 160250
R1 *       .6NSLK735 0707.J                                 160251
R1 *       .F12D6.J                                         160253
S1 *P22130.F13B1701H130V000A040.K                           160254
S1 *       .6JCK171 1701.J                                  160255
S1 *       .6JCK172 1702.J                                  160257
S1 *       .6JCK173 1703.J                                  160258
S1 *       .6JCK174 1704.J                                  160300
S1 *       .6JCK175 1705.J                                  160301
S1 *       .6JCK176 1706.J                                  160302
S1 *       .6JCK177 1707.J                                  160303
S1 *       .F13D6.J                                         160306
T1 *P45140.F14B1001H320V000A050.K                           160307
T1 *       .6JEP101 1001.J                                  160309
T1 *       .6JEP102 1002.J                                  160310
T1 *       .6JEP103 1003.J                                  160312
T1 *       .6JEP104 1004.J                                  160313
T1 *       .6JEP105 1005.J                                  160315
T1 *       .6JEP106 1006.J                                  160316
T1 *       .6JEP107 1007.J                                  160318
T1 *       .F14D6.J                                         160319
Q1 *P22150.F15B2001H150V000A060.K                           160321
Q1 *       .6RST201 2001.J                                  160322
Q1 *       .6RST202 2002.J                                  160324
```

5.1 Appendix "A" (Cont).

```
Q1 *       .6RST203 2003.J                                  160325
Q1 *       .6RST204 2004.J                                  160326
Q1 *       .6RST205 2005.J                                  160328
Q1 *       .6RST206 2006.J                                  160329
Q1 *       .6RST207 2007.J                                  160330
Q1 *       .F15D6.J                                         160332
Q1 *P45160.F16B3101H340V000A070.K                           160334
Q1 *       .6NSLK736 3101.J                                 160335
Q1 *       .6NSLK737 3102.J                                 160337
Q1 *       .6NSLK738 3103.J                                 160338
Q1 *       .6NSLK739 3104.J                                 160340
Q1 *       .6NSLK740 3105.J                                 160341
Q1 *       .6NSLK741 3106.J                                 160342
Q1 *       .6NSLK742 3107.J                                 160344
Q1 *       .F16D6.J                                         160346
Q1 *P22170.F17B4101H170V000A080.K                           160347
Q1 *       .6JSK411 4101.J                                  160348
Q1 *       .6JSK412 4102.J                                  160350
Q1 *       .6JSK413 4103.J                                  160351
Q1 *       .6JSK414 4104.J                                  160353
Q1 *       .6JSK415 4105.J                                  160354
Q1 *       .6JSK416 4106.J                                  160355
Q1 *       .6JSK417 4107.J                                  160357
Q1 *       .F17D6.J                                         160358
Q1 *P45180.F18B3201H360V000A090.K                           160400
Q1 *       .6BDT321 3201.J                                  160401
Q1 *       .6BDT322 3202.J                                  160403
Q1 *       .6BDT323 3203.J                                  160404
Q1 *       .6BDT324 3204.J                                  160406
Q1 *       .6BDT325 3205.J                                  160407
Q1 *       .6BDT326 3206.J                                  160408
Q1 *       .6BDT327 3207.J                                  160409
Q1 *       .F18D6.J                                         160411
Q1 *P22190.F19B4201H190V000A100.K                           160412
Q1 *       .6CMK421 4201.J                                  160414
Q1 *       .6CMK422 4202.J                                  160415
Q1 *       .6CMK423 4203.J                                  160417
Q1 *       .6CMK424 4204.J                                  160418
Q1 *       .6CMK425 4205.J                                  160420
Q1 *       .6CMK426 4206.J                                  160421
Q1 *       .6CMK427 4207.J                                  160422
Q1 *       .F19D6.J                                         160423
Q1 *P45200.F20B3301H020V000A110.K                           160427
Q1 *       .6NSLK715 3301.J                                 160429
Q1 *       .6NSLK716 3302.J                                 160430
Q1 *       .6NSLK717 3303.J                                 160432
Q1 *       .6NSLK718 3304.J                                 160433
Q1 *       .6NSLK719 3305.J                                 160435
Q1 *       .6NSLK720 3306.J                                 160436
Q1 *       .6NSLK721 3307.J                                 160438
Q1 *       .F20D6.J                                         160439
```

5.1 Appendix "A" (Cont).

```
Q1 *P22210.F21B4301H210V000A120.K                    160441
Q1 *       .6LES431 4301.J                           160442
Q1 *       .6LES432 4302.J                           160444
Q1 *       .6LES433 4303.J                           160445
Q1 *       .6LES434 4304.J                           160447
Q1 *       .6LES435 4305.J                           160448
Q1 *       .6LES436 4306.J                           160450
Q1 *       .6LES437 4307.J                           160451
Q1 *       .F21D6.J                                  160452
U1 *P45220.F22B3401H040V000A020.K                    160454
U1 *       .6UAL341 3401.J                           160455
U1 *       .6UAL342 3402.J                           160457
U1 *       .6UAL343 3403.J                           160458
U1 *       .6UAL344 3404.J                           160500
U1 *       .6UAL345 3405.J                           160501
U1 *       .6UAL346 3406.J                           160503
U1 *       .6UAL347 3407.J                           160504
U1 *       .F22D6.J                                  160506
R1 *P22230.F23B4401H230V000A030.K                    160507
R1 *       .6ASP441 4401.J                           160509
R1 *       .6ASP442 4402.J                           160510
R1 *       .6ASP443 4403.J                           160512
R1 *       .6ASP444 4404.J                           160513
R1 *       .6ASP445 4405.J                           160515
R1 *       .6ASP446 4406.J                           160516
R1 *       .6ASP447 4407.J                           160517
R1 *       .F23D6.J                                  160519
S1 *P45240.F24B3501H060V000A040.K                    160521
S1 *       .6USA351 3501.J                           160522
S1 *       .6USA352 3502.J                           160524
S1 *       .6USA353 3503.J                           160525
S1 *       .6USA354 3504.J                           160526
S1 *       .6USA355 3505.J                           160527
S1 *       .6USA356 3506.J                           160529
S1 *       .6USA357 3507.J                           160530
S1 *       .F24D6.J                                  160532
T1 *P22250.F25B4501H250V000A050.K                    160533
T1 *       .6SST451 4501.J                           160535
T1 *       .6SST452 4502.J                           160536
T1 *       .6SST453 4503.J                           160538
T1 *       .6SST454 4504.J                           160539
T1 *       .6SST455 4505.J                           160541
T1 *       .6SST456 4506.J                           160542
T1 *       .6SST457 4507.J                           160543
T1 *       .F25D6.J                                  160545
U1 *P45260.F26B3601H080V000A060.K                    160547
U1 *       .6LUF361 3601.J                           160548
U1 *       .6LUF362 3602.J                           160550
U1 *       .6LUF363 3603.J                           160551
U1 *       .6LUF364 3604.J                           160553
U1 *       .6LUF365 3605.J                           160554
```

5.1 Appendix "A" (Cont).

```
U1 *       .6LUF366 3606.J                                  160556
U1 *       .6LUF367 3607.J                                  160557
U1 *       .F26D6.J                                         160559
R1 *P22270.F27B4601H270V000A070.K                           160601
R1 *       .6NSLK765 4601.J                                 160602
R1 *       .6NSLK766 4602.J                                 160604
R1 *       .6NSLK767 4603.J                                 160605
R1 *       .6NSLK768 4604.J                                 160607
R1 *       .6NSLK769 4605.J                                 160608
R1 *       .6NSLK770 4606.J                                 160610
R1 *       .6NSLK771 4607.J                                 160611
R1 *       .F27D6.J                                         160613
S1 *P45280.F28B3701H100V000A080.K                           160614
S1 *       .6JJH371 3701.J                                  160616
S1 *       .6JJH372 3702.J                                  160617
S1 *       .6JJH373 3703.J                                  160619
S1 *       .6JJH374 3704.J                                  160620
S1 *       .6JJH375 3705.J                                  160621
S1 *       .6JJH376 3706.J                                  160623
S1 *       .6JJH377 3707.J                                  160624
S1 *       .F28D6.J                                         160625
T1 *P22290.F29B4701H290V000A090.K                           160627
T1 *       .6JCK471 4701.J                                  160628
T1 *       .6JCK472 4702.J                                  160630
T1 *       .6JCK473 4703.J                                  160631
T1 *       .6JCK474 4704.J                                  160633
T1 *       .6JCK475 4705.J                                  160634
T1 *       .6JCK476 4706.J                                  160636
T1 *       .6JCK477 4707.J                                  160637
T1 *       .F29D6.J                                         160639
U1 *P45300.F30B3011H120V000A100.K                           160640
U1 *       .6JEP311 3011.J                                  160642
U1 *       .6JEP312 3012.J                                  160643
U1 *       .6JEP313 3013.J                                  160645
U1 *       .6JEP314 3014.J                                  160646
U1 *       .6JEP315 3015.J                                  160648
U1 *       .6JEP316 3016.J                                  160649
U1 *       .6JEP317 3017.J                                  160651
U1 *       .F30D6.J                                         160652
R1 *P22310.F31B4011H310V000A110.K                           160654
R1 *       .6RST411 4011.J                                  160655
R1 *       .6RST412 4012.J                                  160657
R1 *       .6RST413 4013.J                                  160658
R1 *       .6RST414 4014.J                                  160659
R1 *       .6RST415 4015.J                                  160700
R1 *       .6RST416 4016.J                                  160702
R1 *       .6RST417 4017.J                                  160703
R1 *       .F31D6.J                                         160704
S1 *P45320.F32B5101H140V000A120.K                           160707
S1 *       .6NSLK743 5101.J                                 160709
S1 *       .6NSLK744 5102.J                                 160710
```

5.1 Appendix "A" (Cont).

```
S1 *       .6NSLK745 5103.J                                  160712
S1 *       .6NSLK746 5104.J                                  160713
S1 *       .6NSLK747 5105.J                                  160715
S1 *       .6NSLK748 5106.J                                  160716
S1 *       .6NSLK749 5107.J                                  160718
S1 *       .F32D6.J                                          160719
T1 *P22330.F33B6101H330V000A020.K                            160721
T1 *       .6JSK611 6101.J                                   160722
T1 *       .6JSK612 6102.J                                   160724
T1 *       .6JSK613 6103.J                                   160725
T1 *       .6JSK614 6104.J                                   160727
T1 *       .6JSK615 6105.J                                   160728
T1 *       .6JSK616 6106.J                                   160730
T1 *       .6JSK617 6107.J                                   160731
T1 *       .F33D6.J                                          160733
U1 *P45340.F34B5201H160V000A030.K                            160734
U1 *       .6SWA521 5201.J                                   160736
U1 *       .6SWA522 5202.J                                   160737
U1 *       .6SWA523 5203.J                                   160739
U1 *       .6SWA524 5204.J                                   160740
U1 *       .6SWA525 5205.J                                   160742
U1 *       .6SWA526 5206.J                                   160743
U1 *       .6SWA527 5207.J                                   160745
U1 *       .F34D6.J                                          160746
R1 *P22350.F35B6201H350V000A040.K                            160748
R1 *       .6CMK621 6201.J                                   160749
R1 *       .6CMK622 6202.J                                   160751
R1 *       .6CMK623 6203.J                                   160752
R1 *       .6CMK624 6204.J                                   160754
R1 *       .6CMK625 6205.J                                   160755
R1 *       .6CMK626 6206.J                                   160757
R1 *       .6CMK627 6207.J                                   160758
R1 *       .F35D6.J                                          160800
S1 *P27355.F36B5301H355V000A050.K                            160801
S1 *       .6NSLK751 5301.J                                  160803
S1 *       .6NSLK752 5302.J                                  160804
S1 *       .6NSLK753 5303.J                                  160806
S1 *       .6NSLK754 5304.J                                  160807
S1 *       .6NSLK755 5305.J                                  160809
S1 *       .6NSLK756 5306.J                                  160811
S1 *       .6NSLK757 5307.J                                  160812
S1 *       .F36D5.J                                          160814
T1 *P40025.F37B6301H215V000A060.K                            160815
T1 *       .6LES631 6301.J                                   160817
T1 *       .6LES632 6302.J                                   160818
T1 *       .6LES633 6303.J                                   160820
T1 *       .6LES634 6304.J                                   160821
T1 *       .6LES635 6305.J                                   160823
T1 *       .6LES636 6306.J                                   160824
T1 *       .6LES637 6307.J                                   160826
T1 *       .F37D6.J                                          160827
```

5.1 Appendix "A" (Cont).

```
U1 *P27055.F38B5401H065V000A070.K                    160829
U1 *       .6UPS541 5401.J                           160830
U1 *       .6UPS542 5402.J                           160832
U1 *       .6UPS543 5403.J                           160833
U1 *       .6UPS554 5404.J                           160835
U1 *       .6UPS545 5405.J                           160836
U1 *       .6UPS546 5406.J                           160838
U1 *       .6UPS547 5407.J                           160839
U1 *       .F38D6.J                                  160841
R1 *P40085.F39B6401H275V000A080.K                    160842
R1 *       .6ASP641 6401.J                           160844
R1 *       .6ASP642 6402.J                           160845
R1 *       .6ASP643 6403.J                           160847
R1 *       .6ASP644 6404.J                           160848
R1 *       .6ASP645 6405.J                           160850
R1 *       .6ASP656 6406.J                           160851
R1 *       .6ASP647 6407.J                           160853
R1 *       .F39D6.J                                  160854
S1 *P27115.F40B5501H125V000A090.K                    160856
S1 *       .6USA551 5501.J                           160857
S1 *       .6USA552 5502.J                           160859
S1 *       .6USA553 5503.J                           160901
S1 *       .6USA554 5504.J                           160902
S1 *       .6USA555 5505.J                           160904
S1 *       .6USA556 5506.J                           160905
S1 *       .6USA557 5507.J                           160907
S1 *       .F40D6.J                                  160908
Q1 *P40175.F41B6501H005V000A100.K                    160910
Q1 *       .6SST651 6501.J                           160911
Q1 *       .6SST652 6502.J                           160913
Q1 *       .6SST653 6503.J                           160914
Q1 *       .6SST654 6504.J                           160916
Q1 *       .6SST655 6505.J                           160917
Q1 *       .6SST656 6506.J                           160919
Q1 *       .6SST657 6507.J                           160920
Q1 *       .F41D6.J                                  160922
Q1 *P27205.F42B5601H215V000A110.K                    160923
Q1 *       .6LUF561 5601.J                           160925
Q1 *       .6LUF562 5602.J                           160926
Q1 *       .6LUF563 5603.J                           160928
Q1 *       .6LUF564 5604.J                           160929
Q1 *       .6LUF565 5605.J                           160931
Q1 *       .6LUF566 5606.J                           160932
Q1 *       .6LUF567 5607.J                           160934
Q1 *       .F42D6.J                                  160935
T1 *P40235.F43B6601H065V000A120.K                    160937
T1 *       .6JJR661 6601.J                           160938
T1 *       .6JJR662 6602.J                           160940
T1 *       .6JJR663 6603.J                           160941
T1 *       .6JJR664 6604.J                           160943
T1 *       .6JJR665 6605.J                           160944
```

5.1 Appendix "A" (Cont).

```
T1 *       .6JJR666 6606.J                                    160946
T1 *       .6JJR667 6607.J                                    160947
T1 *       .F43D6.J                                           160949
U1 *P27265.F44B5701H275V000A020.K                             160950
U1 *       .6JJH571 5701.J                                    160952
U1 *       .6JJH572 5702.J                                    160953
U1 *       .6JJH573 5703.J                                    160955
U1 *       .6JJH574 5704.J                                    160956
U1 *       .6JJH575 5705.J                                    160958
U1 *       .6JJH576 5706.J                                    160959
U1 *       .6JJH577 5707.J                                    161000
U1 *       .F44D6.J                                           161001
R1 *P40295.F45B6701H305V000A030.K                             161005
R1 *       .6JCK671 6701.J                                    161007
R1 *       .6JCK672 6702.J                                    161008
R1 *       .6JCK673 6703.J                                    161010
R1 *       .6JCK674 6704.J                                    161011
R1 *       .6JCK675 6705.J                                    161013
R1 *       .6JCK676 6706.J                                    161014
R1 *       .6JCK677 6707.J                                    161016
R1 *       .F45D6.J                                           161017
S1 *P27325.F46B6611H165V000A040.K                             161019
S1 *       .6JEP611 6611.J                                    161021
S1 *       .6JEP612 6612.J                                    161022
S1 *       .6JEP613 6613.J                                    161023
S1 *       .6JEP614 6614.J                                    161025
S1 *       .6JEP615 6615.J                                    161026
S1 *       .6JEP616 6616.J                                    161028
S1 *       .6JEP617 6617.J                                    161029
S1 *       .F46D6.J                                           161033
T1 *       .6RST611 6031.J                                    161034
T1 *       .6RST612 6032.J                                    161035
T1 *       .6RST613 6033.J                                    161037
T1 *       .6RST614 6034.J                                    161039
T1 *       .6RST615 6035.J                                    161041
T1 *       .6RST616 6036.J                                    161042
U1 *       .6NSLK759 5022.J                                   161043
U1 *       .6NSLK758 5021.J                                   161047
U1 *       .6NSLK760 5023.J                                   161050
U1 *       .6NSLK761 5024.J                                   161051
U1 *       .6NSLK762 5025.J                                   161052
U1 *       .6NSLK763 5026.J                                   161053
R1 *       .6RAT621 6021.J                                    161054
R1 *       .6RAT622 6022.J                                    161055
R1 *       .6RAT623 6023.J                                    161056
R1 *       .6RAT624 6024.J                                    161057
R1 *       .6RAT625 6025.J                                    161058
R1 *       .6RAT626 6026.J                                    161059
R1 *       .6RAT627 6027.J                                    161100
S1 *       .6BAT631 6041.J                                    161101
S1 *       .6BAT632 6032.J                                    161102
```

5.1 Appendix "A" (Cont).

```
S1 *       .6BAT633 6033.J                                  161103
S1 *       .6BAT634 6034.J                                  161104
S1 *       .6BAT635 6035.J                                  161105
S1 *       .6BAT636 6036.J                                  161106
S1 *       .6BAT637 6037.J                                  161107
R1 *       .F00.J                                           161110
R1 *       .F01.J                                           161111
R1 *       .F02.J                                           161112
R1 *       .F03.J                                           161113
R1 *       .F04.J                                           161114
R1 *       .F05.J                                           161115
R1 *       .F06.J                                           161116
R1 *       .F07.J                                           161117
R1 *       .F08.J                                           161118
R1 *       .F09.J                                           161119
R1 *       .F10.J                                           161120
R1 *       .F11.J                                           161121
R1 *       .F12.J                                           161122
R1 *       .F13.J                                           161123
R1 *       .F14.J                                           161124
R1 *       .F15.J                                           161125
R1 *       .F16.J                                           161126
R1 *       .F17.J                                           161127
R1 *       .F18.J                                           161128
R1 *       .F19.J                                           161129
R1 *       .F20.J                                           161130
R1 *       .F21.J                                           161131
R1 *       .F22.J                                           161132
R1 *       .F23.J                                           161133
R1 *       .F24.J                                           161134
R1 *       .F25.J                                           161135
R1 *       .F26.J                                           161136
R1 *       .F27.J                                           161137
R1 *       .F28.J                                           161138
R1 *       .F29.J                                           161139
R1 *       .F30.J                                           161140
R1 *       .F31.J                                           161141
R1 *       .F32.J                                           161142
R1 *       .F33.J                                           161143
R1 *       .F34.J                                           161144
R1 *       .F35.J                                           161145
R1 *       .F36.J                                           161146
R1 *       .F37.J                                           161147
R1 *       .F38.J                                           161148
R1 *       .F39.J                                           161149
R1 *       .F40.J                                           161150
R1 *       .F41.J                                           161151
R1 *       .F42.J                                           161152
R1 *       .F43.J                                           161153
R1 *       .F44.J                                           161154
R1 *       .F45.J                                           161155
```

5.1 Appendix "A" (Cont).

```
R1 *        .F46.J                                  161156
R1 *        .4ALL.J                                 161513
S1 *        .4ALL.J                                 161515
T1 *        .4ALL.J                                 161517
U1 *        .4ALL.J                                 161519
Q1 *        .4ALL.J                                 161521
```

15.2 Appendix "B"

KEYBOARD DATA PACKET, MESSAGE CODE 011

NUMBER OF WORDS										011
S			FN	I	B	E	T	ERROR NO.		011
ZULU TIME (LSB = 1/1024 SECOND)										
ACID 1		ACID 2		ACID 3			ACID 4			ACID 5
ACID 6		ACID 7								
P1		P2		P3			P4			P5
P6		P7		P8			P9			P10
P11		P12		P13			P14			P15
P16		P17		P18			P19			P20
P21		P22		P23			P24			P25
P26		P27		P28			P29			P30
P31		P32		P33			P34			P35
P36		P37		P38			P39			P40
P41		P42						KS		CONTR.
	TBALL YCOR. LSB=1/16						TBALL XCOR. LSB=1/16			

5.2 Appendix "B" (Cont.)

CTS DATA PACKET, MESSAGE CODE 012

	29	15 14	0
MSG HDR	NUMBER OF WORDS		012
WORD 1	CONTENTS OF CTST		
WORD 2	CONTENTS OF RGAZT		
WORD 3	CONTENTS OF XCORT		
WORD 4	CONTENTS OF YCORT		
WORD 5	CONTENTS OF XYDOT		
WORD 6	CONTENTS OF TIMET		
WORD 7	CONTENTS OF ASOCT		
WORD 8	CONTENTS OF ABEAT		
WORD 9	CONTENTS OF CFLGT		
WORD 10	CONTENTS OF RBEAT		
WORD 11	CONTENTS OF SLIDT		
WORD 12	CONTENTS OF TNT		
WORD 13	CONTENTS OF LGCT		
WORD 14	CONTENTS OF FILT		
WORD 15	CONTENTS OF CTSST		
WORD 16	CONTENTS OF RECRT		
WORD 17	CONTENTS OF TNPT		
WORD 18	CONTENTS OF LNKT		
WORD 19	CONTENTS OF ALT		

5.2 Appendix "B" (Cont.)

CTS DATA PACKET, MESSAGE CODE 012

	29 ... 0
WORD 20	CONTENTS OF PALT
WORD 21	CONTENTS OF SALT
WORD 22	CONTENTS OF DALT
WORD 23	CONTENTS OF ACTYPT
WORD 24	CONTENTS OF CATB
WORD 25	CONTENTS OF CATC1
WORD 26	CONTENTS OF CATC2

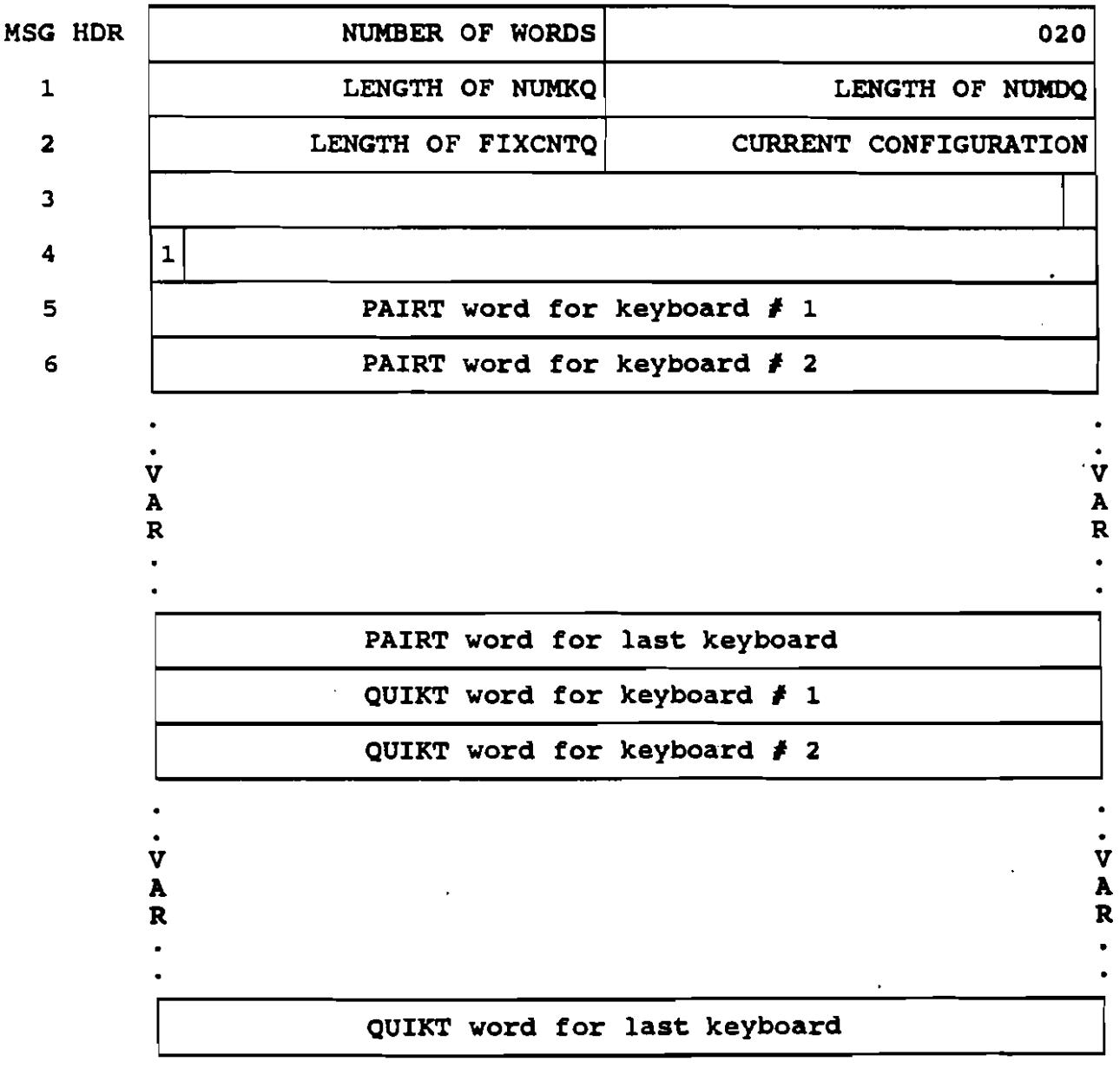
5.2 Appendix "B" (Cont.)

INTERFACILITY DATA PACKET, MESSAGE CODE 013

NUMBER OF WORDS			013
NUMBER OF WORDS	1		013
ZULU TIME (LSB = 1/1024 SECOND)			
	CHAR 1	CHAR 2	CHAR 3
	CHAR N-2	CHAR N-1	CHAR N

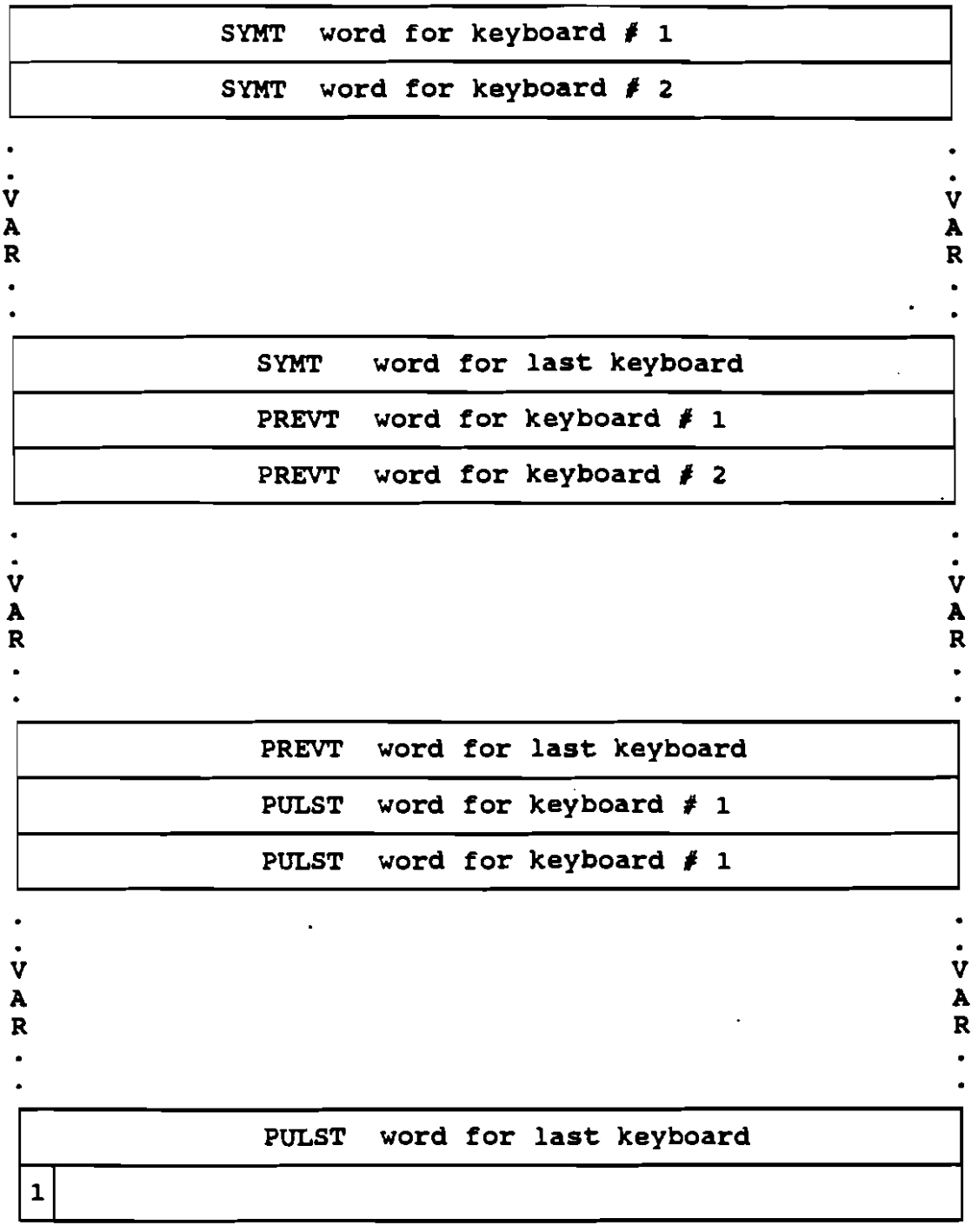
5.2 Appendix "B" (Cont.)

INITIALIZATION DATA PACKET, MESSAGE CODE 020



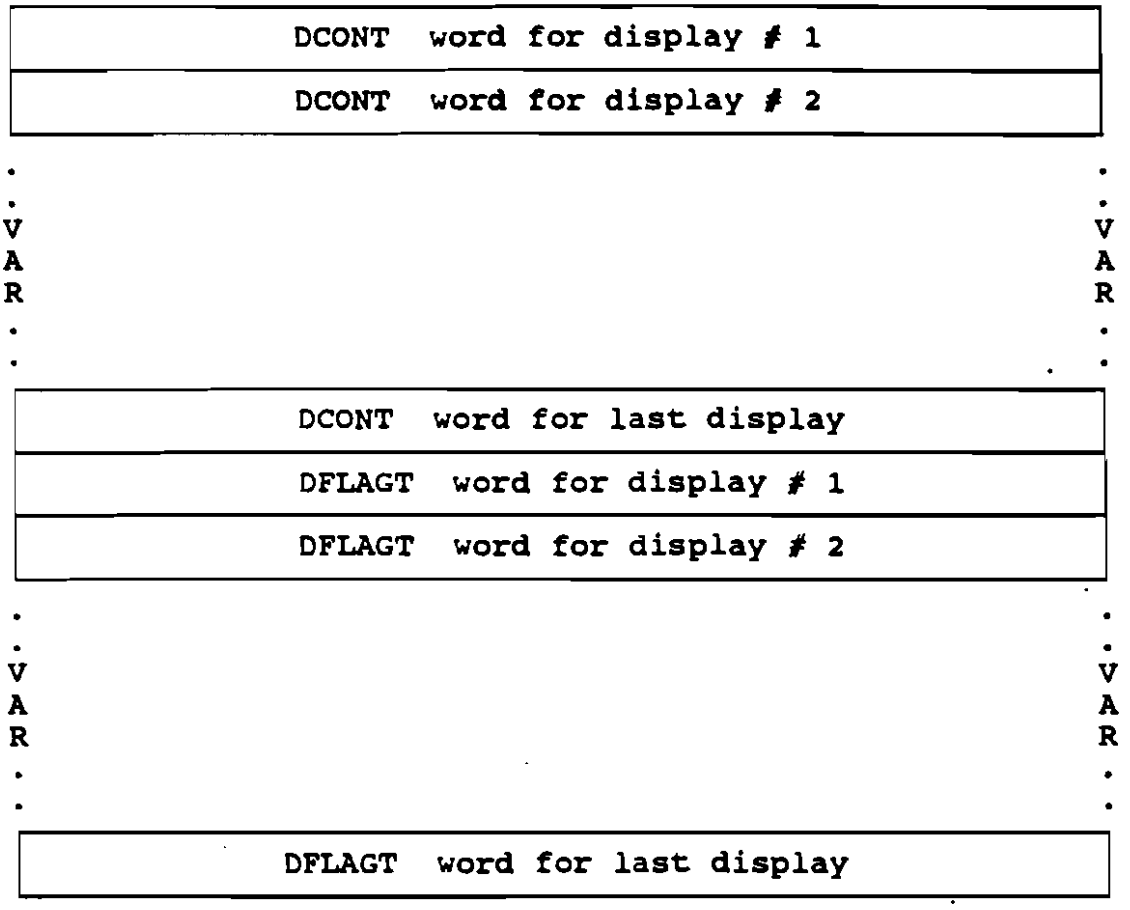
5.2 Appendix "B" (Cont.)

INITIALIZATION DATA PACKET, MESSAGE CODE 020



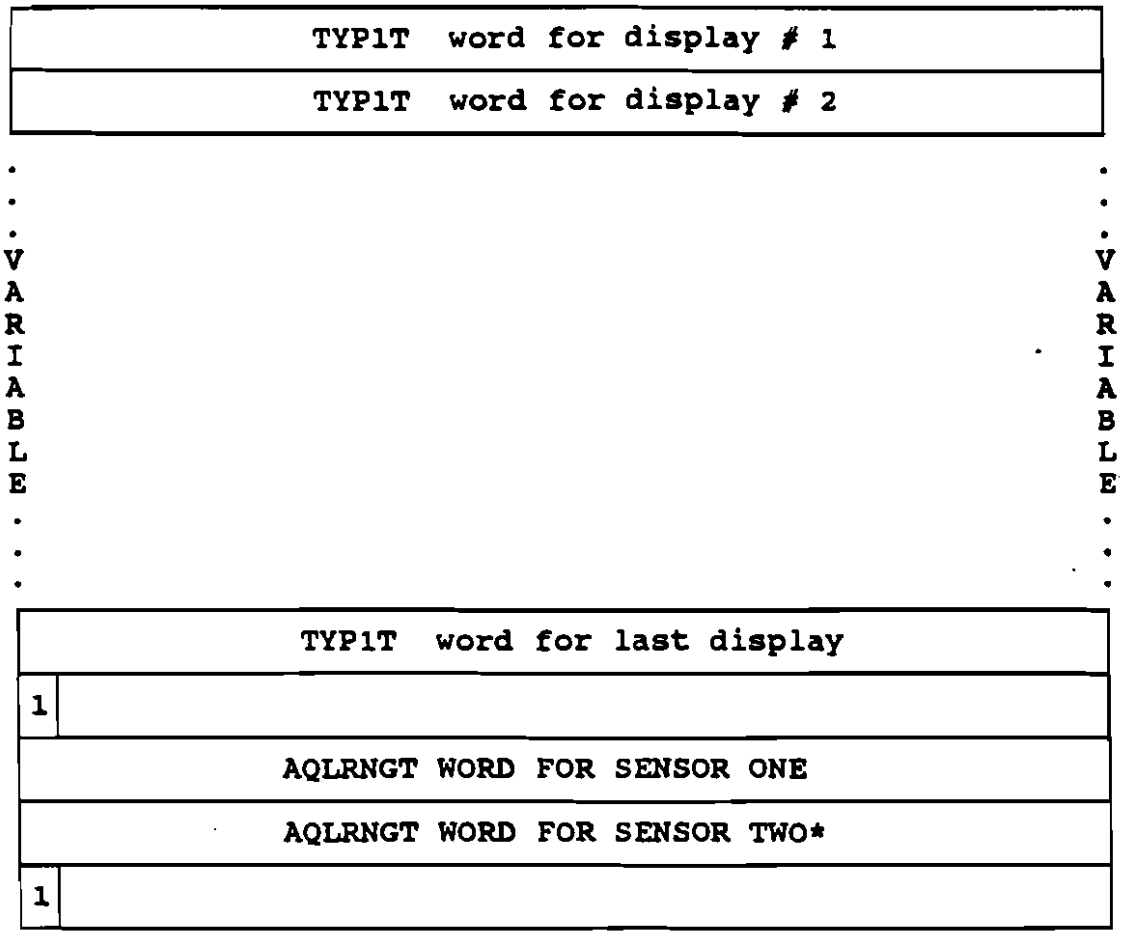
5.2 Appendix "B" (Cont.)

INITIALIZATION DATA PACKET, MESSAGE CODE 020



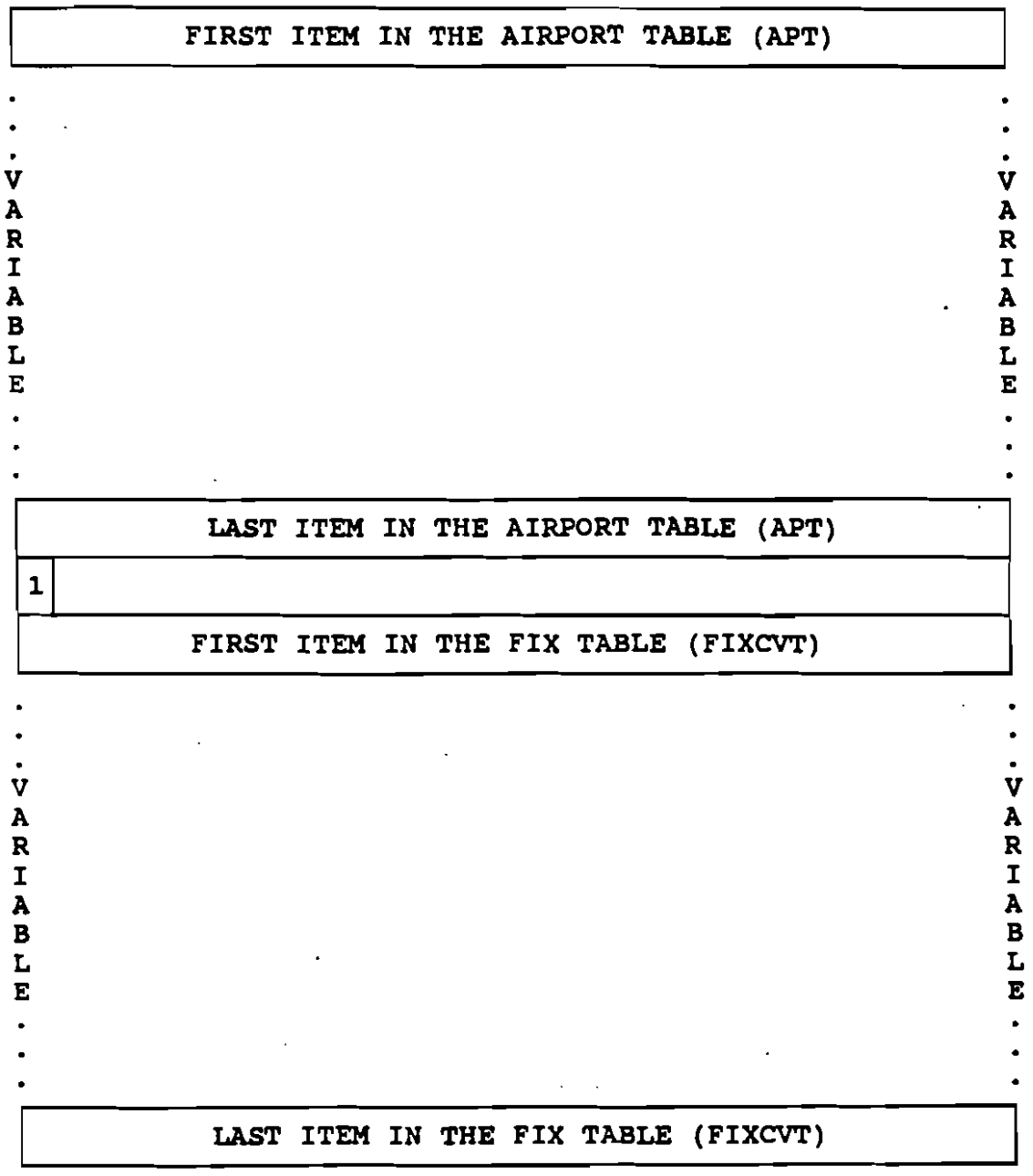
5.2 Appendix "B" (Cont.)

INITIALIZATION DATA PACKET, MESSAGE CODE 020



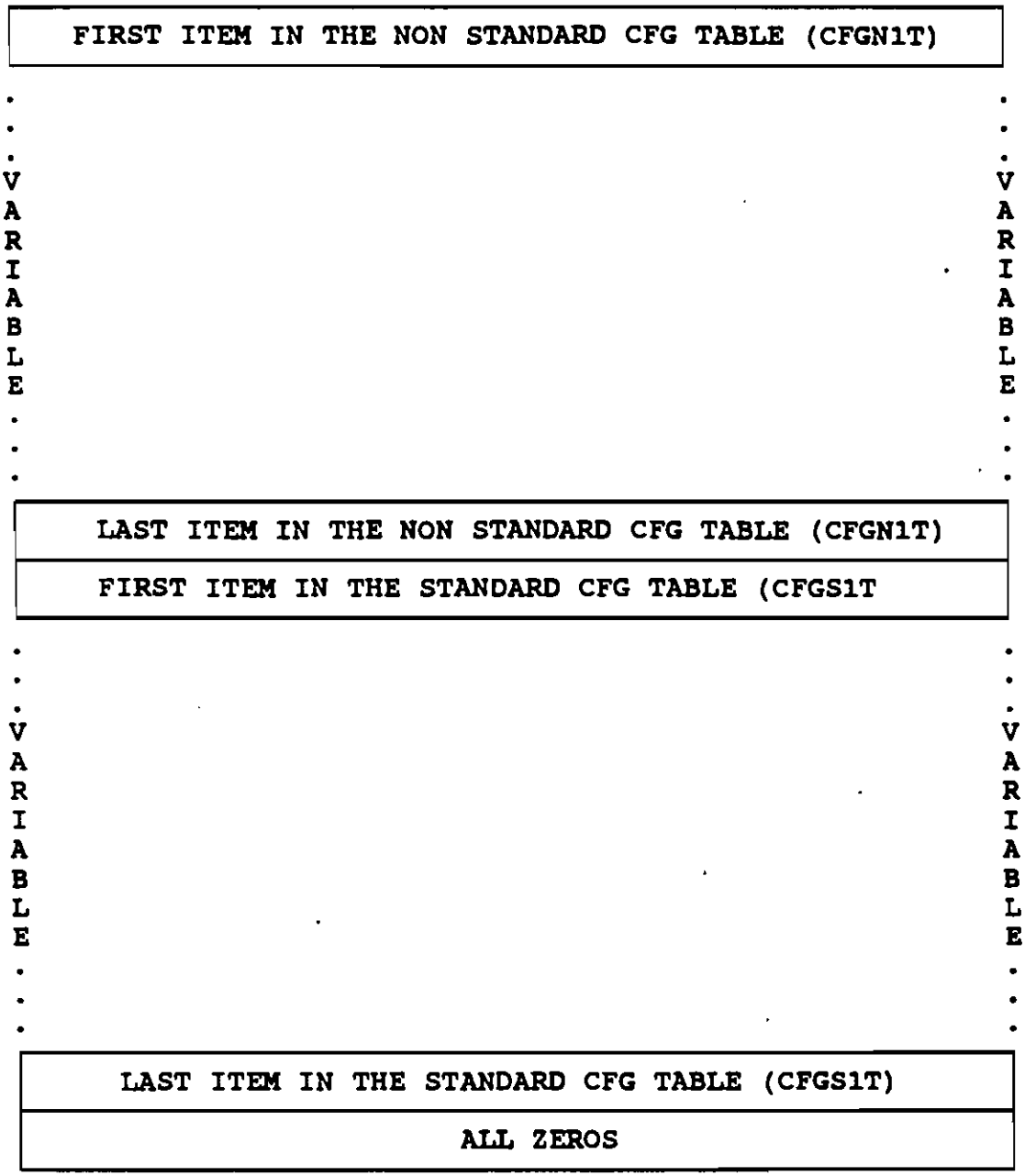
5.2 Appendix "B" (Cont.)

INITIALIZATION DATA PACKET, MESSAGE CODE 020



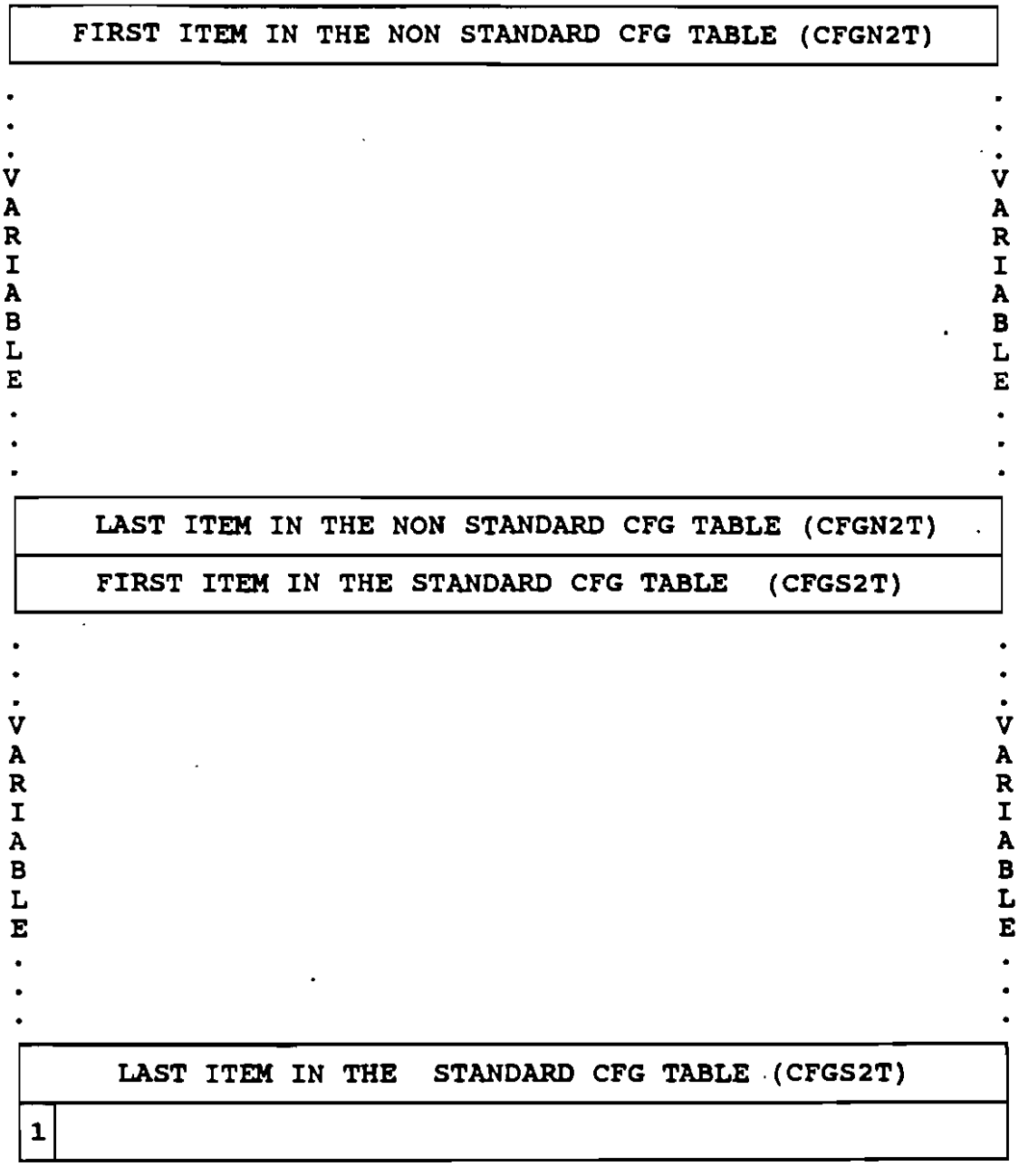
5.2 Appendix "B" (Cont.)

INITIALIZATION DATA PACKET, MESSAGE CODE 020



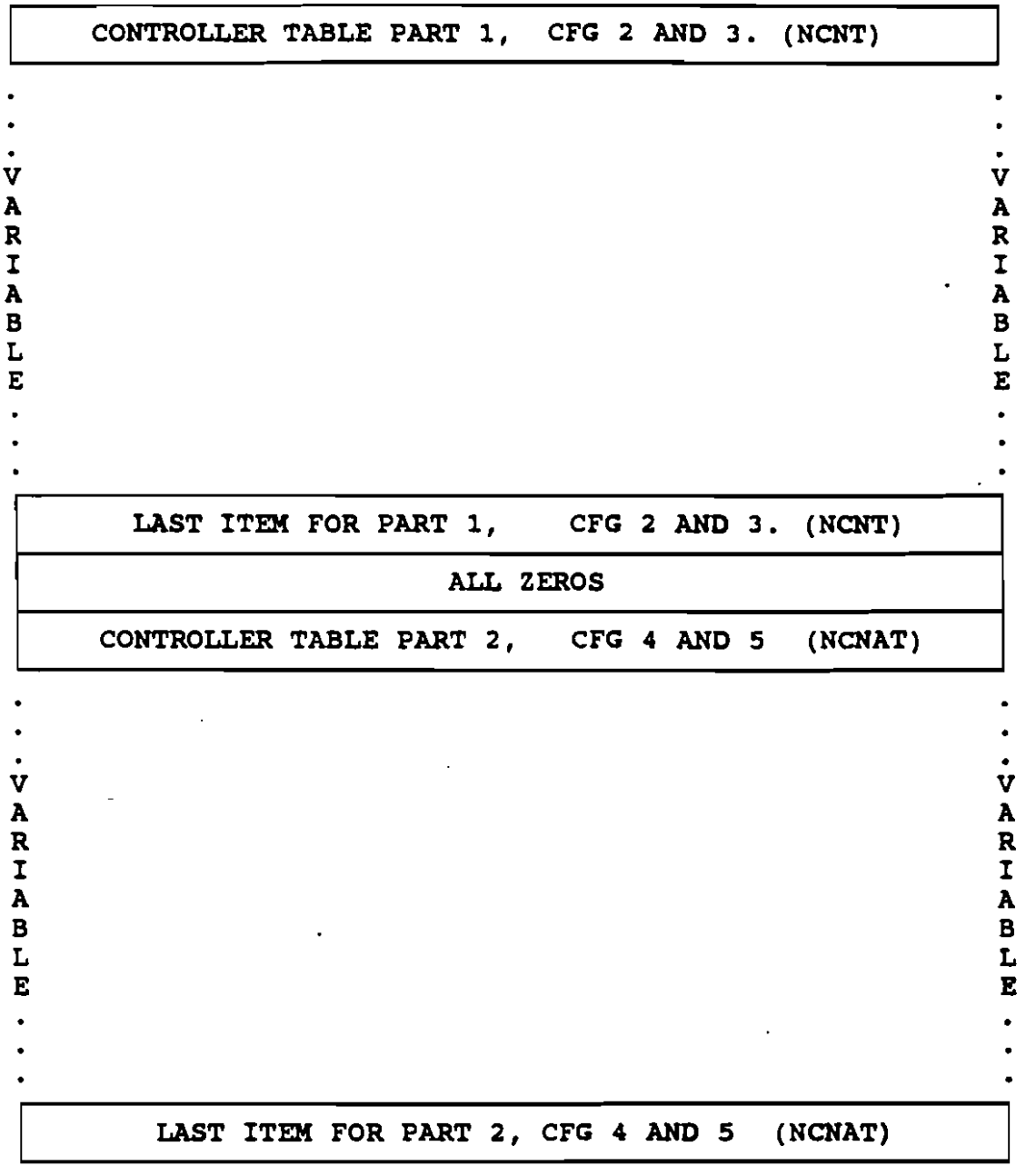
5.2 Appendix "B" (Cont.)

INITIALIZATION DATA PACKET, MESSAGE CODE 020



5.2 Appendix "B" (Cont.)

INITIALIZATION DATA PACKET, MESSAGE CODE 020



5.2 Appendix "B" (Cont.)

THREAD DROP DATA PACKET, MESSAGE CODE 021

	29 — 15	14 — 0
MSG HDR	NUMBER OF WORDS	021
WORD 1	CONTENTS OF CATC1	
WORD 2	CONTENTS OF CATC2	

5.2 Appendix "B" (Cont.)

TRACK DROP DATA PACKET, MESSAGE CODE 022

	29 — 15	14 — 0
MSG HDR	NUMBER OF WORDS	022
WORD 1	CONTENTS OF CATC1	
WORD 2	CONTENTS OF CATC2	

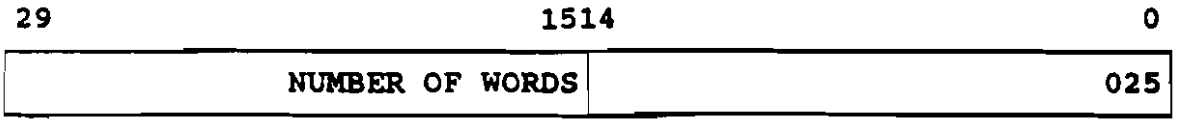
5.2 Appendix "B" (Cont.)

DISPLAYS TYP1T DATA PACKET, MESSAGE CODE 024

	29	15	14	0
MSG HDR	NUMBER OF WORDS			024
WORD 1	CONTENTS OF TYP1T			
WORD 2				DISPLAY NUMBER

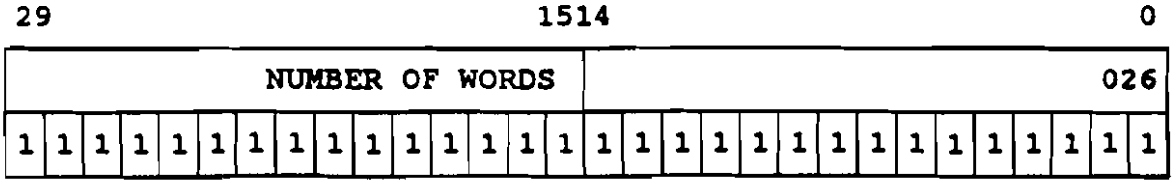
5.2 Appendix "B" (Cont.)

DISABLE FAST DATA PACKET, MESSAGE CODE 025



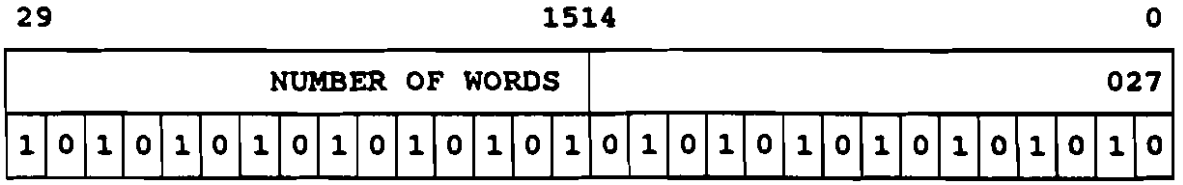
5.2 Appendix "B" (Cont.)

TEST PATTERN ONE, MESSAGE CODE 026



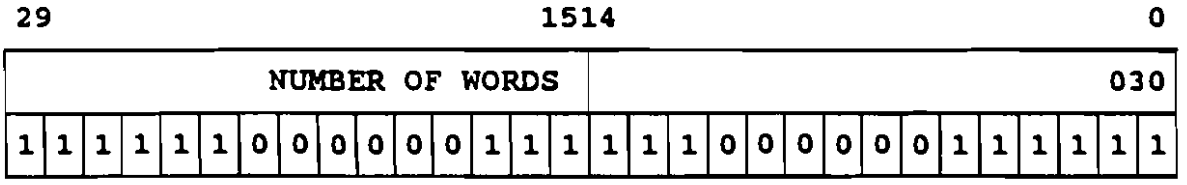
5.2 Appendix "B" (Cont.)

TEST PATTERN TWO, MESSAGE CODE 027



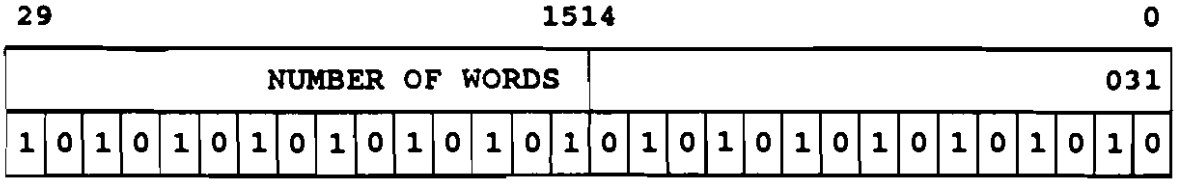
5.2 Appendix "B" (Cont.)

TEST PATTERN THREE, MESSAGE CODE 030

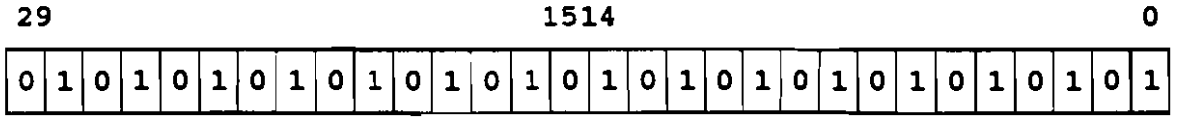


5.2 Appendix "B" (Cont.)

TEST PATTERN FOUR, MESSAGE CODE 031



After the initial 10 words there shall be a break in data transmissions followed by 10 words containing the following.



5.2 Appendix "B" (Cont.)

TROUT DEMARCARTION DATA PACKET, MESSAGE CODE 040

Subsystem Zero

29	1514	0
	NUMBER OF WORDS	040

5.2 Appendix "B" (Cont.)

TROUT DEMARCARTION DATA PACKET, MESSAGE CODE 041

Subsystem One

29	1514	0
	NUMBER OF WORDS	041

5.2 Appendix "B" (Cont.)

AUTOMATIC OFF SET DATA PACKET, MESSAGE CODE 050

	29 — 15	14 — 0
MSG HDR	NUMBER OF WORDS	050
WORD 1	CONTENTS OF CATC1	
WORD 2	CONTENTS OF CATC2	
WORD 3	CONTENTS OF CFLGT	
WORD 4	CONTENTS OF CTST	
WORD 5	CONTENTS OF RECRT	

5.2 Appendix "B" (Cont.)

LEADER DIRECTION CHANGE DATA PACKET, MESSAGE CODE 051

	29 — 1514	0
MSG HDR	NUMBER OF WORDS	051
WORD 1	CONTENTS OF CATC1	
WORD 2	CONTENTS OF CATC2	
WORD 3	CONTENTS OF CFLGT	
WORD 4	CONTENTS OF CTST	
WORD 5	CONTENTS OF RECRT	

5.3 Appendix "C"

```
Q1          .7S155800.J
Q1  *P20043.F63B7401H223V130A020.K                    155802
Q1  *       .6CTS1 7401.J                             155803
Q1  *P20138.F62B7402H318V130A020.K                    155804
Q1  *       .6CTS2 7402.J                             155805
Q1  *       .F63HLHA.J                                155815
Q1  *       .F62HRHB.J                                155816
Q1  *       .7FC001072.J                              155820
Q2  *       .7FC001072.J                              155822
Q3  *       .7FC001072.J                              155824
R1  *       .7FC001072.J                              155826
R2  *       .7FC001072.J                              155828
R3  *       .7FC001072.J                              155830
S1  *       .7FC001072.J                              155832
S2  *       .7FC001072.J                              155834
S3  *       .7FC001072.J                              155836
T1  *       .7FC001072.J                              155840
T2  *       .7FC001072.J                              155842
T3  *       .7FC001072.J                              155844
U1  *       .7FC001072.J                              155846
U2  *       .7FC001072.J                              155848
Q1  *P45001.F01B0101H180V000A080.K                    160000
Q1  *       .6NSLK701 0101.J                          160002
Q1  *       .6NSLK702 0102.J                          160003
Q1  *       .6NSLK703 0103.J                          160005
Q1  *       .6NSLK704 0104.J                          160007
Q1  *       .6NSLK705 0105.J                          160008
Q1  *       .6NSLK706 0106.J                          160010
Q1  *       .6NSLK707 0107.J                          160011
Q1  *       .F01D6.J                                  160012
R1  *P21006.F02B1101H225V000A090.K                    160014
R1  *       .6JSK111 1101.J                           160016
R1  *       .6JSK112 1102.J                           160017
R1  *       .6JSK113 1103.J                           160019
R1  *       .6JSK114 1104.J                           160020
R1  *       .6JSK115 1105.J                           160022
R1  *       .6JSK116 1106.J                           160023
R1  *       .6JSK117 1107.J                           160025
R1  *       .F02D6.J                                  160026
S1  *P45015.F03B0201H090V000A040.K                    160029
S1  *       .6BDT21 0201.J                            160030
S1  *       .6BDT22 0202.J                            160032
S1  *       .6BDT23 0203.J                            160033
S1  *       .6BDT24 0204.J                            160035
S1  *       .6BDT25 0205.J                            160036
S1  *       .6BDT26 0206.J                            160038
S1  *       .6BDT27 0207.J                            160039
S1  *       .F03D6.J                                  160040
T1  *P45022.F04B1201H225V000A090.K                    160041
T1  *       .6CMK121 1201.J                           160043
T1  *       .6CMK122 1202.J                           160044
```

5.3 Appendix "C" (Cont).

```
T1 *       .6CMK123 1203.J                          160046
T1 *       .6CMK124 1204.J                          160047
T1 *       .6CMK125 1205.J                          160049
T1 *       .6CMK126 1206.J                          160050
T1 *       .6CMK127 1207.J                          160052
T1 *       .F04D6.J                                 160053
U1 *P45030.F05B0301H160V000A050.K                   160054
U1 *       .6NSLK708 0301.J                         160056
U1 *       .6NSLK709 0302.J                         160058
U1 *       .6NSLK710 0303.J                         160059
U1 *       .6NSLK711 0304.J                         160100
U1 *       .6NSLK712 0305.J                         160102
U1 *       .6NSLK713 0306.J                         160103
U1 *       .6NSLK714 0307.J                         160105
U1 *       .F05D6.J                                 160106
Q1 *P45036.F06B1301H315V000A090.K                   160108
Q1 *       .6LES131 1301.J                          160109
Q1 *       .6LES132 1302.J                          160111
Q1 *       .6LES133 1303.J                          160112
Q1 *       .6LES134 1304.J                          160114
Q1 *       .6LES135 1305.J                          160115
Q1 *       .6LES136 1306.J                          160116
Q1 *       .6LES137 1307.J                          160118
Q1 *       .F06D6.J                                 160119
R1 *P45043.F07B0401H270V000A040.K                   160121
R1 *       .6UAL41 0401.J                           160122
R1 *       .6UAL42 0402.J                           160123
R1 *       .6UAL43 0403.J                           160125
R1 *       .6UAL44 0404.J                           160126
R1 *       .6UAL45 0405.J                           160128
R1 *       .6UAL46 0406.J                           160129
R1 *       .F07D5.J                                 160131
S1 *P45051.F08B1401H315V000A090.K                   160135
S1 *       .6ASP141 1401.J                          160137
S1 *       .6ASP142 1402.J                          160138
S1 *       .6ASP143 1403.J                          160140
S1 *       .6ASP144 1404.J                          160141
S1 *       .6ASP145 1405.J                          160143
S1 *       .6ASP146 1406.J                          160144
S1 *       .6ASP147 1407.J                          160146
S1 *       .F08D6.J                                 160147
T1 *P45058.F09B0501H180V000A070.K                   160149
T1 *       .6NSLK722 0501.J                         160151
T1 *       .6NSLK723 0502.J                         160152
T1 *       .6NSLK724 0503.J                         160154
T1 *       .6NSLK725 0504.J                         160155
T1 *       .6NSLK726 0505.J                         160156
T1 *       .6NSLK727 0506.J                         160157
T1 *       .6NSLK728 0507.J                         160159
T1 *       .F09D6.J                                 160201
U1 *P45066.F10B1501H045V000A090.K                   160202
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5.3 Appendix "C" (Cont).

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U1 *       .6SST151 1501.J                          160204
U1 *       .6SST152 1502.J                          160205
U1 *       .6SST153 1503.J                          160207
U1 *       .6SST154 1504.J                          160208
U1 *       .6SST155 1505.J                          160209
U1 *       .6SST156 1506.J                          160211
U1 *       .6SST157 1507.J                          160212
U1 *       .F10D6.J                                 160214
Q1 *P45072.F11B0601H090V000A080.K                   160215
Q1 *       .6LUF61 0601.J                           160217
Q1 *       .6LUF62 0602.J                           160218
Q1 *       .6LUF63 0603.J                           160219
Q1 *       .6LUF64 0604.J                           160221
Q1 *       .6LUF65 0605.J                           160222
Q1 *       .6LUF66 0606.J                           160224
Q1 *       .6LUF67 0607.J                           160225
Q1 *       .F11D6.J                                 160226
R1 *P45079.F12B1601H045V000A090.K                   160228
R1 *       .6JJR161 1601.J                          160229
R1 *       .6JJR162 1602.J                          160231
R1 *       .6JJR163 1603.J                          160232
R1 *       .6JJR164 1604.J                          160234
R1 *       .6JJR165 1605.J                          160235
R1 *       .6JJR166 1606.J                          160237
R1 *       .6JJR167 1607.J                          160238
R1 *       .F12D6.J                                 160240
S1 *P45087.F13B0701H360V000A080.K                   160241
S1 *       .6NSLK729 0701.J                         160243
S1 *       .6NSLK730 0702.J                         160244
S1 *       .6NSLK731 0703.J                         160246
S1 *       .6NSLK732 0704.J                         160247
S1 *       .6NSLK733 0705.J                         160249
S1 *       .6NSLK734 0706.J                         160250
S1 *       .6NSLK735 0707.J                         160251
S1 *       .F13D6.J                                 160253
T1 *P45091.F14B1701H135V000A090.K                   160254
T1 *       .6JCK171 1701.J                          160255
T1 *       .6JCK172 1702.J                          160257
T1 *       .6JCK173 1703.J                          160258
T1 *       .6JCK174 1704.J                          160300
T1 *       .6JCK175 1705.J                          160301
T1 *       .6JCK176 1706.J                          160303
T1 *       .6JCK177 1707.J                          160304
T1 *       .F14D6.J                                 160306
U1 *P45102.F15B1001H090V000A080.K                   160307
U1 *       .6JEP101 1001.J                          160309
U1 *       .6JEP102 1002.J                          160310
U1 *       .6JEP103 1003.J                          160312
U1 *       .6JEP104 1004.J                          160313
U1 *       .6JEP105 1005.J                          160315
U1 *       .6JEP106 1006.J                          160316
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5.3 Appendix "C" (Cont).

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U1 *       .6JEP107 1007.J                                  160318
U1 *       .F15D6.J                                         160319
Q2 *P45111.F16B2001H135V000A100.K                           160321
Q2 *       .6RST201 2001.J                                  160322
Q2 *       .6RST202 2002.J                                  160324
Q2 *       .6RST203 2003.J                                  160325
Q2 *       .6RST204 2004.J                                  160326
Q2 *       .6RST205 2005.J                                  160328
Q2 *       .6RST206 2006.J                                  160329
Q2 *       .6RST207 2007.J                                  160331
Q2 *       .F16D6.J                                         160332
R1 *P45115.F17B3101H180V000A090.K                           160334
R1 *       .6NSLK736 3101.J                                 160335
R1 *       .6NSLK737 3102.J                                 160337
R1 *       .6NSLK738 3103.J                                 160338
R1 *       .6NSLK739 3104.J                                 160340
R1 *       .6NSLK740 3105.J                                 160341
R1 *       .6NSLK741 3106.J                                 160343
R1 *       .6NSLK742 3107.J                                 160344
R1 *       .F17D6.J                                         160346
S1 *P45123.F18B4101H225V000A090.K                           160347
S1 *       .6JSK411 4101.J                                  160348
S1 *       .6JSK412 4102.J                                  160350
S1 *       .6JSK413 4103.J                                  160351
S1 *       .6JSK414 4104.J                                  160353
S1 *       .6JSK415 4105.J                                  160354
S1 *       .6JSK416 4106.J                                  160355
S1 *       .6JSK417 4107.J                                  160357
S1 *       .F18D6.J                                         160358
T1 *P45130.F19B3201H090V000A040.K                           160400
T1 *       .6BDT321 3201.J                                  160401
T1 *       .6BDT322 3202.J                                  160403
T1 *       .6BDT323 3203.J                                  160404
T1 *       .6BDT324 3204.J                                  160406
T1 *       .6BDT325 3205.J                                  160407
T1 *       .6BDT326 3206.J                                  160408
T1 *       .6BDT327 3207.J                                  160409
T1 *       .F19D6.J                                         160411
U1 *P45138.F20B4201H225V000A090.K                           160412
U1 *       .6CMK421 4201.J                                  160414
U1 *       .6CMK422 4202.J                                  160415
U1 *       .6CMK423 4203.J                                  160417
U1 *       .6CMK424 4204.J                                  160418
U1 *       .6CMK425 4205.J                                  160420
U1 *       .6CMK426 4206.J                                  160421
U1 *       .F20D5.J                                         160423
Q1 *P45144.F21B3301H360V000A050.K                           160427
Q1 *       .6NSLK715 3301.J                                 160429
Q1 *       .6NSLK716 3302.J                                 160430
Q1 *       .6NSLK717 3303.J                                 160432
Q1 *       .6NSLK718 3304.J                                 160433
```

5.3 Appendix "C" (Cont).

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Q1 *       .6NSLK717 3303.J                          160434
Q1 *       .6NSLK719 3305.J                          160435
Q1 *       .6NSLK720 3306.J                          160436
Q1 *       .6NSLK721 3307.J                          160438
Q1 *       .F21D6.J                                  160439
R1 *P45151.F22B4301H315V000A090.K                    160441
R1 *       .6LES431 4301.J                           160442
R1 *       .6LES432 4302.J                           160444
R1 *       .6LES433 4303.J                           160445
R1 *       .6LES434 4304.J                           160447
R1 *       .6LES435 4305.J                           160448
R1 *       .6LES436 4306.J                           160450
R1 *       .6LES437 4307.J                           160451
R1 *       .F22D6.J                                  160452
S1 *P45159.F23B3401H270V000A060.K                    160454
S1 *       .6UAL341 3401.J                           160455
S1 *       .6UAL342 3402.J                           160457
S1 *       .6UAL343 3403.J                           160458
S1 *       .6UAL344 3404.J                           160500
S1 *       .6UAL345 3405.J                           160501
S1 *       .6UAL346 3406.J                           160503
S1 *       .6UAL347 3407.J                           160504
S1 *       .F23D6.J                                  160506
T1 *P45166.F24B4401H315V000A090.K                    160507
T1 *       .6ASP441 4401.J                           160509
T1 *       .6ASP442 4402.J                           160510
T1 *       .6ASP443 4403.J                           160512
T1 *       .6ASP444 4404.J                           160513
T1 *       .6ASP445 4405.J                           160515
T1 *       .6ASP446 4406.J                           160516
T1 *       .6ASP447 4407.J                           160518
T1 *       .F24D6.J                                  160519
U1 *P45174.F25B3501H180V000A070.K                    160521
U1 *       .6USA351 3501.J                           160522
U1 *       .6USA352 3502.J                           160524
U1 *       .6USA353 3503.J                           160525
U1 *       .6USA354 3504.J                           160526
U1 *       .6USA355 3505.J                           160527
U1 *       .6USA356 3506.J                           160529
U1 *       .6USA357 3507.J                           160530
U1 *       .F25D6.J                                  160532
Q1 *P45180.F26B4501H045V000A090.K                    160533
Q1 *       .6SST451 4501.J                           160535
Q1 *       .6SST452 4502.J                           160536
Q1 *       .6SST453 4503.J                           160538
Q1 *       .6SST454 4504.J                           160539
Q1 *       .6SST455 4505.J                           160541
Q1 *       .6SST456 4506.J                           160542
Q1 *       .6SST457 4507.J                           160544
Q1 *       .F26D6.J                                  160545
R2 *P45187.F27B3601H090V000A080.K                    160547
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5.3 Appendix "C" (Cont).

```
R2 *       .6LUF361 3601.J                          160548
R2 *       .6LUF362 3602.J                          160550
R2 *       .6LUF363 3603.J                          160551
R2 *       .6LUF364 3604.J                          160553
R2 *       .6LUF365 3605.J                          160554
R2 *       .6LUF366 3606.J                          160556
R2 *       .6LUF367 3607.J                          160557
R2 *       .F27D6.J                                 160559
S1 *P45195.F28B4601H045V000A090.K                   160601
S1 *       .6NSLK765 4601.J                         160602
S1 *       .6NSLK766 4602.J                         160604
S1 *       .6NSLK767 4603.J                         160605
S1 *       .6NSLK768 4604.J                         160607
S1 *       .6NSLK769 4605.J                         160608
S1 *       .6NSLK770 4606.J                         160610
S1 *       .6NSLK771 4607.J                         160611
S2 *       .F28D6.J                                 160613
T1 *P45202.F29B3701H360V000A080.K                   160614
T1 *       .6JJH371 3701.J                          160616
T1 *       .6JJH372 3702.J                          160617
T1 *       .6JJH373 3703.J                          160619
T1 *       .6JJH374 3704.J                          160620
T1 *       .6JJH375 3705.J                          160621
T1 *       .6JJH376 3706.J                          160623
T1 *       .6JJH377 3707.J                          160624
T1 *       .F29D6.J                                 160625
U1 *P45210.F30B4701H135V000A090.K                   160627
U1 *       .6JCK471 4701.J                          160628
U1 *       .6JCK472 4702.J                          160630
U1 *       .6JCK473 4703.J                          160631
U1 *       .6JCK474 4704.J                          160633
U1 *       .6JCK475 4705.J                          160634
U1 *       .6JCK476 4706.J                          160636
U1 *       .6JCK477 4707.J                          160637
U1 *       .F30D6.J                                 160639
Q1 *P45216.F31B3011H090V000A080.K                   160640
Q1 *       .6JEP311 3011.J                          160642
Q1 *       .6JEP312 3012.J                          160643
Q1 *       .6JEP313 3013.J                          160645
Q1 *       .6JEP314 3014.J                          160646
Q1 *       .6JEP315 3015.J                          160648
Q1 *       .6JEP316 3016.J                          160649
Q1 *       .6JEP317 3017.J                          160651
Q1 *       .F31D6.J                                 160652
R1 *P45223.F32B4011H135V000A090.K                   160654
R1 *       .6RST411 4011.J                          160655
R1 *       .6RST412 4012.J                          160657
R1 *       .6RST413 4013.J                          160658
R1 *       .6RST414 4014.J                          160659
R1 *       .6RST415 4015.J                          160700
R1 *       .6RST416 4016.J                          160702
```

5.3 Appendix "C" (Cont).

```
R1 *       .F32D5.J                                  160703
S1 *P27223.F61B7403H043V000A110.K                    160704
S1 *       .6NSLK774 7403.J                          160706
S1 *P45231.F33B5101H052V000A080.K                    160707
S1 *       .6NSLK743 5101.J                          160709
S1 *       .6NSLK744 5102.J                          160710
S1 *       .6NSLK745 5103.J                          160712
S1 *       .6NSLK746 5104.J                          160713
S1 *       .6NSLK747 5105.J                          160715
S1 *       .6NSLK748 5106.J                          160716
S1 *       .6NSLK749 5107.J                          160718
S1 *       .F33D6.J                                  160719
T1 *P45238.F34B6101H225V000A090.K                    160721
T1 *       .6JSK611 6101.J                           160722
T1 *       .6JSK612 6102.J                           160724
T1 *       .6JSK613 6103.J                           160725
T1 *       .6JSK614 6104.J                           160727
T1 *       .6JSK615 6105.J                           160728
T1 *       .6JSK616 6106.J                           160730
T1 *       .6JSK617 6107.J                           160731
T1 *       .F34D6.J                                  160733
U1 *P45246.F35B5201H090V000A040.K                    160734
U1 *       .6SWA521 5201.J                           160736
U1 *       .6SWA522 5202.J                           160737
U1 *       .6SWA523 5203.J                           160739
U1 *       .6SWA524 5204.J                           160740
U1 *       .6SWA525 5205.J                           160742
U1 *       .6SWA526 5206.J                           160743
U1 *       .6SWA527 5207.J                           160745
U1 *       .F35D6.J                                  160746
U1 *P25147.F36B6201H225V000A090.K                    160748
U1 *       .F36D6.J                                  160800
Q1 *P45259.F37B5301H360V000A050.K                    160801
Q1 *       .6NSLK751 5301.J                          160803
Q1 *       .6NSLK752 5302.J                          160804
Q1 *       .6NSLK753 5303.J                          160806
Q1 *       .6NSLK754 5304.J                          160807
Q1 *       .6NSLK755 5305.J                          160809
Q1 *       .6NSLK756 5306.J                          160811
Q1 *       .6NSLK757 5307.J                          160812
Q1 *       .F37D6.J                                  160814
R1 *P45267.F38B6301H315V000A090.K                    160815
R1 *       .6LES631 6301.J                           160817
R1 *       .6LES632 6302.J                           160818
R1 *       .6LES633 6303.J                           160820
R1 *       .6LES634 6304.J                           160821
R1 *       .6LES635 6305.J                           160823
R1 *       .6LES636 6306.J                           160824
R1 *       .6LES637 6307.J                           160826
R1 *       .F38D6.J                                  160827
S1 *P45274.F39B5401H270V000A060.K                    160829
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5.3 Appendix "C" (Cont).

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S1 *       .6UPS541 5401.J                                  160830
S1 *       .6UPS542 5402.J                                  160832
S1 *       .6UPS543 5403.J                                  160833
S1 *       .6UPS544 5404.J                                  160835
S1 *       .6UPS545 5405.J                                  160836
S1 *       .6UPS546 5406.J                                  160838
S1 *       .6UPS547 5407.J                                  160839
S1 *       .F39D6.J                                         160841
T1 *P21107.F40B6401H315V000A090.K                           160842
T1 *       .6ASP641 6401.J                                  160844
T1 *       .6ASP642 6402.J                                  160845
T1 *       .6ASP643 6403.J                                  160847
T1 *       .6ASP644 6404.J                                  160848
T1 *       .6ASP645 6405.J                                  160850
T1 *       .6ASP646 6406.J                                  160851
T1 *       .6ASP647 6407.J                                  160853
T1 *       .F40D6.J                                         160854
U1 *P45288.F41B5501H180V000A070.K                           160856
U1 *       .6USA551 5501.J                                  160857
U1 *       .6USA552 5502.J                                  160859
U1 *       .6USA553 5503.J                                  160901
U1 *       .6USA554 5504.J                                  160902
U1 *       .6USA555 5505.J                                  160904
U1 *       .6USA556 5506.J                                  160905
U1 *       .6USA557 5507.J                                  160907
U2 *       .F41D6.J                                         160908
Q1 *P45295.F42B6501H045V000A090.K                           160910
Q1 *       .6SST651 6501.J                                  160911
Q1 *       .6SST652 6502.J                                  160913
Q1 *       .6SST653 6503.J                                  160914
Q1 *       .6SST654 6504.J                                  160916
Q1 *       .6SST655 6505.J                                  160917
Q1 *       .6SST656 6506.J                                  160919
Q1 *       .6SST657 6507.J                                  160920
Q1 *       .F42D6.J                                         160922
R1 *P45303.F43B5601H090V000A080.K                           160923
R1 *       .6LUF561 5601.J                                  160925
R1 *       .6LUF562 5602.J                                  160926
R1 *       .6LUF563 5603.J                                  160928
R1 *       .6LUF564 5604.J                                  160929
R1 *       .6LUF565 5605.J                                  160931
R1 *       .6LUF566 5606.J                                  160932
R1 *       .6LUF567 5607.J                                  160934
R1 *       .F43D6.J                                         160935
S1 *P45310.F44B6601H045V000A090.K                           160937
S1 *       .6JJR661 6601.J                                  160938
S1 *       .6JJR662 6602.J                                  160940
S1 *       .6JJR663 6603.J                                  160941
S1 *       .6JJR664 6604.J                                  160943
S1 *       .6JJR665 6605.J                                  160944
S1 *       .6JJR666 6606.J                                  160946
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5.3 Appendix "C" (Cont).

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S1 *       .6JJR667 6607.J                                  160947
S1 *       .F44D6.J                                         160949
T1 *P21097.F45B5701H360V000A080.K                           160950
T1 *       .6JJH571 5701.J                                  160952
T1 *       .6JJH572 5702.J                                  160953
T1 *       .6JJH573 5703.J                                  160955
T1 *       .6JJH574 5704.J                                  160956
T1 *       .6JJH575 5705.J                                  160958
T1 *       .6JJH575 5706.J                                  160959
T1 *       .F45D5.J                                         161001
T1 *P27318.F60B7404H138V000A120.K                           161002
T1 *       .6NSLK775 7404.J                                 161004
U1 *P45324.F46B6701H135V000A090.K                           161005
U1 *       .6JCK671 6701.J                                  161007
U1 *       .6JCK672 6702.J                                  161008
U1 *       .6JCK673 6703.J                                  161010
U1 *       .6JCK674 6704.J                                  161011
U1 *       .6JCK675 6705.J                                  161013
U1 *       .6JCK676 6706.J                                  161014
U1 *       .6JCK677 6707.J                                  161016
U1 *       .F46D6.J                                         161017
Q1 *P45331.F47B5011H090V000A080.K                           161019
Q1 *       .6JEP511 5011.J                                  161020
Q1 *       .6JEP512 5012.J                                  161022
Q1 *       .6JEP513 5013.J                                  161023
Q1 *       .6JEP514 5014.J                                  161025
Q1 *       .6JEP515 5015.J                                  161026
Q1 *       .6JEP516 5016.J                                  161028
Q1 *       .6JEP517 5017.J                                  161029
Q1 *       .F47D6.J                                         161031
R1 *P45339.F48B6011H135V000A090.K                           161032
R1 *       .6RST611 6011.J                                  161034
R1 *       .6RST612 6012.J                                  161035
R1 *       .6RST613 6013.J                                  161037
R1 *       .6RST614 6014.J                                  161039
R1 *       .6RST615 6015.J                                  161041
R1 *       .6RST616 6016.J                                  161042
R1 *       .6RST617 6017.J                                  161043
R1 *       .F48D6.J                                         161044
S1 *P45010.F49B5021H090V000A080.K                           161046
S1 *       .6NSLK758 5021.J                                 161047
S1 *       .6NSLK759 5022.J                                 161049
S1 *       .6NSLK760 5023.J                                 161050
S1 *       .6NSLK761 5024.J                                 161052
S1 *       .6NSLK762 5025.J                                 161053
S1 *       .6NSLK763 5026.J                                 161055
S1 *       .6NSLK764 5027.J                                 161056
S1 *       .F49D6.J                                         161100
T2 *P45354.F50B6021H135V000A090.K                           161102
T2 *       .6RAT621 6021.J                                  161104
T2 *       .F50D4.J                                         161116
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5.3 Appendix "C" (Cont).

```
Q1 *        .F63V130F.J                                  161200
Q1 *        .F62V130F.J                                  161202
Q1 *        .F61V180F.J                                  161204
Q1 *        .F60V180F.J                                  161206
T2 *        .6RAT622 6022.J                              161208
T2 *        .6RAT623 6023.J                              161210
Q1 *        .7L3.J                                       161312
R1 *        .7L3.J                                       161314
S1 *        .7L3.J                                       161316
T1 *        .7L3.J                                       161318
U1 *        .7L3.J                                       161320
Q1 *        .7L1.J                                       161322
R1 *        .7L1.J                                       161324
S1 *        .7L1.J                                       161326
T1 *        .7L1.J                                       161328
U1 *        .7L1.J                                       161330
Q1 *        .7L7.J                                       161342
R1 *        .7L7.J                                       161344
S1 *        .7L7.J                                       161346
T1 *        .7L7.J                                       161348
U1 *        .7L7.J                                       161350
Q1 *        .F63HR1900.J                                 161400
Q1 *        .F62HL3401.J                                 161402
S1 *        .F61HR0302.J                                 161404
T1 *        .F60HL1583.J                                 161406
T2 *        .6RAT624 6024.J                              161408
T2 *        .6RAT625 6025.J                              161410
T2 *        .F50D5.J                                     161416
Q1 *        .F60HL1383.J                                 161426
Q1 *        .F63HR2230.J                                 161430
S1 *        .F62HL3181.J                                 161432
T1 *        .F61HR0432.J                                 161434
T1 *        .F51D6.J                                     161440
T1 *        .6RAT626 6026.J                              161512
T1 *        .6RAT627 6027.J                              161514
T1 *        .F50D6.J                                     161516
Q1 *        .7L3.J                                       161642
R1 *        .7L3.J                                       161644
S1 *        .7L3.J                                       161646
T1 *        .7L3.J                                       161648
U1 *        .7L3.J                                       161650
Q1 *        .7L1.J                                       161700
R1 *        .7L1.J                                       161702
S1 *        .7L1.J                                       161704
T1 *        .7L1.J                                       161706
U1 *        .7L1.J                                       161708
Q1 *        .7L7.J                                       161718
R1 *        .7L7.J                                       161720
S1 *        .7L7.J                                       161722
T1 *        .7L7.J                                       161724
U1 *        .7L7.J                                       161726
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5.3 Appendix "C" (Cont).

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Q1 *        .7L3.J                                  161736
R1 *        .7L3.J                                  161738
S1 *        .7L3.J                                  161740
T1 *        .7L3.J                                  161742
U1 *        .7L3.J                                  161744
Q1 *        .7L1.J                                  161800
R1 *        .7L1.J                                  161802
S1 *        .7L1.J                                  161804
T1 *        .7L1.J                                  161806
U1 *        .7L1.J                                  161808
Q1 *        .7L7.J                                  161818
R1 *        .7L7.J                                  161820
S1 *        .7L7.J                                  161824
T1 *        .7L7.J                                  161826
U1 *        .7L7.J                                  161828
Q1 *        .7L3.J                                  161836
R1 *        .7L3.J                                  161838
S1 *        .7L3.J                                  161840
T1 *        .7L3.J                                  161842
U1 *        .7L3.J                                  161844
Q1 *        .F63HR1903.J                            161900
Q1 *        .F62HL3402.J                            161988
S1 *        .F61HR0301.J                            161904
T1 *        .F60HL1580.J                            161906
Q1 *        .F63HR2233.J                            161936
T1 *        .F60HL1380.J                            161930
Q1 *        .F62HL3182.J                            161932
S1 *        .F61HR0431.J                            161934
Q1 *        .7L3.J                                  162142
R1 *        .7L3.J                                  162144
S1 *        .7L3.J                                  162146
T1 *        .7L3.J                                  162148
U1 *        .7L3.J                                  162150
Q1 *        .7L1.J                                  162200
R1 *        .7L1.J                                  162202
S1 *        .7L1.J                                  162204
T1 *        .7L1.J                                  162206
U1 *        .7L1.J                                  162208
Q1 *        .7L7.J                                  162218
R1 *        .7L7.J                                  162220
S1 *        .7L7.J                                  162222
T1 *        .7L7.J                                  162224
U1 *        .7L7.J                                  162226
Q1 *        .7L3.J                                  162236
R1 *        .7L3.J                                  162238
S1 *        .7L3.J                                  162240
T1 *        .7L3.J                                  162242
U1 *        .7L3.J                                  162244
Q1 *        .7L1.J                                  162300
R1 *        .7L1.J                                  162302
S1 *        .7L1.J                                  162304
```

5.3 Appendix "C" (Cont).

```
T1 *        .7L1.J                                  162306
U1 *        .7L1.J                                  162308
Q1 *        .7L7.J                                  162318
R1 *        .7L7.J                                  162320
S1 *        .7L7.J                                  162322
T1 *        .7L7.J                                  162324
U1 *        .7L7.J                                  162326
Q1 *        .7L3.J                                  162336
R1 *        .7L3.J                                  162338
S1 *        .7L3.J                                  162340
T1 *        .7L3.J                                  162342
U1 *        .7L3.J                                  162344
Q1 *        .F01.J                                  162355
Q1 *        .F02.J                                  162358
Q1 *        .F03.J                                  162400
Q1 *        .F04.J                                  162404
Q1 *        .F05.J                                  162406
Q1 *        .F06.J                                  162408
Q1 *        .F07.J                                  162410
Q1 *        .F08.J                                  162412
Q1 *        .F09.J                                  162414
Q1 *        .F10.J                                  162416
Q1 *        .F11.J                                  162418
Q1 *        .F12.J                                  162420
Q1 *        .F13.J                                  162422
Q1 *        .F14.J                                  162424
Q1 *        .F15.J                                  162426
Q1 *        .F16.J                                  162428
Q1 *        .F17.J                                  162430
Q1 *        .F18.J                                  162432
Q1 *        .F19.J                                  162434
Q1 *        .F20.J                                  162436
Q1 *        .F21.J                                  162438
Q1 *        .F22.J                                  162440
Q1 *        .F23.J                                  162442
Q1 *        .F24.J                                  162444
Q1 *        .F25.J                                  162446
Q1 *        .F26.J                                  162448
Q1 *        .F27.J                                  162450
Q1 *        .F28.J                                  162452
Q1 *        .F29.J                                  162454
Q1 *        .F30.J                                  162456
Q1 *        .F31.J                                  162500
Q1 *        .F32.J                                  162502
Q1 *        .F33.J                                  162504
Q1 *        .F34.J                                  162506
Q1 *        .F35.J                                  162508
Q1 *        .F36.J                                  162510
Q1 *        .F37.J                                  162512
Q1 *        .F38.J                                  162514
Q1 *        .F39.J                                  162516
```

5.3 Appendix "C" (Cont).

```
Q1 *        .F40.J                                  162518
Q1 *        .F41.J                                  162520
Q1 *        .F42.J                                  162522
Q1 *        .F43.J                                  162524
Q1 *        .F44.J                                  162526
Q1 *        .F45.J                                  162528
Q1 *        .F46.J                                  162530
Q1 *        .F47.J                                  162532
Q1 *        .F48.J                                  162534
Q1 *        .F49.J                                  162536
Q1 *        .F50.J                                  162538
Q1 *        .F51.J                                  162540
Q1 *        .F63.J                                  162542
Q1 *        .F62.J                                  162544
Q1 *        .F61.J                                  162546
Q1 *        .F60.J                                  162548
Q1 *        .4ALL.J                                 162750
Q2 *        .4ALL.J                                 162755
R1 *        .4ALL.J                                 162800
R2 *        .4ALL.J                                 162805
S1 *        .4ALL.J                                 162810
T1 *        .4ALL.J                                 162815
T2 *        .4ALL.J                                 162818
U1 *        .4ALL.J                                 162820
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6.0 Acronym List

A/C	Aircraft
ADB	Altitude Data Block
ACP	Azimuth Change Pulse
ADU	Azimuth Distribution Unit
BUP	Builder Utility Program
CA	Conflict Alert
CCD	Configuration Control Decision
CDR	Continuous Data Recording
CPU	Computer Processor Utilization
CR	Card Reader
CMA	Central Memory Access Unit
CTAS	Center/Terminal Automation System
CTS	Central Track Store
DA	Descent Advisor
DADS	Data Aquisition and Display System
DCU	Disc Control Unit
DDU	Disc Drive Unit
DEDS	Data Entry and Display System
DNP	Do Not Process
DPL	Terminate Control Operational Function
DPS	Data Processing Subsystem
DWS	DADS Work Station
ETG	Enhanced Target Generator
FAST	Final Approach Spacing Tool

FDB	Full Data Block
FDE	Flight Data Entry
FNCT	Function
GS	Ground Speed
HJI	Heavy Jet Indicator
IFR	Instrument Flight Rules
ILL	Illegal
IMC	Instrument Meteorological Conditions
IOPB	Input Output Processor "B"
ISL	Inter Sensor Linker
ITL	Information Tabular List
MM	Memory Module
MODL	Modify Multifunction
MPE	Multiprocessor Executive
MSAW	Minimum Safe Altitude Warning
MSP	Medium Speed Printer
MTU	Magnetic Tape Unit
OP	Operational Program
POS	Position
PTR	Program Technical Report
RFDU	Reconfiguration Fault Detection Unit
SED	Slew Entry Device
SRAP	Sensor Receiver and Processor
TATCA	Terminal Air Traffic Control Automation
TAP	TIU ARTS Processor
TFP	TIU FDAD Processor
TIU	TATCA Interface Unit
TMA	Traffic Management Advisor
TOP	TIU Oerational Ians Processor
TSP	TIU Support Processor

TTMA	Terminal Traffic Management Advisor
TTY	Teletype
TWS	TIU Work Station
VFR	Visual Flight Rules
VMC	Visual Meteorological Conditions