## A STUDY OF VISUAL AND CARDIOVASCULAR STANDARDS IN RELATION TO SUCCESS IN FLIGHT TRAINING

#### Prepared

bу

National Research Council Committee on Selection and Training of Aircraft Pilots

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#### National Research Council

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#### LETTER OF TRANSMITTAL

#### MATIONAL RESEARCH COUNCIL

2101 Constitution Avenue, Washington, D. C. Division of Anthropology and Psychology

Committee on Selection and Training of Aircraft Pilots

June 11, 1946

Dr. Dean R. Brimhall Director of Research Civil Aeronautics Administration Room 3895, Commerce Building Washington, D. C.

Dear Dr. Brimhell:

Attached is a report entitled <u>A Study of Visual and Cardiovascular</u> Standards in Relation to Success in Flight Training, submitted by the Committee on Selection and Training of Aircraft Pilots with the recommendation that it be included in the series of Technical Reports of the Division of Research, Civil Agronautics Administration.

The study described in this report represents a second in a series devoted to the investigation of the relationship between physical standards and accomplishment in learning to fly, conducted at British Flying Training Schools in the United States. The first, described in CAA Division of Research Report No. 26, revealed no relationship between visual and cardiovascular defects, respectively, and progress through elementary and advanced flight training courses. However, it was not possible to draw definitive conclusions from the first study because the medical records of a number of cadets who had failed or had been washed out early in the primary training course were unavailable for analysis.

The present report describes a repeat study involving student pilots attending four of the British Flying Training Schools. Again, medical records have been compared with performance in primary and advanced flight training. The findings confirm those of the first study with respect to the absence of relationship betwien visual and cardiovascular measures and performance in elementary and advanced flight training courses as determined by a variety of criteria.

The results are of practical significance in terms of the recruiting of individuals for flight training by the military services. Unfortunately, the implications for civilian private flight training are not so direct because a very small proportion of the subjects falled to meet the visual and cardiovascular standards now explied in the certification of private pilots

However, the data are of interest in connection with the original certification and remarkamination of commercial and, more particularly, air transport piloto.

Cordially yours,

Morris S. Viteles, Chairman Committee on Selection and Training of Aircraft Pilots National Research Council

MSV:pd

#### EDITORIAL FOREWORD

Physical requirements for the selection of applicants for flight training have been established primarily on the basis of expert medical judgments. Experimental investigation of the validity of such standards has, in the past, been hampered by the fact that only applicants meeting the established standards were given an opportunity to undergo a full program of flight training.

Standards employed by the British Royal Air Force, particularly during the earlier phases of World War II, were lower in many respects than those employed in the selection of aviation cadets for the Army and Navy Air Forces of the United States. During the war, schools for the training of RAF student pilots were maintained in this country. Because the physical standards for the British Royal Air Force were somewhat lower than were the standards for the American services, performance of British flight cadets who fell below the American standards could be compared with the performance of other British cadets who met the American standards. Through the cooperation of the Director General of Medical Services, Royal Air Force, and of the RAF Delegation in this country, airangements were made for conducting a study of the relationship between physical standards and accomplishment in learning to fly at five British Flying Training Schools In the United States.

Two such studies have been conducted. The first, described in CAA Division of Research Report No. 26, revealed no relationship between visual and cardiovascular defects, respectively, and progress through elementary and advanced flight training courses. However, it was not possible to draw definitive conclusions from the first study because the medical records of a number of cadets who had failed or had been washed out early in the primary training course were unsvailable for analysis.

The present report describes a repeat study involving student pilots attending four of the British Flying Training Schools. Again, medical records have been compared with performance in primary and advanced flight training. The findings confirm those of the first study with respect to the absence of relationship between visual and cardiovascular measures and performance in elementary and advanced flight training courses as determined by a variety of criteria.

The results are of practical significance in terms of the recruiting of individuals for flight training by the military services. Unfortunately, the implications for civilian private flight training are not so direct because a very small proportion of the subjects failed to meet the visual and cardiovascular standards now applied in the certification of private pilots. However, the data are of interest in connection with the original certification and re-examination of commercial and, more particularly, air transport pilots.

These studies were undertaken originally at the suggestion of Dean R. Brimhall, Director of Research, Civil Aeronautics Administration. The study described in this report is an outcome of the work of the National Research Council Committee on Selection and Training of Aircraft Pilots.

The details of the study were outlined by the staff of the Committee in cooperation with Raymond Franzen, Consultant to the Division of Research, Civil Aeronautics Administration, and to the Committee on Selection and Training of Aircraft Pilots. The statistical analysis was made by Raymond Franzen. The report was written by the Editorial Staff of the Committee on Selection and Training of Aircraft Pilots, in particular, by E. S. Ewart.

Acknowledgment is due to Wing Cdr. P. A. Lee, formerly attached to the RAF Delegation, with the approval of Air Marshall Sir H. E. Whittingham, who was largely instrumental in providing facilities for the studies. The medical examinations referred to in this report were made by air surgeons from the Army Air Forces attached to the British Flying Training Schools. Acknowledgment is made of the cooperation of the Office of the Air Surgeon, Army Air Forces, in the conduct of the study.

May 9, 1946

Morris S. Viteles, Chairman Committee on Selection and Training of Aircraft Pilots

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#### SUMMARY

The present study represents an investigation of the relationships between incidence of visual and cardiovascular defect (defined generally in terms of medical standards employed in selection of pilots for the United States Army and Navy Air Forces) and measures of success in flight training. The investigation was conducted on four samples of RAF cadets in training at four centers in the United States and performance in the elementary and advanced training courses was studied. Since the RAF visual and cardiovascular standards are less stringent than those of the United States services, it was possible to investigate the flight proficiency of cadets who fell below the American standards.

Analysis of data from the four schools indicated that within the limits of the samples there were no significant relationships over the four schools, between the visual and cardiovascular defects investigated and criterion measures of proficiency in the flight training course. The data were evaluated statistically by means of chi-squared and although a few statistically significant chi-squareds were obtained, no consistent trends were evident over the four schools and the distribution of chi-squared was, in general, that expected on the basis of chance relationships only. The physiological measures to which these results primarily apply are: Visual Acuity, Depth Perception, Accommodation, and Systolic Blood Pressure.

Although no data are available bearing on the relationship of visual and cardiovascular defect to the ability to withstand the rigors of operational and combet flying, it is emphasized that the results of this study indicate that future research should be concentrated in this area. As far as success in flight training is concerned, it is apparent that the present Army and Navy standards are unnecessarily stringent.

An investigation of the relationship between criterion measures, conducted supplementary to the principal analysis, indicated that the individual criterion measures of flight proficiency, while positively related, were not intercorrelated to any marked degree. The correlations between the same measures taken in elementary and advanced flight courses similarly were not high with two exceptions. While the measures of flight proficiency taken during elementary and advanced training failed to show significant relationships, the measures of proficiency on the Link Trainer, and particularly ratings on "Character and Leadership," proved to be significantly and relatively highly related when the correlations between ratings made during the elementary and advanced courses were examined.

## A STUDY OF VISUAL AND CARDIOVASCULAR STANDARDS IN RELATION TO SUCCESS IN FLIGHT TRAINING

#### INTRODUCTION

Physical standards for the selection of military pilots and for civilian pilots as well, have in general been set in terms of a priori judgments of the level at which various physiological variables (e.g., visual acuity) represent a significant handicap to success in learning to fly. Although, in general, medical examiners agree that physical disability is a handicap to flight training, they have generally not determined experimentally the degree of disability which limits success. Because of this, it seemed quite possible that many potentially good pilots were being eliminated by the medical standards at present adhered to by the services. It is evident that if the pool of applicants for flight training becomes smaller, or if contingencies in the future demand that a greater proportion of applicants be accepted to meet the needs of the services, the validity of the selection and elimination standards will become more and more acute.

An opportunity to investigate the validity of Army and Navy medical standards of acceptance for applicants for military flight training was afforded by the circumstance that records of British Royal Air Force cadets who were receiving flight instruction in this country were available for study. The physical standards, particularly visual and cardiovascular, used in the original selection of these men were somewhat less strict than those employed by the American Air Forces. In an earlier study the success in flight training of two groups of Royal Air Force cadets was analyzed: (1) one group being composed of cadets who would have been acceptable both in terms of American and British standards, and (2) the other group being composed of cadets accepted in terms of the British standards, but who were below American standards and who would have been eliminated had they applied for training in the American Air Forces. Primarily, the standards of acceptance for measures of (1) pulse. (2) systolic and diastolic pressure, and (3) visual aculty in the worst eye were investigated with respect to success in flight training.

Data taken from medical records and reports of success in flight training, available from the American Air Forces, could not be used in evaluating the American standards since while the number of successful pilots who meet these standards can be determined, evidence bearing upon the flight performance of applicants below the physical standards is not available since all such men were rejected for training.

Brimhall, Dean R., and Franzen, Raymond. A preliminary study of physical standards in relation to success in flight training. Washington, D. C.: CAA Division of Research, Report No. 26. February 1944.

It was found that there was little, if any, association between the approximate levels of acceptance now employed by the American Air Forces and the incidence of failure in flight training. It was also demonstrated that certain other factors (height, weight, chest circumference, body build, elasticity of arterial walls, the amount the cadet smoked or drank, etc.) did not distinguish the cadets who passed flight training from those who were failed. Further, these same factors did not differentiate the cadets with respect to degree of success in flight training.

A shortcoming of this earlier study was that medical records on a number of cadets who had been failed or "washed out" early in the primary training course were unavailable for analysis. Thus, the possibility remained that had these early failers been included in the study some degree of relationship between the medical factors and success in flight training might have been evident. This shortcoming of the previous study has been corrected in the present investigation, in that medical records of a representative sample of all cadets in training at the centers investigated have been included in the data.

#### PROBLEM

The present study, conducted with four groups of RAF cadets training in this country, was designed primarily to determine if the incidence of visual and cardiovascular defect (in terms of standards of the American Air Forces) was significantly related to degree of success in flight training and in particular to the success or failure of the subjects in the flight training course.

As a by-product of this principal investigation, i.e., as a supplementary analysis, the interrelationships between criterion measures were studied.

#### SUBJECTS

The RAF cadets used in this investigation were stationed and in training at four centers; Clewiston, Florids; Kinmi, Oklahoma; Terrell, Texas; and Mass, Arizona. In general, the cadets proceeded from elementary to advanced training at their respective schools. The total number of cadets entering training at each of these schools and the number of cadets actually used in this investigation who passed and failed in clamentary or advanced flight training are given in Table 1. It will be noted that the number of subjects who entered training at the various schools is somewhat greater than the number of subjects included in the analysis of data from the elementary subjects. This resulted from the fact that medical records or other necessary data were not available for some of the cadets, including both passers and failers. It will also be observed that the total number available for analysis who

passed the elementary course. This case was dropped or transferred at the completion of elementary training for unexplained reasons. A complete breakdown or analysis of cases in advanced training at the four schools is given in Appendix 1.

TABLE 1
NUMBER OF SUBJECTS AT THE FOUR FLIGHT TRAINING, SCHOOLS

	Elements	rv Subic	ets Uga	in Stud	ly Ad	lvanced Su	bjects [	lead in S	tudy
		-	Passers	•			Passers	₩ 3*	
	Number	with	Without	>		with	Without		
	in	Flight	Flight			${ t Flight}$			
<u>School</u>	Training	Records	Records	Feilers	<u>Total</u>	Records	Rece ada	Failers	<u>Total</u>
Clewiston	111	82	0	12	94	63	S	17	82
Miami	112	87	1	11	99	<b>7</b> 7	2	9	58
Terrell	בְנוֹ	85	3	13	101	74	6	7	87
Mes <b>a</b>	112	87	6	5	98	71	12	10	93

\*Passers who lacked de ailed flight records were included in the analysis in terms of the Pass-Fail criterion, but were excluded from the analysis in terms of detailed flight criteria. Detailed criterion measures were not available for subjects who failed the course.

#### MEDICAL STANDARDS AND EXAMINATION PROCEDURES

Sources from Which Medical Standards were Drawn. The medical standards used in this analysis were drawn from the following sources:

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Army Regulations No. 40-110: Medical Pepartment. Standards of Physical Examination for Flying.

Army Regulations No. 40-105: <u>Medical Department</u>. Standards of Physical Examination for Commission in Regular Army, National Guard of the U.S., Army of U.S., and Organized Reserves.

Physical Examinations for the Medical Department of the U.S. Navy (reprint of Chapter 11, Manual of the Medical Department, 1938).

<u>Visual Standards Used in the Experiment</u>. The visual standards in terms of which "disability" was defined in this investigation are presented in Table 2. On the right of this table are outlined the Army standards taken from Army regulations. On the left of this table are the definitions of the standards in terms of the several visual variables as actually used in this research. It will be noted that for all variables except <u>Accommodation</u> and <u>Visual Acuity</u> the standards as set in this study

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are somewhat less lenient than the Army standards. This more strict interpretation of visual standards was made in order to conform to the 1938 Navy standards and applied to all variables for which Naval standards were more stringent than were the Army's. In the case of <u>Accommodation</u> and <u>Visual Acuity</u> the Army and Navy standards were the same.

#### TABLE 2

#### STANDARDS OF PHYSICAL EXAMINATION FOR FLYING

#### Visual Discuslification

Army Regulations
No. 40-110

Standards Used to Represent Stricter Interpretation (Conform to 1938 Nevy Standards)

#### Visual Acuity - R.E. & L.E.

Less than 20/20 for each sys

Less than 20/20 for each eye

#### Depth Percention

31 or more

26 or more

#### <u>Heterophoria at 6 Meters</u>

10 or more 6 or more 2 or more Exophoria 5 or more Exophoria 3 or more R.H. and L.H. 2 or more

#### Prism Divergence

16 or more and 2 or less

10 or more and 1 or less

#### Angle of Convergence

PoB & Pd. -- the distance from the base line to the near point of convergence (PoB.) must not exceed the inter-pupillary distance by more than 25 millimeters Angle of Convergence = 1/2 Pd. x 100 + 3

Smaller than 400 is disqualifying

#### Accommodation

(Army and Navy standards are the same)

Rt. & Lt. -- more than 3 diopters below the mean for the examines's age in either eye

Average age - 25 years, limits: 7.1 diopters or less and 13.3 diopters or more

Cardiovascular Standards Used in the Experiment In as much as the Army and Navy regulations regarding cardiovascular defects are stated in qualitative as well as in quantitative terms, it was not possible to durplicate them exactly in setting standards for the present experiment. (An excerpt from Army Regulations No. 40-110 pertaining to cardiovascular standards is presented in Appendix 2. The statement of Navy standards is similar to this.) However, the standards selected for investigation were set at points very closely approximating those given in the regulations. The various cardiovascular points selected for investigation are outlined in Table 3 below. In regard to systolic pressure it will be noted that out-off points are set on the continuum which define what can be termed high systolic pressure, marginally high systolic pressure, marginally low systolic pressure.

#### TABLE 3

# STANDARDS OF PHYSICAL EXAMINATION FOR FLYING (Cardiovascular Points Used in This Investigation)

Systolio Blood Pressure	Diestolic <u>Blood Pressure</u>				
140 and over	90 and over				
135 to 139	85 to <b>89</b>				
100 and under					
101 to 105					

Medical Elements Excluded from the Study. A number of elements from the medical examination were excluded from the study due to the fact that insufficient data were available, because insufficient variance was evident in terms of the element, or for other reasons. The medical elements excluded from the study and the reason for their exclusion are given in Appendix 3.

#### CRITERION MEASURES

The criterion measures on the subjects in this investigation were taken from entries in the RAF Training Report, Pilot (RAF Form 5012). At the completion of the course, a Training Report was completed for each cadet. If a trainee was eliminated a suspension report was filled. However, most of the criterion data included on the Training Report were not supplied in the case of eliminees. A reproduction of the Training Report for elementary cadets is given in Figure 1.

#### Criterion Measures Available on Elementary Cadets.

1. The following measures were available on the basis of the flying tests.

- a. Ratings on the following areas of flight proficiency:
  - (1) General Flying
  - (2) Instrument Flying
  - (3) Night Flying
  - (4) Link Trainer
- b. Total Flying Test grade or score. This measure was represented by a summation of the scores assigned in terms of the four variables above. As is evident from Figure 1, the four variables which contributed to the total flying test score were not all weighted equally, the variable "General Flying" being most heavily weighted, contributing a possible 600 points to the maximum possible Total Flying Test score of 1000.

Two types of measures were available from the Total Flying Test score: (1) the absolute score, and (2) the "order of merit," which represented the rank order position of the subject on the Flying Test score in terms of the population of cadets at the school in which he was enrolled.

- 2. The following additional measures bearing upon the subject's flight proficiency were obtained.
  - a. Number of hours dual instruction prior to first daytime solo flight,
  - b, Total number of hours dual daytime instruction during the course.
  - e. Suitability ratings. At the completion of the course the cadets were rated as to their suitability for (1) piloting Bomber type aircraft, (2) piloting Fighter type aircraft, and (3) flight instruction work. Ratings were made in terms of four categories: (1) not at all suitable, (2) moderately suitable, (3) definitely suitable, and (4) extremely suitable.
- 3. The following measures less directly associated with flight proficiency were also obtained.
  - a. Total score from ground school examinations. As is evident from Figure 1, this measure represented the summation of marks assigned to ground school examinations in (1) Airmanship, (2) Armament, (3) Mateorology, (4) Navigation, and (5) Signals. As in the case of the Total Flight Test grade, measures represented by the absolute score and morder of

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### RAF,—TRAINING REPORT

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Schoolis	1 DFX9		(ciTerrell, Terms	<u> </u>	-		
l. Surname	Christian Names Names						
2. Number 3. Ronk 102 4. Course No. 22 (Jeny 1/5 output) 5. Posted 9 EFTS 5. Date course com- 7. Date course 8. Posted menced J no 20,114 ended 10,08,144 to 10 100000000000000000000000000000000							
9. Ground Examinations 10. Flying Tests							
Bubisct	Marks Allotted	Marks Obtained	Subject	Marke	) designated		
(a) Airmanship .	300	186	(a) General Flying	600	863.		
(b) Armoment	. 300	184_	(b) Instrument Flying	250	140		
(c) Meteorology	100		(c) Night Flying "	100	76		
(d) Navigation .	. 200	6	(d) Link Trainer	- 50	M		
(e) Signais .	100	4					
Total	1,000		Total	1,000	431		
Order of Merit 9/97	Per Ceni.	84	Order of Merit 85	r Cent	44		
11 Assessm and Lea	ent of qual derahip	uties of C	haracter Alletted Chizanad 100 99	Order of Merit			

	α	ı	2	9
Degree of suitability for further training	Not at all suitable	Moderately sultable	Definitely suitable	Extremely suitable
12. For Bomber type aircraft		3		
13 For Fighter type curcraft			3	
14. As a Flying Instructor .	7	7		

(Mark 'X' in appropriate column for each)

15 If a copy of a later report for this pupil is desired, mark here

16. Remarks:- PRIMA: Y FINAL PE-SIT WADE: ARMANSES: 201- AIRMARSHIP: 188-METEUR LOGT: 86- MAY DIATION 188; SIGNALS: 88- UV FALL: 70-1

Signed\_P.B. TOMELER

Home Ku

(N.B.—Flying Times and Accident Record shown overleaf)

FIGURE 1

17. Phyting Times (At this Unit):

Type of Alberta	Time	Duzi to let Solo	Total deal	<b>\$cl</b> g	Pakenger	Pornation	lustro- moni	Link Trainer
Pī	Day	14.06	30124	20:34		Ē	5105	8:00
	Might	1:45	3165	2:07		;		
	Day	_			ļ ·	, ,	,	
	Night_				:			

18. Flying Accidents.—All flying accidents in which this pupil was concerned while at this unit are to be noted below, whether serious or trivial, whether otherwise reported or not. If there were no such accidents, write in "None."

(i) Type of Aircraft	(2) Date of Accident	(3) Day or Might	(4) Previous Reports	(5) Nature of Accident	(6) Amount of Damage	Dograda stape	(7) (A) peopli's mathility
(Alcone)	Day Month Year	**************************************	a.g. 785a Number or other reports (ti cary)	Use one or two words (e.g "Toxytog" "Heavy Landing" "Over-shooting" etc.)	"R.U." "R.ILU." or "W O.""	"Now" "Portici" "Pull" or "Unknown"	Comment  a.g.  Engine Poilure" "Instrumento" "Gambananaa," etc.
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\*Cohesa (6) above: "R.U." —Repairable at Unit.
"R.X.U." —Repairable array from Unit.

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merit" of the subject were available.3

b. Character and leadership ratings. Assignment of these ratings, representing an "Assessment of Qualities of Character and Leadership," were made in terms of a 100-point scale, i.e., a maximum of 100 points were "allotted" to this assessment. In addition, the "order of merit" of the subject was available.

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<u>Criterion Measures Available on Advanced Cadets</u>. The criterion measures taken for the advanced cadets were the same as for the elementary subjects with the following exceptions:

l. To the variables contributing to the Total Flying Test'score was added "Applied Flying." The list of variables contributing to this score and the maximum number of points or "marks" allotted to each were therefore:

Subject	Maximum Number of "Marks" Allotted
General Flying	400
Applied Flying	200
Instrument Flying	<b>2</b> 50
Night Flying	100
Link Trainer	50
Total (Flying Test Score	) 1000

- 2. The variables, "Number of hours dual instruction prior to first daytime solo," and "Total number of hours dual daytime instruction," included in the investigation of elementary cadets were not used in that part of the study devoted to the advanced student pilots.
- 3. In addition to obtaining ratings in terms of a four-point scale, on suitability for Bomber type craft, Fighter type craft, and flight instruction, advanced cadets were also rated on suitability for General Reconnaissance aircraft, Army cooperation aircraft, Flying boats, and for Transport duties.

#### RESULTS OF PRINCIPAL INVESTIGATION

<u>Distribution of Visual and Cardiovascular Variables</u>. The distributions of visual and cardiovascular defects by schools are given in Table

However, in contrast to the procedure followed in the case of the Total Flight Test grade, the individual variables contributing to the Total Ground Examination score were not treated separately in the statistical analysis.

4. Certain anomalies in these distributions merit attention. It is difficult to understand, for example, why systolic pressure between 100 and 105 should be so much more prevalent at Clemisten and why the distribution of prism divergence at Terrall should differ so markedly from the distributions in terms of this variable at the other three schools. It is suggested that differences in examining procedures might account for these discrepancies. However, the nature of the data provided no further opportunity for the investigation of this point. It should also be noted that only a few subjects fell below the critical points in terms of a number of the visual variables. Reference to Table 4 indicates that although an appreciable number of subjects fell below the critical points in terms of Acuity, Depth Perception, and Accommodation respectively, relatively few or none were below the critical points in terms of heterophoria, angle of convergence, and (with the exception of the Terrell cases which were atypical) prism divergence. Examination of Table 4 also indicates . that considerably more applicants were below standard in terms of systolic blood pressure than in terms of diastolic blood pressure.

The complete distributions of cases in terms of measures on all of the visual and cardiovascular variables are presented in Appendix 4. Examination of these distributions presented in Appendix 4 indicates that even in regard to those variables in terms of which the greatest number of defect cases were evident, very few cases fell markedly below the standards. For example, although at the four schools there were 41 cases below the Navy and Army standards for Visual Acuity (which are the same) only one case fell below the standards required for the private pilot license (less than 20/30 corrected vision in either eye). In the case of the test of Depth Perception, inspection of Appendix 4 and Table 4, indicates that whereas there were 61 subjects below the Navy standards, a score of 26 mms. or more disqualified an applicant) there were only 14 cases below the Army standards (31 mm. or more disqualifies), and still fewer in terms of the standards for the private license which permit the applicant to wear correcting lenses.

Means and Standard Deviations of Criterion Elements. The means and standard deviations of criterion elements at the four schools are presented for the elementary group in Table 5, and for the advanced group in Table 5a. It is to be noted that several marked differences in means are evident, particularly in regard to the Time measures. This may be accounted for in part by differences in procedure at the various schools. In as much as data from each school are treated separately, the above differences between schools were not examined further.

Procedures Employed in Analysis of Data. Data from all criteria (except the suitability ratings) were converted into standard scores, the standard scores for cadets at a given school being computed on the basis of the sample of pilots in training at that school. Tabulations were then made indicating the incidence of visual defect and cardiovascular defect, respectively, in terms of the scores on each of the several criteria. In regard to the suitability ratings, each type of suitability rating was

TABLE 4
DISTRIBUTION OF VISUAL AND CARDIOVASCULAR DEFECTS BY SCHOOLS
(Elementary Subjects)

MESA	TERRELL	MIAMI	CLEWISTON
98 Cases	101 Cases	99 Cases	95 Cases*
<b>6</b> 9	91 10	91 8	81 14
78 17 3	89 8 4	86 11 2	79 11 5
98 0 0 94 4	98 3 0 100	94 4 1 97 2	93 2 0 91 4
98 0	101	99 0	95 0
98 0 0	75 26 0	99 0 0	94 1 0
0 98	0 101	0 99	0 95
90	87	94	85
8	14	5	10
14 5 78 0 1 0	2 5 94 0 0 0	6 83 4 0 4	0 0 81 13 1 0 1
	98 Cases 89 98 78 17 3 98 0 94 4 0 98 0 98 0 98 0 98 0 98 0 98 0 98 0 98 0 98 0 98 0 14 15 16 16 16 16 16 16 16 16 16 16	98 Cases       101 Cases         89       91         78       89         17       8         3       4         98       98         0       3         0       0         94       100         4       1         0       0         98       75         0       26         0       0         98       75         0       26         0       0         98       101         90       87         8       14         14       2         5       78         94       0         0       0         1       0         0       0         1       0         0       0         1       0         0       0         1       0         0       0         1       0         0       0         1       0         0       0         1       0         0       <	89       91       91       91       91       91       91       91       91       91       92       93       94       95       96       97       98       98       94       93       94       94       96       97       94       97       97       94       100       97       97       94       11       22       90 <t< td=""></t<>

\*One of the Clewiston cases, although having a medical and flight record, was omitted from the analysis because the pilot was not given a "Night Flying Test." The maximum number of cases available from Clewiston was, therefore,  $94_9$  as indicated in Tables  $1_9$   $6_9$  and  $8_9$ 

TABLE 5

MEANS AND STANDARD DEVIATIONS OF ELEMENTARY CRITERION ELEMENTS

	MBSA		TERRELL		THATM		CLEW IS TON	
Criterion Elements	Mean	S.D.	Mean	S.D.	Mean	<u>Ş.D.</u>	Kean	S.D.
Flying Test	50.2	28.4	46.9	27.5	49.3	28.5	45.7	25.9
Ground Exem	50.5	28.5	45.9	26.2	4 <del>9</del> .8	28.3	49 4	25,8
Character and Leadership	48.4	28.5	42.5	26.8	44.5	27.1	44.6	27.3
General	442.4	41.9	425.1	42.8	402.3	37.3	` <b>391 .</b> 0	52 J
Instrument	183.0	22.2	173.3	15.1	153.9	16,6	162.3	20,2
Wight	73.1	7.3	76.4	5.9	69.6	8.4	65 °6	8.4
Link	34.4	4-4	32.0	1.7	33.2	2.7	<b>35.3</b>	5.4
Day*- Dual to 1st Solo	512	42	492	97	542	77	574	72
Total Dual	1825	53	2024	142	1948	129	1864	107
Solo	2026	40	1850	181	1957	126	2046	112
Night -Dual to 1st Solo	216	53	109	21	1.24	29	169	48
Total Dual	280	34	255	36	231	30	262	30
Solo	72	27	112	31	72	24	45	35

<sup>\*</sup>Time measures are expressed in minutes.

ž Z

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TABLE 5a
MEANS AND STANDARD DEVIATIONS OF ADVANCED CRITERION ELEMENTS

MESA		SA	TERR	ELL	MIA	MT	CLEWISTON		
Caterion Elements	Mean	S_D_	Megn	<u>S.D.</u>	Mean	<u>s.D.</u>	Mean	S.D.	
Gameral	249.2	15. <b>8</b>	303 .4	26.3	278,6	21.3	280.0	15.8	
unstrument	153.4	12.0	189.7	13.0	175.3	16.5	179.8	18.4	
Signu	61.4	5.2	76,5	6,3	70,6	9.0	71,2	5-4	
11.2	36.0	2.1	36.2	1.2	33.9	4.3	<b>3</b> 4.2	6.8	
Ar. lieo Flying	122.1	11.6	151.5	10.2	126.6	12.8	142.7	7.9	
Flying Test	41,9	23.1	42.4	23.7	45.6	24.9	34.7	21.1	
©round Exam	42.1	24.1	41.2	23,5	45.0	25.2	39.0	20.5	
Character and Leadership	40.1	23.1	40.3	23.7	40.5	24.3	36,5	20.4	

chaed in the following manner:

"Not at all suitable	0
"Moderately suitable'	-
"Definitely suitable"	2
"Extremely guitable"	3

All combinations of ratings for suitability for the three types of training are included in the distributions labelled "Occurrence of Visual Defect in Terms of the 'Suitability Test' Distribution" which are included in Appendix 5 for elementary students and in Appendix 6 for advanced students.

The significance of the relationships between the incidence of visual and cardiovascular defect, respectively, was evaluated in terms of the distributions of scores on each of the several criterion measures through the application of chi-squared. In the case of the "suitability ratings" chi-squared probabilities were determined for each type of suitability by itself, and in addition a general chi-squared probability was computed for the best score made on any of the three types. The significance of the relationship between incidence of visual and cardiovascular defect, respectively, and the "Passed-Eliminated" criterion (i.e., passing or failing the flight course as a whole) was determined through the application of chic

Relationship Between Visual Pefect and Criteria. In Tables 6 and 6a are presented the values of chis and associated p values indicative of the relationship between incidence of visual defect and passing or failing in the elementary and the advanced flight courses, respectively, at the four schools. Examination of these tables indicates that at none of the four schools, in either the elementary or advanced courses, is a statistically significant relationship evident between incidence of visual defect and the pass-fail criterion, the p values in no case being less than 20.

In Tables 7 and 7a are listed the chi-squareds and associated p values indicative of the relationship between visual defect and criterion scores of subjects who passed the elementary and advanced classes, respectively, at the four schools. It should be emphasized that statistics in these tables are based on passers only, detailed criterion information not being available for subjects who failed the course. The original distributions from which the chi-squareds in Tables 7 and 7a were computed are presented in Appendices 5 and  $6^{\circ}$  It will be noted that data on suit-

The p value of chi, computed from a four-fold distribution and utilizing one degree of freedom can be read directly from the normal probability table.

<sup>&</sup>lt;sup>5</sup>The exact breakdown of the tables included in Appendices 5, 6, 7, and 8 in terms of which the chi-squareds in Tables 7 and 7a were computed is given in Appendix 9. It should be noted in determining the number of degress of freedom it was considered that the marginal totals were fixed.

TABLE 6

RELATIONSHIP BETWEEN INCIDENCE OF VISUAL DEFECT AND PASSING OR FAILING ELEMENTARY PLIGHT COURSE

	<u> </u>	<u>J.F.</u>	<u> </u>	<u> P</u>
Mesa	98	5	1 280	。 <b>20</b>
Terrell	101	1	,61 <b>6</b>	.54
Miami	99	1	101	.92
Clewiston	94	I	,808	.42

TABLE 6a

RELATIONSHIP BETWEEN INCIDENCE OF VISUAL DEFECT AND PASSING OR FAILING ADVANCED FLIGHT COURSE

	<u>K</u>	<u>n F.</u>	I	<u> P</u>
Mesa	93	1	•794	ه4.3
Terrell	87	1	1,290	°50
<u> Miami</u>	88	1	1,254	.21
Clewiston	82		e <b>891</b>	.37

ability ratings were not available for the Miami elementary group, and that these data were not available for any of the advanced groups.

Examination of Tables ? and ?a indicate that there is little or no relationship between incidence of visual defect and the madeta' scores on the various criterion measures. This lack of relationship is evident in both elementary and advanced classes. In only one case did a chi-squared yield a p value lower than .05, 1.e., "Link Trainer" at Mesa. However, for all other classes, elementary and advanced, the p value for the Link Trainer is well above the level of statistical significance. Considering the p values on all visual variables from both elementary and advanced distributions it is noteworthy that only 5 were less than .10, and that 59 of the 80 were greater than 20. In addition, reference to Appendices 5 and 6 will indicate that, in general, cases with multiple visual defects were distributed throughout the range of criterion scores, both in regard to elementary and advanced subjects. Moreover, although for purposes of statistical analysis various types of defects were pooled and treated without regard to their specific nature, inspection of Appendices 5 and 6 will also indicate that for both elementary and advanced subjects specific defects,

<sup>6</sup> Criterion data for this study were taken from the RAF training reports. (See Figure 1.) This information was not included on these reports for the above subjects.

TABLE 7

CHI-SQUARES AND P VALUES FOR CRITERION DISTRIBUTIONS
(KLEMENTARY) IN TERMS OF VISUAL DEFECT

	MISS	78 = E) AS	7)	TERRE	GLL (N =	85)	MIAI	z M) IN	87)	CLEWI	STON (N	· 82)
Criterion	D.F.	х2	<u> P</u>	D <sub>o</sub> F <sub>o</sub>	<u>x</u> 2	P	D.F.	х2	P	$D_aF_a$	<u>x</u> 2	P
Flying Test	5	4.147	。5 <b>3</b>	5	₅ <b>844</b>	₀ <b>96</b> +	5	6 <b>.561</b>	。26	5	3.749	۰59
Ground Exam	5	8,623	13،	5	1.911	್ಳ86	5	4.835	. 4Å	5	3.214	67
Character and Leadership	5	3.157	。68	5	8.408	.14	5	3,126	86،	5	3.979	₃ <b>5</b> 5
General	5	3,307	ه65	5	3.368	64	5	4.056	254	3	,734	,8Q÷
Instrument	5	4.439	.49	5	2,260	.81	5	2.489	ຸ 78	3	6.834	್ಳ ೧೪
Night	5	3.792	. 5 <b>8</b>	5	6,265	28	5	6,832	.24	3	2,280	,52
L1nk	5	11,966	.04	4	2,628	.62	3	5.519	.14	5	8,152	.15
Dual to 1st Solo (Day)	5	2.124	<b>.</b> 83	Ś	7.522	,1 <del>9</del>	6	4.439	.62	5	1.073	95
Total Dual (Day)	5	.857	<sub>2</sub> 96+	5	5.919	。 <del>3</del> 2	6	9.394	15ء	5	7.844	,17
Suitability ratings												
Highest rating	2	و <b>09</b> 9ء	<sub>e</sub> 61	2	5°655	۰06				2	3-199	,21
Suitability for												
Bomber	3	2.457	<sub>2</sub> 49	3	3.492	့33				3	4,604	, <b>2</b> 1
Fighter	3	3.341	.35	3	3.618	.31				3	7.031	。07
Instructor	3	1.013	.80	3	1,694	,64				3	3,062	<b>,38</b>

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TABLE 7a

CHI-SQUARES AND P VALUES FOR CRITERION DICHOTOMIES
(ADVANCED) IN TERMS OF VISUAL DEFECT

	MESA	a (N = 71	L)	TER	reil (n =	74)	MIA	mi (m =	77)	CLEM;	istor (i	I = 63)
C- therion	D.F.	<b>x</b> <sup>2</sup>	P	D.F	. <b>x</b> 2	<u> </u>	D.F.	<u>x</u> 2	P	D.F.	x²	P
t ting Test Cound Exem Theracter and Leadership Indexel Indexe	55545455	7.952 2.356 1.407 4.741 7.452 .599 .617 4.625	.16 .80 .92 .32 .19 .91+ .96+	55555535	8.600 4.206 6.814 10,236 3.553 2.574 1.525 6.216	.13 .52 .24 .07 .62 .76 .68	5 5 5 5 5 5 5 5 5 5 5 5	4.732 5.882 8.598 3.270 2.376 5.120 2.464 2.623	.45 .32 .13 .66 .79 .40 .78	5 5 5 5 5 5 5 5 5 5 5 5	3.856 4.366 4.140 4.937 8.978 8.422 7.521 3.251	57 50 53 42 11 14

a g , in accuty, are distributed throw out the rouge of criterion scores and among passers and failers and that no transa or relationships between driterion score (or passing and failing) and incidence of defect are swimdent

Relationship Between Cardiovasculer Refeat and Criteria. In Tables 8 and 8a are presented the values of Chi and the associated values for p resulting from the comparison of incidence of visual defect among subjects passing and failing the elementary and advanced flight courses, respectively, at the four schools. Inspection of these tables indicates that in only one instance 'Terrell, advanced flight course) was the relationship between incidence of cardiovascular defect and pass-fail significant at as low as the .05 level. For the elementary course at Terrell, as well as in the case of both elementary and advanced flight courses at the orber schools, with this one exception, the p values indicating relationship between cardiovascular defect and the Pass-Fail criterion were considerably above acceptable levels of statistical significance. It should be noted, however, (as reference to Table 4 will indicate) that defect cases at Mesa and Terrell were primerily in terms of high systolic pressure, and at Clewiston, primarily in terms of low systolic pressure. Few cases of high diastolic pressure were evident, 4 of the 7 such cases ovourring at Miami,

In Tables 9 and 9a are presented the chi-squareds and associated p values which indicate the relationship between incidence of cardiovascular defect with regard to scores on a number of criterion measures. The original distributions from which these chi-squareds were computed are presented in Appendices 7 and 8. It should be noted, as in the case of visual defect, that the data in these tables are based only on subjects who passed the respective flight training courses, in as much as detailed criterion information were not available for the failers. Again, data on suitability ratings were not available for the Miami elementary group, or for any of the advanced subjects.

Examination of the distributions of p values in Tables 9 and 9a indicates that, in general, no significant relationships exist between indicates of cardiovascular defect and scores on the various criterion elements. Only one chi-squared("Suitability for Bomber" at Terrell) yielded a p value of less than .05, the p value in this case being .01. At all other schools for which suitability data are available, however, the p value for "Suitability for Bomber" is above acceptable levels of statistical significance. The lack of significant relationships between cardio-vescular variables and the criterion elements is indicated by the fact that only 4 p values were less than 10, while 68 of the 80 p values were greater than .20.

As in the case of visual defect, for purposes of statistical analysis, various types of defects were pooled and treated without regard to their specific nature. Nevertheless, inspection of Appendices 7 and 8 indicates that for both elementary and advanced subjects, specific defects, e.g., high

TABLE 8

RELATIONSHIP BETWEEN INCIDENCE OF CARDIOVACCULAR DEFECT AND PASSING OR
FAILING ELEMENTARY FLIGHT COURSE

	N	D.F.	X	P
Mesa	98	1	1.173	<b>. 24</b>
Terrell	101	1	1.074	.28
Miami	99	1	1.512	13ء
Clewiston	94	1	ູ <b>03</b> 5	.97

TABLE 8a

## RELATIONSHIP BETWEEN INCIDENCE OF VARDIOVASCULAR DEFECT AND PASSING OR FAILING ADVANCED FLIGHT COURSE

	N	$\mathbf{p}_{\mathbf{e}}\mathbf{F}_{\mathbf{e}}$	X	<u> P</u>
Mesa	93	1	。 <b>52</b> 1	61,
Tarrell	87	1	1。 <b>963</b>	05ء
Miami	ජජ	ĭ	.529	, 60
Clewiston	82	7	1.421	<b>"16</b>

systolic pressure, are distributed throughout the range of criterion scares and among passers and failers, and that no trends or relationship between criterion score (or passing and failing) and incidence of defect are evident.

Distribution of P values for all Visual and Cardiovascular Variables. A clearer picture of the general lack of relationships between visual and cardiovascular defects and the criteria of flight proficiency (with the exception of Pass-Fail) can be obtained by examining the distributions of p values from all the defect-criteria comparisons. These distributions for visual and cardiovascular defeats separately and for the combined distribution are given in Table 10. It will be noted that in addition, the distribution of p values of 10 and less are incorporated in this table.

It is evident that even if there were no "true" relationship between any of the visual and cardiovascular defects and any of the criterion measures, a certain number of statistically significant p values could be expected to arise by chance, i.e., 10 per cent of the p values could be expected to fall below the .10 level of significance, 10 per cent between the .10 and .20 levels, etc. In regard to the distributions of visual and cardiovascular defects, respectively, by chance one could expect 8 p values to fall in each 10 point range, i.e., 8 p values between the .00 and .10 levels, 8 p values between the .10 and .20 levels, etc.

Examination of Table 10 indicates that while there are somewhat fewer extremely low and extremely high p values (10 or less or greater than ,90)

TABLE 9

CHI-SQUAREDS AND P VALUES FOR CARDIOVASCULAR (ELEMENTARY)
IN TERMS OF VISUAL DEFECT

	MES	A (N = 8	7)	TERI	RELL (N =	85)	Mia	m1 (N =	ି7)	CLETT	eston (n	i <u>-</u> 82)
Criterion	D.F.	<u>x</u> 2	P	D.F.	<u>x</u> 2	<u> P</u>	D.F.	χ2	P	D.F.	<u>r</u> 2	Р
Flying Test Ground Exam Character and Leadership General Instrument Night Link Dual to 1st Solo (Day) Total Dual (Day)	<b>5</b> 55 <b>55</b> 5555	9.233 6.050 4.023 4.308 3.307 2.018 4.198 4.615 3.311	.10 .30 .55 .51 .65 .85 .52 .47	555555455	2.614 7.566 2.874 2.963 2.333 4.995 5.948 3.721 8.502	.76 .18 .72 .71 .30 .42 .20 .59	55555566	2.601 3.935 2.168 6.442 4.712 7.076 .827 6.332 6.532	.76 .56 .82 .27 .45 .22 .80+ .39	555333555	3.582 5.636 4.692 .232 2.787 1.847 5.783 8.143 5.932	.61 .35 .46 .80 .43 .61 .33 .15
Suitability ratings Highest rating  Suitability for Bomber Fighter Instructor	2 3 3 3	.575 3.624 3.256 2.738	.61+ .31 .36	2 3 3	2,200 12,029 1,480 2,934	.34 .01 .69				2 3 3	.399 5.779 4.085 .233	.61 .12 .25

TABLE 9a

CHI-SQUAREDS AND P VALUES FOR CARDIOVASCULAR
(ADVANCED) IN TERMS OF VISUAL DEFECT

	ME	5A (N =	71)	TE	RRELL (N	· 74	) MI	MI (N =	<b>7</b> 7)	CLEW.	iston (n	~ 63)
<u>lelterion</u>	D.F.	х2	P	D.F.	<u>x</u> 2	P	D.F.	χ2_	<u>P</u>	D.F.	<u>x</u> 2	<u> P</u>
F.ying Test	5	6,625	.25	5	17.243	.00	5	7.524	.19	5	2.427	.7 <del>9</del>
Ground Exam	5	6.935	<sub>2</sub> 23	5	4.516	48ء	5	4.083	.54	5	5.415	。37
Character and Leadership	5	4.024	<b>∗55</b>	5	4.019	55ء	5	6.405	.27	5	2,222	。 <b>62</b>
General	4	3.878	.42	5	.870	•96+	5	6.652	.25	5	5.242	.39
Lastrument	Ś	3,153	.68	5	3,121	.68	5	5.450	.37	5	3.788	.58
M4 ght	4	7,641	.11	5	.746	96+	5	5.187	.40	5	2,276	.81 _
Link	5	7.853	.17	ž	.838	<b>₃80</b> +	5	1.405	.92	5	9.887	.08
annited Fiving	Š	6.096	-30	5	5-604	. 35	5	2 535	.77	5	11.774	.0/.

1

TABLE LO

PROBABILITIES OF DEFECT AND GLEAR CASES BELONGING TO THE SAME UNIVERSE IN 80 SITUATIONS

(The 80 situations consist of 1 school elementary class, 9 criteria; 3 school elementary classes, 13 oriteria; 4 school advanced classes, 8 criteria)

P	Vision Frequency	Cardiovascular Frequency	Total Frequency
0~10	5	4	9
10-20	14	8	22
20-30	7	B	15
30 <del>-</del> 40	8	14	22
40-50	7	10	17
50-60	8	9	17
60=70	₹5	, <b>9</b>	24
70-80	4	6	10
80=90	6	9	15
90~100	6	3	9
Total	<b>\$</b> C	80	160

#### DISTRIBUTION OF P VALUES OF .10 AND LOWER

.01			2
。02			
.03			
。04	1		1
۵ <b>05</b>			
ه.	1		
<b>.07</b>	2	•	
.08	1		1
• <b>0</b> 9			
<b>,10</b>			

than might be expected by chance this perhaps can be accounted for by the fact that some of the variables are positively correlated. In any event, it is clear that the distributions are, in general, rectangular, and reveal nothing to indicate any significant relationships between either visual or cardiovascular defect and the criteria. The distribution of p values of .10 and below are presented in order to demonstrate that the values of .10 and below are not so low (e.g., below .01) as to be accounted for by other than chance distribution.

<u>Distribution of Defects in Terms of Flight Test Rating</u>. In addition to the treatment discussed above a further step was taken in the ahalysis of the defect cases. The cases with visual and cardiovascular defect, at

each of the respective schools, where ranked in order of their flight test ratings. In terms of this rank order on the measures of flight proficiency, tabulations were made of the physiological measures obtained on these defect cases, i.e., the distributions of physiological measures of cases with cardiovascular or visual defect were tabulated in order of their flying test rating from low to high). Although these data were not analyzed statistically, inspection of the distributions indicated no relationships between flight test ratings and physiological measures for these defect cases. Examples of distributions for cases with cardiovascular and visual defect, respectively, at Clewiston are presented in Appendix 10.7

#### RESULTS OF SUPPLEMENTARY ANALYSIS

As noted previously, on the basis of the criterion data obtained in connection with the principal analysis, a supplementary investigation of the interrelationships between certain of the criterion measures were carried out. In Table 11 are given the interporrelations between ratings of elementary students at the four schools on various aspects of the flying test. Because of the fact that the magnitude of the coefficients for the several pairs of intercorrelated variables vary considerably from school to school, both in absolute and relative terms, it is possible only to summacize the relationships in somewhat general terms. Inspection of the intercorrelations from all four schools given in Table 11 indicates that the variable "General Flying" for the most part correlates highest with the other criterion variables, particularly "Instrument Flying" and "Night Flying." The remaining intercorrelation coefficients are somewhat lower and, in general, do not exceed three standard deviations of a correlation coefficient of zero.

Intercorrelation of Advanced Flight Ratings. In Table 12 are given the intercorrelations between ratings on the 5 variables available for advanced students at the four schools. (It will be noted that ratings on the variable "Applied Flying" were not made for the elementary students.) The trend of these intercorrelations is similar to those for the elementary students with the exception of the variable "Applied Flying" which in all four schools correlates relatively high with ratings on "Night Flying" over the four schools.

Correlations Between Flight Ratings During Elementary and Advanced Training. The coefficients in Table 12 which are enclosed by parentheses represent the correlation between ratings on the same subjects in the elementary and advanced courses. It is noteworthy that the correlations between elementary and advanced ratings on "General Flying," "Instrument Flying," and "Night Flying," respectively, for the four schools are, in general, low, and in some cases low and negative. The correlations between elements

<sup>&</sup>lt;sup>7</sup>Distributions for all schools are on file in the Office of the Chairman, Committee on Selection and Training of Aircraft Pilots.

TABLE 11
INTERCORRELATIONS OF ELEMENTARY RATINGS
(MARKS OBTAINED) BY SCHOOLS

	General	Instrument	Night	link	
	MESA, ARIZON	$IA (N = 87) \sigma_{F_0} =$	11		
General Flying					
Instrument	∘ <b>58</b>				
Right	۰59	₀28			
Link	<b>.31</b>	.11	ه،3 <del>9</del>		
	TERRELL, TEXAS (N = 85) oro = .11				
General Flying					
Instrument	<b>.37</b>				
Night	-43	.28			
Link	<u>،21</u>	ه.30	<b>"13</b>		
	MIAMI, OKLAHO	OMA (N = 87) o <sub>fg</sub> =	.11		
General Flying					
Instrument	.18				
Night	ه <b>43</b>	。 <b>12</b>			
Link '	.28	.16	<b>"20</b>		
CLEWISTON, FLORIDA (N 2 82) ore 2 .11					
General Flying					
Instrument	a 74				
Night	.71	₃73			
Link	،29	.23	<b>,22</b>		

tary and advanced ratings on "Link Trainer" are, on the other hand, consistently higher, varying at the four schools between .37 and .60. This might suggest that the ratings on Link Trainer performance were more reliable than were the evaluations in terms of other criterion elements, although no specific information on this point is available.

Intercorrelations of Elementary and Advanced Ranks (Orders of Merit)
from Marks Obtained. For each cadet an "order of merit" was obtained from
the marks obtained by the cadet in the "Flying Test," "Ground Examination,"
and on "Character and Leadership." As noted previously, the marks obtained
on "Flying Test" and "Ground Examination" represented the summation of marks
given to various aspects in terms of which these broad variables were broken
down. In Table 13 are presented the intercorrelations between the orders
of merit for elementary cadets at the four schools in terms of "Flying Test,"

4 2º

TABLE 12
INTERCORRELATIONS OF ADVANCED HATINGS
(MARKS OBTAINED) BY SCHOOLS

Correlations in paranthenes represent the relation between elementary and advanced for each type of rating.

	<u>General</u>	Instrument	Night	Link
	mesa, arizona	(N = 71) ora =	.12	
Ceneral Flying	(,45)	_		•
Instrument	.71	(.22)		
Night	<sub>3</sub> 60	.51	(.31)	1 501
Link Applied Flying	⇒.02 ₂44	.11 .38	~₀02 ₂50	(,50) = <sub>u</sub> 12
whiten thing	2 <b>44</b>	٥٧٥	٥٫٥	- 0 ♣►
	TERRELL, TEXAS	6 (N z 74) σ <sub>ro</sub> z	.12	
General Flying	(80。)			
Instrument	°01	(~_05)	_	
Night	<b>.28</b>	~.04	(.07)	1 (-)
Link Applied Flying	,22 21	.04 ~₂08	。25	( ,60 )
whhrien trains	.31	~₀∪0	.51	<i>43</i> 4
	MIAMI, OKLAHOMA	$(N = 77) \sigma_{r_0} =$	.11	
General Flying	( - <sub>4</sub> 10)			
Instrument	۰09	(.12)		
Night	.21	.30	(,32)	
Link	ංර <b>පි</b>	.14	.42	(,37)
Applied Flying	<b>,28</b>	۵1،	, 56	<b>.40</b>
	CLEWISTON, FLOR	IDA (N = 63) oro	, = ,13	
General Flying	( ,22 )			
Instrument	。 <b>36</b>	(15)		
Night	ه <u>39</u>	.06	(,25)	
Link	.31 10	.22	.38	(.60)
Applied Flying	.18	- °03	₃ <b>3</b> 5	.21

"Ground Examination," and "Character and Leadership." It will be noted that the intercorrelations are, in general, low, only one being greater

<sup>&</sup>lt;sup>8</sup>Although the correlations in Table 13 represent Pearson coefficients, in as much as ranked data were used the standard error for rank order coefficient of zero has been used to evaluate the coefficients<sub>2</sub>

TABLE 13
INTERCORRELATIONS OF ELEMENTARY RANKS (ORDER OF MERIT FROM MARKS OBTAINED) BY SCHOOLS

		Flying Test	Ground Exam	Character and Leadership
MESA, ARIZONA (N = 87) 0/2 = .12				
Flying Test Ground Exam Character and	Leadership	~。12 •00	<b>.</b> 20	
TERRELL, TEXAS (N = 85) OPo = .12				
Flying Test Ground Exam Character and	Leadership	.17 .35	.03	
MIAMI, OKLAHOMA (N = 87) of = .12				
Flying Test Ground Exam Character and	Leadership CLEWISTON, FLOR	.13 .03 RIDA (N = 82) (	.00 Де в .12	
Flying Test Ground Exam Character and		,09 ~•03	.18	

than .20 and that except for this lack of relationship between the variables, no general trends over the four schools are apparent. In Table 14 are presented the intercorrelations between these variables for advanced cadets at the four schools. Inspection of this table indicates that while the intercorrelations are somewhat higher, in no case is the correlation between given pairs of variables three times as great as the standard error of a coefficient of zero. At three of the schools, however, there is some hint of a possibly significant positive relationship between "Flying Test" and "Ground Examination," the coefficients at these three schools (Terrell, Mismi, and Clewiston) varying between .32 and .38. In contrast, markedly less relationship between these variables was found for the elementary cadets.

Correlations Between Orders of Merit During Elementary and Advanced Training. The coefficients in Table 14 which are enclosed by parentheses represent the correlation between orders of merit for cadets during elementary and advanced training. It will be noted that the correlations

TAPLE M

## INTERCORDILATIONS OF ADVANCED NAMES (ORDER OF MERIT FROM MARKS OBTAINED) BY SCHOOLS

Correlations in parentheses represent the relation between elementary and advanced for each type of ranking.

	Flying <u>Test</u>	Ground Exam	Cheracter and <u>Leadership</u>	
mesa, a	RIZONA (N = 71)	σ,e <sub>o</sub> = .13		
Flying Test Ground Exam Character and Leadarship	( ,42) •12 •08	(.76) .39	( ,50)	
Terrell, Texas (N = 74) opo = -13				
Flying Test Ground Exam Character and Leadership	(,02) ,32 ,19	( .66) .25	. ( 40)	
HIAMI, OXLAROMA (N = 77) $\sigma c_0 = .12$				
Flying Test Ground Exam Character and Leadership	(.20) .38 .17	( ,76) ,35	(.52)	
CLEWISTON, FLOPIDA (N = 63) $\sigma_{P_Q}$ 14				
Flying Test Ground Exem Character and Leedership	(.21) .38 .12	(.72) .2l	(.74)	

between elementary and advanced "orders of merit" in terms of flight training (Flying Test) are in general, not high. Comparison of this table with the coefficients enclosed in parenthesis on Table 12 indicates that in no case does the correlation between elementary and advanced orders of merit in terms of "Flying Test" exceed the highest correlation between elementary and advanced ratings on the individual elements (General Flying, Instrument, Flying, Night Flying, and Link Trainer) which contributed to the total "Flying Test" score from which the order of merit was obtained. In only one case does the correlation between elementary and advanced orders of merit in terms of "Flying Test" exceed the correlation between elementary and advanced ratings on "General Flying" which was the most heavily weighted element. In contrast, the correlations between elementary and advanced orders of merit in terms of "Ground Examination" and "Character and Leadership" are markedly higher, the coefficients in the former case ranging from .66 to .76 at the four schools, and in the latter from .40 to .74.

TABLE 15

INTERCORRELATIONS OF ELEMENTARY TIME OF DAY INSTRUCTION
(FLYING TIME) BY SCHOOLS

	Dual to	Total Dual
	MESA, ARIZONA (N = 87)	
Total Dual Solo	.07 23	<b>~.48</b>
	Terrell, Texas (n = 85)	
Total Dual Solo	• <b>38</b> ••40	<b>~</b> ⊾69
	MIAMI, OKLAHOMA (N = 87)	
Total Dual Solo	°42 ~°39	~。 <b>98</b>
	CLEWISTON, FLORIDA (N = 82)	
Total Dual Solo	•33 ∘35	~∘95

Intercorrelations Between "Time" Variables for Elementary Cadets. Time measures available on elementary cadets were Dual Time preceding first solo flight, Total Dual Time during the course, and Total Solo Time during the course. Intercorrelations between these time variables for day instruction are presented in Table 15. It will be noted that there is a positive relationship between Total Dual Time and Dual to 1st Solo, the coefficients at three of the four schools varying between .33 and .42, with the correlation at Mesa being lower (.07). It should be emphasized, however, that these variables are not independent, Dual Time to 1st Solo being included in Total Dual Time. In view of the fact that there were certain limitations on the length of the course, the negative correlations between Dual to 1st Solo, and Total Solo Time, and between Total Solo Time and Total Dual Time can be accounted for by the fact that the more time spent in dual training, the less time was available for solo flight, if the course was to be completed within reasonable limits.

In Table 16 are presented the intercorrelations between the above "Time" variables for <u>night</u> instruction. The correlations between Dual to 1st Sole and Total Dual are somewhat higher, whereas the correlations between Total Dual and Total Solo, while negative, are somewhat lower than for day instruction. However, the same general relationships are apparent as were found for day instruction.

(FLYING TIME) BY SCHOOLS

TABLE 16
INTERCORRELATIONS OF ELEMENTARY TIME OF NIGHT INSTRUCTION

	Dual to lat Solo	Total <u>Dual</u>
	MESA, ARIZONA (N 5 87)	*
Total Dual Solo	-47 15	43
	TERRELL, TEXAS (N = 87)	
Total Dual Sole	.45 42	86
	MIAMI, OKLAHOMA (N = 87)	
Total Dual Solo	.53 66	~.72
	CLEWISTON, FLORIDA (N = 87)	
Total Dual Solo	69 ~.31	<b>~.</b> 59

#### DISCUSSION

In evaluating the results of this study it should be recognized that as far as visual factors are concerned, the implications of the investigation are primarily in reference to the variables Acuity, Depth Perception, and Accommodation, in as much as conclusions cannot be drawn regarding the relationships between criteria of flight performance and measures of the Phorias, Prism Divergence, and Angle of Convergence. As mentioned previously, reference to Table 4 and to Appendix 4 indicates that there were no defect cases in terms of Angle of Convergence, relatively few in terms of the Phorias, and with the exception of subjects training at Terrell. Texas, where the distribution for Prime Divergence was decidedly atypical. few defects occurred in terms of Prism Divergence, only one such defect being evident among subjects at the other three schools. Because of the low number of defect cases in terms of these variables, generalizations regarding the relationship between these defects and flight proficiency are not warranted. Furthermore, at the four schools only seven subjects exhibited sufficiently high diastolic brood pressure to be considered disqualified in terms of the standards as defined, four of these defect cases occurring at one school. Therefore, systolic blood pressure represents the primary cardiovascular variable under investigation.

Granting these limitations this investigation can be considered to demonstrate the complete lack of significant relationship between visual defect in Acuity, Depth Perception, or Accommodation (as defined by the standards used) and measures of flight proficiency on four independent samples of flight cadets. Similarly, no significant relationships between cardiovascular defect as defined in this report (primarily systolic blood pressure) and criteria of flight performance were evident. In regard to cardiovascular defect, it should be noted, however, that this lack of relationship cannot be considered to apply to specific cardiovascular variables over all four samples, in as much as all defects at one school were in terms of low systolic pressure, whereas at two other schools defect cases were almost entirely in terms of high systolic blood pressure.

It is evident, of course, that the results of this study confirm the results of an earlier investigation on RAF cadets, summarized in the introduction to this report. Although an extensive survey of the literature will not be presented, in view of the negative findings of this and the previous investigation consideration should be given to the results of other pertinent studies. In a research conducted by the Royal Australian Air Force on a sample of 483 trainers in initial flight training a statistically significant relationship between decrease in flight proficiency and decrease in visual acuity was demonstrated, the effect of age being held constant. Although having important implications as far as the results of the present investigation are concerned, this study cannot be considered to negate the results of the present investigation, in as much as the range of defect was greater in the Australian study and the number of cases with marked visual defect also was greater. As noted previously the visual acuity of only one subject in the present study was less than 20/30 corrected.

In another study conducted for the Royal Canadian Air Force<sup>11</sup> it was demonstrated that refractive error, specifically myopia, had a serious effect on flight performance, the flight performance of myopic subjects being significantly poorer than that of normals. Again, however, these results are not in contradiction to the results of the present investigation, in as much as in the Canadian study it was concluded that the critical level was apparently 20/40 in the worse eye. In the present study there was an insufficient number of cases having this degree of defect to render the investigations at all comparable. In the Canadian study, defects in hyperophoria and convergence insufficiency were also found significantly related to flight performance. Again, however, the paucity of such defects in the present data allow no comparisons of the studies to be made in these terms.

<sup>9</sup>Brimhall, Deen R., and Franzen, Raymond. Op. cit.

<sup>10</sup>s/Ldr. Ryan. The relationship between visual acuity and flying ability. Report to the Flying Personnel Research Committee, Royal Australian Air Force.

<sup>11</sup> Proceedings of fifteenth meeting of the Associate Committee on Aviation Medical Research, National Research Council of Canada, p. 175.

Although no studies on the specific cardiovascular variables dealt with in this report are in evidence, results of related studies are, in general, negative, and thus confirm the results of the present investigation. It has been demonstrated, for example, that such measures of physical fitness as the Schneider Index and the "Pack Test" bear little relationship to success in flight training. 12

Although on the basis of the present study lack of relationship has been demonstrated between flight criteria and visual and cardiovascular defect defined in terms of the specific standards presented, it should be emphasized that the criteria used in this investigation were measures of success in flight training, and represented criteria of flight proficiency obtained under relatively more safe and relatively less rigorous conditions than are encountered in operational or combat flying. It cannot, therefore, be concluded that the incidence of visual and cardiovascular defect would similarly be unrelated to success or failure in meeting the stress and rigors of operational or combat flying. Although there is some evidence that the Schneider Index is of little value in predicting whether or not a given filer will undergo significant cardiovascular changes during combat flying 13 nevertheless it cannot be assumed that the visual and cardiovascular qualifications necessary for success in flight training are as high as those required for operational and combat flying. In regard to cardiovascular qualifications, the late Cdr. Eric Liljencrantz has stated "A high degree of cardiovascular fitness is essential to withstend the rigors of service flight. Naval aviators are called upon for but little actual physical work. Nonetheless, the cardiovascular performance required of them and the physical fitness required of athlethes appear to have much in common. \*144

Nevertheless, the results of the present study, particularly when considered in light of the results of the previous investigation on RAF flight cadets, clearly indicate that as far as ability to succeed in flight training are concerned the standards established for the purposes of this investigation, which are generally the same as the standards for flight training in the United States Army or Navy 15 are unnecessarily stringent as regards

<sup>12</sup>See, for example: Graybiel, A., and West, H. The relationship between physical fitness and success in training of U. S. Naval Flight Students. Summary reported in BuNed News Letter, Aviation Supplement, Vol. 4, No. 7, 30 March 1945, pp. 6-7; Report No. 1 from Project 190, AAF School of Aviation Medicine, Validity of the Schneider Index for predicting success in primary flight training. October 19, 1945

<sup>13</sup>Kirsch, Ralph E. (MC) USN, Physiological study of aviators during combat flying. <u>BuMed News Letter</u>, No. 13, Vol. No. 3, 22 December 1944.

<sup>14</sup>Liljengrantz, Eric. Problems in the selection of Aviators. J. Aviat. Med., 13, 1942, pp. 107-120.

<sup>15</sup>The standards for acuity and accommodation in the two services are identical, and the cardiovascular qualifications are essentially the same. The requirements in terms of the test for Depth Perception, however, are slightly more lenient in the Army Air Corps than in the Navy. (See Table 2.)

Visual Acuity, Depth Perception, Accommodation, and Systolic Blood Pressure Although the range of data was not sufficient to yield definitive information regarding the level of defect which does affect flight proficiency adversely, and although generalizations cannot be made regarding the important issue of the visual and cardiovascular qualifications necessary to meet the rigors of operational or combat flying, on the basis of these findings the direction which future research should take seems clearly defined, viz.:

- 1. Through intentional admission to military flight training of men who would be disqualified under the present standards, the minimum physical qualifications for success in flight training should be determined.
- 2. Of more practical importance, through intensive research the relationship between physical defect and the ability to withstand the stress and strains of operational flying should be determined, and physical qualifications established in terms of such experimental investigation.

In the recent emergency the pool of potential pilots was large. If, in connection with some future exigency, the pool of applicants for flight training should become relatively smaller in comparison with the demand for pilots, the problem of the validity of physical standards in terms of which applicants for military flight training are eliminated will become more acute. This fact demands that such physical standards be set in terms of experimental investigation of their relationship to success or failure in operational flying, rather than being established arbitrarily and without such analysis.

It should be noted that the present study has few implications as far as private civilian flying is concerned, in as much as very few of the defect cases as defined by the standards employed would have been disqualified on the basis of the present physical examination for the private pilot. However, the implications regarding the physical qualifications for the commercial license are not dissimilar to those applying to military aviation.

In regard to the supplementary analyses, it will be recalled that with the exception of the Time measures, which were not independent, the inter-correlations between criteria were low. It should be recognized that the unreliability of certain of these measures may have attenuated the coefficients, although other investigations have demonstrated that the relation-ship between flight proficiency and other aspects of flight training, such as ground school grades, is not high. 17

<sup>16</sup>With particular reference to private aviation, an experimental investigation of the relationship between visual defect and flight proficiency in which subjects with marked visual handicap as well as visual normals are utilized, is now in progress under the auspices of the National Research Council Committee on Selection and Training of Aircraft Pilots.

<sup>17</sup>See: National Research Council Committee on Selection and Training of Aircraft Pilots. Report on the Boston-Midwest project. Washington, D.C.: CAA Division of Research, Report No. 52, November 1945.

It should also be noted that the correlations between scores on the same criterion variable taken in elementary and advanced training were also, in general, not high. The most striking exceptions to this trend were the correlations between elementary and advanced ratings on the Link Trainer and in terms of "Character and Leadership." The lack of relationship between measures of flight proficiency in successive courses, which has been observed in other studies may be due in some degree to unreliability of the criterion measures.

### SUMMARY AND CONCLUSIONS

The primary purpose of this investigation was to determine if there were significant relationships between visual and cardiovascular defects and success in flight training measured in terms of a number of criteria. Visual and cardiovascular defects were defined in accordance with the regulations of the Army and Navy air services. The investigation was conducted on four samples of RAF cadets in training at four centers in the United States and performance in the elementary and advanced training courses was studied. Since the RAF visual and cardiovascular standards are less stringent than those of the United States services, it was possible to investigate the flight proficiency of cadets who fell below the American standards.

Analysis of data from the four schools indicated that when data from all four schools were considered within the limits of the samples there were no significant relationships between the visual and cardiovascular defects investigated and criterion measures of proficiency in the flight training course. Although a few statistically significant chi-squareds were obtained, no consistent trends were evident over the four schools, and the distribution of chi-squareds was, in general, that expected on the basis of chance relationships only. Although no data are available bearing on the relationship of visual and cardiovascular defect to the ability to withstand the rigors of operational and combat flying, it is emphasized that the results of this study indicated that future research should be concentrated in this area. As far as success in flight training is concerned, it is apparent that the present standards are unnecessarily stringent.

An investigation of the relationship between criterion measures, conducted supplementary to the principal analysis, indicated that the individual criterion measures of flight proficiency, while positively related, were not intercorrelated to any marked degree. The correlations between the same measures taken in elementary and advanced flight courses similarly were not high with two exceptions. While the measures of flight proficiency taken during elementary and advanced training failed to show significant relationships, the measures of proficiency on the Link Trainer and particularly ratings on "Character and Leadership" proved to be significantly, and relatively, highly related when the correlations between ratings made during the elementary and advanced courses were examined.

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## APPENDIX 1

ANALYSIS OF CASES IN ADVANCED TRAINING AT THE FOUR SCHOOLS

#### TION TOWN

### ANALYSIS OF CASES IN ALVANCED PRAINING AT THE FOUR SCHOOLS (Advanced)

### Analysis of Clewiston Cases

- 63 retained
- 17 eliminated (have medical records)
- 2 retained (no flight records)
- 1 retained (having a medical and flight record was omitted from distribution because pilot was not given a "Night" test during elementary course)
- l eliminated (no medical record)
- 2 eliminated (omitted elementary data missing)
- 7 retained (no medical records)
- 2 retained (no medical and flight records)
- 2 retained (omitted elementary data missing)

97 Total

### Analysis of Terrell Cases

- 74 retained
  - 7 eliminated (have medical records)
  - 6 retained (no flight records)
  - 1 retained (having a medical and flight record was omitted from the distribution because pilot's flight training record was missing from elementary data)

- I eliminated (no medical record)
- 6 retained (no medical records)
- 95 Total

### Analysis of Miami Cases

- 77 retained
- 9 eliminated (have medical records)
- 2 retained (no flight records)
  10 retained (no medical records)
- 1 retained (omitted elementary data missing)

99 Total

### Analysis of Mesa Cases

- 71 retained
- 10 eliminated (have medical records)
- 12 retained (no flight records)
- 1 eliminated (no medical record)
- ll retained (no medical records)

105 Total

### APPENDIX 2

CARDIOVASCULAR STAUDARDS IN PHYSICAL EXAMINATION FOR FLYING

Excerpt from Army Pegulations - No. 40-110, War Department - Wasnington, December 3, 1942

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### APPENDIX 2

CARDIOVAECULAR STANDARDS IN PHYSICAL EXAMINATION FOR FLYING

Excerpt from Army Regulations - No. 40-110, War Department - Washington, December 3, 1942

Blood Pressure. 'No examinee will be disqualified as the result of a single reading. When the blood pressure estimation at the first examination is regarded as abnormal, or in case of doubt, the procedure will be repeated (morning and aftermon) for a sufficient number of days to enable the examiner to arrive at a definite conclusion. When the blood pressure requires rechecking, this will be done with the applicant in a sitting position and all readings taken will be recorded. Systolic blood pressure, if exemines is 25 years of age or under, will not persistently exceed 140 millimeters. A low disstolic pressure will suggest the presence of sortic insufficiency. A disstolic pressure 95 millimeters or over in itself disqualifies. In the case of applicants for flying training, a persistent systolic blood pressure of 135 millimeters or moro, or a persistent diastolic blood pressure of 90 millimeters or more, or an unstable blood pressure disqualifics.

# APPENDIX 3 MEDICAL EXFRENTS DXCLUDED FROM STUDY

# AFPENDIK 3

# MEDICAL ELEMENTS EXCLUDED FROM STUDY (393 cases)

Ele	ment	Reason
3.	Temperature Vaccinations	No veriance 368 unanswored
4.	Medical history	Too many combinations
5.	Eye inspection	367 normal
6.	Associated parallel movements, etc.	307 normal
10,	Red lens test	274 normal 94 unanswered
11.	Addition required for 50 cm., Jaeger type	367 wanswered
12.	Color vision	359 normal
13.	Field of vision	367 aormal
14.	Refraction	362 unanswered
15.	Ear	101 none 170 unanswered
16.	External ear	104 normal. 169 unanswered
17.	Hearing	368 unanswored
18.	Nares, etc.	101 normal 170 unanswered
19.	Teeth	273 unanspered
20.	History of swing, train, air, or sea sickness	363 none
21.	Bareny chair	273 unanswered
22.	Postura, eto.	Good - 92 good, 172 unanswered Figure - 86 medium, 172 unanswered Fra a - 89 medium, 172 unanswered

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# MEDICAL ELEMENTS EXCLUDED FROM STUDY (Continued) (393 cases)

<u>Element</u>	Reason
23. Height Weight Chest	Insufficient variance Insufficient variance 273 unanswered
24. Skin and lymphatics, etc.	89 normal, 172 unanswered
25. Bones, joints, muscles, etc.	93 normal, 172 unanswered
26. Heart	100 normal, 172 unanswered
27. Schneider Character	273 unanswered 364 full and regular and 4 unanswered
28. Arteries, etc.	101 soft and compressible 171 upanswered
29. Respiratory system	102 normal, 171 unanswered
30. I-ray of chest	273 unanswered
31. Abdominal viscera	101 normal, 172 unanswered
32. Hernia, etc.	101 none, 172 unanswered
33. Genito-urinary system	93 normal, 172 unanswered /
34. Nervous system	101 normal, 172 unanswered
35. Laboratory procedures:	
Kahn Wasserman Reaction Sp. gr. Albumin Sugar Microscopical	272 unanswered 273 unanswered 81 acid, 172 unanswered Unanswered 101 negative, 172 unanswered 101 negative, 172 unanswered 6 negative, 267 unanswered

# APPENDIX 4

DISTRIBUTION OF SUBJECTS IN TERMS OF VISUAL AND CARDIOVASCULAR STANDARDS

### APPENDIX 4

TABLE 1

DISTRIBUTION OF VISUAL ACUITY
(Retained Cases with Medical and Training Reports)

Visual Acuitys R. E.	L. E.	<b>Ness</b>	<u>Terrell</u>	Mieni	Olemiston
20/15	20/15	0	22	0	7
20/20	20/15	Ŏ	2	Ö	2
20/15	20/20	0	5	0	0
20/20	20/20	82	47	80	61
20/25	20/25	1	0	0	0
20/20	20/30 20/20	0	0	0	1
20/30 20/30	20/20	0	0	1	1
	20/30	0	0	1	2
20/20	<u>20/25</u>				
	20/20	1	0	0	0
20/25			_		_
20/20	20/20	Q	2	0	1
20/30	00/00	_	_	_	•
20/15	20/20	0	1	0	0
20/20	<u>20/30</u> 20/20	2	0	o	2
20/20	20/20	2	U	U	~
20/30 20/20	20/20	0	1	1	1
	20/40	_	_	-	<del></del>
20/20	20/40 20/20	0	0	1	0
20/40					
20/20	20/20	0	0	0	1
20/30	20/30				
20/20	20/20	0	4	2	3
			-		•
<u> 20/20</u>	<u> 20/60</u>				
20/15	20/20	0	1	0	0
20/40	20/40				
20/20	20/20	0	0	1	1
		-	-	-	<del></del>
<u> 20/50</u>	<u> 20/30</u>				
20/20	20/20	1	0	0	0
Total		87	65	87	83

\*Where two measures appear the lower one is after correction

TABLE 1s

DISTRIBUTION OF VISUAL ACUITY
(Eliminated cases with medical report)

Vieu <u>al</u> Aouity* R. E.	L.E.	<u> M91a</u>	<u>Terrell</u>	Miami	Clemiston
20/15	20/15	0	4	0	1
20/15	20/20	0	1	0	0
20/20	20/20	2	7	10	10
20/20	20/40 20/20	0	0	0	1
<u>20/40</u> 20/20	20/20	1	o	0	o
<u>20/25</u> 20/20	<u>20/30</u> 20/20	1	o	o	0
<u>20/30</u> 20/20	<u>20/30</u> 20/20	o	o	1	o
<u>20/50</u> 20/20	<u>20/30</u> 20/20	1	0	0	0
20/40	20/30	0	1	0	o
Total		5	13	11	12

<sup>\*</sup>Where two measures appear the lower one is after correction

TABLE 2

DISTRIBUTION OF DEPTH PERCEPTION

(Retained Cases with Medical and Training Reports)

Depth <u>Perception</u>	liess.	Torráll	<u>Miami</u>	Clewiston
0-5 6-10 11-15 16-20 21-25	21 16 13 10 9	8 9 24 24 8	13 17 21 9 15	7 18 22 8 15
26-30	17	7	10	10
34-35 ·	0	0	2	0
60	0	0	D	1
5 corrected to 21 7 corrected to 0 19 corrected to 0	0 0 0	1 1 0	0 0 0	0 0 1
40 corrected to 15 42 corrected to 63 44 corrected to 22 57 corrected to 17 62 corrected to 27	1 0 0 0	0 0 1 1	0 0 0 0	0. 1 0 0
Total	87	85	87	83
(Elipi	nated Cases	rith Marical	Reports)	
1-5 6-10 11-15 16-20 21-25	0 2 0 8	1 7 1 3	0 3 1 2 4	3 0 3
26-30	O	1	1	.1
35 45 50 52 60	0 0 0 0	0 0 0 1 0	0 0 0 0	1 1 0 0
Total.	5.	13	11	1.2

TABLE 3
HEFEROPHORIA AT 6 METERS

Remarks the last of the second of the second

	, Mega	Terrell	<u> Miemi</u>	Cleviston	
E <b>s</b> o	Distributi (Retained Cases with Me	on of Esophori- dical and Train	a ning Reports	)	
0 1 2 3 4 5	81 6 0 0 0	50 12 14 3 4 0	48 4 13 10 7 1	45 13 14 7 3 1	
6 <b>7</b>	0	2 0	2 1	· 0	
12	0	0	1	0	
Total	87	85	87	83	
	(Eliminated Cases	with Medical 1	Report)		
0 1 2 3 4	4 1 0 0	8 3 1 0	9 0 0 1	4 3 2 1 1	
6	0	<b>o</b> ,	Ò	1	
Total	5	13	n	12	
Distribution of Exophoria  Exo (Retained Cases with Medical and Training Reports)					
0 1 2 3 4	81 2 0 1 3	73 7 5 0	77 0 8 2 0	64 10 7 2 0	
Total	87	85	87	83	

TABLE 3 (Continued) .

# HETEROPHORIA AT 6 METERS

	<b>Ne</b> du	Terrell	<u>Miani</u>	Clewiston			
<u>Distribution of Exophoris</u> (Continued)  Exo (Eliminated Cases with Medical Report)							
0 1 2	4 1 0	· 9 3 1	10 0 1	9 2 0			
4	0	0	0	1			
Total	5	13	11	12			
Distribution of Hyperphoria (Retained and Eliminated Cases)							
Rt. Evper. O 1	<b>92</b> 0	98 0	98 0	8 <b>8</b> 7			
Total	92	98	98	95			
Lt. Hyper. 0 1	<b>92</b> 0	94 4	<b>98</b> 0	95 0			
Total	92.	98	98	95			

TABLE 4

DISTRIBUTION OF PRISM DIVERGENCE
(Retained Cases with Medical and Training Reports)

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Prism Divergence	<u>Mege</u>	Terrell	Mieni	Glemiaton
3 4 5 6 7 8	0 24 34 27 1 1	0 15 · 10 18 5 13	13 33 25 14 1 0	5 16 20 20 8 12 2
10 11 12 13 14 15	0 0 0 0	5 1 7 1 6	0 0 0 0 0	0 0 0 0
Total	87 (Eliminated wit	85 h Medical Repo	87 ort)	83
3 4 5 6 7 8 9	0 0 3 2 0 0	0 2 1 1 3 1	2 4 3 2 0 0	0 5 2 1 1 2 0
10 12 14	<b>0</b> 0 0	1 2 1	0 0 0	1 0 0
Total	5	13	11	12

TABLE 5

DISTRIBUTION OF ANGLE OF CONVERGENCE
(Retained Cases with Medical and Training Reports)

Angle of Convergences (In degrees)	<u>Vess</u>	Terroll	Miani	Cleviaton
40 - 44	1	0	6	0
45 - 49	ī	i		6
50 - 54	10	1 2	12 21 15 13	12
55 - 59	21	4	15	22
60 - 64	13	14	13	19
65 - 69	18	13	'n	13
70 - 74	12	20	5	6
75 - 79	5 6	13	4	6 5 0
80 - 84	6	13 13	0	0
85 - 89	0	4	0	0
90 - 94	0	1	0	0
Total	87	85	87	83
	(Eliminated Cases	with Medical	Reports)	
40 - 44	0	0	2	0
45 - 49	1	0	2	0
50 - 54	0	1	, 2 3 1	0
55 <b>-</b> 59	1	2	3	7 3 2
60 - 64	0	0 2	1	3
65 - 69	2	2		2
70 - 74	1	4	Q	0
75 - 79	0	1	0	0
80 - 84	0	3	0	0
Total	5	13	11	12

<sup>\*</sup>Angle of Convergence # 1/2 Pd x 100 + 3

table 6 Cardiovascular

# <u>Distribution of Systylic Blood Pressure</u> (Retained Cases with Medical and Training Reports)

Svetolio	Mese	Terroll	<b>Hight</b>	Clewiston
170-179	1	0	2	0
160-169	0	0	1	0
150-159	1	0	0	0
140-149	11	2	2	O
135 <b>-13</b> 9	5	5	5	0
130-134	17	ន	15	1.
125-1 <b>29</b>	6	11	11	2
120-124	25	20	20	8
115-119	8	14	10	15
110-114	12	25	16	24
105~109	1	0	1	25
100-104	0	0	4	8
Total	87	85	87	83
	(Eliminated Cases	with Medical	Reports)	
170-179	0	0	1	0
135-139	o	0	1.	0
130-134	2	1	2	0
125-129	1	0	1 2 1	0
120-124	1	7	2	2 2 5 2
115-119	0	1	1	2
110-114	1	4	3	5
105-109	0	0	Ö	2
100-104	O	0	0	1
Total	5	13	11	12

TABLE 54. CARDIOVASCULAR

## <u>Distribution of Diastolic Blood Pressure</u> (Retained Cases with Medical and Training Reports)

Disstolio	Here	Terrell	Mismi	Clewiston
85-89	1	0	1	1
80-£4	n	4	20	5
75-7 <del>9</del>	3	11	14	5 8
70-74	26	42		28
65-69	12	42 20	5	24
60-64	32	8	42 5 5 0	17
5 <b>5-5</b> 9	1	0	Ö	0
50 <b>-</b> 54	1	0	0	0
Total	87	85	87	83
	(Eliminated Cases	with Medical	Reports)	
90100	٥	0	4	0
80-84	1	0	2	2
75-7 <del>9</del>	Q	1	1	0
70-74	0 2	1 5 4 3	4	5 2
65-69	0	4	Ö	2
60-64	2	ġ	0	2
50-54	0	Ö	0	2
Total	5	13	11	12

APPENDIX 5

OCCURRENCE OF SYSTOLIC AND DIASTOLIC DISABILITIES
IN TERMS OF VISTAL DIFFECT DISTRIBUTIONS
(Elementary Students)

Appendix 5a: Clewiston, Florida Appendix 5b: Miami, Oklahoma Appendix 5c: Terrell, Texas Appendix 5d: Mesa, Arizona

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APPFILLIX Sa

A. J. i

OCCURRENCE OF VISUAL DEFECT IN TERMS OF THE "YLVING TEST" DISTRIBUTION Clewiston, Florida\*

S.S.	Flying Test		No Visual <u>Defect</u>		<u>190 (j)</u> 190 (j)		Dopa <u>Farcer</u> _&_		E <sub>e</sub> o	<u>et 6</u>	opbord m <b>eters</b> <u>R.H.</u>	
	_		_									
~1.7	2 6	50	1					X				
-1.5		#	4			x		XX				
-1.3	5 2 8 8 3 2 4		4 1 2	x	X					X		
~1.1	2	**										
-1 <sub>0</sub> 0	8	# #	4			X	I	XXX				
6	8	#	4 6 3 1 0		X							
<b>-</b> ₀3	3		3									
<b>~</b> ₃2	2		1					X				
- "l	4					X						
οl	4		3 8 2				x					
۰2	12	#	8	XX	A			X	X	x		
.7 .8	3		2									
.8	5		4	x								
1.1	3 5 9 3	#	4 6 2 3		XX					X		
1.5	3		2									
1.6	Ā	#	3		x			x				
1.8	4 2		Ţ					x				
Total	82		51	4	6	3	2	10	1	3	0	0
Omitted	1		1	•								
Elimin.	12	#	1 6			X.	XXX	x	x	x		

#One-or more cases with multiple defect

\*Clewiston cases - 82 retained

- 1 retained having a medical and flight record was omitted because pilot was not given a "Night" test
- 12 eliminated (have medical records)
  6 eliminated (no medical records)
- 10 retained (no medical records)
- 111 total

TABLE 1 (Continued) OCCURRENCE OF VISUAL DEFECT IN TERMS OF THE "FLYING TEST" DISTRIBUTION Clewiston, Florida

Angle of Accommodation Convergence 7.1 or less Flying Prisa 13.3 or more Test Divergence PcB. Pd. Rt. Both Lt. Rt. Both Lt. 5.5. 2 6 -1.7 -1.5 528832442359342 -1.3 x -1.1 -1.0 - .6 XX - .3 - .2 - .1 I XX .7 x .8 x 1.1

0

0

2

1

0

X

7

0

1.5

1.6 1.8

Total

Omitted

Elimin.

82

1

12

0

X

0

TABLE 2 OCCURRENCE OF VISUAL DEFECT IN TERMS OF THE "LINK TEST" DISTRIBUTION Clewiston, Florida\*

<u>s.s.</u>	Link <u>Test</u>		No Visual <u>Def<b>ect</b></u>	Vieu R.E.	al Acu: Both	ty L.E.	Dep Perce A		<u>Eso</u>	Heter at 6 Exp	meter	
2.5 2.2 2.0 1.8 1.6	11112232366	#	1 0 1 1	x				x	x			
1.4 1.3 1.1	2 3 2 3		1 3 1 1				x	r				
.7 .5 .3 .1 0	6 7 7 5	#	1 3 1 4 2 3 3 4 3	x	X XXX	x	x	1 1 2 2		x x		
= .2 4 6 8	7 7 5 5 5 5 5 4	#	3 4 4 4	x		X X		x		•		
-1.0 -1.1 -1.3 -1.5	4 2 3 2 1 3	#	4 4 2 2 2 1		x							
-1.7 -1.9 -2.1	_		1 2 0		x			×				
Total Omitted Elimin.	82 1 12	#	51 1 6	4	6	3 **	2	10 <b>x</b>	1	3 x	0	Q

#One or more cases with multiple defect

\*Clewiston cases ~ 82 retained

l retained having a medical and flight record was omitted because pilot was not given a "Night" test

<sup>12</sup> eliminated (have medical records) 6 eliminated (no medical records)

<sup>10</sup> retained (no medical records)

<sup>111</sup> total

TABLE 2 (Continued)

OCCURRENCE OF VISUAL DEFECT IN TERMS OF THE "LINK TEST" DISTRIBUTION Clewiston, Florida

	Link	Prisn	Angle of Convergen	Ce		l or lo	948		മഹര്	
<u>5,3,</u>	Test	Divergence	PcB. P	ď	Rt.	<u>Both</u>	<u>Lt.</u>	Rt.	Both	<u>i. t.</u>
2.5	l									
2.2										
2.0	1								Ľ	
1.8	ı									
1.6	2									
1.4	2									
1.3	3								,	
1.1	2									
۰9	3								X	
.7	6							•		
₃ <b>5</b>	6								X	
ه.3	7							•	X	
.1	7								X	
Õ	2								_	
- ,2	2								x	
4 6	2									
o, - 8, ≈	2									
-1.0	111223236677555544232					x			x	
-1.1	9					-			•	
-1.3	2						x			
-1.5	2					I	-			
-1.7	ī					_				
~1,9	3								-	
-2.1	í									
Total	82	0	0	0	0	2	1	0	7	0
Omitted	1									
Elimin.	12	X								

TABLE 3

OCCURRENCE OF VISUAL DEFECT IN TERMS OF THE "TOTAL DUAL (DAY) TEST" DISTRIBUTION

Clewiston, Floride\*

	Day Total		No Visual	V4 av	al Acui	1 +	Dep <u>Perce</u>	th		Heter	ophoria	1
S.S.	Dual		Defect		Both		A	N Peron			R.H.	L.H.
2.3	ı		0					x				
2.1	1		1									
2,0	2		1									
1. <b>9</b> 1.8	1 1		0 1									
1.7	i		i									
1.6	î		ō									
1.5	ī		ĭ									
1.4			1 1 2 2									
1.1	4		2	X								
1.0	3		2				I					
.9 .7	1	#	1			_		7.0				
å <b>6</b>	1 4 3 1 1	π	0 C			X		x				
4	3		ž	X								
۰3	4		4									
.2	7		4 6 6									
.l	7											
0	3		1.			X		I				
l 2	4 6	#	1 2 3 2 0 2	_	x	_		XX		_		
- 3 <b>-</b> - 3	3	П	3	X	•	X	X	XX		I		
~ .4	ź		ź									
<b>≈</b> ₃5	2		0					x	x			
<b>⊸ .6</b>	2	_	2									
~ . <b>7</b>	2	#			XX							
- "8	1		0							×		
∍ 。9 ~1。0	2	#	0 2 0									
~1.1	3 2 2 2 2 1 2 3 1	Ħ	1		XX			X				
-1.3	2		1 2 2									
-1.4	2		2									
-1.5	1		1									
-1.7	1		1									
~1.8 ~1.9	1	#	1							_		
-2.0	i	T	0 1	X						x		
-2.2	ī		ō									
Total	<b>6</b> 2			و	6	2	2	10	3	2	^	
Omitted	1		51 1	4	Ð	3	2	10	J	3	0	0
Klimin.	12	ø	6			x	XXX	x	I	x		
		-		#614	wd aton							

#One or more cases with multiple defeat

\*Clewiston cases ~ 82 retained

l retained having a medical and flight record was omitted because pilot was not given a "Night" test

<sup>12</sup> eliminated (have medical records)
6 eliminated (no medical fecords)

<sup>10</sup> retained (no medical records)

TABLE 3 (Continued)

OCCURRENCE OF VISUAL DEFECT IN TERMS OF THE "TOTAL DUAL (DAY) TEST" DISTRIBUTION Clewiston, Florida

5.0	Day Total	Prism	Angle Converg	ence	7.1	or le	commoda BB	13.3	or no	re
<u>s.s.</u>	Dual_	<u>Divergence</u>	PoB.	Pd.	Rt.	<u>po cp</u>	<u> Ի</u> Ե	Rt.	to th	متليا
2.3	Ţ									
2.1	1									
2,0	1 2 1								x	
1.9									x	
1.8 1.7	1 1									
1.6	i								x	
1.5	ī								•	
1.4										
1,1	4						x			
1.0	3									
.9 .7	1									
.°6	า								x	
<u>.</u> 4	3								_	
₃4 ₅3 ₅2	4									
.2	7								x	
٠1	14311134773463222								x	
0	3									
∍ "1 ≂ "2	4								x	
- J2 - J3	3								^	
- °4	ź									
≖ <sub>a</sub> 5	2									
~ <sub>e</sub> 6	2									
~ .7	2					x				
- ₀8 - ₀9	7									
~ .9 -1.0	2									
-1.1	í									
<del>-</del> 1.3	2 1 2 3 1 2 2 2									
-1.4										
-1 . 5	1									
-1 7	1									
-1.8 -1.9	1 1									
±°7 ≈2°0	ì									
-2.2	ī					x				
Total	82	0	0	0	0	2	1	0	7	0
Omitted	<u>)</u>	x								
Elimin.	13									

TABLE 4 OCCURRENCE OF VISUAL DEFECT IN TERMS OF THE "DUAL TO FIRST SOLO (DAY) TEST" DISTRIBUTION Clewiston, Florida\*

<u>s.s.</u>	Day Dual to 1st Solo		No Visual <u>Defect</u>	V18u <u>R.E.</u>	al Acu Both	ity <u>L.E.</u>	Peroe		<u>Ero</u>	<u>at 6</u>	ophor: <b>meter</b> : R.R.	le LaHa
6.7	1		1									
1.8	1		1									
1.5 1.2	7		0 1					x				
1.0	2	#	ō		x							
_°9	2				_			_				
.8	3		3									
<b>.7</b>	1222312425636		1302322323				x					
<b>,6</b>	2		2									
ه.5	4		3	x								
۰4	2	#	2		_	_						
.4 .3 .2	2	T	2		X	X	I					
.1	3		2		x		•					
ō	6		3		x							
1	5		4					x				
~ ₀2	7	Ħ	3	x		303		XX		×		
- "3	4		4									
4	4		1	I				_	x	x		
6 7	3		2					X				
8 8	4 4 3 2 3 2 6		4 3 4 1 2 2 3 0									
- °9	2	#	ó		x			I		x		
-1 <sub>.0</sub>	6	Ä	4	x	_			XX		_		
-1.2	4		4									
<del>-</del> 1.3	1		Ö		x							
Total	82		51	4	6	3	2	10	ı	3	0	0
Omitt			î	4	•	•	~	10	_		•	•
Elini		#	1 6			x	<b>D</b> C	x	x	x		

#One or more cases with multiple defect

\*Clewiston cases ~ 82 retained

- l retained having a medical and flight record was omitted because pilot was not given a "Night" test
- 12 eliminated (have medical records)
  6 eliminated (no medical records)
- 10 retained (no medical records)
- lll total

TABLE 4 (Continued)

# OCCURRENCE OF VISUAL DEFECT IN TERMS OF THE "DUAL TO FIRST SOLO (DAY) TEST" DISTRIBUTION Clewiston, Florida

<u>s.</u> s.	Day Dual to let Solo	Prism <u>Divergence</u>	Angle of Converge PoB.			Acc or le Both		13。	or m Both	ore <u>Lt</u>
6.7 1.8 1.5 1.2 1.0	1 1 2 2						x		r	
.9 .8 .7 .6 .5	11222312425636574432326									
.3 .2 .1 0 1 2	5 6 3 6 5 7					x			x x	
3 4 6 7 8	4 4 3 2 3									
9 -1.0 -1.2 -1.3	2 6 4 1								ж	
Total Omitt Elimi		0 <b>x</b>	0	0	0	2	1	0	7	0

TABLE 5

OCCURRENCE OF VISUAL DEFECT IN TERMS OF THE "SUITABILITY TEST" DISTRIBUTION Clewiston, Florida"

	Suit- ability		No Visual Defect		al Aqu Both		Dept Percer		<u> Bao</u>	at 6	ophori meters R.H.	<u> </u>
3 311	_		_									
311	1		1									
321	1 3 1		1 1 3 1				•					
131	1		7									
231	3		3									
232	1		,					_				
213	1		U					I				
<u>2</u> 200	2	#	2		_			_				
201	3 ,2 7	W	2 1		X			X				
210	, <del>Z</del>	4	ī	XX	X			x		x		
211	12	#	7	×	~	x		莁	x	x		
212	<u> </u>		4 5 2 1 3 7 3	_		Î		-	••			
221	4 2		ĩ			_		x				
120	Ã		3		x			_				
121	4 10		7		X			x				
122	5		Ì	x			X					
112	5 1	#	Ó			X		I				
1	_	•										
100	6	#	3		X			X				
101	6 5 7		3 5 3 1 2									
110	7		3				X	x				
111	2 1 2	ø	1		x					x		
010	1		1									
001	2		2									
011	1		1									
Total	82		<b>51</b>	4	6	3	2	10	1	3	0	0
Omitted	1		71	4	Ü	,	~	10	_	_	•	•
Elimin.	12	#	1			x	<b>200</b> 0	x	x	x		

#One or more cases with multiple defect

\*Clewiston cases - 82 retained

l retained having a medical and flight record was omitted because pilot was not given a "Night" test

<sup>12</sup> eliminated (have medical records)

<sup>6</sup> eliminated (no medical records)

<sup>10</sup> retained (no medical records)

<sup>111</sup> total

TABLE 5 (Centinued)

OCCURRENCE OF VISUAL DEFECT IN TERMS OF THE "SUITABILITY TEST" DISTRIBUTION

Clewiston, Florida

		Priem	Angle					<u>ation</u>			
	Suit- • a <u>bility</u>	Prism Divergence	Converge PcB.		7.1	or le	89 T +	13 <sub>0</sub> )	3 or m <u>Both</u>	0 <b>70</b>	
	COTTTCA	DIAGLEGICA	<u>rup.</u>	Pđ.	€7A®	<u> </u>		Tr.	<u>so cn</u>	<u> Frits</u>	
3 311											
<b>3</b> 11	1	•									
321	1 1 3 1										
131	1										
231	3										
232	1	~									
213	ī										
<u>2</u> 200	3										
201	á								x		
210	3 2 7								I		
211	12								XX		
212									X		
221	4 2										
120	4										
121	10								X		
122	5 1										
112	1										
1	,										
100	6 5 7 2 1 2					x			x		
101	2					_	_				
110 111	, 2					X	X				
010	1										
001	2										
011	ĩ										
Q11	_										
Total	82	0	0	0	0	2	ı	0	7	0	
Omitted	1								-		
Elimin.	12	π									

TABLE 5

OCCURRENCE OF VISUAL DEFECT IN TERMS OF THE "GROUND EXAM TEST" DISTRIBUTION

Clewiston, Florida\*

5.S.	Ground Excem Test		No Visual <u>Defect</u>		al Acu: Both	<u>lty</u> LoE.	Percer A	ption N	Eac Eac	leteroj t 6 m Ezo	tera	LaH.
=1.8 =1.7 =1.6 =1.5	2 3 2 2	#	0 2 1 2	x			I	x				
-1.4 -1.2 -1.1 -1.0	1 2 2 3	#	1 1 2 2		x	x x		×		ĸ	•	
= .8 = .7 = .6 = .5	2 3 1 3	#	1 3 0 1	X X		*		x		ж		
4 3 2 1 0	<sup>57</sup> 22 24 22 24 24 24 24 24 24 24 24 24 24		122013012312113220211222212111		_			x		×		
.l	2 4 2 3		1 3 2 2	x	x					•		
.2 .3 .5 .6 .7 .8	3 2 2	#	0 2 1 1		r	x	x	x	I			
.9 1.0 1.1 1.2 1.3	2 2 3 3 2		2 2 2 2		x			x x				
1.4 1.5 1.6 1.7	~ 3 2 2	#	2 1 1 1		x			x				
Total Omitted Elimin	82 1 12	#	51 1 6	4	6	3 x	2 xxx	10 x	1 x	3 x	0	0

#One or more cases with multiple defect

mot given o "Night" test

<sup>\*</sup>Clewiston cases - 82 retained 12 elimin 1 retained having a medical 6 elimin and flight record was 10 retain omitted because pilot was 111 total

<sup>12</sup> eliminated (have med, records)
6 eliminated (no med, records)
10 retained (no med, records)

"ABLE 6 (Continued)

OCCURRENCE OF VISUAL DEFECT IN TERMS OF THE "GROUND EXAM TEST" DISTRIBUTION Clewiston, Florida

s.s.	Ground Exam Test	Prism <u>Divergence</u>	Angle of Convergence Post Pd	7.1 Rt.	Accor or les Both	mode ss <u>Lt,</u>	13.	3 or mo Both	re <u>Lt.</u>
-1.8 -1.7 -1.6 -1.5 -1.4 -1.2 -1.1	232212232211723222222222222222222222222							x x	
9 8 7 6 5 4	2231323							x	
2 1 0 .1 .2	3232423							x	
0 .2 .3 .5 .7 .9 1.1	3 2 2 2 2 2 2 2 3							x	
1.2 1.3 1.4 1.5 1.6					x	x			
Total Omitted Elimin.	82 1 12	0 <b>x</b>	0 0	0	2	i	0	7	0

TABLE 7 OCCURRENCE OF VISUAL DEFECT IN TERMS OF THE "CHARACTER AND LEADERSHIP TEST" DISTRIBUTION Clewiston, Florida\*

<u>s.s.</u>	Character and <u>Leadership</u>		No Visual <u>Defect</u>		ual Ac Both		Depter Percel		8	<u>t 6 m</u>	phoria eters <u>R.H.</u>	,
-1,6	ı	#	0			x		x				
-1.5		"	3			_		_				
-1.4	4 1		í									
-1.3			3									
-1,2	3	#	3	I			x	x				
-1.0	ž	,,	ź	_			_					
<b>-</b> 。9	4 5 2 2 5 3	#	3 3 3 2	x						x		
<b>⊸</b> .8	5		4		x							
6	3		4 1 6 2					x	x			
<b>~</b> "5	11 2 1 6	#	6		x		x			x		
0	2		2									
.1 .2	j		1									
<b>.2</b>	6		4	X				x				
ំន ំន ំទ	10	#	4 3 3 2 1		XX	X		XCOCK	:			
.8	2		1					x				
Ţ-9	<u>ج</u>		3									
1.0	4		2	x	х							
1.2	<u> </u>					_		_				
1.2 1.3 1.5 1.6	2 3 4 1 6 2 2 3 2		1 1 2 2			X		X				
1.6	2	#	1		x					ж		
1,7	3	π	2							*		
1.8	ź		2									
							_					
Total	82		51	4	6	3	2	10	1	3	0	0
Omitted		,,	1 6									
Elimin,	12	#	6			x	XXX	x	X	x		

\*Clewiston cases - 82 retained

- 1 retained having a medical and flight record was omitted because pilot was not given a "Night" test
  12 eliminated (have medical records)
- 6 eliminated (no medical records)
- 10 retained (no medical records)
- 111 total

"ABIE / (Continued)

## OCCURRENCE OF VISUAL DEFECT IN TERMS OF THE "CHARACTER AND LEADERSHIP TEST" DISTRIBUTION Clewiston, Florida\*

<u>s.s.</u>	Character and Leadership	Prism <u>Divergence</u>	Angle Converge	ençe		or le		13.	3 or m Both	
<b>-1</b> ,6	۹									
=1,6 ≈1,5	1 4								x	
<b>-1</b> .4	1									
-1.3	4								x	
-1.2 -1.0	4 5 2 5 3 11 2 16								X	
= °∂. =1°Ω	2									
~ <b>8</b>	5									
6	. 9									
<b>-</b> ∘5	11					X	X		x	
0 1,	1									
ູ2	6									
.4 .8 .9	10					x			x	
.8	2									
1.0	<b>3</b> 1									
1.2	ĩ									
1,3	6									
1.5	2								x	
1.6 1.7	2								x	
1.8	10 2 3 4 1 6 2 2 3 2								^	
Total	82	o	0	0	0	2	1	0	7	0
Omitted		-	•	•	-	-	_	-	•	•
Elimin.		x								

TABLE 8 OCCURRENCE OF VISUAL DEFECT IN TERMS OF "GENERAL TEST" DISTRIBUTION Clewiston, Florida\*

<u>S.S.</u>	General Test		No Visual <u>Defect</u>	Vis R.E.	nal Acu Both		Dept Percen				phoria eters R.H.	L.H.
2 . 3	2		1					x				
1.5	13	#	7	×	x	x		x		x		
8 .	16	#	12		×	x	×	300X				
~ .6	27	#	16	XX	XX	x		XX	X	ĸ		
∽ ⊿ <b>8</b>	12	#	9	x	x					X		
-1.2	10	#	6		x		x	**				
Total	82		51	4	6	3	2	10	1	3	0	0
Omitted	ı		1	•		-				_		
Elimin.	12	#	6			x	XXX	x	ж	x		

\*Clewiston cases - 82 retained

- 1 retained having a medical and flight record was omitted because pilot was not given a "Night" test
- 12 eliminated (have medical records)
  6 eliminated (no medical records)
- 10 retained (no medical records)
- lll total

TABLE 6 (Continued)

OCCURRENCE OF VISUAL DEFECT IN TERMS OF "GENERAL TEST" DISTRIBUTION
Clewiston, Florida

			Angle	of		A	CCOM	odat,i	on.	
	General	Prism	Conver	zence	7.1	or le	88	13	3,3 or	ncre
<u>s.s.</u>	Test	<u>Divergence</u>	PcB.	$Pd_s$	Rte	$\underline{\mathtt{Both}}$	<u>Lt.</u>	<u>Rt</u> a	<u>Both</u>	Ltc
2,3	2									
1.5	13								x	
	_									
\$،	18					XX				
~⊸6	27						X		XXXXX	
∽ ૃ8	12								x	
≈1 2	10								x	
	<b>~</b> ~									
Total	82	0	O	0	0	2	1	0	7	0
Omitted	ິ້າ	•	_	•	•	~	•	•	•	•
	<u>.</u>									
Elimin.	12	x								

TABLE 9

OCCURRENCE OF VISUAL DEFECT IN TERMS OF THE "INSTRUMENT TEST" DISTRIBUTION

Clewiston, Florids\*

s.s.	Instrument Test		No Visual <u>Defect</u>		al Acu Both		Dept Percer			t 6	phoria eters R.H.	LeHa
2.5	2		ı					I				
1.9	2	#	0			x		XX				
1.3	13		6	x	x			XX		x		
1.2	1		0									
4۵	24	#	16		X	XX.	<b>XX</b>	II				
<b>-</b> .6	16	#	13	x	x				I	X		
-1.0	15	#	10	XX	I			x		X		
-1,3	8	#	5		X			XX				
-1.8	1		0		X							
Total	82		51	4	6	3	2	10	1	3	0	0
Omitted	1		1									
Elimin.	12	#	6			x	XX	I	x	X		

\*Clewiston cases - 82 retained

- l retained having a medical and flight record was omitted because pilot was not given a "Night" test
- 12 eliminated (have medical records)
- 6 eliminated (no medical records)
- 10 retained (no medical records)
- lll total

FABLE 9 (Continued)

OCCURRENCE OF VISUAL DEFECT IN TERMS OF THE "INSTRUMENT TEST" DISTRIBUTION

Clewiston, Florida

	Tooterman	Deed	Accommodation e 7.1 cr less 13.3 or more							
<u>S.S.</u>	Instrument <u>Test</u>	Prism Divergence	Conver	Pd.		Both		Rt.	Both	
2.5	2									
1.9	2									
1,3	2 13						x		x	
1.2	ı								x	
. 4	24					XX			x	
6	16									
-1,0	15								)C)CX	
-1.3	g								x	
<b>-1.8</b>	1									
Total	82	0	· 0	0	0	2	1	0	7	0
Omitted	1									
Elimin.	12	×								

-7

TABLE 10 OCCURRENCE OF VISUAL DEFECT IN TERMS OF "NIGHT TEST" DISTRIBUTION Clewiston, Florida\*

	No Night Visual		Visual Acuity			Depth Perception				<u>.</u>		
<u>s.s.</u>	Test		<u>Defect</u>	R.E.	Both	L.E.	<u>A</u>	N	Eso	Exo	R.H.	L.H.
2,4 1,6	2 1		<u>1</u> 0					x				
1,5	13	#	7	X	x	XX	x	×		x		
5ء	26	#	15	x	ж	x	x	300000				
6	17	#	12	x	x				X	X		
9	16	#	11	¥	x			XX		X		
-1,3 -1.8	6 1	#	4 1		x			XX.				
Total Omitted	82 1		51 1	4	6	3	2	10	1	3	0	0
Elimin.	12	#	6			x	XXX	x	x	x		

\*Clewiston cases - 82 retained

- l retained having a medical and flight record was cmitted because pilot was not given a "Night" test
  12 eliminated (have medical records)
  6 eliminated (no medical records)

- 10 retained (no medical records)
- 111 total

TABLE 10 (Continued)

OCCURRENCE OF VISUAL DEFECT IN TERMS OF "NIGHT TEST" DISTRIBUTION

Clewiston, Florida

			Angle	of	COMMO	ommodation				
	Night	Prign	Conver	ence	7.1	or le	<b>98</b>	13.	3 or m	ore
<u>s.s.</u>	Test	<u>Divergence</u>	PcB.	Pd.	Rt.	Both	Lts	Rt.		<u>Lt.</u>
2.4 1.6	2									
1.6	ı								X	
ı.j	13									
ະ5	26					ЖX			XX	
₀6	17						×		x	
÷ .9	16								300	
-1.3	6									
-1.8	1									
Total Omitted	82 1	0	O	r	0	2	1	o	7	0
Elimin.	12	x								

おからない、これのできまれている あまれている しょれていままいないからないないないないないないないということということなっていないからないないないないないないないできました。

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S <u>, S.</u>	day Total Duar		Visit <sup>7</sup>	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	octo	ilty Læ	Per :::	,, ,,;,, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	F.3 :	6 120 120 220	prile Sistem R.H.	<u>1, f</u> .
3 2 • 3.1 2.4 2.1 2.0	1		1 (1		•				•			
20974341	1 2 1 2		0 2 1 2			<i>3</i> 2						
ጊ <sub>-</sub> በ	1 2		) 0 1 2					*				
876543210	141121211216251224515735632331	£.	15121113313623412330		X			X XX		X		
- 1 - 2 - 3	2 4 5 1 5		1 3 3 1 3	E.A.	ж		х	x	ž		•	
4 5 7 8	7 3 5 6 3	ij	6 2 3 4 1	X	×			z X	x x	x		
9 -1.0 -1.1 -1.3 -1.4	1	#					×		<b>X</b>			
-1.5 ~1.9 None Total	1 1 1 87		1 1 0 62	در	1 3 <del>5</del>	¥	2	ж 30 %	-dr	, ). 	4)	2
Elimin. Retained #One	ll l or mo		8 1	•	X	rk	-	አ	79"			-

<sup>\*</sup>Miamī cases = 87 retained

11 eliminated (have medical records) cal records.

1 retained (no flight records) 112 tota:

3 eliminated no regical econds)

TABLE 11 (Costinued)

OCCURRENCE OF VISUAL DEFECT IN TERMS OF THE "TOTAL DUAL (DAY) TEST" DISTRIBUTION Miami, Cklanoma

<u>5.5.</u>	Day Total Duel	Prism Convergence	Angle o Converse PoB		7.1 <b>Rt.</b> I	or le	ocommod 828 Lt.	ation 13.3 Rt.	or 1e Both	es Lt.
	indicine in		THE PERSON NAMED IN	Actorisation and the Control of the						
3,2	1									
3.1	1	•								
2.4	1									
2.1 2.0	) 1									
1.9	i									
1.7	<b>2</b> 1	-								
1.4	1 2									
1.3	2									
1 . 4	1									
1.1	1									
1.0 .8	1 2									
. 7	1				•					
ું 6	Ê									
- 5	1 6 2 5									
.4	5				A	x				
3.2.	1 2 2									
. <u>2</u> .	5									
.1										
0 - 。1	4 5									
	1									
- ,2 - ,3	ŝ									
= .4	7									
- 35	3									
* o6	5						x			
³ .7	6									
. 8 	4515735632331							•		
- ,9 -1,0	2									
1 1	á									
-1.3	ĩ									
-1.4	_									ı
<i>-</i> 1.5	1 1 1									,
-1.9	ļ									
None		e.			30	34.	4	~		4
Total	87	0	O	O	l	7	1	0	0	0
Elimin. Hetained	11 1					XX				
ve of Theo										

TABLE 12 OCCURRENCE OF VISUAL DEFECT IN TERMS OF THE "DUAL TO FIRST SOLO (DAY) TEST" DISTRIBUTION Miami, Oklahoma\*

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のいとはく、これのないのないではないところないできますというできないないというないないないからないないできないというななないにはないできないというと

<u>5,5,</u>	Pey Dual to <u>lat Sol</u>	o <u>Defect</u>		Aoulty	Depth Percepti		а; 6 п	ophoria netera R.H.	L <sub>a</sub> H <sub>a</sub>
2.9	2 1	5		x					
204	1	O		X					
\$°0	Ţ	ŗ							
<b>ე∵8</b>	1	Ī							
5 ء ہ	<u>7</u>	1							
1.1	1 1 3	С				X			
1.3	3	#######################################							
1.2	4	_ 3		X					
٠9	4	# 3				X			
.8 .7 .6 ·	4 3 2 2	3							
ه. 7	2	Ţ					X		
ه 6 م							X		
ch	4 2	3				x			
.3	2			X					
۰,2		# 3				XX	IX		
O	3	3							
چ <u>ـ</u>	à	3			ж				
<b>- 2</b>	8	6		X		x			
3 - 3	6	3	K			X	X		
~ <sub>5</sub> / <sub>4</sub>	& <b>8</b> 6311223	2				X			
~ ~5	1.	l							
∽ "6	Ţ	7							
= .7	2	2							
= ුපී	2	3							
9	9	Ŕ				72			
¬1 ₀ O	1 2 3 1	1							
-1.1	5	2							
-1.2	2	_ 2							
<b>∞1</b> ₀ 3	E	# E			7.	Z	R		
-1-5	3	5	×						
None	Ĵ.	0				x			
Total	87	62	r.Ł	in a	2	10 1	4 2	O	0
Elimin.		ń' 8	Ľ	X		<b>x</b>	*		7-
Retained	Ī.	"			-				
and Address of pages	ota .	<i>'</i> '							

fOne or more cases with multiple defect

\*Miami cases - 87 retained

<sup>1]</sup> eliminated (have madical records)

I recained (in fitsal record)

<sup>(</sup>ebacos) (... redicit records)
(abacos) 'estate 'm' bacos)

<sup>18</sup>to + 521

# OC TAMENCE OF VISUAL DELLI IN LEADS OF THE TOUGH TO FIRST SOLO (DAT) TEST DISTRIBUTION MINCL, O'CLRONS"

	Day		Angle of			Aucommodation				
	bual to	Priem	( onvere	ence	7.1	or 16	36		3 or m	
<u> </u>	lat Solo	<u>Divergence</u>	<u>Pob</u>	Pda	ht.	<u>soth</u>	<u>Lt.</u>	Rte	Poth	Lta
2 <b>9</b>	2									
2.4	2 1									
2,0	ī			1						
18	1									
2,4 2,0 1,8 1,5	1									
7 1	1							1		
1 3	1 1 3 4									
1 7	4.						riter.			
ູ⊅ or	4						X			
. 7	2								_	
<b>ຶ</b> .6	2								•	
9 87 64 43 20	4									
٠3	2									
。 <b>2</b>	6									
0	3									
الأد * 2 -	4									
- ,2	6									
= J4	3									
- 5 <u>-</u> 5	ĭ									
⇒ ₀6	1									
<b>-</b> .7	2									
8, ~	2				<b>X</b>					
≖ ,9 -1 ∩	432242634863112231228									
-1.0 -1.1	2									
-1 2	2									
≂1.3	8					x				
~1,35	3 1									
None	1	,								
Total	87	0	0	0	1	1.	ı	0	0	o
Elimin.	11			<del>-</del>	_	ХX	<del></del>	,	-	-
Retained	1									

libis 13 OCCURRANCE OF TISUAL DREECT IN TERMS OF LINK TEST" DISTRIBUTION Miami, Uklahoma\*

	Link	No Visual	<u>Via</u>	ual Ac	2117	De <sub>l</sub> Corce	Heterophoria <u>al 6 meters</u>				
S. S. Car	<u>Tent</u>	Defect	P. Z.	Equ);	L. E.	A	X	EBC			FoHe
iӴ	ž	2	r <b>T</b>	X				ř.	T		
1.0	6	á.					*		X		
.7	32	# 22	X			XX			7		
· . ].	9	9									
- o4	14	# 33.					XX		X.	X	
~1~2	15	₹,7		20			x		X		
-] , 9	5	Ż		£	ж			x			
-3.11	1	0		ĸ							
Total.	87	62	?	4	1	2	10	1	<i>I.</i> 4	9	o
Elimin,	11	<i>;</i> ≠ 3		x			<b>X</b>		-r ·		-
Retained	1										

の変形があっているとのであっているというというできないできないできないできないできないというないというないであっていましたがないというできないというできないない。 では、

かっとうなるないないないないないという あいしょう しゅいかんしょう かいかんしょうしょ しょうしん

assas erom ic edo# with multiple defeat

\*Minmi caess 87 retained

11 eliminated (have modical records)

l retaine: (no flight records)
Juliated (no medical records)

10 retained (no medical records)

113 total

TABLE 13 (Co.d lawed)

### OCCURRENCE OF VISUAL DEFECT IN .PRES OF "LINE TEST" DISTRIBUTION MIGHT, Octabora

			Angle	<b>51</b>	Accommodation					
	link	Prisn	Conver	Korica	7,	l or l	628	13.	3 of 10	C <b>P6</b>
<u>5.5.</u>	Test	Divergence	FcB.	Pda	Rt.	Both	Lto	Rto	both	<u>Ļt.</u>
1.8	5 6									
) "Q	6									
7	32				x		*			
<b>~ "l</b>	9									
- 4	14					x				
∞1. <sub>0</sub> 2	15									
- <u>1</u> , 9	5									
-3°0	1									
Total	87	0	0	0	1	3.	٠ ٦	o	O-	0
Elimin.	$\mathfrak{U}$					XI				1
Retained	1									

TABLE 14
OCCURRENCE OF VISUAL DEFECT IN TERMS OF "NIGHT TEST" DISTRIBUTION
Miami, Oklahoma

<u>s.s.</u>	Night Test		No Visual <u>Defect</u>		nal Ac Both		Dep <u>Perce</u>	<u>ntion</u>	at	16 m	pboria atera R.H.	
2.4	ı		1						•			
2.2 2.1	1		ı									
2.1	1		l									
1.8	2		1					X				
1.6	1		ı									
1.2	8		3	x				XXX	X			
1.1	3		2		X							
۰9	1		1									
<u>,6</u>	1 2 1 8 3 1 8 1 2 1		1 1 1 3 2 1 7 1 2 1 18									
۰5	1		1									
٠ <u>4</u>	2		2									
.2		л	1									
0	22	#			X		XX	x	X			
~ . <u>1</u>	6	a	5					x				
~ <b>,</b> 2	6 2 1 1	#	1					x				
<b>□ .3</b>	Ť		7									
4 6	10		U			_			x			
-			2	x		X		13		x		
-1°1	7		<u>,                                     </u>									
-1°2 -1°3	1 6 1		1					X				
-1°.7		#	î		1			x	X	I		
-2.3	4 3	и	5 1 0 5 1 5 1 2		x			^	•	•		
Total	87		62	2	4	ı	2	10 1	4	2	0	0
Elimin.	11	#	8		Z Z	-	~	x	*	Fe-1	•	~
Retained	1	••	8 1		-							

これのないのからいからない 一年の後になって、一般などのないというというないというないというないできまして、それのないというないできましていませんできましていませんできましています。

#One or more cases with multiple defect

\*Miami cases ~ 87 ratained

- ll eliminated (have medical records)
- 1 retained (no flight record)
- 3 eliminated (no medical records)
- 10 retained (no medical records)
- 112 total

TABLE 14 (Continued)

OCCURRENCE OF VISUAL DEFECT IN TERMS OF "NIGHT TEST" DISTRIBUTION

Niami, Oklahoma

<u>s.s.</u>	Night <u>Tost</u>	Prima Divergence	Angle ( Converge PoB.			or le	icommod is Lt.	13 .,	3 or m Both	ore Lt.
2.18621965420123468137	11121831812126211016143				x	x				
-2.3 Total Elimin. Retained	87 11 1	o	0	0	1	l xx	1	0	0	0

TABLE 15

OCCURRENCE OF VISUAL DEFECT IN TERMS OF THE "INSTRUMENT TEST" DISTRIBUTION Minni, Oklahoma

4. (4) ya

五世年 三人族

The second of th

<u>s.s.</u>	Instrument Test		No Visual <u>Defect</u>		Roth			ntion	at	6 .	phoria otora R.H.	L.H.
2.8	1		0	x '								
2.2	2		1					I				
1,9	1		1									
1.6	2		1			x						
1.3	5		1 5 5									
1.0	1 2 1 2 5 5		5									
۰7		Ħ	4		x			XXX		X		
<b>.4</b>	11		4	I	x							
.1	10	_	8						x			
- 。2	9	f	7					x	X	I		
5	11		8 6					<b>11</b> X				
<b>~</b> ₀8	9	H	6				X	<b>33</b>	X			
-1.1	5		2		<b>1</b> 7.				I			
-1.4	9 5 3 2 1		2					X				
-1.7	2		1				x					
<b>-2</b> ₀0			1								•	
-3,2	1		1									
Total	87		62	2	4	1	2	10 1	4	2	0	0
Elimin.	11	Ħ	B		I			X	-		_	_
Retained	, 1	••	ì		_							

#One or more cases with multiple defect

\*Mismi cases - 87 retained

- ll eliminated (have medical records)
- l retained (no flight record)
- 3 eliminated (no medical records)
- 10 retained (no medical records)
- 112 total

TABLE 15 (Continued)

### OCCURRENCE OF VISUAL DEFECT IN TERMS OF THE "INSTRUMENT TEST" DISTRIBUTION Mismi, Oklahoma

	Angle of					Accommodation					
	Instrument	Prism	Conver			l or l			3 or m		
s.s.	Test	<u>Diversence</u>	PoB.	Pda	$Rt_o$	<u>Both</u>	$\underline{\mathtt{Lt}}_{\mathfrak{g}}$	Rt.	<u>Both</u>	<u>Lt.</u>	
2.8	1 2										
2.2											
1.9	1										
1.6	2										
1.3	5										
1.0	5										
.7	1 2 5 5 9					x	x				
o <b>4</b>	11										
.l	10				X						
2	9										
~ .5	11										
~ ₀8	9 5 3 2										
-1.1	5										
-1.4	3										
-1.7	2										
<b>~2.</b> 0	1										
-3.2	1										
Total	87	O	0	0	1.	1	ı	0	0	0	
Elimin.	11					XX		_	_	-	
Retained	ī										

FABLE 15

CONGRENCE OF VISUAL DEFECT IN TERMS OF THE "GENERAL TEST" DISTRIBUTION Miami, Oklahowa"

S.S.	General Test		No Visual <u>Defect</u>		uel Ac Both		Dept <u>Percer</u> <u>A</u>	tion	at	tero 6 m 6 m	phoria etera R.H.	L.H.
2.2	ì	Ħ	٥				I	**	*			
1.8 1.7	1		1 2 1		-						•	
1.5	2 2		î					X				
1.4	. 3		ī	x					x			
1.3	<b>.</b> 6	#	4	x				x				
1.1 1.0	3 1		1 4 3 0									
.8	1		1									
۰7	3		3									
ه.6	3		2		•			I				
° <b>5</b>	2		2									
.4 .3	5		5									
。2	13321535527		13221515126					XX				
.1	5		5									
- <u>.</u> 1	5		<u>1</u>		x	X			X	x		
= .2 = .3	7		<i>4</i> .				x					
- °4		#	õ				Α	x				
<sub>ຶ</sub> ₀5	3	••						X X				
' - <u>.6</u>	3		2					I				
7 9	2	#	Ĭ,					X	_	I		
9 -1.0	1 3 2 5 2 5		121424311						X			
-1.1	<u>~</u>		4		x							
~1 <sub>°</sub> 3	4		ġ		*							
-1.4	4 1 1 2		1									
~1.5 ~1.7	1		1		<b>ℱ</b>							
-1.8	ĩ		ì		•							
-2,6	ī		ō					x				
Total Elimin.	87 11	#	62 8	2	4 <b>X</b>	L	2	10 1 x	4	2	o '	O
Retained	1	¥	1		A			•				

\*Miami cases - 87 retained

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\*

ll bliminated (have medical records)

<sup>1</sup> retained (no flight record)

<sup>3</sup> eliminated (no medical records)

<sup>10</sup> retained .Lo menica. records)

<sup>112</sup> total

Table ' 1994 .

### OCCURRENCE OF VISUAL DEFECT IN CARM. A CHARGENERA; TEST" DISTRIBUTION Wiley OF THE COMP

			sugre	Accommodation						
	General	Pr1em	<u>jenver</u>		7.1	or le	88	13.,	3 or m	6TO
<u>s.s.</u>	Test	nilattaine	Pobe	i'd_	Rt.	<u>Both</u>	<u>Lt.</u>	Rto	<u>Both</u>	Lt.
2,2	l	`								
1.8	ī						•			
1.7	2									
1.5	2									
1.4	3									
1.3	6						I	•		
1.1	2 3 6 3						<del>-</del>			
1,0	ĺ				x					
<b>.</b> .8										
ം?	3									
ა6	3									
۰5	2									
۰4	l	1								
و.3	5									
۰2	3								•	
<u>.</u>	5									
- <u>1</u>	2									
= ⁻₀2 ⁻° ₀3	1332153552713325254									
= .4	·					ж				
- 5	3									
- <sub>0</sub> 6	3				ſ					
· .7	2									
~ı 。 <b>9</b>	5									
-1 <sub>-</sub> 0	2									
~1 c 1	5									
-1-3	4									
1.4 -1.5	1 1									
-1.5 -1.7	2									
~1.8	î									
~2°6	ī									
-u-	_									
Total	87	0	0	. 0	Ĩ	1	l	0	0	0
Elimin.	11					XX				
Retained	1									

~ \*\*\*

TABLE 17

OCCURRENCE OF VISUAL DEFECT IN TERMS OF "CHARACTER AND LEADERSHIP TEST" DISTRIBUTION

Miami, Oklahoma\*

	Character and		No Visual		ual Ac			nction	<u>at</u>	6 г	phoria eters	
<u>s.s.</u>	Leadership		Defect	Rega	Both	L.E.	<u>A</u>		<u>10</u>	<u> 70</u>	R.H.	<u>L.H.</u>
-1,6	7		3					A	N			
-1.5	5		2	x				~				
-1.3	5	#	<u>3</u>	*				X				
		Ħ	2		X			X				
-1. <u>ļ</u>	11		8		XX			X				
<b></b> 6	B		7					X				
<b>-</b> .3	5		4				x					
1	12		10	x				x				
.4	9	#	-6					3000	X			
.8	17	###	11		x		x	XX	 XX			
1.4		Æ						XX.	~~	x		
1.7	6	44	4 5					**				
	2		3							X		
1.9	2		1			x						
Total	87		62	2	4	ı	2	10 1	4	2	0	0
Elimin.	11	#	8	-	30			x	- *		<del>-</del>	•
Retained		-	ī					-				

#One or more cases with multiple defeat

\*Miami casas - 87 retained

- 11 climinated (have medical records)
- 1 retained (no flight record)
- 3 eliminated (no medical records)
- 10 retained (no medical records)
- 112 total

#### TAPLE 17 (Continue)

## OCCUPRENCE OF "ISUAL DEFECT IN TE MS OF "CHARACTER AND LEADERSHIP TES!" DL TRIBUTION Wimmi, Okli homa

	Character		Angle of	<u>Ao</u>	Accormodation				
	end	Prism	Convergopo	7.1	or le	38	13.	3 or m	OTO
<u>s.s.</u>	Leedership	Divergence	PoB. Pd.		Both	<u>Lt.</u>	<u>Rt.</u>	<u>Both</u>	Lta
-1,6	1 5								
~l5	5			I					
-1.3	5				X				
-1.1	$\vec{n}$								
6	8 .								
- ,3	5								
⇒ "ĺ	12								
-4,1	9					x			
.8	17								
1.4	6								
1,7	6								
1,9	2								
	•								
Total	87	0	<b>0</b> 6	1	1	I	0	0	0
Elimin.	11				201				
Retained									

TABLE 18

OCCURRENCE OF VISUAL DEFECT IN TERMS OF THE "GROUND EXAM TEST" DISTRIBUTION

Miami, Oklahoma\*

S.S.	Ground Exam		No Visual <u>Defect</u>	Vis R.E.	ual Acu Both	ity L.E.	Dept Percep A	tion	at 6	rophoria meters o R.H.	_
-1.8 -1.7 -1.6 -1.5 -1.4	1 3 2 2		1 2 0 1	x	x			*	x		
-1.3 -1.2 -1.1 -1.0	3 2 2 2 3 3 3 3 1	#	2 3 2 2		x		x	x	ж		
.9 8 7 6 5	2		0 1 4 2			x		x			
4 3 2 1	42321323232332		421211231211222222323232			-		x	x		
0 .1 .2 3 .4	3 2 3 2 3		1 2 1 2	x			ж	x	x		
.5 .6 .7 .8 .9	3 2 4 2	#	1 1 2 2		x			x x x	x		
1.0 1.1 1.2 1.3	4223233323		2 3 2		x			x			
1.4 1.5 1.6 Total	3 2 3 87	#	3 2 2 62	2	4	1	2	* 10 1	<b>x</b> 4 2	0	0
Elimin. Retained	11 1		8 1		1			x			

<sup>\*</sup>Miami cases - 87 retained

ll eliminated (have medical records)

l retained (no flight record)

<sup>3</sup> eliminated (no medical records)

<sup>10</sup> retained (no medical records)

<sup>112</sup> total

TABLE 18 (Continued)

OCCURRENCE OF VISUAL DEFECT IN TERMS OF THE "GROUND EXAM TEST" DISTRIBUTION Miami, Oklahoma

			Angle of <u>'ccommodation</u> Convergence 7.1 or less 13.3							
<u>s.s.</u>	Ground Exam	Prism Divergence	Converge PcB.	Pd.	7.1 8t	or le: Both	8 <b>8</b> J.t.	13。) Rt	3 or m Both	ore .t.t
		71,01,000	<del>- 2-7</del>	YA.	2.00	<del></del>	1122	1500	SA ATT	#AV
-1.8 -1.7	1									
-1.6	3									
-1.5 1.5	2									
~1.4	2									
·1 3	3									
×1.2	3									
-1.1 -1.0	3									
± .9	í									
- °8	2									
* <sub>e</sub> 7	4									
<u>~ .6</u>	2									
⇒ ₀5 ◆ ₀4	3				x					
- 3	î									
<b>ુ2</b>	3									
<b></b>	2									
0	3									
, 1.	2									
. 3	2									
.4	ã									
<b>.</b> 5	3									
, <b>6</b>	2						x			
. / st	4 2					X				
,1 ,2 ,3 ,4 ,5 ,6 ,7 ,8 ,9	2					•				
	<u>3</u>									
1,1	2									
1.2	3									
1.3 1.4	3									
1.5	2									
1.6	222333312423213232323232422323323									
Total	87	0	0	0	1	ı	1	C	0	0
Elimin. Retained	11					XX				

TABLE 19 OCCUPRENCE OF VISUAL DEFECT IN TURBS OF THE "FLYING TEST" DISTRIBUTION Miami, Oklahoma\*

	Flying		No Visual		ual Ac		Dept Percer	oti on	at 6	rophoria net <b>er</b> s	-a
<u>s.s.</u>	<u>Test</u>		<u>Defect</u>	R.E.	<u>Bo</u> th	L, $E$ .	<u>A</u>	<u>N</u> .	Esc Exc N	$R_2H_B$	I .
-1 7 -1 6 -1 5 -1 4	1 2 3 2	#	0 1 2 2 2 2	X			x	γ	И		
=1.3 -1.2 -1.1 - 9	12323352	#		X							
7 6 - 5	4 1 4 1		3 4					X			
- 4 3 2 1	3 3 2 2		2 2		<b>2</b>	<b>X</b>		*:	£		
0 2 3 4	4123322432323333333	#	42344112242288888832321132W					יציל			
້5 ູ່6 ູ່8 ູ່9	2 3 3		3 2 3					x X			
1.0 1.1 1.2 1.4	3 3 4	#	2 1 1 3		ĸ		K X	*			
1.5 1.6 1.7	4 3 3 2	Ħ	1		<b>X</b> %			×			
Total Elimin. Retained	87 11 1	#	62 8 1	2	<b>4</b> Դ.	l	Z)	10 } *	4 3	J	٠,

\*Miami cases - 87 retained

<sup>11</sup> eliminated (bave modical records)

l recained (no flight record)

<sup>3</sup> eliminated (no medical records)
10 retained (no medical records)

U2 total

TABLE 19 (Continued)

OCCURRENCE OF VISUAL DEFECT IN TERMS OF THE "FLYING TEST" DISTRIBUTION

Miami, Oklahoma

			Angle of		Accommodat			<u>ation</u>	tion .		
	Flying	Prisa	Converger	ce	7,1	or le	88		3 or m		
<u>5,5,</u>	Test	Divergence	PoB.	Pd.	Rt.	Both	<u>Lt.</u>	$Rt_c$	<u>Both</u>	Lta	
-1,7	1										
-1.6	2										
-1 5	3										
-1.4	3 2										
-1.3	3						x				
-1.2	3										
-1.1	5				X						
- J <b>9</b>	2										
~ ್8	4										
~ .7	1										
- <b>.,6</b>	4										
- 。5	1										
<b>-</b> ,4	2										
~ .3	3										
÷ ₀2	3										
- o1	2										
0	3352414123322432323333334332										
.1	4					x					
,2 ,3	3										
<b>₂3</b>	2										
5 <b>4</b>	3										
^ <b>غ</b> ُ	2										
,6	3										
,8	3										
.9	3										
1.0	3										
1.1	3										
1,2	3										
1.4	4										
1.5	3										
1.6	2										
1.7	2										
Total	87	0	0	0	1	1	l	0	0	0	
Elimin,	11					XX					
Retained	l										

TABLE 20

OCCURRENCE OF VISUAL DEFECT IN TERMS OF THE "SUITABILITY TEST" DISTRIBUTION Terrell, Terms

	Suit-		No Visual <u>Defect</u>		ual Ac Both		Dept Percer		H <u>a</u> <u>Kso</u> N	t 6 m	phoria eters R.H.	Lella
2 310 130 133 230 123	1 4 1 2	#	1 4 0 0						x			
2 200 201 210 211 212	4 2 12 12	#	2 2 9 7		ж		x	x x x	ж			
220 221 222 120 121	1 3 5 1 4 10	###	2 2 9 7 1 1 3 1 1 6 2 0	xx	x		I	<b>x</b>				
122 112 1 100 101	2 1	#	2 0 2		-			ж				
110 111 010	9 1 7 1	#	4 0 0	x	x		x					
Total Elimin. Retained	85 13 3	#	47 6 0	4	5 <b>x</b>	0	3 x	7 *	2 *	0 *	0	Û

7

#One or more cases with multiple defect

\*Terrell cases ~ 85 retained

<sup>13</sup> eliminated (have medical records)

<sup>3</sup> retained (no flight records)

<sup>3</sup> eliminated (no medical records)

<sup>7</sup> retained (no medical records)

lll total

TABLE 20 (Continued)

### OCCURRENCE OF VISUAL DEFECT IN TERMS OF THE "SUITABILITY TEST" DISTRIBUTION Terrall, Texas

			Angle o							
	Suit~	Prism	Converge			or le			3 or m	
	a <u>bilit</u> y	Divergence	PcB.	<u>Pd</u> a	$Rt_{\alpha}$	<u>Both</u>	<u>lt.</u>	<u>Rt.</u>	Both	Lto
3										
<u>}</u> 310	1									
130	4									
133	1 2	x					•			x
230	2	x								x
123	1									
<u>2</u> 200										
200	4 2	X								
2 <b>01</b>	2									
210	12	*				X				
211	12	ЖX						X		
212	ı									
220	1 3 5 1	x								
221	5	XX								
222										
120	4	201								
121	10	**							x	X
122	2									
112	1	x								
1										
100	9	XXX								XX
101	1	x								
110	7	XX						X		
111	1,									X
010	1									I
Total	85	21	0	0	0	3	0	2	1	7
Elimin.	13	30000			x				I	×
Retained		x								

TABLE 21 OCCURRENCE OF VISUAL DEFECT IN TERMS OF "TOTAL DUAL (DAY) TEST" DISTRIBUTION Terrell, Texas

<u>s.s.</u>	Day Total Dual		No Visual <u>Defect</u>		val Acu Both		Dept Percer		a	eterop t 6 me	ters	L.H.
2.4 2.3 2.2 2.1 1.9	1 1 2 1	A	0 0 1 0									
1.7 1.4 1.2 1.0 .9	121112122423335246	#	0111122312321215112110222111		x							
₀7 ₀6 ₀5 ₀4	4 2 3	#	7 1 2 3		x		x	x	x			
.3 .2 .1 0	5 2 4 6	##	1 2 1 5		x			x				
2 3 4 5 6	4 3 5 2 2 1	#	1 2 1 1	x	X		x	x	x			
7 8 9 -1.0	1 4 2 1 2	#	0 2 2 2 1	x				x				
-1.2 -1.3 ~1.4 -1.5 ~1.8 ~1.9	2 1 1 2		1 1 0 0 2									
=2.6 Total Elimin. Retained	1 85 13 3	#	0 47 6 0	* 4	5 x	0	3 *	х 7 х	2 <b>x</b>	0 <b>x</b>	0	0

\*Terrell cases - 85 retained

<sup>13</sup> eliminated (have medical records)

<sup>3</sup> retained (no flight records)
3 eliminated (no medical records)
7 retained (no medical records)

<sup>111</sup> total

TABLE 21 (Constants)

OCCURRENCE OF VISUAL DEFICE IN TERMS OF "TOTAL DUAL (DAY) FEST" DISTRIBUTION

Terrell, 1928

<u>S.S.</u>	Pay Total <u>Dual</u>	Prisa Divergence	Angle of Corvergence ToB. Pd	7.1 . Rt.	Acc or les Both			or mo Both	
2.4	1	x							
2,3	1 2	X							x x
2,2 2,1	Ĩ	×							•
1.9	1	*							
1.7 1.4	1								
1,2	1 2 1 2 2	**							
1,0 ,9	1 2								
.8									
. <b>7</b> ,6	4233352				ж				x
5 ج	3								
۰ <u>4</u>	3								
.4 .3 .2	5	x x					x		x
<b>~1</b>	2								
0 1, =	4 6	XOCK							
≈ <sub>2</sub> 2		x							x
= .3 = .4	4 3 5 2 2 1	x					X		XX
~ <b>.</b> 5	ž	ж			•				
≈ .6 ≈ .7	2	x							
~ .8	4	<b>x</b> <b>x</b> x							
= a9	4	x							
-1.0 -1.1	2 1								
~ <u></u> 1.2	1 2 2	x	•						
-1.3 -1.4	2 1	x							
-].5								x	
-1.8 -1.9	1 1 2 1	x							
-2.6	1								
Total	85	21	0 0	٥	1	0	2	1	7
Elimin. Retained	13 3	)COCOCK		I				X	X
1/G NG TITOS	)	<b></b>							

á

TABLE 22

OCCURRENCE OF VISUAL DEFECT IN TERMS OF "DUAL TO FIRST SOLO (DAY) TEST" DISTRIBUTION

Terrell, Texas\*

S.S.	Dual to lst Sole		No Visual Defect		ual Ac Both		Perc A	epth ception N	<u>eso</u> N	at 6	ophori meters R.H.	<u>L</u>
2,6	1	#	0						x			
2.5 2.2	ļ		0									
2.0	1 2	#			x							
1.9	ī	•	ĭ									
1.7	11113113522323122		0 1 1 0									
1.6	1		0									
1.3	1	ő	0				_					
1.2 1.1	3	•	2		x		X					
1,0	í		Ĭ									
ىء	1		1									
.8 .7	3		7									
.6	2		2									
。6 ⋄5	2		2									
.4	3		ī.									
.4 .2	2	Ħ	1	X			x					
.l	3		3									
0 • • <b>1</b>	7		1					_				
- °2	2		2					X				
3 =	4		2 `									
= .4	6	#	002111322113112252240		x		x					
= .5 = .6	3	ж	2	_								
≠ ,6 = ,7	4 7	#	Z. I.	x	x			XX				
⇒ ຶ <b>8</b>	2	17	Õ		-			x				
<b>- ∘9</b>		ø	ì		×							
<b>-1</b> .0	4 5 5 2	#	1 3 3 1 0					x	x			
-1.1 -1.2	5	Ħ	3	X				x				
=1°2 =1°5	í		0									
-1. <b>7</b>	ì	#	ŏ	X				x				
<del>-</del> 2。2	1	•	ŀ									
Total	85		47	4	5	0	3	7	2	0	0	0
Minin.	13	#	6	•	x		x	x				
Retained	3		0	- 170 et.	7 T		o r	matad nad	x	x		

\*Terrell cases - 85 retained

<sup>13</sup> eliminated (have medical records)
3 retained (no flight records)

<sup>3</sup> eliminated (no medical records)
7 retained (no medical records)

<sup>7</sup> retained (no medical :

#### TABLE 22 (Continued)

# OCCURRENCE OF VISUAL DEFECT IN TERMS OF "DUAL TO FIRST SOLO (DAY) TEST" DISTRIBUTION Terrell, Texas

	Dual		Angle o	Accommodation						
	to lst	Prism	Converge	ance	7.1			_13 。	3 or m	ore
<u>5.S.</u>	Solo_	Divergence	PoB.	Pd	Rt.	<u>Both</u>	<u>Lt.</u>	<u>Rt.</u>	<u>Both</u>	<u>Lt.</u>
2,6	1									x
2.5	1									ж.
2,2	1	x								
2.0	1 2	XX								
1.9	1									
1.7	1 1									
1,6										x
1.3	1	x								
1.2	1					X				
1.1	3	x								
1.0	1									
هو.	I									
<b>"8</b>	3	77								
.7	5	XX								
ه6	2									
.5	111311352232312246									
۰4	3	IX								
.2	2							x		
<b>I</b> e	3									
0	1									
= ol	2									
<b>-</b> 。2	2					•				
<b></b> 3	4	X								X
4	6	x								
5	3	x								
- 46	4 7	x								
<b>-</b> .7	7	XX								x
<b>⇒</b> "8	2									x
9	4	x						x		x
-1.0	5	x								
<b>~l</b> .l	5 5 2	x								
<b>-1</b> ,2									I	
-1.5	1	X								
-1.7	1									
<b>-2</b> .2	1									
Total	85	21	0	0	0	1	0	2	1	7
Elimin,	13	XXXX	~	•	x	-	•	-	x	x
Retained	3	x			-					

TABLE 23 OCCURRENCE OF VISUAL DEFECT IN TERMS OF THE "LINK TEST" DISTRIBUTION Terrell, Texas\*

	Link		No Visual	V4 e	nual Ac	41 <b>1 t</b> .tr					Heterophoria at 6 meters			
<u>s,s,</u>	Test		Defeat	R.E.			A	N	<u>Eso</u>			Lalla		
3。0	1		1						N					
2.4	2		2											
1.8	3		2											
1,2	3 6	#	3	ж	x		x							
,6	19	#	12	x	x			I						
0	25	#	12	*			x	XXX	I					
<del>-</del> "6	12	#	5		XX			x						
-1.2	13	#	8	X				x	X					
⇒າ <sub>໑</sub> 8	3		2											
<b>-2</b> .4	1	#	. 0		x		x							
Total	85		47	4	5	0	3	7	2	0	٥	0		
Elimin.	13	#	6	•	X		x	-			_			
Retained	3	_	0						x	X				

\*Terrell cases - 85 retained

- 13 eliminated (have medical records)
  3 retained (no flight records)
  3 eliminated (no medical records)
  7 retained (no medical records)
- ill total

TABLE 23 (Continued)

OCCURRENCE OF VISUAL DEFECT IN TERMS OF THE "LINK TEST" DISTRIBUTION

Terrell, Texas\*

		Angle of Accommodation							<u>n</u>	
	Link	Prism	Converg	ence	7.1	or le	98	13。	3 or 🛚	ore
<u>5,5,</u>	Test	Divergence	PcB,	Pd a	Rt.	<u>Both</u>	<u>Lt.</u>	Rt.	Both	<u>Lt</u> e
3,0	l									
2,4	2									
1.8	3									X
1,2	6	<b>300</b>				X				
ͺ6	19	XXXXX						X		
0	25							x		XX
<b>-</b> ,6	12	XXX							X	x
<b>-1</b> .2	13	<b>XXX</b>								XX
<b>-1</b> ,8	3	x								
-2.4	1	x								
Total	85	21	0	O	0	1	0	2	1	7
<b>Elimin</b>	13	XXX				X				
Retained	3	x								

TABLE 24 OCCURRENCE OF VISUAL DEFECT IN TERMS OF THE "NIGHT TEST" DISTRIBUTION Terrell, Texas\*

<u>s.s.</u>	Night <u>Test</u>		No Visual <u>Defect</u>		ual Ac Both		Der Perce A	oth option	а	t 6 m	phoria eters R.H.	
1.9 1.7 1.6 1.4	1 1 5 2 6 4 2 4 7	#	0 3 2	x	x		x	x	•			
1,2 ,9 ,7 ,6	6 4 2 4	#	4 2 1 3 6 7	×	x x		3%	x x				
.6 .2 = .1 ~ .3	15	##	6 7 6	ж	ж		x	xx x	**			
4 6 8 -1.0	14 2 4 4 1 4		6 1 4 2 0 2									
-1.1 -1.3 -1.5 -1.6	4 1 1 2	#			ж							
-1.8 -2.0 -2.8	1 2 1 2 2		0 2 1 0					x				
Total Elimin. Retained	85 13 3	#	47 6 0	4	5 <b>x</b>	0	3 x	7	2 *	0 **	0	0

\*Terrell cases = 85 retained

- 13 eliminated (have medical records)
  3 retained (no flight records)
- 3 eliminated (no medical records)
  7 retained (no medical records)
- 111 total

TABLE 24. (Continued)

OCCURRENCE OF VISUAL DEFECT IN TERMS OF THE "NIGHT TEST" DISTRIBUTION Terrell, Texas

			Angle							
	Night	Prism	Converg					13.	3 or m	ore
<u>s.s.</u>	<u>Test</u>	<u>Divergence</u>	PcB.	Pd.	Rt.	Both	$Lt_a$	Rt,	Both	Lta
19	1	r								
1.7	1							I		
1.6	5							x		
3 .4	2									
1.2	1 1 5 2 6					X				x
" <b>9</b>	4									x
.7	4 2	x								
₅ <b>6</b>	4 7									
2ء	7	x								
£. =	15	XXX							x	x
≂ ₀ <b>3</b>	14	100000t								ЖX
<b>⇒ .4</b>	2	x								
- ,6	4									
<b>-</b> .8	4	XX								
<b>-1</b> ,0		X								
L.L.	4 1 1 2	XX								
<del>-</del> 1,3	1									X
-1.5	1	X								I
-1.6	2									
<b>-1</b> , <b>8</b>	1									
∽2.0	2	X								
≃2ູ8	2	x								
Total	85	21	0	0	0	1	0	2	1	7
Elimin,	13	XXXX				x			_	
Retained	3	x								

TABLE 25 OCCURRENCE OF VISUAL DEFECT IN TERMS OF THE "INSTRUMENT TEST" DISTRIBUTION Terrell, Texas\*

<u>5.5.</u>	Instrument Test		No Visual <u>Defect</u>		ual Ac Both		Dep Perce A	th ption	Eso N	t 6 m	phoria eters R.H.	L.H.
2.3	1		1									
2.1	4	#	1	x			I	x				
1.9 1.8	7		0 1									
1.5	1 1		0									
1.2	า		1									
1.1	1111323257282537435113211121		.2									
.8	ź		2									
<b>.7</b>	3		1						x			
ه6	2		2									
5 ه	5	#	2 1 2 4 1 6 2 1		x							
۰4	7	#######################################	4					x				
و.	2	#	1					x				
۰2	В	Ħ	6						I			
, I	2	п	2									
- 1	2	#	2		x		x	<b>X</b>				
= .1 = .2	2		5					X				
= °2	;	#	1	<b>3</b> 00				I				
- <sub>9</sub> 4	3	#	1		x			•				
<u>-</u>	5	#	1 3 1 0 1	x	x		x	×				
7	í	H	í	-	-							
<b>-</b> .9	ī		ō									
<b>-1</b> 。0	3		î.									
<b>-1</b> ₃2	2		Q		x							
•1 <sub>.3</sub>	1		0									
-1.4	1		1									
-1.5	1		1									
-1.8	2		1 2 0									
-1.9 -2.4	i											•
-2.4 -3.0	ì		l l									
				_	_	_	_	_	_	_		
Total	85	,n	47	4	5	0	3	7	2	0	0	0
Elimin.	13	#	6		x		x					
Retained	3		0						x	X		

\*Terrell cases - 85 retained

<sup>13</sup> eliminated (have medical records)

<sup>3</sup> retained (no flight records)
3 eliminated (no medical records)

<sup>7</sup> retained (no medical records)

<sup>111</sup> total

TABLE 25 (Continued)

OCCURRENCE OF VISUAL DEFECT IN TERMS OF THE "INSTRUMENT TEST" DISTRIBUTION Terrell, Texas

S <sub>e</sub> S <sub>e</sub>	Instrument <u>Test</u>	Prism Divergence	Angle of Convergence PcB. Pc		Ac L or le Both	88		3 or m	
2.3	1								
2 1	1 4 1 1						XX		
19	1	ж							
1,8	1							_	
1.5	1							I	
1.2	1			•					
1.1 .8	1 1 3 2 3 2 5 7 2 8 2 5 7	x							
.7	ว								
36	2								x
. <b>5</b>	5	XX							XX
.4	7	acx.							x
۶ <b>3</b>	2	x							
۰2	<b>B</b>	x							x
.1	2								
0	5	XX.							
= .1 = .2	<i>)</i>								x
= <sub>0</sub> 2 = <sub>0</sub> 3		XX XX							
= °,7 = °,4	<b>*</b>	7X							
<b>∝</b> 。6	4 3 5 1 1 3 2	24			x				
- 7	î		-		_				
<b>-</b>	1	x							
-1 <sub>0</sub> 0	3	x							x
<b>⇒1</b> , 2	2	*							
-1.3	1	x							
-1.4	1								
~1.5 ~1.8	1 2								
~1.9	î	×							
-2.4	ī	^							
~3.0	ī								
Total	85	21.	0 (	0	1	0	2	1	7
Elimin.	13	2000			x		-	_	
Retained	3	x							

TABLE 26 OCCURRENCE OF VISUAL DEFECT IN TERMS OF THE "GENERAL TEST" DISTRIBUTION Terrell, Texas

<u>s.s.</u>	General Test		No Visual <u>Defect</u>		ual Acı Both	ity L.B.	Dept Percer A		<u>Eso</u> N	Heter at 6	ophoria meters R.H.	L.H.
2.1 1.9 1.8 1.7	1 1 2 2	#	0 0 2 1		×				r.			
1.6 1.4 1.3 1.0	3 1 1 5	#	0212111122211		x		x	x	x			
.9 .8 .7 .6	3 1 2 3	#	1 2 2					x				
.5 ,4 .3 .2 .1	3 2 3	#######################################	1 1 1 1	x			×	x				
0 - ,1 - ,2 - ,3	12231153123632315253	#	2 2 3 2	x	XX		x	x				
= .4 = .5 = .6 = .8	4 1 6	#	4 1 4 2									
9 -1.0 -1.4 -1.5	4 3 2 1 3	#	1 0 1	x				x				
~1.6 ~1.8 ~1.9 ~2.1 ~2.2	1 1 2 1		1 1 1 0									
Total Elimin. Retained	85 13 3	#	47 6 0	4	5 *	0	3 <b>x</b>	7	2 *	0 <b>x</b>	0	0

\*Terrell cases - 85 retained

<sup>13</sup> eliminated (have medical records)

<sup>3</sup> retained (no flight records)
3 eliminated (no medical records)

<sup>7</sup> retained (no medical records)

ill total

TABLE 26 (Continued)

OCCURRENCE OF VISUAL DEFECT IN TERMS OF THE "GENERAL TEST" DISTRIBUTION

Formall, Taxas

	C1	D-1-	Angle of	. 77 1			dation		
S.S.	General Test	Prism Divergence	Convergenc PcB. Pd		or le <u>Both</u>			3 or m Both	
2.1	ı	x							
1.9	1	x							
1.8 1.7	2								
1.6	3								
1.4	í								
1.3	1								
1.0	5	ж			x		X		X
۶ <b>9</b> 8	و ١	x							
7	2								
್ಠ6	3	x							
<sub>3</sub> 5	6	*						X	X
- <b>3</b>	2	*					X		I
°2 3	2231153123632315253416432131	*							Ī
۵1	í	<del>-</del> -							
0	5	27.							
= <sub>0</sub> 1 = 2	2	_							
=	3	X X							
4	4	-							
- 5	1								
6 8	6	x							XX
~ °9	3	XX X							x
-1.0	ź	x							
-1.4	1								
-1 <sub>2</sub> 5	3	<b>32</b> X							
~1.6 -1.8	1								
-1,9	1 2	x							
<b>-2</b> ,1	1								
-2.2	1	x							
Total	85	21	0 0	0	J	0	2	1	7
Elimin.	13	23002			x				
Retained	3	x							

TABLE 27 OCCURRENCE OF VISUAL DEFECT IN TERMS OF "CHARACTER AND LEADERSHIP TEST" DISTRIBUTION Terrell, Texas\*

S <u>.</u> S.	Character and Leadership		No Visual <u>Defect</u>	<u>V1s</u> 5.E.	ual Ac Both	uity L.E.	Der Perce	oth option N	0	t 6 p	phoria etern <u>R.H.</u>	
									N			
2,0	<b>1</b>		1									
1.9	ì		0									
1.8	1		0									
1.4	9	#	3		X						•	
1。3	J		1									
1.2	1 2 2		3 1 2 2									
<b>l.0</b>			2									
<b>.8</b>	10	#	7		x			e X				
ر7	2		2					•				
o <b>l</b>	16	#	<b>70</b>	x	x		XX	x				
0	1 2		1									
<b>-</b> .1	2		1 2 8									
8 <sub>0</sub> =	16	#	8	XX	XX		x	XXX	X			
- °9	2		0									
-1 <sub>.</sub> 0	2 3 3 2 4 2 2 2	#	2 1 1 2 1	x								
-1.1	3		1					x				
-1.2	2		1									
-1.3	4		2									
<b>-1</b> ∘4	2		נֿ						x			
<b>-1</b> .5	2	#	0									
-1.6	2	Ħ	. 1					I				
M-4-3	Ø5		40	,	_	0	3	79	2	^	0	^
Total	85 3.2	#	47	4	5	0	3 *	7	4	0	0	0
Elimin. Retained	13 3	#	6		x		x	K	x	x		

\*Terrell cases = 85 retained

- 13 eliminated (have medical records)
- 3 retained (no flight records)
  3 eliminated (no medical records)
  7 retained (no medical records)
  111 total

### TABLE 27 (Continued)

#### OCCURRENCE OF VISUAL DEFECT IN TERMS OF "CHARACTER AND LEADERSHIP TEST" DISTRIBUTION Terrell, Texas

	Character and Priem		Angle of	Ac	commodatio	D.
	and	Prien	Convergence	7.1 or le	13	.3 or more
S <sub>s</sub> S <sub>s</sub>	Leedership	Divergence	Pc3. Pd.	Rt. Both	Lt. Rt.	Both Lt.
2,0	2	X.				
1.9	· ·	x				
3 8 [	î	<del></del>				x
1.4	9	XXXX				<b>.</b>
1 3	í					
ĺž	2					
1.0	2					
	1 9 1 2 2 10 2	• XX				
្ <b>ខ</b> 。7	2	•				
, <b>L</b>	16			×	XX	x I
0	1					
<b>-</b> .1	2					
8° =	16 1 2 16 2 3 3 2 4 2 2	XXX				***
- "9	2	XX				
<b>-1</b> .0	3	X				
-1.1	3	x				
<b>⇒1</b> 2	2	x				
-1.3	4	XX				
=1,4	2					
=1 <sub>c</sub> 5	2	XX				X
~1 <sub>3</sub> 6	2	x		•		
Total	85	21	o <b>o</b>	0 1	0 2	1 7
Elimin.	13	XXXX		x	_ · · · · ·	x x
Retained	3	x				_

TABLE 28 OCCURRENCE OF VISUAL DEFECT IN TERMS OF THE "FLYING TEST" DISTRIBUTION Terrell, Texas\*

<u>s.s.</u>	Flying <u>Test</u>		No Visual <u>Defect</u>		ual Ac Both		Dep Perce A			<u>et 6</u>	ophori meters R.H.	
-1.7	1 3 2 2 5 1 2	_	j						•			
-1.6	3	#	0		X			X				
-1.5 -1.4	2		j						_			
-1.4 -1.3	2	#	1,	_			_		*			
-1°5 -1°5	) 1	T	4	x			X					
=1,1	2		i									
-1.0	Ž.	Ħ	Ž.						*			
∞ , ̈́9	ž	ŕ	ĩ.		×		×		•			
- ₀ <b>8</b>	2		ì									
- 27	2	Ħ	0	٧				ЖX				
= s6	3		2									
• .5	3		3									
<b>≈</b> ₃4	3		3									
= ₀3 = ₀2	2	#	4. 7	_								
~	2	Ħ	4	X				x				
0	ì		3									
.ĭ	5	#	2	x	x		x	x				
. <u>.</u> 3	Ĺ	~	<u>3</u>	~	_		4	-				
a <b>4</b>	2		2									
.5 .6 .7	3		1.									
.6	1	#	0		<b>,</b>							
<b>.</b> ?	3	#	1		X							
, <b>B</b>	3		3									
.∘9	Ĭ		Ţ									
1.0	<u>ز</u> 2		<u>ح</u> ٩									
1.1 1.2	2		L S									
1.3	2	#	ñ	x								
1.4	3	**	2	~					×			
1.5	4222333232154231331332231321		411211023311012321013121102111									
1.6	3		1									
1.7	2		1									
1.8	1		1									
Total.	85		17	Ĺ,	5	0	3	7	2	0	a	o
Elimin.	13	#	47 6 0	*	x	J	×	•	~	•	•	~
Retained	3	_	Õ,						x	x		
	-											

\*Terrell cases - 85 retained

<sup>13</sup> eliminated (have medical records)
3 retained (no flight records)
3 eliminated (no medical records)

<sup>7</sup> retained (no medical records)

lll total

OCCURRENCE OF V SHAL DEFECT IN TERMS OF YELF PRIFING TEST DISTRIBUTION FORMS.

		D	Angle	of		<u>A</u> g	Соппо	dation		
<b>c</b> e	lying	Prism	Convers	<u> жисе</u>		or le		_13.,	3 or m	ore
$\mathbf{S}_{\mathbf{s}}\mathbf{S}_{\mathbf{s}}$	<u>rest</u>	Diversence	PcB.	Fd.	<u>lifi</u>	<u>Roth</u>	<u>Lt.</u>	Rto	Both	<u>Lt.</u>
-1.7	1									
-1.6	<u> </u>									
-1,5 -1,5	<i>J</i>	307								
-1.4	3 2 5 1 <b>2</b>							ĸ		
-1.3	ے 5									
-1.2	ر ا							x		
-1-1	3	x								
<b>-</b> ] , 0	e.	X.								
<b>-</b> . 9	2	45.				x				X
* ,8	ີ້ວ					A				_
7	5	**								x
- ,6	~ 3	44								_
- <sub>0</sub> 5	7									X
= .4	์จ									
<b>∝</b> ່3	ว์									_
2ٌ -	â								x	x
بر ا	42223332232	x								
ō		-								
,ĭ	15423133133223732	<b>TOX</b>								
. <del>3</del>	Ĩ.	X								
.4	$\frac{7}{2}$	-								
ه 5	3	<b>30</b> %								
<u>,6</u>	í	x								
ە.7	3	x								x
្នំខ	3	_								-
_ <b>9</b>	í									
1.0	3	x								
1 1	3									XX
1°5	2	<b>X</b> .								
1.3	2	XX								
1.4	3									
1.5	1									
1.6	3	XX								
1,7		x								
1.8	1									
ent ⊾.≤	45	24	0	_	•	1	•	_	•	P
Total	85	21	0	0	0	1	0	2	1	7
Elimin,	13	XXXX			×				X	*
Retained	3	x								

TABLE 29 OCCURRENCE OF VISUAL DEFECT IN TERMS OF "GROUND LIAM TEST" DISTRIBUTION Terrell, Texas\*

S <sub>o</sub> S <sub>o</sub>	Ground Exam	l -	No Visual <u>Defect</u>		ual Ac Both		Dep Perce		Eso	t 6 m	phoria eters R.H.	
-1.8	9		1						N			
-1.6	2 2	ø	1 1 3 0		x							
-1.5	4	#	3	x	-			x				
~1.4	ĩ	•	ō									
-1.3	3		3									
<b>-1</b> ,2	3	#	0	x				XX				
-1.1	133233231352223322322223233212		3 0 1 3 1 3 0									
<b>-1</b> ₀0	3		3									
9 8	3		ì									
- °37	3		, a									
<del>-</del> 36	í		á					x				
5	3	#			x		x	_				
~ <sub>6</sub> 4	5	#	3	x			x	x				,
3	2	#	Ĭ		x		I					
~ .2	2	#	O									
	2		03102201321012213200									
0	3	A	2					_				
0 ,1 ,2 ,3	2	#	2					X				
ر عر	2	Ħ	1			•			x			
ه. ه4	3	W	3						•			
۰ <del>۲</del>	2		ź									
<b>.</b> 6	2		ĩ									
۰,7	2	#	ō		x				x			
ь <b>В</b>	2		1.									
<b>،9</b>	3		2									
1.0	2		2									
1.1	3		1					X				
1.2	3		3									
1.3 1.4	2		~									
1.5	2		ń									
1.6	2											
1,7	ĩ		î 1 0									
1.8	1	#	0	*								
1.9	ī	•	0	-	x							
Total	85		47	4	5	0	3	7	2	0	0	0
Elimin.	85 13 3	#	6		x		X	x				
Retained	3		0						x	x		

"Terrell reses = 85 retained

<sup>13</sup> eliminated (bave medical records)

<sup>3</sup> retained (no flight records)
3 eliminated (no medical records)

<sup>7</sup> retained (no medical records)

OCCURRENCE OF VISUAL DEFECT IN THUM. OF "GROUND FXAM COSO" DISTRIBUTION
Terroll "exas

		to a	Angle		<i>7:</i> 3			oga ç roi		
<u>5,5,</u>	Ground <u>Exam</u>	Prism <u>Plversence</u>	Conjerg	<u>ਦਹਵਥ</u> ਜੋਹੋ <sub>-</sub>	7.1 c Rt. F	or leg	lii Lt.	ー Lタラ Rt.	or m both	ore Lt.
			Transferra Ada	en e men				ariani dia		
-1°8	2	x								
-1.6	2	×								
-1.5 -1.4	4							x		
-1.3	3							_		
-ī.2́	<b>3</b>	x								
~1 . 5	2	x								
-1.O	3									
~ ,9	3	<b>X</b>								
~ `8	2									X
* .7 ≈ .6	3									
~ ,5 ` ⇒ ,5	3	x				X				x
- 4	5	X						T		
<u>َ</u> آءِ ۽	ź	x						_		
= ,2	2	x								XX
- ,1	2									
ø	13323323135222332232232323212									x
.1 .2 .3	3	x	_							
.2 2	2	XX	•							_
ار <sub>ه</sub>	بر ع									x
- <del>4</del> -	<i>)</i>									
.6	2	ж								
. <b>7</b>	2	x								
.4 .5 .6 .7 .8	2	X								
<b>.9</b>	3	x								
1.0	2									
1 2	3	×								
1.2	3									
1.3	یر ۱	7								
1.4 1.5	ż	X I							x	
1,6		_								x
1.7	2 1 1 1									
1.6	1	x								
1.9	1									
Total	85	21	٥	O	o	1	O	2	1	7
Elimin.	13	XXXX	-	•	<u> </u>		-	_	x	x
Retained	3	x								

TABLE 30 OCCURRENCE OF VISUAL DEFECT IN TERMS OF THE "SUITABILITY TEST" DISTRIBUTION Mesa, Arizona\*

			No				Dept				ophori	
	Suit-		Visual		ual Ac		Percer	tion			meters	
	ability		<u>Defect</u>	R.E.	Both	<u>L.E.</u>	<u> </u>	N	E <sub>BO</sub>	Exo	R.H.	L.H.
3									N			
322	1		0									
231	1 1 1											
232	ī		1 1									
123	ī		ī									
2			•									
2 210	'2		2									
211	10	#	6		x		I	x		x		
212	7		6 5 2 6 3 9									
220	3	#	2		x			x				
221	11	#	6					XXX.		XX		
222	3		3									
121	13	Ħ	9			x		300X		x		
1												
100	5 2		3					XX				
101	2		0					X				
110	12		8 8 3 1			x						
111	10	Ħ	8			x		XX				
010	4 1		3					I				
011	1		1									
Total	87		5 <del>9</del>	0	2	3	ı	17	0	4	0	C
Elimin.		Ħ	2	x	XX	-	x			•		
Retained	5 6	#	5		x		x					

\*Mesa cases - 87 retained

<sup>5</sup> eliminated (have medical records) 6 retained (no flying records)

<sup>2</sup> eliminated (no medical records)

<sup>12</sup> retained (no medical records)

<sup>112</sup> total

TATIE 30 (Confinued)

OCCURRENCE OF VISUAL DEFECT IN TERMS OF THE "SUITABILITY TEST" DISTRIBUTION

MORG. Alizona

			of	Accommodation						
	Suit-	Prism	Conver			or la		13.	3 or m	ore
	<u>ability</u>	Divergence	Pc9.	$p_{c1}$	Rte	<u>Both</u>	Lt.	Rt.	<u>Both</u>	${ t Lt}_o$
2										
322	ì					x				
231	1 1 1									
232	1									
123	1									
<u>2</u> 210										
210	2									
211	10									X
<b>2</b> 12	10 7 3 11 3					XX				
220	3									x
221	11					x				
222	3									
121	13									
1										
100	5 ~ 2 1 <b>2</b>									
101	2				X					
110	12									
111	10									
010	<b>4</b> 1									
01.1	1									
Total	87	0	0	0	ı	4	0	0	0	2
Elimin.					x	•				
Retained	5 6									

ĭ

TABLE 31 OCCURRENCE OF VISUAL DEFECT IN TERMS OF THE "TOTAL DUAL (DAY) TEST" DISTRIBUTION Mesa, Arizona\*

<u>\$.S.</u>	Day Total Dual		No Visual <u>Defect</u>		ual Ac Both		Dep Perce		Eso N	et 6	opbori neters R.H.	e L.H.
3.6	1		1									
2.5	1 1		0									
2.2 2.0	ı I		1									
1.8	ī		ī									
1.5	2		î 0					x				
1.4	1		0					x				
1.2	2	#	1					¥				
1.1 .9	7	#	1 0			-						
.8	112121132742333525710	#	0		x	X		X				
。 <b>7</b>	ź	11	2		^							
6	7		7									
<u>.5</u>	4		3					x				
,5 ,3 ,2	2		0									
۰2 د1	3		7					XX				
Ö	3		2							x		
<b>=</b> .1	5		2			ж.		x		x		
<b>-</b>	2		2			<u>-</u>						
<b>-</b> , <b>5</b>	5		5									
= .4	7		5					XX				
- ,5 -	3 TO		7			x		<b>XX</b>				
= .8	2	#	ī					x		x		
<b>-</b> ₀9	<u> </u>	_	ī							~		
≈1 <sub>°</sub> 0	4	#	1		ж		× ,	x				
-1.1	3		2				•			x		
-1,2	I,		1									
-1.4 -1.6	ì		J.									
-2,2	3 2 4 3 1 1 2		027301322225572111211121									
-2.7	1		1									
Total	87	_	59	0	2	3	1.	17	0	4	0	0
Elimin.	5	#	2 5		ж		*					
Retained	6	Ħ	5		x		X					

\*Mesa caser - 87 retained

<sup>5</sup> eliminated (have medical records) 6 retained (no flight records) 2 eliminated (no medical records)

<sup>12</sup> retained (no medical records)

<sup>112</sup> total

TABLE 31 'Continued)

# OCCURRENCE OF VISUAL DEFECT IN TERMS OF THE "TOTAL DUAL (DAY) TEST" DISTRIBUTION Hear, Acizona

	Day	<b>.</b> .	Angle					datio		
<u>5.</u> 5.	Total <u>Dual</u>	Prism Divergence	Converg PcB <sub>c</sub>	ence Pd.	7.1 Rt.				3 or m Both	ore Lt.
			<del></del>		1		emerica de	<del>data da T</del> h	ain-flexisies	
3.6 2.5	1 1					x				
2.2	i					_				
2,0	1									
1.8 1.5	1 2									
1.4	1									
1.2	2					X				
1,1 _9	1									
, <b>8</b>	3					x				x
<b>.7</b>	1 3 2 7									
6 ₃5										
ه <b>3</b>	423335257				x					x
.2 .1	3									
0	3									
~ , <b>1</b>	5									
∝ ດ2 - ∝3	2 5									
<b>∞</b> .4	ŕ									
<b>-</b> .5	10									
∞7 ∞8	3 2									
~ ,9	1									
-1.0	4					X				
~1,1 ~1,2	3 1									
-1.4	1									
-1,6 -2,2	1 2									
<u>-</u> 2.2 -2.7	î									
	_		•	_			_	_		_
Total Elimin.	87 5	O	0	0	1 *	4	0	0	0	2
Retained	5 6				-					

TABLE 32 OCCURRENCE OF VISUAL DEFECT IN TERMS OF THE "DUAL TO FIRST SOLO (DAY) TEST DISTRIBUTION Mesa, Arizona\*

<u>s.s.</u>	Day Dual to 1st Solo		No Visuel <u>Defect</u>		ual Ac Both	uity L.E.	Dep Perce		н <u>Б</u> во N	<u>t 6 m</u>	phoria eters R.H.	
2.6	1	#	0					x	•	x		
2.1	2					x						
2.0	1		1111112313002523428510522110									
ጌ <sub>9</sub>	2		1					I				
1.8	1	_	1									
1.6	1 2 1 3 1 4 3 1	a d	l			x		II				
1.4	1		1									
1.0	1		1									
.9 .8 .7	4		2					X				
°B	3		3									
٧.	1		Ţ					_				
۰5	4	#	3		_			x				
.4 .3	1	TT.	0		I		x					
。2	1 2 5 3 6		2									
م. آ	5		<i>ج</i> ج									
Ô	á		2			x						
a ol	6	#	3					XXX				
~ °2	7	# #	Ĺ		, x			1CX		x		
<u>ء</u> . عَ	ġ	ш	2							x		
<b>≈</b> .4	10		8					x		_		
= 5	8		5					200				
~ ₃6	1		ĺ									
<b>~ ₀7</b>	1		0							x		
<b>⊸ .8</b>	8 1 7 2 2 1 2		5					x				
<b>-1</b> ₀0	2		2									
<del>-</del> 1。3	2		2									
=1.7	1		1									
<b>-2.1</b>	2		1					X				
<b>-3.7</b>	T		0					X				
Total	87		50	0	2	3	1	17	0	4	0	0
Elimin.		#	ź	x	XX	_	x	<del>-</del> '	•	~	~	~
Retained	5 6	#	59 2 5		x		x					

\*Mera cases - 87 retained

<sup>5</sup> eliminated (have medical records)

<sup>6</sup> retained (no flight records)
2 eliminated (no medical records)
12 retained (no medical records)

<sup>112</sup> total

### TrBin 32 (toutemas)

## OCCUPREFCE OF VISUAL DEFLOT IN TERMS OF THE "DUAL TO FIRST SOLO (DAY) TEST DISTRIBUTION Maga, Amizona

	Day Dual to	Priem			Accommo 7.1 or less Rt. Both Lt.		<u>commo</u> e	13.3 or more		or <b>e</b>
<u>5.5.</u>	<u>lst Solo</u>	Divergence	PcB.	Pd,	Rt.	Both	Lta		<u>Both</u>	
2,6	1									
2,1	1 2 1 3 1 4 3									
2.0	1									
1.9	2									
1.8	1									
1.6	3									
1.4 1.0	1									
•9	1									
. <b>8</b>	4 3					x				
.8 ∘7	í					-				
<sub>3</sub> 5	Ĩ.									
-4	i									
.3	4 1 2 5 3 6 7 3									
"2	2									¥
.l	5									
0	3									
= ,1 = ,2	6									
2 3	/ 2			•		X				_
- 4	10									I
- °5	8					ж				
6	ĭ					X				
7	1									
<b>- "8</b>	7 2 2 1 2									
-1.0	2				x					
-1.3	2									
-1.7	1									
-2 1	2									
-3.7	1									
Total	87	0	0	0	1	4	0	0	0	2
Elimin.		-	•	•	x		_	-	•	~
Retained	5 6				<del></del>					

TABLE 33 OCCURRENCE OF VISUAL DEFECT IN TERMS OF THE "LINK TEST" DISTRIBUTION Mesa, Arizona\*

	T d mln		No V4	Vá.	m.a.7 . Å.a			pth			ophori	
<u>s.s.</u>	Link <u>Test</u>		Visual Defect		nual Ac Both		Perc	eption N	Fee	ET O	meters R.H.	T 14
<u>4649</u>	TODA		<b>DOT BC 0</b>	- Labia	DOTH	متاميد	<u>-e</u> -		<u>Eso</u> N	BAO	17 0 <del>23</del> 12	TioHo.
2,4	2		2									
1.9	2 1 1 5 9	#	0		x			x				
1.5	l		1									
1.2	5		1 3 7					П				
រ <b>ន្</b>	9	_	7					X		x		
.6 .3	12	f	8					XXX		I		
	6		<b>4</b> <b>8</b>					x		x		
<b>.l</b>	9	Ø.	8					X				
a "l	10	#	6		x	x	X	I				
4	9 6	#	1			X		TEXAS		×		
<b>-</b> .6	6		4 3 7					x				
∞ ₀ <b>8</b>	3 7		3									
=1.0	7											
-1.7	1 3 1		1 0 3 0 1									
-2.0	1		0			X						
=2.2	3		3									
<b>~2</b> 。6			0					x				
<b>-3</b> ₀3	1		1									
Total	87		59	0	2	3	1	17	0	4	0	0
Elimin.	5 6	#	2 5	x	XX		x					
Retained	6	#	5		x		x					

\*Mesa cases ~ 87 retained

- 5 eliminated (have medical records)
- 6 retained (no flight records)
  2 eliminated (no medical records)
- 12 retained (no medical records)
- 112 total

OCCURRENCE OF VISUAL DEFECT IN TERMS OF "BE "CORN TEST" DISTRIBUTION hear, Atl one

			Angle	ç€	Accommodation					
	Link	Prism	Conver		7.1	or lo	EB	13.	3 or <b>x</b>	юre
S.S.	Test	<u>Divergence</u>	PcB	rd	$\underline{\mathtt{R}}\mathtt{t}_{\mathtt{s}}$	<u>Both</u>	Lta	<u>Rt.</u>	Both	<u>L</u> t.
2.4	2									
1.9	1									x
3 . 5	1									
] ,2	1 5 9									
្ន	9									
.6	12					I				
,6 .3	6									
ì	9					x				
- "ì	10				r					
o <b>4</b>						XX				
6	6									X
~ .8	9 6 3									
e-] <sub>-</sub> 0	7									
-1.57	ſ									
≈2°0	1 3									
=2,2	3									
-2 <sub>5</sub> 6	1									
-3.3	1									
Total	87	Ω	0	0	1	4	0	o	0	2
Elimin.	5				X					
Retained	6									

) F

ź

TABLE 34

OCCURRENCE OF VISUAL DEFECT IN TEXMS OF THE "NIGHT TEST" DISTRIBUTION

Mesa, Arizona\*

			No	<b></b>		De	pth	Heterophoria			ı	
	Night		Visual	Vie	ual Ac	uity		ention			eters	
<u>s.s.</u>	Test		Defect		Both		A	N	Eso		R.H.	L.H.
ŕ									N	<del>_</del>		_ <del>-</del>
2.3	2		2									
1.6	2 6		2					x		<b>X</b>		
۰9	15	•	11			x		**		x		
.8	1		1									
. <b>7</b>	1		1									
۰4	ì		1									
<u>.</u> 2	20	#	12		XX	I	×	3000C				
-	1	•	1									
4	21		13			x		<b>30000</b> 0		x		
- 8	2		2			_						
-1.0	1		1,									
-1.1	10		6					<b>JO</b> OOK				
-1.8	5		5					3				
<b>-3</b> .2	í		í									
• • • • • • • • • • • • • • • • • • • •	_											
Total	87		<b>59</b>	0	2	3	1	17	0	4	٥	0
Elimin.	5	₽		x	xx	-	r		-	- •		
Retained	6	#	2 5		x		I					

#One or more cases with multiple defect

\*Mesa cases - 87 retained

5 eliminated (have medical records)

6 retained (no flight records)

2 eliminated (no medical records)

12 retained (no medical records)

112 total

ź

TABLE 34 (Continued)

OCCURRENCE OF VISUAL-DEFECT IN TERMS OF THE "NIGHT TEST" DISTRIBUTION

Mesa, Arizona

			Angle of	<u>Accommodation</u>					
	Night	Prism	Convergence	7.1 or 1	888	13.3 or	more		
<u>s,s,</u>	Test	Divergence	PaB. Pd.		Lt.	Rt. Both	Lte		
2.3	2								
1.6	2 6			I					
-9	15						x		
.B	1								
ຶ,7	1								
.4	ī								
<b>.</b> 2	20			<b>103</b>			X		
- °3	1								
4	21			x					
- <sub>2</sub> 8	2								
-1,0	1								
-l.l	10								
=1.8	5								
-3,2	ĺ								
Total	87	0	0 0	1 4	0	0 0	2		
Elimin.	5			X					
Retained	6								

TABLE 35

OCCURRENCE OF VISUAL DEFECT IN TERMS OF THE "INSTRUMENT TEST" DISTRIBUTION Mose, Arizons\*

S.S.	Instrument Test		No Visual <u>Defect</u>		ual Ac Both		Perc	pth eption N	9	t 6 m	phoria stera R.H.	
1.9	1		1									
1.6	8		1 5							x		
1.2	4		4									
1.0	ı		C							x		
ۍ,	12	#	6		x		x	XXXX		XX		
ە5	4 12 1 6 4		ĵ									
3ء	6		3					<b>7</b>				
ຸ2	4		3					X		١		
٥	4		4									
- ,2	6	Ħ	3			XX		323				
- 4	18	Ħ	12		x	x		XXXX				
~ ₀6	4		4									
- "8	l		1				r					
<b>9</b>	2		0					**				
-1.0	<u> </u>		1									
-1.1	4 1 2 1 6 1 5 1		5					x				
-1.3	1		1									
<b>-1</b> .5	5		4					x				
-2.7	1		0									
-3.7	1		l									
Total	87		<b>59</b>	0	2	3	1	17	0	4	0	0
Elimin.	5	#	2	x	XX	-	x			-		
Retained	6	#	5		I		x					

\*Mesa cases = 87 retained

- 5 eliminated (have medical records)
- 6 retained (no flight records)
- 2 eliminated (no medical records)
- 12 retained (no medical records)
- 112 total

TABLE 35 (Continued)

## OCCURRENCE OF VISUAL DEFECT IN TERMS OF THE "INSTRUMENT TEST" DISTRIBUTION Mesa, Arizona\*

	Instrument		Angle of		Accomm	13.	3 or m	ore
<u> </u>	Test	<u>Divergence</u>	PcB. Pd	e Rt. B	th Lta	Rt.	Both	منايل
1.9	ı							
1.6	8 1				XX			
1.2	4							
1.0	4							
.7	12				I			
a <b>5</b>	1							
3ء	1 6 4 4 6							I
ູ2	4							_
0	4							
<b>-</b> "2	6							
<b>-</b> ₀4	18				X			X
<b>-</b> 。6	4							
<b>- 8</b>	1							
- <sub>-</sub> 9	2							
-1.0	1							
<b>-1.1</b>	4 1 2 1 6 1 5							
-1.3	l							
-1.5	5							
<b>-2</b> .7				x				
-3.7	1							
Total	87	0	<b>c</b> o	1	4 0	0	, 0	2
Klimin.	5	-	-	x	<b>~</b>	_	•	
Retained	6			<del></del>				

TABLE 36 OCCURRENCE OF VISUAL DEFECT IN TERMS OF THE "GENERAL TEST" DISTRIBUTION Mesa, Arizona\*

<u>s.s.</u>	General Test		No Visual <u>Defect</u>		ual Ac Both		Der Perce	th ption N	5	t 6 m	phoria etera R.H.	
2.0	1		1 2						••			
1.8	2		2									
1.6	1 2 2 8		1									
1.3 1.1	8	#	3					XX		XX		
1.0	7	#	7		_			_				
39	<i>5</i>	W	3		I			x		x		
<b>.7</b>	3		2					•		•		
<sub>a</sub> 6	1 5 5 5 2 11 2 1 1 3 13		1 3 1 2 3 2 4 2 8 0 1					x				
ه4	2		2									
٠ <u>٦</u>	11	#	8					XXX		I		
e .1	2		Ó			I		X				
=	1		Ť									
= .4	1		0 1 3 9 1 1 2									
= <sub>0</sub> 5	3		3									
= å6	13	#	9		x		x	<b>330</b> K		,		
<b>~</b> ູ7	ī		ì									
≈ .8° ≈	3		1					ЖX				
- 。9	1 3 2 1 7	41	2									
•1 <sub>0</sub> 0	1 ~	#	0			X		x				
-1.1 -1.3	7		0 5 2 1					x				
=1.4	2		1									
-1.4 -1.5	i		1									
-1,9	ī		Õ					x				
-2.0	4		3			x		_				
Total	87		59	О	2	3	1	17	0	4	٥	0
Flinin.	5	#	2 5	ж	XX	-	I			•	-	_
Retained	6	#	5		x		x					

ب غ

#One or more cases with multiple defeat

\*Mesa cases - 87 retained

<sup>5</sup> eliminated (have medical records)

<sup>6</sup> retained (no flight records)
2 eliminated (no wadical records)

<sup>12</sup> retained (no medical records)

<sup>112</sup> total

TABLE 36 (Continued)

### OCCURRENCE OF VISUAL DEFECT IN TERMS OF THE "GENERAL TEST" DISTRIBUTION Mosa, Arisona "

		1	Angle					datio		
	General	Prism	CONVOT			or le			3 or m	
<u>s,s.</u> ,	<u>Test</u>	Divergence	PcB <sub>o</sub>	H.	Rta	<u>Both</u>	Lta	Rtia	<u>Both</u>	مناية
2.0	1									»
1.8	1 2 2									
1.6	2					x				
1.3	- 8	€.*				<b>7</b>				
1.01		, *								
1.0	3					, ,				×
.9	. 5					,				-
<b>.</b> 7	3					x				
<u>.</u> 6	5					_				
<u>.4</u>	2									
.1	11									
1	2									
<b>-</b> .2	1							_		
3 ∸	1									x
- 4	1 3 5 3 5 2 11 2 1 1 3									
- 45										
- 46	13									
- ,7	1									
~ .8	3									
-, 09	2									
-1.0 -1.1	13 1 3 2 1 7 2 1		`							
-1.3	2	Y			I					
-1.4	ว									
-1.5	1									
-1.9	î								,	
-2°0	4									
Total	87	Ó	C	0	1	4	0	. <b>0</b>	0	2
Elimin.		٢	-	-	x	~	•	_	•	~
Retained	5 6		,		_					

TABLE 37

OCCURRENCE OF VISUAL DEFECT IN TERMS OF THE "CHARACTER AND LEADERSHIP TEST" DISTRIBUTION

Mess, Arisons\*

<u> </u>	Character and <u>Leadership</u>		No Visual <u>Defect</u>		ual Ac Both		Dep Perce	th ption		it 6 m	phoris eters R.H.	-
-1.7 -1.6 -1.5 -1.4	2 2 3 2	#	2 0 1 1		x		x	x	-			
-1.3 -1.2 -1.1 -1.0 9	2 2 3 2 2 3 3 5 1		1 2 2 0 5 1			x		XXX				
8 6 5 4 3	4 3 2 3 2	#	3 1			X ,		x x		x		
2 1 0 .1	2 3 2		1 2 2 2 2 2 2 3 1					×		x		
.2 .3 .4 .5 .7	3 2 4 5	#	3 1 4 3		×	x		x x				
.8 .9 1.0 1.1 1.2	3 3 1 2 2		2 0 1 2					I		X		
1.3 1.4 1.5 1.6 1.7	43232323324533122312231		4322012302130					x x				
1.8 Total Elimin. Retained	87 5 6	#	0 59 2 5	0 <b>x</b>	2 ** *	3	l # #	<b>x</b> 17	0	4	0	0

\*Mesa cases = 87 retained

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いるない

<sup>5</sup> eliminated (have medical records)

<sup>6</sup> retained (no flight records)

<sup>2</sup> eliminated (no medical records)

<sup>12</sup> retained (no medical records)

lator Sil

### TABLE 37 (Continued)

# OCCURRENCE OF VISUAL DEFECT IN TERMS OF THE "CHARACTER AND LEADERSHIP TEST" DISTRIBUTION Mesa, Arizona

~	Cheracter and	Prism	Angle of	ace	7,1	or le	89	ation 13.	3 or m	
<u>s.s.</u>	Leadership	Divergence	PcB <sub>e</sub>	Pd. R	te	<u>Both</u>	<u>Lt.</u>	Rt.	<u>Both</u>	<u>Lt.</u>
-1.7	2									
-1.6	2					x				
-1.5	3				X	_				
-1.4 -1.3	2					x				
-1 <sub>2</sub> 2	3									
-1.1	3									
-1 °0	5									
÷ .9	1									
= ,8 = .6	4					X				
+ .6 5	2	,								
4	<u>3</u>									
<b></b> 3	2									
- "2	22322351492323232324533122312231									
• .1 0	2									
• <b>1</b>	<i>)</i>									
.2	3									
ڊ <u>َ</u> ع	á									
.4	2									
۶ <u>5</u>	4									
ູ <b>7</b>	5									X
.8 .9	<i>3</i>									I
ı.̈́ó	í					x				_
1.1	2									
1.2	2				١					
1.3	3				•					
1.4 1.5	7									
1.6	2									
1.7	3									
1.8	ĩ							ı.		
Total	87	ø	0	0	1	4	0	ř.	0	2
Elimin.		<b>-</b>	•		x	-	•	-	•	-
Retained	5									

TABLE 38 OCCURRENCE OF VISUAL DEFECT IN TERMS OF THE "GROUND EXAM TEST" DISTRIBUTION Mesa, Arisona\*

					-							
			No				Der	oth		Heter	ophor1	8
	Ground		<b>Visual</b>	<b>Vis</b>	ual Ac	uity	Parce	entica		at 6	moters	_
S.S.	Exam		Defect		Bath		A	, H	Ego N	Exo	R.H.	LaHa
4	صيبسي		~			<del></del>			N			
~1 <sub>.</sub> 8	1		1					,	0			
-1.7	2		1					x				
-1.6	2		2									
-1.5	2		1							x		
-1.4	3	#	1			x		IX				
-1.3	3		1					ᄍ				
-1.2	3		3									
-1.1	3		3									
-1.0	2		2									
9 -	3		2					X				
~ 。7	3		3									
<b>-</b> ₀6	3		2									
5، ~	3	Ħ	1		x		x	X				
4	4		2			x		x				,
3	2	#	0					IX		x		
- "2	2		2									
<b>.</b>	2		2									
0	1222333323333422222133422223512233321		11211133223212022013341212011233120					XX				
<b>.1</b>	1		1									
.2	3		3			•						
.3	3		3									
٠4	4		4									
5ء	2		1							x		
<u>.6</u>	2		2									
۰7	2		1					x				
. <b>6</b>	3	#	2		x			x				
.9	?		ū					KX.		X		
1.0	1		Ţ			_						
1.1	Z		7			X						
1.2	2		~									
1.3	,		,									
1.4	,		,									
1.5	<i>)</i>		7									
1.6	2		۷.					_				
1.7	T		U					×				
Total	87		59	0	2	3	1	17	0	4	0	0
Elimin.	5	#	2	<b>X</b>	XX		x		-	~	-	-
Retained	5 6	#	2 5	•	<b>x</b>		x					
derifor	•	14	•					_				

\*Mesa cases - 87 retained

<sup>5</sup> eliminated (have medical rocc d.)
6 retained (no flight reconta)
2 eliminated (no medical rocalds)
12 retained (no medical rocalds)

<sup>112</sup> total

TABLE 38 (Continued)

OCCURPENCE OF VISUAL DEFECT IN TERMS OF THE "CROUND RIAM TEST" DISTRIBUTION "
Lesa, Afizons

,	_		Angle o				commod			
S <sub>.</sub> S <sub>.</sub>	Ground Exam	Prism * Divergence	Converge PoB.	ngo Pd.	7.1 #+	or le Both	58 T.4.	13., Rt.	3 or m Both	ore Lt
		<del></del>	- A-14-F	<del>2 44 9</del>	6 <del>, 4 3</del>	<del>*************************************</del>	<b>774</b>	LEVA	<del></del>	<u> </u>
-1.8	Ī	~ <sup>84</sup>								
*1.7 -1.6	2223333233333422222133422235122333								-	٧ .
~1.5	2									* 4
-1.4	<b>3</b>						1			
-1.3	3									
-1.2	3									
-1.1	3	ı								
-1.0 9	4									
7	3							•		
6	3									
<b>-</b> .5	- 3	,				×	٦			
· ./4	4					X				
÷ ,3	2									
2 1	2									
0	2									
.1	ĩ		ı					,		
,2	3							•		
3ء	3							.14		
94	4							•		w
.5 .6	2									
.7	2					**				~
8.	3									
<b>.</b> 9	5									I
1.0	1				X					X
1.1	2									
1,2 1,3	2									
1.4	3									
1.5	3									
1,6	2 1					XX				
1.7	1	A								
Total	87	0	0	0	ı	4	0	0	0	2
Elimin.	5 6				x	•				
Retained	6									

TABLE 39 OCCURRENCE OF VISUAL DEFECT IN TERMS OF THE "FLYING TEST" DISTRIBUTION Mesa, Arizona\*

<u>5.5.</u>	Flying Test		No Visual <u>Defect</u>		val Açı <u>Both</u>		Dept <u>Percer</u> A		Eao N	<u>ıt 6 m</u>	phoria etere R.H.	
-1.7 -1.6 -1.5	33232233133322224223132		212121320212121302303143113211320				•		•	x		
-1.4 -1.3	3		ĩ					x		x		
-1.2	2	#	1					x				
~l.ľ ~l.0	3 3		3 2					x				
= °9 = °8	1 3	#	0 2		x			x		X		
7 6	3	#	1 2					×		x		
- ,5 - ,4	2		ì					x				
~ .3	2		1					x				
~ ,2 ~ ,1	2	#	0		x	x	x					
0 .1	2 3		2 3									
.1 ,2 .3	1 3		0					x				
»4	2 4		í					x				
.5 .6 .7	4		3					x				
.8	4133223322	#	1			x		ж				
.9 1.0	2		3 2									
1.1 1.2	2 3		1					X				
1.3 1.4	3		3									
1.5						x						
1.6 1.7	2 2		1 2					I				
Total Elimin. Retained	87 5 6	#	59 2 5	0 <b>x</b>	2 XX X	3	ı x x	17	0	4	0	0

\*Mesa cases - 87 retained

<sup>5</sup> eliminated (have medical records)
6 retained (no flight records)
2 eliminated (no medical records)
12 retained (no medical records)

<sup>1.12</sup> total

TABLE 39 (Continued)

OCCURRENCE OF VISUAL DEFECT IN TERMS OF THE "FLYING TEST" DISTRIBUTION

Nesa, Arizona

			Angle of			Accommo	dation		
	Flying	Prism	Convergence	<u> 19</u>	7.1 or	less	_ 13.	3 or m	ore
<u>s.s.</u>	Test	Divergence	PcB, Pc	L R1	t. Bot	h Lt.	<u>Rt.</u>	Both	Lta
-1.7	3	•			x	:			
-1.6	3				7				
<b>-1.</b> 5	3								
-1.4	3								
<b>-</b> 1.3	2								
-1.2	2				2	!			
-1.1	3								
-1.0	3								•
= .9 • .8	1								
≁ "8	3								x
7	3								
6	3				7	:			
- 45	2								
4	2								
<u>~</u> .3	2								
- ,2	4								
1	2								X
0	333322331333222422313244133222332222								
.1	,								
.2	7								
•4	2								
.5	5								
,6	7								
້ <b>.7</b>	î								
_R	3								
ှိခို	á								
.8 .9 1.0	ź								
1.1	2								
1.2	3								
1.3	3								
1.4	2								
1.5	2			2	<b>τ</b>				
1.6	2				•				
1.7	2								
Total	87	0	0 (	) 1	L 4	. 0	0	0	2
Elimin.		ŭ	•		K ~	-	•	•	~
Retained	5 6			-	-				

" At ~

APPENDIX 6 Culture OCCURRENCE OF SYSTOLIC AND DIASTOLIC DISABILITIES
IN TERMS OF VISUAL DEFECT DISTRIBUTIONS (Advanced Students)

Appendix 6a: Clewiston, Florida Appendix 6b: Miami, Oklahoma Appendix 6c: Terrell, Texas Appendix 6d: Mesa, Arizona

TABLE 1

OCCURRENCE OF VISUAL DEFECT IN TERMS OF THE "FLYING TEST" DISTRIBUTION

Clemiston, Florida

	Flying <u>Test</u>			Visus R.E.				pth sption N		at 6	rophoria meters R.H. L.F	Priem L. Diver	Angle <u>Conver</u> PcB.	690C9	7.1 <u>Rt.</u>		88	l <u>atio</u> 13.3 <u>Rt.</u>	or m	ore Lt.
-1.6 -1.5 -1.3	1 3	#	1 2	x				x	11										x	
-1.0 =1.0	3 7	#	0	x x		x x	x x	X 30X		x									X X	
4.3. 3.3. 8.8	6 3 3		4 2 5	х	x			x xx		•									ж	
1.2	9 7 4		7 4 4		х	x		x	x	x										
1.4 1.6 1.8	4 2 2	#	) ] 1		X X					x						x	x			
1.9 Total	1 63		0 37	4	4	3	2	<b>x</b> 9	1	3	0 (	o 0	o	0	0	1	1	c	4	0
blimi: Ret. Ret.	1, 17 2 1	F	12 2 ( 1	no fl	xx ight		ds)	x								x			***	

TABLE 2

OCCURRENCE OF VISUAL DEFECT IN TERMS OF THE "GROUND EXAM TEST" DISTRIBUTION Clewiston, Florida

<u>s.s.</u>	Ground Exam Test	V			al Acu Both		Dept Percep A	tion	a	<u>t 6 л</u>	phoria eters R.H. L			Angle Conver PcB.	gence		or le	98			
-1.8	2	#	0	x			x	X	14											x	
-1.7	2		2																		
-1.5	3	#	1			X		XX	٠												
-1.4	2		1																	X	
-1.3	1		ī																		
~1,2	1		Ö	x																	
-1.0	2		2																		
~ .9	2		1							I											
- "8	1		1																		
7	1		ì																		
6	2		2																		
= .5	2 2	#	2 0							9.7										*	
= .4 = .3	2	Ħ	2		x					x										•	
- <u>.</u> 2	3		2					ж													
- s&			จ		x			,31													
Ō	5	#	2		x	x		XX													
<sub>2</sub> 2	1 5 2	"	2			n															
。 3	õ		ī	x																	
.4	2	#	ī	х						x											
.5	3	•	Ž				x														
6،	ĺ		ì																		
.7	1		0					x													
.8	2																				
<b>9</b> ء	2 2		2 1															x			
1.0	2		1					x													
1,1	2		0			x		X													
1.2	1		1																		
1.3	2		0						X											ж	
1.4	3		2		X																
1.5	1		1																		
1,7	3		2				_				_			_	_		X	_	_		_
Total	63		37	4	4	3	2	9	1	3	0	0	0	0	0	0	1	1	0	4	0
El imir		#	12		XX			末									X			XXX	
Ret.	2		2 (	no fl	ight r	ecord						_									
Ret.	1		ì				#Оде	or E	ore	case	s with	الناه	tiple d	lefect.							

P-

TABLE 3

OCCURRENCE OF VISUAL DEFECT IN TERMS OF THE "CHARACTER AND LEADERSHIP" DISTRIBUTION

Clewiston, Florida

<u>5.8.</u>	Char and Lead	V		Visus R.E.				ption	Ą	<u>t 6 i</u>	ophori n <b>eter</b> R.H.	<u>.</u>	Prism <u>Diver</u>	Angle Conver PcB.	gence		or 1		13.		
* 1,8	2		ı						••												
<b>-1</b> ,7	2		1 2																		
-1.6	2 2	#	1			x		x													
1.5	1		o				x														
-1 ,4	1	#	0	x				ж												x	
=1,3	2		2																		
1,2	2		n					×													
-1 - I	2		2																		
9	5	p#	4	x						x											
-7	4		2		×					x											
<del>-</del> 5	1		0														X				
4,	3 2		2					ж													
- 3	2		1					X													
2 ، ~	2		2 1																		
- '7	Z		1	X																	
.v <del>==</del>	3 8		1	x																X	
3	8		4			X			X									X		x	
<b>ୃ</b> 8	**		2					x												X	
3 .6 .9 1.3	8	#	3		XXX		X	x		X											
1.3	-		Ī																		
1.4	4 2		3					X													
1.6	2		2																		
1.7	1	4	7																		
1.8	1	#	0			X		x													
To tal	63		37	4	4	3	2	9	1	3	0	O	0	0	0	0	1	1	0	4	0
Elimin.		#	12	~	7CX		-	x	_	-	_	_	_	•	•	•	X	_	_	<del>20</del> 03	_
Ret.	2	-		no fli		eçor	is)	-													
Ret	1		<b>,</b>				•														
	ne or	· mo	TO CO.	see wi	th mi	1 <b>t.1</b> -s1	a def	act													

1 2 4 1 3

#One or more cases with multiple defect.

#c 3 7 E

4 94 m

Ļ

TABLE ...

DCCURRENCE OF VISUAL DEFECT IN TERMS OF THE "GENERAL TEST" DISTRIBUTION Clewiston, Florida

	General	No Viensi	l Visua	l Acu	i tv	Dept		H	eter	ophor: meter:	La.	Prism	Angle Conver		<b>7</b> .1		ommod			. 6
<u>s.s.</u>	Test		R.E.			<u>A</u>	N	Ego N	Exo	R.H.	L.H.	Diver.	rcB.	<u>Pd</u>	<u>ಗ</u> ್ತಾ	<u>na oti</u>	عالم	<u> </u>		<u>. تا بـ</u>
26	1	ī																		
2,2	ĩ	ã	×																	
1 8	2	ī	X																	
1 7	1	ī	_																	
4,4	1	1																		
<u>. 3</u>	ī	1																		
1,2	1	0				x														
[, ۱	l	<u> </u>																		
, C	1	G				x														
9	.4	# 0	x						33											
.8 .8	1	0																	Ā	
72	1	0					X													
Ď	4	# 2		X	X		X													
2	6 2	# 2	ж		λ		XXX												~LX	
6 4 3 4		î																		
	4	4										•								
, <del>.</del>	2	2																		
7	Ž	Õ					x												×	
Ž	<u>5</u>	ž					X	ኢ											.,	
- <u>3</u>	ź	ź		ж			_													
- ,4	ī	1																		
٤	5	1					Σ													
5	1	Ţ																		
_	Ĺ	2																		
8	2	: ئ							*											
- 9	2	# 1		x					X											
3.0	Ž.	1		X																
4 1 2	2	3																		
13	1 1	1																		
يد 1- -) (	2	0 0			-											_	Y			
2 1	Ţ	1			x											X				
- 2,3	Ţ	õ					a													
Total		37	4	,	3	2	л 9	ı	3	9	ę	(,	ō	0	û	<u> 1</u>	ì	ũ	•	ō.
Elimi		# 12	4	4.	7	F.		٠.	2	U	•	,	0	Ċ.	•	<u> </u>	*	•	44 XXX	J
Ret,	7		no fli	XX abt =	1	1 <u>*</u>	X									•			~~~	
Ret	7	~ <b>`</b>	111	gue r	<b>-</b> cora	l 8 /	<b>4</b> 7	~					y'							

TABLE 5

OCCURRENCE OF VISUAL DEFECT IN TERMS OF THE "INSTRUMENT TEST" DISTRIBUTION Clewiston, Florida

Instruction   No										•	ハナムギエ	s wn,	LIGI	lum								
No.   Percent   Percent		Instru	ļ~	No				De	pth	1	Heter	ophor	ia		Angle	οf		Acco	manda	t.io		
S.S. Test Defect R.E. Both L.E. A N Eso Exo B.H. L.H. Diver, PCB. PG. Rt. Roth Lt. Rt. Roth Lt. N  2.0 1 1 1 1.6 1 # 0 x		ment		Visual	. <u>V</u> jai	al A	cuity	Perc	ention					Pr1em			7.1	or l		12		
2.0 1 1 1	S.S.	Test		Defect	R.E.	Bot	h L.E.	A			Exo	R.H.	<del>т.</del> С.н.	Diver	PcR	P-1	D+	Bo+h	7 +	ンフ。. ロ4	D-+F	17
2.0 1 1 1			_ '							N N	= 30A	*****	2043	WATOR .	<u> </u>	<u> </u>	ILVe	<del>00 m</del>	<u>، با با</u>	U.V.	DOL	علاية
1.6	2.0	Ţ		٦																		
1.5 1 1 1.4 1 1 1.3 2 2 2 1.2 2 1		ī	Ľ	ີ້ລ	_																	
1.4 1 1 1.3 2 2 1 1.2 2 1			n						*												x	
1.3 2 2 1 x  1.1 4 # 1																						
1.2 2 1 x 1.1 4 # 1																						
1.1 4 # 1																						
** 9			,,	1	X																	
. 7			ff	7		አ	x		x												x	
0 3 # 1 x x x x x x x x x x x x x x x x x x																						
0 3 # 1 x x x x x x x x x x x x x x x x x x	. B	2																				
0 3 # 1 x x x x x x x x x x x x x x x x x x	.7	2		1					x													
0 3 # 1 x x x x x x x x x x x x x x x x x x	,6	2	H,	1			x		x													
0 3 # 1 x x x x x x x x x x x x x x x x x x	∽5			2																		
0 3 # 1 x x x x x x x x x x x x x x x x x x	760																					
0 3 # 1 x x x x x x x x x x x x x x x x x x	3	1		I																		
0 3 # 1 x x x x x x x x x x x x x x x x x x	ج.	1		1																		
0 3 # 1 x x x x x x x x x x x x x x x x x x	Ţ			1				x	XX													
1		3	#	1	×						~											
2 4 .1 x x x x x x x x x x x x x x x x x x		ī	"					~			~											
= 3 2 # 0 x x x x = 5 3 3 3						*	~											X				
- 5 3 3		3	#	ñ																		
7 3 3 3		ว	×	3		^															X	
7 3 3 3		2		ń																		
9 3 3 3		2		3					X		X											
9 3 3 3		7		2																		
-1,2 2 1 x -1,5 1 1 -1,7 1 0 x -1,9 1 1 -2,0 2 1 -2,4 1 0 x  Total 63 37 4 4 3 2 9 1 3 0 0 0 0 0 1 1 0 4 0 Elimin, 17 # 12 xx x  Ret. 2 2 (no flight records) Ret. 1 1 #One or more cases with multiple defeat.		÷ •		3					X													
-1,2 2 1 x -1,5 1 1 -1,7 1 0 x -1,9 1 1 -2,0 2 1 -2,4 1 0 x  Total 63 37 4 4 3 2 9 1 3 0 0 0 0 0 1 1 0 4 0 Elimin, 17 # 12 xx x  Ret. 2 2 (no flight records) Ret. 1 1 #One or more cases with multiple defeat.		2		ر																		
=1.5 1 1										X												
-1.7 1 0 x =1.9 1 1 -2.0 2 1 -2.4 1 0 x  Total 63 37 4 4 3 2 9 1 3 0 0 0 0 0 1 1 0 4 0 Elimin. 17 # 12 xx x  Ret. 2 2 (no flight records) Ret. 1 1 #One or more passes with multiple defeat.					X																	
=1.9 1 1 -2.0 2 1 -2.4 1 0																						
=2.0 2 1 =2.4 1 0 x Total 63 37 4 4 3 2 9 1 3 0 0 0 0 0 1 1 0 4 0 Elimin. 17 # 12 xx x Ret. 2 2 (no flight records) Ret. 1 1 #One or more pases with multiple defeat.						x																
=2.4 1 0 x  Total 63 37 4 4 3 2 9 1 3 0 0 0 0 0 0 1 1 0 4 0  Elimin. 17 # 12 xx x  Ret. 2 2 (no flight records)  Ret. 1 1  #One or more passes with multiple defeat.																						
Total 63 37 4 4 3 2 9 1 3 0 0 0 0 0 0 1 1 0 4 0  Elimin. 17 # 12 xx x  Ret. 2 2 (no flight records)  Ret. 1 1  #One or more passes with multiple defeat.				1															x			
Total 63 37 4 4 3 2 9 1 3 0 0 0 0 0 0 1 1 0 4 0  Elimin. 17 # 12 xx x  Ret. 2 2 (no flight records)  Ret. 1 1  #One or more passes with multiple defeat.	-2.4	ı		0					x													
Elimin, 17 # 12 xx x  Ret. 2 2 (no flight records)  Ret. 1 1  #One or more pases with multiple defeat.	Total	63		37	,	,	2	2		3	2	^	^	0	^	_	_	_		_		_
Ret. 2 2 (no flight records) Ret. 1 1 #One or more pases with multiple defeat.			#		4			۲,		T	)	U	U	U	U	U	U		T	U	-	0
Ret. 1 1 #One or more pases with multiple defeat.			u		~ <i>e</i> 1.			_1	X									x			XXX	
#One or more cases with multiple defeat.				-	TO II	TRUE	Lacord	<b>5</b> /														
wone or more cases with multiple defeat.			_		_																	
	#P	oua OL	<b>B</b> O	re per	368 W.	1th B	mltipl	e de:	fest,													

TABLE 6

OCCURRENCE OF VISUAL DEFECT IN TERMS OF THE "LINK TEST" DISTRIBUTION Clewiston, Florida

<u>s.s.</u>	Link <u>Test</u>		No isual efect				Perc	pth eption N	8	<u>t 6 r</u>	phor: neter: R.H.	8	Prism	Angle Conver	gence				13.	or Both	
		<b>M</b>	_					_	И												
1.9		#	0	X				x												X	
1.8	1		1																		
1.6	3		3					_													
1 2	4	#	7	x				x		x											
1.5 1.2 1.0 .9 .8 .6 .5	4 1 3 2 2	W	ō	•																x	
1.0	3		2.				x													^	
.9	ž	4	ĩ			×	^	×													
.É	2	#	ō			x		x												x	
.6		-	ŏ							x											
,5	12336322322		ì				x														
ڏه	3		2			x															
.2	3		1					x	X												
0	6		4		x			x													
1	3		2	x																	
3	2		ı					X													
4 6	2		1	x																	
6	3		2																	*	
7 9	2		0		x			X													
9	2		O														×	X			
-1.0	4		4																		
-1,2		#	3		XX					X											
-1.3	3 2		2					X													
-1.5			2																		
-1.6	1		1																		
Total	63		37	4	4	3	2	9	1	3	0	0	0	0	0	0	1	1	0	4	0
Elimi	a.17	#	<b>12</b>		XX			9 *	_	-	_	-	-	-	_	-	X	_	-	XXX	-
Ret.	2			o fli		eoord	is)														
Ret.	1		1		-		-														

Clewiston, Florida

<u>s.s.</u>	Applied Flying Test	V				cuity	Perc	pth eption N		<u>at 6</u>	rophoz meter R.H.	<u>r</u> B	Prism Diver.	Angle Conver PcB.	zence	7.1 Rt.	Accordance 10 Both	88	13.3	orm	ore Lt.
1.9	1		0	x																	
1.8 1.7	1		1 0																	x	
1.6	1		0							x										٠.	٩.
1.4	1		1																		
1.3	1	#	1	x				x		x											
1.2 1.1	2	π	ĭ				x	•		_											
.9	3	#	1	X				XX												x	
1.1 .9 .8 .7	1 2 3 2 1 5 6		1					×													
ە7 5	5	4	1		x	×		×													
.4	é	#	3 3		^	x		<b>x</b>										×		x	
.4 .3 .2		_	1				x														
.2	2 2 3 2		1 3 2																	X	
01	2		9																		
2	4		3		x																
3	2		<i>3</i> 0					x	×												
~ .5	4		3					x									_				
6 7	2 3		0 3			x											X				
-1.0	í		í																		
-1.1	3		1 2					×													
-1.2	1		1																		
-1.4 -1.6	1 1		0 1	x																	
-1.7	î	#	ō		x					x											
-1.9	1		0		x																
-2.0	1	-	1																		
-2.1 -2.4	1		1																		
Total	63		37	4	,	3	2	9	1	3	0	0	0	0	0	0	1	1	0	4	0
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<u>ន្ទ</u>	Ţ	est	D	efec	t R	E.	Both	L.E.	A	Ŋ	Ē	<u>30</u>	Εχο	R.H.	والميل	Diver	PcB.	Pc	<u>.</u> !	Rt.	<u>Both</u>	<u>Lt.</u>	Rt.	<u>Both</u>	<u>Lt.</u>
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	Exem	V	lanal	Visue	al Act	u <u>it</u> y		eption		<u>at 6</u>	meters	Prism	Converg		7.1				nore
$S_{\bullet}S_{\bullet}$	test	Ī	efect	R.E.	Both	L.E.	A.	<u>N</u>	Eso	Exo	R.H. L.H	<u>Diver.</u>	PcP.	Pd.	Rt.	Both Lt	. Rt	Bota	<u>lt</u>
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TABLE 11

OCCURRENCE OF VISUAL DEFECT IN TERMS OF THE "CHARACTER AND LEADERSHIP" DISTRIBUTION
Miami, Oklahoma

<u>s.s.</u>	Char. and Lead.	No Visual <u>Defect</u>		l Acu Both			pth eption N	5	t 6	rophoria <u>meters</u> R.H. L.H.	Prism Diver.	Angle Conver PcB.	gence			88		or m	
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-1.6	3	2		x															
<b>-1.5</b>	3	2					X												
-1.4	ı	0						x											
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ď.	7	6					*												
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1.9	î	ĩ																	
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Ret.	2	2 (	no fli	ght re	cord	<b>s</b> )													

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OCCURRENCE OF VISUAL DEFECT IN TERMS OF THE "GENERAL TEST" DISTRIBUTION Miami, Oktahoma

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9 9	Test							N	Eso	Exo	R.H. L.	H. D:	iver.	PcB.	Po	ī. :	Rt.	Both L	t,	Rt. B	oth :	Lt.
<u>s.s.</u>	TOBV	Dor o	<u> </u>	<u> </u>	<u> </u>				A N			المرة المست		-	_		•					
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			•				•												4.8			4

### OCCURRENCE OF VISUAL DEFECT IN TERMS OF THE "INSTRUMENT TEST" DISTRIBUTION Miami, Oklahoma

<u>s.s.</u>	Instru- ment Test	Visuel					otion	at	6 m	phoria eters R.H. L.	H.	Prism Diver.	Angle Converg PcB.	ence	7.1 <u>Rt.</u>	or le	88	lat10 13.3 <u>Rt.</u>	or n	ore Lt.
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Climir		8						X												
Ret.	2	2 (	(no fl	ight	recor	da)	#0n	e or	More	Cases	wit	h mult	iple def	ect.						

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TABLE 14

OCCURRENCE OF VISUAL DEFECT IN TERMS OF THE "LINK TEST" DISTRIBUTION
Miami, Oklahoma

<u>s.s.</u>	Link <u>Test</u>		ıal	Vieual R <sub>a</sub> E. B	Acui	ty E.		pth ception N		<u>at</u>	6_	ophoria metera R.H. L.H.	Prism Diver		rence	7.1 <u>Rt.</u>		999	lation 13.3 Rt. E	Or II	ore Lt.
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Ret.	2		2 (no	fligh	nt re	cord	<b>a</b> )														

TABLE 15

OCCURRENCE OF VISUAL DEFECT IN TERMS OF THE "NIGHT TEST" DISTRIBUTION
Miami, Oklahoma

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		No						pth			rophoria		Angle					<u>latic</u>		
		Vieu		Visua.	<u>l Acu</u>	<u>il tv</u>	Perc	eption		at 6	meters	Pr <b>is</b> m	Convers	ence	7.1	or l	<b>88</b>	13.3	or	more
<u>s.s.</u>	<u>Test</u>	Defe	<u>ot</u>	R.E.	Both	L.E.	<u> </u>	N	<u>E80</u>	Exo	R.H. L.H.	Diver.	PcB.	<u>Pd</u> .	Rt.	Both	<u>Lt.</u>	Rt.	Both	<u>Lt.</u>
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s.s.	Test		R.E.	Both L.E	A A	N	Eso	Exo	R.H. L.H.	Diver.	FcB.	Pd.	Rt.	Both	Lt.	Rt.	ox w Both	Lt.
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### OCCURRENCE OF VISUAL DEFECT IN TERMS OF THE "FLYING TEST" DISTRIBUTION Terrell. Texas

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<u>s.s</u> .	Test												Diver.	PcB.	Pd.	Rt.	Both	Lt.	Rt.	Both	Lt.
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### OCCURRENCE OF VISUAL DEFECT IN TERMS OF THE "GROUND EXAM TEST" DISTRIBUTION Terrell, Texas

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<u>s.s</u> .	Test	Dat	Pent	R.K.	Both	î F	A	N	E BO	Ern	RH	7. H	Diver	Pall	PA	R4	Roth	T.4	13:3 10+ 1	Dath Dath	L+
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TABLE 19 OCCURRENCE OF VISUAL DEFECT IN TERMS OF THE "CHARACTER AND LEADERSHIP" DISTRIBUTION Terrell, Texas

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TABLE 2: OCCURRENCE OF VISUAL DEFECT IN THOMS OF THE "INSTRUMENT TELT" LISTPLEUTION Terrell, Texas

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OCCURRENCE OF VISUAL DEFECT IN TERMS OF THE "LINK TEST" DISTRIBUTION
TOTTOLL, Texas

TABLE 22

			No						Depth		_	ropbor		_	Angle				_	odati		
S.S.	Link Test		isus <u>)efe</u> c			Both			rception N	E <sub>a</sub> c		R.H.		Prima Diver	Conver PcB.			or le Both			Both	
2.4	3		3							-												
1.5	4	ŧ	1			X								<b>XX</b>						x		
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-1.9	5	#	2		x				XX					XX								
Total	74		40		4	5	0	3	7	2	0	0	0	17	0	0	0	1	0	2	1	6
Elimin,	, 7	#	2											XXXX								X
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#One or more cases with multiple defect.

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TABLE 23

OCCURRENCE OF VISUAL DEFECT IN TERMS OF THE "NIGHT TEST" DISTRIBUTION Terrell, Texas

e e	N1ght		No 1sual efect					Dept Percer	tion	1	at 6	ropboz meter	<u> </u>	Prism Diver.	Angle Conver	gence		or le	85	iation 13.3 Rt.	TO I	
<u>5.5.</u>	<u>Test</u>	. 4	ATACL	<u>L.</u>	HA E	<u>о сн</u>	<u>ە تا د تا</u>	<u>A</u>		N	240	<u>Irens</u>	Heile	VIVE	- 422	in.	TARE	PA WIT	480	STAT S	20.00	STA 0
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4	1	-	1																			
۰2	4 3		3			x																
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<b>-2</b> ₀5	ì	#	0			X		x						x								
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TABL.

# OCCURRENCE OF VISUAL DEFECT IN TERMS OF THE "APPLIED FLYING TEST" DISTRIBUTION TOTAL, Texas

F	pplies	V					Perc	pth eption		at 6	ophoris meters	. P	rian	Angle Conver	gence		or 1		13.	3 or	
<u> </u>	Test	_ Đ	efec	RE.	Bot	h L.E.	<u>A</u>	_ <u>N</u> _	Eao N	Exo	R.R. L.	H. D	iver.	PcB.	Pd.	Rta	Both	Lt.	Rt.	Both	ı Lta
3.4	1	#	Ó		x				М				x								
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TABLE 25
OCCURRENCE OF VISUAL DEFECT IN TERMS OF THE "FLYING TEST" DISTRIBUTION

Mesa, Arizona

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		1	No				Dep	ath		Heter	ophori	.в.		Angle	of		Apac	<b>m</b> mo ĉ	latio	<u> </u>	
	Flying			Vieual	Acu	itv	Perce	ption			meters		Prism	Conver	gence	7.1					ore
<u>5,8,</u>				R.E. B				N	Esc	Exo	R.H. I	I.	Diver a	PcB.	Pd.	Rt.	<u>Both</u>	Lt.	Rt.	<u>Both</u>	Lto
			<u> </u>						N												
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~1.7	1	#	0					x									x				
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<u>8.9.</u>	Ground Exam Test	No Visual <u>Defect</u>	Visual Acuity R.E. Both L.E.	Depth Perception	Hete	rophoria meters R.H. L.H.	Prism Diver.	Angle of Convergence PcB. Pd	:0 7.1 L Rt.	Accomm or less Both Lt	13.3 Rt. B	or mo	ore .t.
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## OCCURRENCE OF VISUAL DEFECT IN TERMS OF THE "CHARACTER AND LEADERSHIP" DISTRIBUTION Mesa, Arizona

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.7 ¢t	2	#	1 1		x			X													I
.9	3		3					X													
	2		ĺ					x													
1.1	2		1													x					
1.2 1.3	1 2		0					X													
1,4	ĩ		2 1																		
1.5	1		ō					x													
1.6	2		l					x				( 4.	o en e -1		۱ م.د.						
1.7	2		2										o fligh ne or n			ith =	ma1 +4 s		efec+		
1.8 1.9	1 1		1 1									,,		V	<b></b> 17 (T.		-ar vrþ	4 B U	OT GO P	•	
Total	71		48	0	2	3	ı	15	0	2	0	0	^		_	_	_	_			
<u> </u>	"ፓህ	14	,						* 4 pm	<b>J</b> Brazonia		<b>,</b>	0	0	0	1	3	0	0	0	2

TABLE 28

OCCURRENCE OF VISUAL DEFECT IN TERMS OF THE "GENERAL TEST" DISTRIBUTION

Mesa, Arizona

<u> </u>		era et		No isual efect					pth eption <u>N</u>		at 6	rophori meter: R.H. I	<u>.</u>	Prism Diver		Zence			98		or n	
3.2		1		1																		
1.9		2		2														_				
1.6		1	ti e	0					X									X				
1.3		4		3			X															
.8 .7 0		1	•	1														_				
ۍ.7		8	#	12			X		XX		XXX							x				_
0	3	.2	#	10		x			300													X
<b>-</b> .3		3	_	3																		_
- <sub>°</sub> 6	3	8	Ħ	10		x	X	X	XXXXX	CX.												x
9		2		1					X													
-1,3		4		2					x								X					
-1.9		4		3					x													
-2.5	•	1		0					x													
Total	•	71		48	0	2	3	ı	15	0	3	0	0	0	0	0	1	2	0	0	0	2
Elimi:				8			-		x									x				
Ret. (no f	3	<b>L2</b>	# ecc	8		x		x	x		x							ж				

OCCURRENCE OF VISUAL DEFECT IN TERMS OF THE "INSTRUMENT TEST" DISTRIBUTION
Mesa, Arizona

<u>ي.</u> 8	Instru ment Test	Ţ	No isual <u>efect</u>	Visu R.E.	al Act Both	ity L.E.	Perc	pth eption N		<u>at 6</u>	moter R.H.	6	Prism Diver.	Angle Conver PcB.	gence	7.1 <u>Rt.</u>		688	datio 13,3 Rt.	or	ore
1.8	2		1			x															
1.4	4		4																		
.9	5	n	4			X											4				
.9 ,8 ,7 .5	1 2	##	0					×									x				
, / 5	18	#	0 14		**			X		XX											
1	8	<i>W</i>	17		x			ж ж		X							x				X
<del>-</del> .3	18	#	- 9		I	x	х	XXXXXXX	CYCYC												
.7	2	•-	ź		_																
-1.1	3		1					XX													
-1.6	3		3																		
-2,0			2																		
=2 ,4 =3 ₅6	2 1		7													×					
-J <sub>5</sub> O	_		0																		x
Total	71		48	0	2	3	I	15	0	3	0	0	0	0	0	1	2	0	0	^	2
Elimin			8	-	_		_	x	•		J	•	•	J	U	1	4	0	U	0	2
Ret, (no fi	12 ight re	# 900	8 (abr		x		x	x		x							x				

. 7

1 of Roll of Ass

OCCURRENCE OF VISUAL DEFECT IN TERMS OF THE "LINK TEST" DISTRIBUTION
Mesa, Arizona

<u>s.s.</u>	Link <u>Test</u>		No level efect	Visus R.E.				ntion	Ę	<u>at 6</u>	rophori meters R.H. L		Prism <u>Diver</u> 。		gence			88		OF F	
2.4	2	#	0		x			ж													x
2.0	5	**	4							x											
1.0	10	#	7					XXX									x				
- 5	9	•	6					3000													
Ö	9	#	5			I		XXXXX	<b>t</b>	x											
4	21	#	16		x	X	x	x								х					x
<b>-</b> .9	10		7					x		x							X				
-1.4	2		1			太															
-1.9	3		2					ж													
Total	71		48	0	2	3	1	15	0	3	0	0	0	0	0	1	2	0	0	0	2
Elini			<b>7</b> 8		_		_	X	_		-						×				
Ret.	12	#	8		x		x	ж		x							x				
(no f	11gh1	r	ecorde)	)																	

TABLE 31

OCCURRENCE OF VISUAL DEFECT IN TERMS OF THE "NIGHT TEST" DISTRIBUTION Mega, Arizona

<u>5,5.</u>	Night Test	_		Visua) R.E.				opth ception <u>R</u>		at 6	rophor meter R.H.	8	Prism Diver		eogean	7.1 <u>Rt.</u>	Accor or le Both	98	13.3	or m	ore Lt.
1.? 1.5	5 3	Ħ	5 0			x		x		x	•						x				
1.3 .9 .7 .3	1 1 19	#	0 14					XXX		x x							×				x
.3 ~ .2	1 28	#	1 18		ж	xx	ж	<b>2000000</b>	ЮC												x
4 -1.2 -2.1	1 6 6		1 4 4					)CX								x					
Total Elimia	71 1.10		48 8	0	2	3	1	15 x	0	3	0	0	0	0	0	1	2	0	0	0	2
Ret.	12 Light r	# :eo	8 ords)		x		x	x		X							x				

TABLE 32

OCCURRENCE OF VISUAL DEFECT IN TERMS OF THE APPLIED FLYING TEST DISTRIBUTION

Mesa, Arizona

<u>s.s.</u>	Applied Flying Test	V						pth eption N		<u>at 6</u>	ropho meter R.H.	rs	Prism Diver.	Angle Conver PcB.	gence			988		or	
2.4 1.5 1.3 1.1	3 4 1 2 2 13	#	1 3 0 2					x x		x							x				
1.0 .7 .6 .5 .2	2		1							x											
.7		#	10			X		ЖX		x											
۰ <u>۰</u>	1		0														x				
.2	1		ī																		
.1	ī		ī																		
2	17	#	11		x		x	10000	T.												
- 4	1	#	0			X		x													
- ,6	5		5													_					_
-1.1 -1.5	14 3	#	9		ズ	x		XXX X								X					X X
-1.9	2	π	2			•		•													4
Total Elimi: Ret.	71 n. 10 12 light re	#	48 8 8 rds)	0	2 x	3	1 <b>x</b>	15 x x	O	3 x	o •	o	0	0	0	1	2 * *	0	0	0	2 ,

### APPENDIX 7

# OCCURRENCE OF SYSTOLIC AND DIASTOLIC DISABILITIES IN TERMS OF CRITERIA DISTRIBUTIONS (Elementary Students)

Appendix 7a: Cleviston, Florida Appendix 7b: Miani, Oklahoma Appendix 7c: Terrell, Texas Appendix 7d: Mesa, Arizona

#### APPENDIX 7a

#### TABLE 1

### OCCURRENCE OF SYSTOLIC AND DIASTOLIC DISABILITIES IN TERMS OF "FLYING TEST" DISTRIBUTION Clewiston, Florida\*

Standard Score		No <u>Disability</u>	140 &	135 to	olic 100 & under	101 to _105	90 &	85 to 89
-1.7	265288324	1 6				x		
-1.5	5	5						
-1.3	5	5 1 6						
-l °l	2	Ť				x		
-1.0	8					XX		
~ <b>.</b> 6	8	7				X		
- •3	3	3						
- <sub>2</sub> 2	2	2						
~ .l		7 3 2 4 3						
.1	4 12	3				x		
2 و	12	10			x			x
۰7	3	3						
.8	5	4				x		
1.1	3 5 9 <b>3</b>	4 6 3 3				XXX		
1.5	3	3						
1.6	4 2	3				x		
1.8	2	1				x		
Total	82	68	0	0	1	12	O	1
Omitted	ì	1		-				
Eliminated (no flight	l 12 t resord	10 s)				X		

- l retained having a medical and flight record was omitted because pilot was not given a "Night" test
- 12 eliminated (have medical records)
  6 eliminated (no medical records)
- 10 retained (no medical records)
- 111 total

TABLE 2

CCCURRENCE OF SYSTOLIC AND DISSTOLIC DISABILITIES
ON TERMS OF "GROUND LAW TEST" DISTRIBUTION

Clewiston, Florida\*

Standard Score	Ground Evan Test	No <u>Disability</u>	1/,0 & over	Syst 135 to 139	olic 100 & under	101 to 105	Dias 90 & over	tolic 85 to 89
-1.8	2					X		
~1.7 ~1.6	2 3 2 2	1 2 2 1 0				ж		
-1.5	2	ĩ				x		
-1.4	1					x		
-1.2	2	1				x		
-1.1	2	2						
-1.0 9	2	3						
9 8	2	2						
~ .7	3	3						
6ء -	T	1						
~ •5	122322313233232	2				x		
~ <sub>4</sub> - <sub>•</sub> 3	۷ 3	3						
- ,2	<b>3</b>	<b>á</b>						
٦	2	2						
0	3	3						
.1 .2		2				_		
.2 .3	42392222233222	12322312239232313322112122322				x x		
مر 4	3	3				Λ.		
. <del>5</del>	ž	ā						
.5 .6 .7	2	2						
۰,7 ه	2	2						
. <b>8</b> .9	2	ì			×			x
ì.o	2	ž			<b>4</b> L			
1.1	3	1				3000		
1.2	3	2				x		
1.3	2	2						
1.4 1.5	2	2						
1.6	2	2						
1.7	2	1				x		
Total	82	68	O	0	1	12	0	1
Omitted	l	1						
Eliminate (no fligh		D.C.				XX		

\*Clewiston cases - 82 retained 6 eliminated (no l retained having a medical medical records) and flight record was 10 retained (no omitted because pilot was not given a "Night" test. 111 total

12 eliminated (have medical records)

TABLE 3 OCCURRENCE OF SYSTOLIC AND DIASTOLIC DISABILITIES IN TERMS OF "CHARACTER AND LEADERSHIP TEST" DISTRIBUTION Clewiston, Florida\*

Standard Score	Character and <u>Leadership</u>	No <u>Disabilit</u> y	140 &	135 to	olic 100 & under	101 to	90 &	tolic 85 to 89
-1,6	ı	1						
~1,5	4	1 3 2 3 2 4 3 11				x		
~1.4	1	1						
-1.3	4	2				X		X
-1.2	2	3				300		
~1.0	2	2						
~ ,9	2	4				_		
~ ∘8 .~	2	4,				ж		
~ .6 7 .5	, j	"						
9	4 5 2 2 5 3 11 2 1 6	7.7						
0	1	ج ع						
.1 .2	<u> </u>	<u>د</u> ج				<b>74</b> €		
4		Ŕ				Ж 2000		
, <b>6</b>	2	ĭ			ж	A.A.		
。 <del>9</del>	ã	จิ			•			
ı̈́ó	Ĩ.	3				x		
1,2	10 2 3 4 1 6 2 2 3	2 5 8 1 3 1						
1,3	6					XX		
1,5	2	ž						
1,6	2	2 1 3 2				×		
1.7	3	3						
1.8	2	2						
Total	82	68	o	Q	1	12	0	1
Omitted	1	1		-	_			
Eliminated (no flight		10				жж		

l retained having a medical and flight record was omitted because pilot was not given a "Night" test

<sup>12</sup> eliminated (have medical records)
6 eliminated (no medical records)

<sup>10</sup> retained (no medical records)

<sup>111</sup> total

TABLE 4 OCCURRENCE OF SYSTOLIC AND DIASTOLIC DISABILITIES IN TERMS OF "GENERAL TEST" DISTRIBUTION Glewiston, Florida\*

Standard	General	No	140 &	101 to	<u>Dias</u> 90 &			
Score	<u>Test</u>	Disability	OASL	_139	under	105	OAGL	_89
2.3	2	ī				×		
1.5	13	12				x		
8,	18	15				XXXX		
6ه ~	27	23			*	ж		*
a 8	12	9				XXX		
-1.2	10	8				XX		
Total	82	<b>6</b> 8	0	0	1	12	0	1.
Om1tted	1	ı			<b>L</b>			
Eliminate (no fligh		10				xx		

- 1 retained having a medical and flight record was omitted because pilot was not given a "Night" test
- 12 eliminated (have medical records)
  6 eliminated (no medical records)
  10 retained (no medical records)

- 111 total

TABLE 5 OCCURRENCE OF SYSTOLIC AND DIASTOLIC DISABILITIES IN TERMS OF "INSTRUMENT TEST" DISTRIBUTION Clewiston, Florida\*

Standard Score	Instru- ment Test	No Disability	140 & over	5yet 135 to 139	olic 100 & under	101 to 105	<u>Dias</u> 90 & over	tolic 85 to 89
2.5	2	1				x		
1 •9	2	2						
1.3	13	13						
1.2	ì	ī						
.4	24	20				XXXXX		
~ .6	16	13			x	X		x
-1.0	15	11				XXXX		
~1.3	8	7				x		
-1.8	1	0				x		
Total	82	68	0	0	1	12	0	1
Omitted	ì	ī	<b>4</b>	_	-,			_
Eliminate (no fligh		10				xx		

- l retained having a medical and flight record was omitted because pilot was not given a "Night" test
  12 eliminated (have medical records)
- 6 eliminated (no medical records)
- 10 retained (no medical records)
- lll total

TABLE 6

OCCURRENCE OF SYSTOLIC AND DIASTOLIC DISABILITIES
IN TERMS OF "LINK TEST" DISTRIBUTION
Clewiston, Florida\*

					olic		Diasi	
	Link	No	140 &		100 &		90 &	85 to
Score	<u>Test</u>	<u>Disability</u>	OAGL	<u> 139</u>	mger	105	<u>over</u>	<u>89</u>
2。5	ı	1						
2 .2	ı	0				I		
2,0	1	1						
1.8	ī	121313656634454323202						
1.6	2	2						
1.4	2 3 2 3 6	1				X		
1.3	ر	3						
1.1	2	1				x		
•9	3	3						
.7	6	ь.						
ە5	7	2						x
۶,3		0			ж	_		
°1	7 5 5 5 5 4	0				ж		
- <sub>•</sub> 2	5	3				7CX		
4	ś	4				<b>X</b>		
- 4	5	4 5				×		
- 8	í	,						
-1.0		**				x		
-1.0	2	ź				<i>-</i> L		
-1.3	3	3						
-1.5	4 2 3 2 1 3	ź						
-1.7	1	Č				x		
-1 <b>.9</b>	3	2				x		
-2.1	1	0				x		
Total	82	68	0	0	1	12	0	1
Omitted	1	1						
Eliminated (no flight		10 rds)				XX		

l retained having a medical and flight record was omitted because pilot was not given a "Night" test

<sup>12</sup> eliminated (have medical records)

<sup>6</sup> eliminated (no medical records)

<sup>10</sup> retained (no medical records)

lll total

TABLE 7

OCCURRENCE OF SYSTOLIC AND DIASTOLIC DISABILITIES
IN TERMS OF "NIGHT TEST" DISTRIBUTION
Clewiston, Florida\*

Standard Score	Night <u>Tost</u>	No <u>Disability</u>	LAO &	Syst 135 to 139	olic 100 & under	101 to 105	Dias 90 & over	tolic 85 to 89
2.4	2	1				x		
1.6	l	1						
1.5	13	13						
ە5	26	21				XXXXXX		
~ ₀6	17	14			X	x		X
9	16	12				XXXXX		
-1.3	6	5				x		
*18	1	1						
Total	82	68	٥	٥	ı	12	0	1
Omitted	1	1						
Eliminated (no flight		10 ds)				**		

- l retained having a medical and flight record was omitted because pilot was not given a "Night" test
- 12 eliminated (have medical records)
- 6 eliminated (no medical records)
- 10 retained (no medical records)
- lll total

TABLE 8

OCCURRENCE OF SYSTOLIC AND DIASTOLIC DISABILITIES
IN TERMS OF "DUAL TO lat SOLO (DAY) TEST" DISTRIBUTION
Clewiston, Florida\*

	Day			Syst	olic		Dias	tolic
Standard	Dual to	No	140 a			101 to		85 to
Score	<u>lst Solo</u>	Disability	OVOT	<u> 139</u>	under	105	<u>over</u>	_89
4 7	7							
6.7 1.8	1	1 1						
1.5	7							
1.2	2	2						
1.0	2	1 2 2 2 2 1 1 2						
•9	2	2						
<u>.</u> 8	3	2				x		
.8 .7	í	ī						
.6	2	ì				x		
. <del>5</del>	4	2			x	X		
-4	2	2						
<b>4</b> 3ء	1 2 2 2 3 1 2 4 2 5 6	5						
۰,2		5 4 2 5 5 7				XX.		
۰Ĵ	3 6 5 7	2				X		
0	6	5				x		
~ <b>.1</b>	5	5						
~ "2	7							
~ .3	4	4						
~ •4	4	4						
~ .6	3	3						
~ .7	2	2 2						
8	3	<u>د</u> 1				x x		
~ .9	4 3 2 3 2 6	4 3 2 2 1 3 1				XX		×
~1.0	4	3				7.		<b>~</b>
-1.2 -1.3	î	1				<i>*</i> **		
T.0.2	-	•						
Total	<b>8</b> 2	68	٥	0	1	12	0	ŗ
Omitted	1	1						
Eliminated	12	10				XX		
(no flight								

l retained having a medical and flight record was omitted because pilot was not given a "Night" test

<sup>12</sup> eliminated (have medical records)

<sup>6</sup> eliminated (no medical records)

<sup>10</sup> retained (no medical records)

<sup>111</sup> total

TA31.2 9

# OCCURRENCE OF SYSTOLIC AND DIASTOLIC DISABILITIES IN TERMS OF "TOTAL DUAL (DAY) TEST" DISTRIBUTION Clewiston, Florica\*

Standard Score	Day Total Duel	No Disability	140 & over		olic 100 & under	101 to 105	Diest 90 & over	
2.3 2.1 2.0 1.9 1.8 1.7 1.6 1.5	1 2 1 1 1 1	1 1 1 1 1		•		*		
1.1 1.0 .9 .7	4 3 1 1	4 3 1 1	•					
.4 .3 .2	3 4 7	2 3 7			×	x		
0 - 1	7 3 4	5 3 3				xx x		
3 4	6 3 2	3 1 2				)CXX		
~ .5 ~ .6 ~ .7	7734632222123122	2375333121221230				x		
8 9 -1.0 -1.1	2 3 1	3				x		
-1.3 -1.4 -1.5	2 2 1	2 2 1				~		
~1.7 ~1.8 ~1.9	1 1 1	0 1 1						x
-2,0 -2,2	î 1	1						
Total Omitted	82 1	68 1	0	0	1	12	0	1
Eliminate (no fligh	it recor	10 ds) cases - 82 :	ataina	i		жж 12 а	14-4	/s === 8.8 == 3
-016	78 (OIL	l r	etained al and mitted	having flight r because n a "Nig	record w	ri Re 6 es Re re	scords)	(have medical (no medical ill total

TABLE 10 OCCURRENCE OF SYSTOLIC AND DIASTOLIC DISABILITIES IN TERMS OF "SUITABILITY TEST" DISTRIBUTION Clewiston, Florida\*

					olic		Diastolic Diastolic		
	Suit-	No	140 &	135 to	100 &	101 to	90 &		
	ability	<u>Disability</u>	OAGL	<u> 139</u>	wider	105	over	_89	
3									
311	ı	1							
321	1 1 3 1	1 1 2 1							
131	ī	ī							
231	3	2				I			
232	ļ	1							
213	T	7							
<u>2</u> 200	3	3							
201	3 2	ว์			x				
210	$\tilde{m{\eta}}$	6		•		x			
211	12	12							
212		3 1 6 12 4 2 3 7 3							
221	4 2 4	2							
120	4	3				I			
121	10	7				XX		x	
122	5 1	3				**			
112	1	1							
100	6	4				ж			
101	5					I			
110	5 7	6				T.			
111	ż	ĭ				x			
010	2 1 2	4 6 1 2 1							
001		2							
011	1	ı							
Total	82	68	0	0	1	12	0	1.	
Omitted	1	1	_			-			
Eliminat	ed 12	10				**			
	ht record								

\*Clewiston cases - 82 retained

<sup>1</sup> retained having a medical and flight record was omitted because pilot was not given a "Night" test

<sup>12</sup> eliminated (have medical records)
6 eliminated (no medical records)

<sup>10</sup> retained (no medical records)

ill total

#### APPENDIX 7b

#### TABLE 11

### OCCURRENCE OF SYSTOLIC AND DIASTOLIC DISABILITIES IN TERMS OF "FLYING TEST" DISTRIBUTION Miami, Oklahoma\*

Standard	Flying	No	140 &	<u>Syst</u> 135 to	<u>0110</u> 100 &	101 to	<u>D1as</u> 90 &	tolic 85 to
Score	Test	Disability	TOVO	139	under	105	OVET	<u>89</u>
-1.7	1	Ĺ						
-1.6	2	1 2 1 3 3 2 2 1						
-1.5	3 2 3 3 5 2	2		X				
-1.4	2	1		x				
~1.3	3	3						
-1.2	3	3						
~1.1 ~ .9	2	3	**					
~ 67 ~ .8	4	2		_		_		
7	î	1		x		X		
6								
~ °5	4123322	4 1 2 2 2 2 2 2						
- 04	2	2						
¬ .3	3	2	¥					
2	3	2				x		
- °1	2	2						
0	2	2		-				
.l	4	4						
٠2	3	2				x		
و.	2	1		X				
-4	3	2						X
۰ <u>5</u>	2	2						
.6 <b>8</b> ،	<u>ئ</u> 2	2	×	_				
•9	2	2		X		_		
1.0	3	<u>ر</u> ع				X		
1.1	432323333334332	421222223234332	x					
1.2	ź	~ 3	-05					
1.4	4	Ĭ.						
1.5	3	ž						
1.6	3	3						
1.7	2	2						
Total	87	72	5	5	Q	4	0	1
Eliminated		7	x	X			30000	
Retained	ı	1						
(no flight	records	a)						

\*Miami cases - 87 retained

<sup>11</sup> eliminated (have medical records)

<sup>1</sup> retained (no flight record)

<sup>3</sup> eliminated (no medical records)

<sup>10</sup> retained (no medical records)

<sup>112</sup> total

TABLE 12 OCCURRENCE OF SYSTOLIC AND DIASTOLIC DISABILITIES IN TERMS OF "GROUND EXAM TEST" DISTRIBUTION Miami, Oklahoma\*

Standard Score	Ground Exam Test	No Disability	140 &	Syst 135 to 139	olio 100 & under	101 to 105	Diastolic 94 & 85 to over 89
1.8	1	0		π			
-1.7	13222333312423213232323242232332	012223222132132132313232242		XX			
-1.6	2	2					
-1.5	2	2					
~1 .4	2	2					
-1.3	3	3					
÷1.2	3	~					x
-1.1 -1.0	<i>3</i>	<b>4</b>		×			
~ .9	7	<u>ر</u> ع				×	
~ .9 ~ .8	2	2					
- °7	Ž	$\tilde{\mathfrak{z}}$	<b>x</b>				
~ .6	$\vec{2}$	í	7			x	
<b>-</b> •5	3	3					
- 4	2	2					
~ .3	1	1					
2	3	3					
_ ~I	2	2					
0	3	3					
٠ <u>٦</u>	2	ī	x				
。2 。3	3	3					
وّه	2	2					
•4 •5	<i>)</i>	2					
.6	2	2	×				
•0 7	1	<i>Z</i> ,					
.7 .8	2	2					
و.	2	ī	x				
1.0	3	1 2 1 2 3 2 2 2	_			×	
1.1	2	ī				x	
1.2	3	2	x				
1.3	3	3					
1.4	3	2		*			
1.5	2	2					
1.6	3						
Total	87	72	5	5	0	4	0 1
Elimina ted	1 11	7	x	x			XXXX.
Retained	1	1					
(no flight	record	a)					

\*Miami cases ~ 87 retained

ll eliminated (have medical records)

l retained (no flight record)
3 eliminated (no medical records)

<sup>10</sup> retained (no medical records)

<sup>112</sup> total

OCCURRENCE OF SYSTOLIC AND DIASTOLIC DISABILITIES
IN TERMS OF "CHARACTER AND LEADERSHIP TEST" DISTRIBUTION
Miami, Oklabona\*

Standard Score	Character and <u>Leadership</u>	No <u>Disability</u>	140 & over	<u>Syst</u> 135 to <u>139</u>	oliq 100 & under	101 to 105	Diastolic 90 & 85 to over 69
-1.6	1	0				x	
-1.5	5	5					
-1.3	5	5					
-1.1	11	9		I		I	
<b></b> 6	8 5	6		X			x
3		3	**				
<b></b> l	12	10	XX				
•4	9	<b>_7</b>		x		x	
.8	17	14		XX		x	
1.4	6 6	6					
1.7	6	6					
1.9	2	1	X				
Total	87	72	5	5	0	4	0 1
Eliminate	d 11	7	X	I			20230
Retained (no fligh	1 t records)	1					

- 11 eliminated (have medical records)
- 1 retained (no flight record)
- 3 eliminated (no medical records)
- 10 retained (no medical records)
- 112 total

TABLE 14 OCCURRENCE OF SYSTOLIC AND DIASTOLIC DISABILITIES IN TERMS OF "GENERAL TEST" DISTRIBUTION Mismi, Oklahome\*

Standard Score	General Test	No <u>Disability</u>	over 140 &	135 to		101 to 105	Dies 90 & over	tolic 85 to 89
2.2	1	1						
1.8	1	1						
1.7	2 2 3 6	1236111212143551		X				
1.5	2	2						
1.4	3	3						
1.3	9	9	_			_		
1.1 1.0	3 1	<u>,</u>	x			X		
.8		7						
. <b>7</b>	7	2		x				
.6	3	î	I	ı. I				
•5	133215355271332525	2	•	•				
.4	ī	ĩ						
, <del>3</del>	5	Ā				x		
.3 .2	á	3				<del></del>		
.1	5	5						
<b>1</b>	5	5						
<b>-</b> "2	2	ì				I		
3	7		X					x
4	1	1						
5 6	3	4 1 2 3 1 4 2		x				
<b>~ .</b> 6	3	3						
<b></b> 7	2	1	x					
~ .9	5	4		x				
-1.0	2	2						
-1.1	5	4				I		
-1.3	4	4						
-1.4	1	1 1 2 1						
-1.5	1 2	7						
-1.7 -1.8	ĺ	2						
	i	<u> </u>						
<b>-2.6</b>	*	*7						
Total	87	72	5	5	0	4	0	1
Eliminate		7	I	I			300	CTK
Retained	1	1						
(no fligh	t records	3)						

\*Wiami cases - 87 retained

<sup>11</sup> eliminated (have medical records)

<sup>1</sup> retained (no flight record)

<sup>3</sup> eliminated (no medical records)
10 retained (no medical records)

<sup>112</sup> total

OCCURRENCE OF SYSTOLIC AND DIASTOLIC DISABILITIES
IN TERMS OF "INSTRUMENT TEST" DISTRIBUTION
Midmi, Oklahoma\*

Standard Score	Instru- ment Test	No Disability	140 & over	Syst 135 to 139		101 to 105		tolic 85 to 89
2.8	1	1						
2.2	2	2						
1.9	1	1						
1,6	2	2						
1.3	5	1	xx	XX				
1,0	5	5						
.7	2 5 5 9	5 7		I		x		
.4	11	9	I	<b>X</b>				
.1	10	10						
- "2	9	7				x		x
~ .5	11	9		x		x		
8	9	7 5 3 1	x			x		
-1.1	5	5						
-1.4	3	3						
-1.7	9 5 3 2 1	1	X					
-2.0	ı	1						
-3.2	1	1						
Total	87	72	5	5	0	4	0	1
Eliminate		7	ź	ź		~	33333	<u>-</u>
Retained	1	i	_	_				-
(no fligh	_	ı) -						

\*Niami cases - 87 retained

- ll eliminated (have medical records)
- 1 retained (no flight record)
- 3 eliminated (no medical records)
- 10 retained (no medical records)
- 112 total

TABLE 16 OCCURRENCE OF SYSTOLIC AND DIASTOLIC DISABILITIES. IN TERMS OF "LINK TEST" DISTRIBUTION Wiemi, Oklahome"

Standard- Score		No <u>Disability</u>	140 &		under	101 to 105		tolic 85 to 89
1.8	5 6	4				x		
1.0 .7 1	32 9	6 24 9	XXX	Dil.		x		x
4	14	11	x	XX				
-1.2	15	13	X .			x		
<del>-</del> 1.9	5	4				I		
<b>~3</b> ,0	1	1						
Total	87	72	5	5	0	4	0	1
Eliminate	d 11	7	X	x			13311	:
Retained	1	1						
(no fligh	t reco	rds)						

- 11 eliminated (have medical records)
- l retained (no flight record)
  3 eliminated (no medical records)
  10 retained (no medical records)
- 112 total

TABLE 17 OCCURRENCE OF SYSTOLIC AND DIASTOLIC DISABILITIES IF TEV'S OF "NIGHT TEST" DISTRIBUTION Miani, Gklahoma\*

Standard Score	Night <u>fest</u>	No Disability		<u>Syst</u> 135 to 139	100 &	101 to 105	Diasi 90 & over	85 to
2.4	1	0	x					
2.2	1	1						
2.1	1	0		X				
1.8	2	2						
1.6	1	0				x		
1.2	8	8						
1.1	1 8 3 1 8	8 3 1 6						
.9	1	1						
6،			x	X				
<b>-</b> 5	1 2 1	1 2 1						
-4	2	2						
.2								
0	22 6	14	XXX	x		3000		x
ົ⊸1 ຕຸ2	2	2		I				
2 3	î	1						
~ .J	i	3						
6	10	à		ж				
8	î	í		Λ.				
-1.Ĭ	6	5 2 1 9 1 6						
-1.3	ĭ	ĭ						
-1.7		Ž						
~2.3	4 3	4 3						
		-						
Total	87	72	5	5	٥	4	٥	ı
Eliminated	11	7	×	x			3000	:
Retained	1	1						
(no flight	record	is)						

<sup>11</sup> eliminated (have medical records)
1 retained (no flight record)

<sup>3</sup> eliminated (no medical records)

<sup>10</sup> retained (no medical records)

<sup>112</sup> total

TABLE 18 OCCURRENCE OF SYSTOLIC AND BIRSTOLIC DISABILITIES IN TERMS OF "DUAL TO Let SOLO (DAY) TEST" DISTRIBUTION Miami, Oklahora\*

Standard Score	Day Dual to lst Solo	No Disability	140 & <b>QVet</b>		olic 100 & under	101 to	90 &	tolic 85 to 89
2.9 2.4 2.0	2 1 1	2 1 0				х		
1.8	i	ĭ				•		
1.5	1	0				x		
1.4	1	1						
1.3 1.2	3	<b>و</b> ۸						
۰9	4	3		x				
.8 .7	1 3 4 4 3 2 2	1343222424326631				x		
.7	2	2						
.6 .4	4	4						
.3	4 2 6	2						
ູ2	6	4	x	x				
0 1	3 4	3						
- °5	8	6	xx x	x				
3	6	6		-				
- 4	3	3						
~ "5 - "6	1	1						
7	2	1 0		ж		x		
- ,8	2	i	x	44		_		
~ .9	3	2		x				
-1.0 -1.1	8 6 3 1 2 2 3 1 2 2 8	1 2 1 2 2 7						
-1 .2	2	2						
~1.3	8	7						×
-1.5	3	3 1						
Моде	7	1						
Total	87	72	5	5	0	4	0	1
Eliminate	d 11 1	7 1	х	ж			3000	x
Retained (no fligh	t records)							

\*Miami cuses - 87 retained

<sup>11</sup> eliminated (have medical records)

l retained (no flight records)
3 eliminated (no medical records)

<sup>10</sup> retained (no medical records)

<sup>112</sup> total

TABLE 19 OCCURRENCE OF SYSTOLIC AND DIASTOLIC DISABILITIES IN TERMS OF "TOTAL DUAL (DAY) TEST" DISTRIBUTION Miami, Oklahome\*

Standard Score	Day Total Dual	No <u>Pisability</u>	140 &	<u>Syst</u> 135 to 139		101 to	90 &	tolic 85 to 89
3.2	1	1						
3.1 2.4	1 1	1						
2.1	1	i						
2,0	1	1						
1.9 1.7	1 2	0	I	22				
1.4	1	ĭ						
1.3	2	ı	<b>.</b> X					
1.2 1.1	1	1 0		x				
1.0		1		•				
,8	1 2 1	2						
.7 .6	6	0				X X		
•5	2	5 2				^		
.4	5 1	4	×					
.3 .2	1 2	1		_				
.1	2	2		x				
0	4	4				-		
1 2	5 1	3	X			x		_
3	5	5						3
4	5 7	7						
• .5 6	3	3		_				
7	3 5 6	6		I				
8	3	3						
9 -1.0	2	2				_		
-1.0 -1.1	3 2 3 3	4305734632231				X		
-1.3	_	_		•				
-1.4 -1.5	l 1	1 0	_					
-1.9	i	ĭ	X					
None	1	1						_
Total	87	72	5	5	0	4	0	_ 1
Eliminate Retained	1 1	7 1	X	X			XXX	*
(no fligh	_	_						
-Mig	mi case	s - 87 reta			_			
		ll elim	inated (h	ave medi	loal rec	ords)		

~\_ &

<sup>1</sup> retained (no flight record)
3 eliminated (no medical records)
10 retained (no medical records)

<sup>112</sup> total

#### APPENDIX 70

#### TABLE 20

#### OCCURRENCE OF SYSTOLIC AND DIASTOLIC DISABILITIES IN TERMS OF "FLYING TEST" DISTRIBUTION Terrall, Texas\*

Standard Score	Flying Test	No <u>Disability</u>	140 & over	3yet 135 to 139	olic 100 & under	101 to 105	Diasi 90 & over	85 to 89
-1.7	1	0 3 2 2	x		~			~
≈1.6 ∞1.5	3 2 2	3				,		
-1.5 -1.4	2	2						
-1.3	5	~		ж				
~1 <b>"</b> 2	1 2	ĩ						
<b>-1.1</b>	2	2						
<del>-</del> 1 °0	4	3		*				
= .9	2	2				~		
= .8 = .7	2	ì		x				
6	~ 3	3		•		1		
<b>-</b> .5	3 .	3			•			
- 4	3	3			řE		•	
e .3	2	1	X		í			
2 1	4222333232154231	12322133313215423132133223131						
ō	ĩ	ĩ				*	-	
٥Ì	5	5			į			
.3	4	4				<b>Y</b> '		
<u>.4</u>	2 .	2				*		
چ	3	3				2		
,6 ,7	3	3			ĸ	-		
.8.	á	2		x		_		
۰9	í	ī		-	-	•		
1.1	3	3			,			
1.1	3	3				*_		
1.2	33133223132	2			Ç	•	ł	
1.3 1.4	2	2			**			
1.5	í	í ·			ι	·,		
1.6	3	3			<b>y</b> F 		1	
1.7	-	-		2 <b>X</b>	×e.			
1.8	1	1				<b>.</b>		
Total . Eliminate	85	78	2	5	0	0 -	Ó	0
Eliminate	d 13 *	13 3	•	ι,		<b>(</b>	, ~ -	
Retäined (no fligh	t record	<b>a</b> )			1	1	<u>t</u>	
/mv ===Em		de	A A			138464 3	. * F *	

\*Terrell cases - 85 retained

13 eliminated (have medical records)

3 retained (no flight records)

3 eliminated (no medical records)

7 retained (no medical records)

111 total

` **\*** 

#### TABLE 21

#### OCCURRENCE OF SYSTOLIC AND DIASTOLIC DISABILITIES IN TERM OF "GROUND EXAM TEST" DISTRIBUTION

#### Terrall, Teman\*

Ground				Syst	Diastolic			
Standard	Exam	No	140 &	135 to	100 &	101 to	90 &	85 to
Score	Test	Disability	DAGL	139	under	105	<u>over</u>	89
-1.8	22413323323135222332232222232332122	2241332232313421232221222223232322122						
-1.6	2	2						
~1.5 ≈1.4	4	4						
-1.3	3	3						
~1.2	3	3						
•1.1	2	2						
<b>-1</b> ₀0	3	2	X					
<b>-</b> •9	3	3						
<b>-</b> ∞ <b>8</b>	2	2						
7 6	3	3						
∾ "ნ ~ "5	3	1 2						
<b>~</b> °4	5	Ã		×				
3	ź	ž						
- "2	2	1	X					
1	2	2						
Ő	3	3						
<i>1</i> 。 <b>S</b> 。	3	2		X				
.2 .3	<u>د</u> 2	2						
.4	2	í		7CX				
°5	2	2		~~				
.5 .6 .7	2	2						
. <b>7</b>	2	2					7	
.8 .9	2	2					r	
.9	3	3						
1.0 1.1	2	2						
1.2	<i>)</i>	9		-				
1.3	2	2		<b>x</b> ,				
1.4	ī	ĩ						
1,5	ີ 2	2						
1.6								
1.7	1	1						
1.8 1.9	1	1						
			Λ	e	^	•	•	
Total Eliminated	85 3 13	78 13	2	5	0	0	0	0
Retained	3	3						
(no flight		s)						

<sup>13</sup> eliminated (have medical records)

<sup>3</sup> retained (no flight records)
3 eliminated (no medical records)

<sup>7</sup> retained (no medical records)

lll total

TABLE 22 OCCURRENCE OF SYSTOLIC AND DIASTOLIC DISABILITIES IN TERMS OF "CHARACTER AND LEADERSHIP TEST" DISTRIBUTION Terrell, Texas\*

Standard Score	Character and <u>Leadership</u>	No <u>Disability</u>	140 & over	Syst 135 to 139	100 &	101 to 105	90 &	tolic 85 to 89
-1.6	2	3.		x				
<b>-1</b> .5	2 2	2						
-1.4	2	2 2						
<b>-1</b> .3	4							
<b>-1</b> 。2	4 2 3 3 2	4 1 3 3 2	x					
<b>-1∘1</b>	3	3						
<b>-1</b> .0	3	3						1
- <b>.</b> 9		2						
<b>-</b> ∘8	16	16 2 1						
1	2 1	2					1	
0	1							
.1	16	14		жx				
.7	2	2 9 2 1 1 9						
<b>.8</b>	10	9		x				
1.0	2	2						
1°5	2	1		x				
1.3	l	1						
1.4	2 1 9 1 2	9						
1.8	1	0	X					
1.9	l	1						
2.0	2	2						
Total	85	78	2	5	0	0	0	0
Eliminate		13	-		-	-	_	_
Retained	3 t records)	3						

<sup>13</sup> eliminated (have medical records)
3 retained (no flight records)
3 eliminated (no medical records)
7 retained (no medical records)

lll total

TABLE 23 OCCURRENCE OF SYSTOLIC AND DIASTOLIC DISABILITIES IN TERMS OF "GENERAL TEST" DISTRIBUTION Terrell, Texas\*

	_				olic		Diastolio		
Standard Score	Gen≖ eral	No <u>Disability</u>	140 & over	135 to	100 &	101 to 105	90 &	85 to	
<u></u>	27.27	- The Party Air	<u> </u>	-	W. P.	-4	-717-E4	-5/2	
2.1	1	l							
1,9	j	į							
1,8 1,7	2	2	*						
1.6	ã	õ							
1.4	Ţ	1							
1.3 1.0	l	1							
.9	3	3							
, <b>8</b>	í	ó		x					
۰7	2	2							
ູ6 ູ້5	3	1 2 3 1 5 3 0 2 2 6		x					
ر د م4	3			x					
∘3	2	1	*						
۰2	3	3							
<sub>4</sub> 1 0	5	ւ 5							
- " <b>i</b>	122311531236323152534	213152534163321310							
<b>- ₀2</b>	5	5							
~ .3	3	3							
- ₀4 ≂ ₀5	1	4							
<b>-</b> ,6	1	6							
<b>∞</b> , <b>8</b>	4	3		x					
~ ,9 ~1.₀0	3	3							
-1.4	4 3 2 1 3	î							
-1.5	3	3							
-1.6	1	ĵ							
-1.8 -1.9	1 2	2		x					
-2°1	ĩ	ĩ							
-2 <sub>°</sub> 2	1	1							
Total	85	78	2	3	0	0	0	O	
Eliminated Retained	1 13 3	13 3			٨				
(no flight	t reco	rds)			ą				

<sup>13</sup> eliminated (have medical records)

<sup>3</sup> retained (no flight records)
3 eliminated (no medical records)

<sup>7</sup> retained (no medical records)

<sup>111</sup> ketal

TABLE 24 OCCURRENCE OF SYSTOLIC AND DIASTOLIC DISABILITIES IN TERMS OF "INSTRUMENT TEST" DISTRIBUTION Terrell, Texas\*

Standard	Instrument	No	<b>&amp; 0</b> ۸۱		011c 100 &	101 to	D <u>ias</u> 90 &	tolic 85 to
Score	Test	Disability		139	under			89
2.3	ı	1						
2.1	4	2	X	I				
1.9	1	1						
1.8	1	1						
1,5	1 1 3 2 3 2 5 7 2	1 3 2 2 2						
1,2	ī	1						
1.1	3	3						
.8	2	2						
<b>.7</b>	3	2		X				
.6	2		_					
ه. د	2	4	x	_				
∘4 2	ź	2		×				
.4 .3 .2	Ř	Ř						
. <b>1</b>	2	46 2 8 2 5 3 6						
Õ	5	5						
ī	á	<b>5</b>						
<b>-</b>	7	6		x				
<del>-</del> .3	8253743511321							
4	3	3						
- "6	5	5						
7	1	1						
- ,9	1	1						
~Ţ.O	3	3						
<b>-1</b> ,2	2	2						
•1.3		4 3 5 1 1 2 1 1 2 1						
-1.4	ì	1						
-1 5	1 2	1						
~1,8 ≠19	ì	2						
-2.4		Ţ		-				
-3.0	1 1	0 1		2				
			_	_	_	-	_	_
Total	85	78	2	5	0	0	0	O
Eliminate		13 3						
Retained	3	,						
ino lifad	t ~ecords)							

<sup>13</sup> eliminated (have medical records)

<sup>3</sup> retained (no flight records)
3 eliminated (no medical records)
7 retained (no medical records)

lll total

TABLE 25 OCCURRENCE OF SYSTOLIC AND DIASTOLIC DISABILITIES IN TERMS OF "LINK TEST" DISTRIBUTION Terrell, Texas\*

			Systolic Diestolic						
Standard	Link	No	140 &	135 to	100 &	101 to	90 &	85 to	
Score	<u>Test</u>	Disability	<u>over</u>	_139	roder	105	over	89_	
3.0	1	1							
2.4	2	2							
1.8	3	2 3 6							
1.2	3	6							
ه.6	19	18	I					•	
Ō	25	21	x	XXX					
<b>-</b> ₀6	12	10	_	***					
<b>-1</b> .2	13	13							
-1.8	3	3							
<b>-2.4</b>	í	3 1							
	_	~							
Total	85	78	2	5	0	0	0	0	
Eliminated	_	13		-		_	_	_	
Retained	3	_ <u>5</u>							
(no flight	. Tenni	_							
form waren	, 19001	40 /							

- 13 aliminated (have medical records)
- 3 retained (no flight records)
  3 eliminated (no medical records)
  7 retained (no medical records)
- 111 total

TABLE 26 OCCURRENCE OF SYSTOLIC AND DIASTOLIC DISABILITIES IN TERMS OF "NIGHT TEST" DISTRIBUTION Terrell, Texas

Standard Score		No . Disability		Syst 135 to 139	100 &		Diast 90 & over	olio 85 to 89
1.9 1.7 1.6 1.4	1 5 2 6	1 0 4 2	<b>x</b> .	x				
1,2 ,9 ,7 ,6	6 4 2 4 7	5 4 1 4 7		x				
- , <b>1</b> - ,3 - ,4 - ,6	15 14 2 4	14	x	x			*	
8 -1.0 -1.1 +1.3 -1.5	4 1 1 1 2	13 2 4 3 1 4 1 2 1 2		x		-		
~1.8 ~2,0 ~2,8	1 2 2		_	,		_		
Total Eliminate Retained (no fligh	3	78 13 3 da)	2	5	0	0	0	0

<sup>13</sup> eliminated (have medical records)

<sup>3</sup> retained (no flight records)
3 eliminated (no medical records)

<sup>7</sup> retained (no medical records)

<sup>111</sup> total

TABLE 27

OCCURRENCE OF SYSTOLIC AND DIASTOLIC DISABILITIES
IN TERMS OF "DUAL TO FIRST SOLO (DAY) TEST" DISTRIBUTION
Terrell, Texas"

Standard Score	Day Dual to 1st Solo	No <u>Disability</u>	140 &		olio 100 & under	101 to 105	<u>Dias</u> 90 & over	tolle 85 to 89
2.6	1	1						* **
2.5	1	0	x					-7
2.2	1	1						
2.0	12111113113522323122463472	121011130135123131224634624452						
1.9	1	1						
1.7	1	0		X				
1.6	1	1						`
1.3	1	1		1				ž.
1.2	1	1						
1.1	3	3						τ.
1.0	1	0	X					•
۰9	1	1						
. <b>8</b>	3	3						
<b>.7</b>	2	2		_				
ه.6	2	1		x				
•5	<b>4</b>	<u>بر</u> 2						
۰ <u>4</u>	2	2		_				
.2 .1	2	<u> </u>		x				
°Ō	1	1						
- °1	5	2						
- °2	~ ~	~ ~						
- ເ3	Z	7						
4	6	6						
<b>-</b> 35	3	ğ						
6	Ž	Ž.						t
7	<b>7</b>	6		x				
ð. ~	2	2						
<b>-</b> ₀9	4	4						
<del>-</del> 1。0	4 5 5 2	4		r	•			
-1.1	5	5						
-1.2	2	2						
-1.5	1	1						
-1.7	1	1					¥	
<b>∽2</b> 。2	1	1						
Total	85	78	2	5	0	0	0	0
Eliminate		13		-	-	-	_	
Retained		13 3						
	t records)	-						

<sup>13</sup> eliminated (have medical records)

<sup>3</sup> retained (no flight records)

<sup>3</sup> eliminated (no medical records)

<sup>7</sup> retained (no medical records)

<sup>111</sup> total

TABLE 28

### OCCURRENCE OF SYSTOLIC AND DIASTOLIC DISABILITIES OF TOTAL DUAL (CAI) FISTE DISTRIBUTION

" A Perroll, Texast ( ) Waster to Day <u>Diastolic</u> Standard fotal 140 \$ 135 to 100 \$ 101 to 90,4 85 to No Disability over 139 Score (Friel under 105 over 2.4 1 1 1 2.3 1 2.2 2 1 z 2.1 1 1 ī 1 1.9 1 1.7 1 ī 1 1.4 X 1.2 2 2 ĩ 1 1,0 2 2 ۰9 2 2 **.8** .7 423335246 4223340 **.**6 .5 .4 .3 .2 ٠,1 XX 46 0 .1 2, 43522 4251 ٠3 .4 5، X ه. 2 1 ì ي.7 4 4421 ۰8 ۰,9 2 -1<sub>0</sub>0 1 -1.1 -1.2 2 2 2 2 -1.3 1 1 -1.4 1 **-1.**5 1 1 1 -1.8 2 2 -1.9 1 1 -2.6 78 2 Total 85 5 0 0 0 0 Kliminated 13 13 Retained (no flight records) \*Terrell cases - 85 retained 13 eliminated (have medical records) 3 retained (no flight records) 3 eliminated (no medical records) 7 retained (no medical records)

111 total

TABLE 29

OCCURRENCE OF SYSTOLIC AND DIASTOLIC DISABILITIES
IN TERMS OF "SUITABILITY TEST" DISTRIBUTION
Terrell, Texas\*

				Syst	<u>olic</u>		Dias	tolic
	Suit- ability	No Disability	140 & 9787	135 to 139		101 to 105	90 &	85 to
			Z-			مرزده برگزار آنگاهه	-	
2								
310	1	1						
130	4	3		X				
133	1 4 1 2	1 3 1 2						
230	2	2						
123	1	1						
200		_						
200	4 2	4 2						
201	2	2						
210	12	10	I	x				
211	12	12						
21,2	1 3 5 1 4 10	1 3 5 1 4 9 2 1						
220	3	3						
221	2	?						
222	1	÷						
120	34	4						
121	10	7		x				
122	2	2						
112	1	1						
100'	a	æ		_				
101	9 1	3		X				
110	7	<del>'</del> 6		x				
111	1	ı		-				
010	1 1	8 1 6 1 0	x					
<b>CEO</b>		U	_					
Total	85	78	2	5	0	0	0	0
Eliminate	ed 13	13						
Retained		3						
(no fligh								

<sup>13</sup> eliminated (have medical records)

<sup>3</sup> retained (no flight records)

<sup>3</sup> eliminated (no medical records)

<sup>7</sup> retained (no medical records)

<sup>111</sup> total

#### APPENDIX 7d

#### TABLE 30

#### OCCURRENCE OF SYSTOLIC AND DIASTOLIC DISABILITIES IN TERMS OF THE "FLYING TEST" DISTRIBUTION Mesa, Arizona\*

C433	Paris a	Ma.	1/0 *	Syst	0110	3.03 As	<u> Pias</u> 90 &	tolic
Standard <u>Score</u>	Flying Test	No <u>Disability</u>	140 & over	135 to 139	100 & under	101 to 105	over	85 to _89
~1.7		2	-	x	_			
-1.6	3	ĩ	x	×				
<b>-1</b> °5	2	2	_	au,				
<b>~1</b> °4	3	2	I					
-1.3	ž	2	_					
<b>-1</b> .2	2	2						
-1.1	3	2		X				
-1 <sub>0</sub> 0	3	2	X					
9 8 7	1	1						
- 8° -	3	1	XX					
7	3	3						
<b>-</b> ₀6	3	ļ	I				•	x
5ه 🕶	2	2						
= .4	2	2						
3	2	2						
2	4	4						
1 0	2	2						
<b>.1</b>	2	2	-					
9.T	1	<i>ا</i> ر 1	X					
.2 .3	2	2		*				
ره 4-	2	2		X				
° <b>4</b> ° <b>5</b>	7.	~ ·	Σ					1
<b>.6</b>	7.	5	x	x				
ໍ້າ	ĩ	ĩ	•	^				
ີ້ 8	3	2	x					
。 <b>9</b>	3	2	x					
ີ9 1.0	2	1	x					
1.1	2	2						
1.2	3	3						
1.3	3	3						
1.4	2	2				•		
1.5	2	2						
1.6	3323223133322242231324413322332222	2122222113122242221223212212332221						
1.7	2	1	X					
Total	87	68	13	5	0	0	0	1
Eliminate		5 4						
Retained		4	I		x			
(no fligh	t record	g)						

\*Mesa cases - 87 retained

112 total

<sup>5</sup> eliminated (have medical records) 6 retained (no flight records)

<sup>2</sup> eliminated (no medical records)

<sup>12</sup> retained (no medical records)

TABLE 31 OCCURRENCE OF SYSTOLIC AND DIASTOLIC DISABILITIES IN TERMS OF "GROUND EXAM TEST" DISTRIBUTION Mesa, Arizona\*

Standard Score	Ground Exem Test	lio <u>Disability</u>	140 & <u>oyor</u>	Syn 135 to 139	tolic 100 & urder	101 to 105	Dinst 90 & over	0110 85 to 89
~1.8	1	1						
-1.7	2	2						
-1.6	2	1	X					
~1.5	2	2						
-1.4	3	2	X					
-1.3 -1.2	3	2		ж				
-1.2 -1.1	<u>ر</u> 2	Ü	222					x
~] D	2	2						
-1.0 9	3	ج 1	3133					
~ .7	3	3	46.00					
~ °6	3	ź	ж					
<b>-</b> .5	12239999299794222219942222554225532	121222032132342221122						
4	4	4						
3، ۳	2	2						
2	2	2						
l	2	2						
Ō	2	1		x				
٠Ţ	1	1						
.2 .3	3	2	ж					
<b>ا</b> ر د	3			X				
٠4	4	<b>4</b>						
∘5 ∘6 ∘7	2	1						
. <b>7</b>	2	ٽ ٣	X					
្តិអ	3	ৰ						
. <b>១</b>	5	5	•					
1,0	ĺ	4212351222						
1.1	2	2						
1.2 1.3	S.	2						
1.3	3	2	7					
1,4	ق	1	30	Z				
1.5	3	1 0 2	3,30	X				
1.6	2							
1.7	1	-1						
Total	87	68	13	5	0	0	0	1
Eliminated	1 5 6	5						
Retained	6	. 4	¥		*			
(no flight	record	3)						

<sup>5</sup> eliminated (have medical records) 6 retained (no flight records) 12 retained (no medical records)

<sup>2</sup> eliminata (no medical records)

<sup>12</sup> total

PARLE 32 OCCURPENCE OF SYSTOLIC AND DIASTOLIC DISABILITIES IN TERMS OF "CHARACTER AND LEADERSHIP TEST" DISTRIBUTION Mesa, Arizona\*

Standard Score	Character and <u>Leadership</u>	No Disability	140 & 9 <b>v</b> sr		oliq 100 & vnder	101 to 105	Dies 90 & over	tolic 85 to 89
-1.7	2	1	×					
<b>~1</b> ,6	2	2						
~1.5	3	3						
-1 .4	2	1		X				
-1.3	2	2						
-1.2	3	3						
~1.1	3	2		x				
~1.0	2 3 2 2 3 5 1	3	×	Ħ				
9 8		7	_					
~ °6	4	<i>j</i>	X					
~ .5	2	2						
- 4	3	) 1232 31332 2	x					
3	2	ī	×					
- ,2	3	2	x					
- ,l	ź	1 2 2 2						
Ō	3	2		x				
1.	2	1	ж					
.2	3	3						
.2 .3	3	1	XX					
.4	2	2						
.5 .7	4	3	ĸ					
.7	5	4	x					
.8	3	3						
.9	ۇ	3						
1.0	Ţ	ū	×					
1.1	2	2						
1.2 1.3	ج ع	7	×					
1.4	<i>)</i>	7		×				
1.5	2	1						
1.6	2	2						×
1.7	ৰ	3						
1.8	4323232323324533122312231	13123433021211231						
Total	87	68	12	E	^	_	^	4
Eliminated	5	5	13	5	0	0	0	1
Retained	<b>6</b>	4	x		x			
(no flight		**	Д.		^			

Ł

<sup>5</sup> eliminated (have medical records)
6 retained (no flight records)
12 retained (no medical records)
2 eliminated (no medical records)

<sup>112</sup> total

TABLE 33 OCCURRENCE OF SYSTOLIC AND DIASTOLIC DISABILITIES IN TERMS OF "GENERAL TEST" DISTRIBUTION Mesa, Arizona\*

Standard Score	General Test	No Disability	140 &	Syst 135 to 139		101 to 105	Dias 90 & over	85 to 89
2.0	1	0		x				
1.8	2	ž		_				
1.6	2	ì	x					
1.3	8	0 2 1 7		X				
1.1	1 2 2 8 1 3 5 3 5 2 1 1 1 1 1 3 1 3 1 3 1 3 1 3 1 3 1 3 1	0	x					
1.0	3	2	×					
۰9	5	4 3 2 9 2 1 1 1 2		I				
<b>.7</b>	3	3						
6 ه	5	2	XXX					
•4	2	2						
۵.	11	9	X					X
<b>J</b>	2	2						
<del>-</del> 。2	1	1						
<b>-</b> 。3	1	1						
4	ì	1						
5	_3	2	x					
<b>-</b> .6	13	11	I	X				
7	1	1						
<b>8</b>	3	1 1 1	<b>X</b>	x				
9	2		x					
-1.0	<u>.</u>	U	x					
-1.1	1 2 1 7 2 1	0 7 2 1 1 1						
-1.3 -1.4	2	7						
	7	3						
-1.5 -1.9	i	1						
-2.0	4	2	x					
<b>-</b> 4.0	4	)	^					
Total	87	68	13	5	0	0	0	1
Eliminate	d 5	5 4						
Retained	6		x		x			
(no fligh	t records							

<sup>5</sup> eliminated (have medical records)

<sup>6</sup> retained (no flight records)
12 retained (no medical records)

<sup>2</sup> eliminated (no medical records)

<sup>112</sup> total

TABLE 34 OCCURRENCE OF SYSTOLIC AND DIASTOLIC DISABILITIES IN TERMS OF "INSTRUMENT TEST" DISTRIBUTION Mesa, Arizona\*

					olio			clic
	Instrument			135 to		101 to		85 to
Score.	Test	Disability	over	139	<u>und<b>er</b></u>	105	DVer	<u>89</u>
1.9	ı	0		х			2 I	
1.6	6	5	<b>3.3</b>	I				
1.2	4							
1.0	4	4 1						
<b>.7</b>	12	11		x				
<sub>3</sub> 5	1	1						
و.	6	1 5 2	X					
<b>,2</b>	4	2	x					I
0	6	3 3	x					
<b>~</b> 。2	6	3	x	XX				
4	18	15	XXX					
<b>-</b> -6	4	2	XX					
= <sub>*</sub> 8	1 2 1	1 2 1						
~ <sub>4</sub> 9	2	2						
-1.0	1							
-1 <b>.1</b>	6	5	I					
~1.3	1	0	X					
<b>-</b> 1.5	5 1	5						
-2.7	1	5 1 1						
<del>-</del> 3.7	1	1						
Total	87	68	13	5	0	0	0	1
Eliminated		5	-	-				_
Retained	6	4	x		x			
(no flight	t records)	-						

<sup>\*</sup>Mesa cases - 87 retained

<sup>5</sup> eliminated (have medical records)

<sup>6</sup> retained (no flight records)
12 retained (no medical records)
2 eliminated (no medical records)

<sup>112</sup> total

TABLE 35 OCCURRENCE OF SYSTOLIC AND DIASTOLIC DISABILITIES IN TERMS OF "LINK TEST" DISTRIBUTION Mesa, Arizona\*

Standard Score		No Disability		<u>Syst</u> 135 to 139	100 &	101 to 105	90 &	tolio 85 to 89
2.4	2 1	1						x
1.9	1	1						
1.5	1	j						
1.2	1 5 9	<u>4</u> 6		X				
.8								
<b>.6</b>	12	10		XX				
•3	6	5	X					
.1	9	7	IX					
- °j	10	9	Σ					
4	9 6	8	X					
6	6	4	XX					
~_ ₀8	3 7	i	XX					
-1.0	7	5 1 1	X	x				
-1.7	1	1						
∽2.0	1	1						
-2.2	- 3 1	2 1		X				
-2.6	1.	1						
<del>-</del> 3.3	1	1						
Total	37	68	13	5	0	0	0	1
Eliminate		5		-	•	-	•	~
Retained (no flight	6	4 '	x		x			

<sup>5</sup> eliminated (have medical records)

<sup>6</sup> retained (no flight records)
12 retained (no medical records)

<sup>2</sup> eliminated (no medical records)

<sup>11.2</sup> total

TABLE 36 OCCURRENCE OF SYSTOLIC AND DIASTOLIC DISABILITIES IN TERMS OF PRIGHT TEST" DISTRIBUTION Mesa, Arizona\*

				Syst	olic		Dias	tolio
Standard	Night	No	140 &	135 to		101 to	90 &	85 to
Score				139_		105	<u>over</u>	<u> 89 </u>
- <b></b>							_	
2.3	2	0	I	x			-	
1.6	6	5		x				
۰9	15	12	XX.					X
.8	1	1						
.7	1	0	x					
.4	1	ı						
<u>,2</u>	20	16	XXXX					
- 3	1	0	X					
4	21	17	XXX	x				
≂ å <b>3</b>	2	2						
-1.0	ĩ							
-1.1	10	1 9		r				
		4		x				
-1.8	5 1	ő	_	*				
-3.2	7	U	X			-		
Total	87	68	13	5	0	0	0	1
Eliminate	- •	5	- J	,	•	•	•	-
			~		_			
Retained		4	K		I			
(no fligh	t recor	16)						

5 eliminated (have medical records)

6 retained (no flight records) · 12 retained (no medical records)

2 eliminated (no medical records)

112 total

TABLE 37 OCCURRENCE OF SYSTOLIC AND DIASTOLIC DISABILITIES IN TERES OF "DUAL TO FIRST SOLO (DAY) TEST" DISTRIBUTION Mess, Arizona\*

Standard Score	Day Dual to lst Solo	No Disability	140 &	135 to	olic 100 & under	101 to 105	Dian 90 & <b>ove</b> r	tolic 85 to 89
2.6	1	1						
2,1	1 2	2						
2.0	ı	1 2 1 2 1 2						
1.9	1 2 1 3 1	2						
1.8	ı	ì						
1.6	3	2	x					
1.4	l	0	x					
1,0	1	l						
•9	4 3 1	12311111426638811		3500				
.8	3	3						
۰7		1						
<b>₃</b> 5	4	1	SEASK					
<sub>9</sub> 4	1	1						
٠3	1	1						
<sub>c</sub> 2	4 1 2 5 3 6	1	ж					
.1	5	4						x
0	3	2	×					
1	6	6						
- ,2	7	6	X					
· 33	3	3						
~ <sub>2</sub> 4	10	۶	300					
≁ ა5 <u>.</u>	8	8						
~ "6	1	1						
~ .7	1	1						
≈ ,8	7 2 2	4 1	3030	ж				
-1.0	2	1	x	•				
-1.3	2	ì		X				
-1.7	1	ŗ						
-2.1	2	1		X				
- 3.7	1	1						
Total	87	68	13	5	0	0	0	I
Mininate		5	-	-				
Retained	đ 5 6	4	*		x			
	t records)							

<sup>5</sup> eliminated (have medical records)
6 retained (no flight records)
12 retained (no medical records)
2 eliminated (no medical records)

<sup>112</sup> total

10H1E 38 OCCURRENCE OF SYSTOLIC AND DIASTOLIC DISABILITIES IN TERMS OF "TOTAL DUAL (DAY) TEST DISTRIBUTION Mese, Arizona\*

Standard Score	Day Total <u>Dual</u>	No Disability	140 & over	<u>Syst</u> 135 to <u>139</u>	olic 100 & under	101 to 105	Diast 90 & over	olic 85 to 89
3.6	j	0	×					
2,5	1	0	x					
2,2 2.0	1 1	0	×					
1.8	î	1						
1,5	2	2						
1.4	ī	1 2 1 2						
1,2	1 2	2						
l.l	1	0		x				
۰9	1	0	X					
د <b>8</b>	3 2	3						
.7	2	2						
.6	7	03263231351468311231	×	=4				
•5 •3	4233352	ۆ ج		X				
,2 S	3	2						
.î	3	ī	35					×
ő	á	3	45					4
1	5	5						
~ "2	2	1		x				
<b>3</b>	5 7	4	X					
- 4	7	6	ж					
<u>.</u> م	10	g	30	x				
7	3 2 1	3						
8 9	2	Ť	x					
9 -1.0		2	ж	×				
-1.1	4 3 1 1	3	^					
-1,2	í	í						
-1.4		ı						
-1.6	1	O,	K					
-2.2	2	1	<b>7</b> 0					
~2.7	1	1						
Total	87	68	13	5	0	0	0	l
uliminate	3 5	5	•=	•	-	-	_	_
herained	6	4	×		x			
(no fligh	t record	đs)						

<sup>b eliminated (have medical records)
6 retained (no flight records)
12 retained (no medical records)</sup> 

<sup>2</sup> eliminated (no medical records)

<sup>112</sup> total

TABLE 39 OCCURNENCE OF SYSTOLIC AND DIASTOLIC DISABILITIES IN TERES OF THE "SUITABILITY TEST" DISTRIBUTION Mesa, Arizona\*

				Syst	olic		Diast	olic
	Suit-	$N_{\mathbf{O}}$	140 &	135 to	100 &	101 to	90 &	85 to
	<u>ability</u>	Disability	<u>over</u>	139	nuger	105	o <b>ve</b> r	<u>89</u>
3								
322	1	0	x					
231	1	1						
232	1	1 1 1						
123	1	1						
2								
210	2	2 8 5						
211	10	8	x	X				
212	7			3030				
220	3	2 8 3 9	x					
221	11 3 13	8	æх	X				
222	3	3			٦			
121	13	9	XXX					X
7								
100	5 2	5 2						
101	2	2						
110	12	ıi	×					
111	10	6 <b>3</b> 1	XXXX	X				
010	4	3	X					
011	1	1						
Total	87	68	13	5	O	O	0	ı
Elimin		5	-,-	•	-		-	_
Retain		Ĩ.	ж	ж				
	ight reco							

<sup>5</sup> sliminated (have medical records) - 6 retained (no flight records)

<sup>2</sup> eliminated (no medical records)

<sup>12</sup> retained (no medical records)

<sup>112</sup> total

#### STARDARDS OF PHYSIC - S/ARINATION FOR FLYING

#### Visual Disqualification

Army Regulations No. 49-110 (Most recent standards)

Standards Used to Represent Stricter Interpretation (Conform to 1938 Navy Standards)

Visual Acuity
R.E. & L.E. - Less than 20/20
rol each eye

Less than 20/20 for each eye

Depth Percention: 31 or more

26 or more

Esophoria - 10 or more
Exceptoria - 6 or more

5 or more 3 or more

Exceptoria - 6 or more R.H. and L.H. - 2 or more

2 or more

Prism Divergence: 16 or more aid 2 or less

10 or more and 1 or less

Angle of Convergence:

PaB, & Pd. - the distance from the base line to the near point of convergence (YcB.) must not exceed the inter-pupillary distance by more than 25 millimeters

PaB.

smaller than 400 is disqualifying

nese of Convergence = 1/2 Pd

Accommodation:

Rt, & Lt. - more than 3 diopters below the mean for the examinee's age in either eye average age - 25 years 7.1 or less and 13.3 or more

All Six

#### APPENDIX 8

### OCCURRENCE OF SYSTOLIC AND DIASTOLIC DISABILITIES IN TERMS OF CRITERIA DISTRIBUTIONS (Advanced Students)

Appendix 8a: Clewiston, Florida Appendix 8b: Miami, Oklahoma Appendix 8c: Terrell, Texas Appendix 8d: Mesa, Arizona

#### APPENDIX 8a

#### TABLE 1

## OCCURRENCE OF SYSTOLIC AND DIASTOLIC DISABILITIES IN TERMS OF THE "FLYING TEST" DISTRIBUTION Clewiston, Florida

				Sy	stolic		Dias	tolic
Standard	Flying	No	140 €			101 to		
Score	Test	<u>Disability</u>	over	<u> 139                                    </u>	under	105	over	<u>89</u>
-1.6	,	3						
=	1 3 1 3	1 1 2 7						
•1.5	,	1				XX		
~1.3	I	1						
<b>-1</b> .2	3	2				x		
<b>-1</b> .0	7							
7	6	6						
<del>-</del> - 4	3	2				r		
3	9	7	•			XX		
.3	3 9 9 7	7			x	×		
.8	ź	6			_	x		
1 , 2	4	2				<del>-</del>		-
						ж		X
1.4	4 3	4 2						
1.6	3	2				x		
1.8	2	2						
1.9	1	0				x		
Total	63	50	o	0	1	11	0	1
Elimin.	17	16	_	_		I	_	_
Retained	2	2				-		
(no fligh								
Retained		1						
WANTHER	l							

TABLE 2

OCCURRENCE OF SYSTOLIC AND DIASTOLIC DISABILITIES
IN TERMS OF THE "GROUND EXAM TEST" DISTRIBUTION

Clewiston, Florida

Standard Score	Ground Evan Test	No Disability	140 & over	<u>Syst</u> 135 to <u>139</u>	100 ₺	101 to 105	Dias 90 & over	tolic 85 to 89
≎l.8	2	1				x		
-l.7	2 3 2	1 3 1				x		
-1.5	3	3						
<u>+</u> 1.4	2	1				x		
-1.3 -1.2	1	i						
-1.0	2	1 1 2 2						
~ .9	2	2						
≈ ₃ <b>8</b>		0				x		
7	1122223152223112222	1		•				
<b>-</b> ₀6	2	1				x		
5	2	1				<b>X</b>		
- 4	2	1 2 2 1 5 1 2 2				x		
= .3 2	3	2			x			
• .1	í	ĩ						
Ö	5	5						
.2	2	ì				x		
۰3	2	2						
.4	2	2		r				
۶5	3	3						
.6	1	3 1 2 2						
.7 .8	1 2	2						
•9	2	2						
1.0	2	2						
1.1	2	2				x		
1.2	1 2	1						
1.3	2	2						
1.4	3	1				I		I
1.5	3 1 3	1 2				-		
1.7	,	2				x		
Total	63	50	0	0	1	11	0	1
Elimin.	17	16				x		
Retained	2	2						
(no fligh		ls)						
Retained	1	1						

TABLE 3

OCCURRENCE OF SYSTOLIC AND DIASTOLIC DISABILITIES
INTERMS OF THE "CHARACTER AND LEADERSHIP" DISTRIBUTION
Clewiston, Florida

Standard Score	Char. and Lead.	No <u>Disability</u>		135 to		101 to 105	90 &	tolic 85 to 89
-1.8	1	ı						
<b>-1.7</b>	2	2						
-1.6	2	2 2						
-1.5	1	0				x		
-1.4	1	1						
<b>-1.3</b>	1 2	1				x		
<b>-1</b> ,2	1							
~1.1	2	1				x		
~ <b>.</b> 9	5	3				x		x
<b>~ .</b> 7	4	1 1 3 3 1 2 2				X		
<b>~</b> ₀5	4 1 3 2 2 2 2 3 8	1				1		
- 4	3	2				x		
<b>3</b>	2							
<b>~</b> "2	2	1 2 3 7			x			
∞ .l	2	2						
.1	3	3						
۰3						x		
.8	4 8	4						
۰9	8	5				X00X		
1.3	1	1						
1.4	4 2 1	5 1 4 2 0						
1.6	2	2						
1.7						X .		
1.8	1	1						
Total	63	50	0	0	1	11	0	ı
Elimin.	17	16	_	•	-	ĭ	•	-
Retained	2	2			_	_		
(no flight		_			•			
Retained	1	1						

TABLE 4

OCCURRENCE OF SYSTOLIC AND DIASTOLIC DISABILITIES
IN TERMS OF THE "GENERAL TEST" DISTRIBUTION
Clewiston, Florida

Standard Score	General Test	No <u>Disability</u>		Syst 135 to 139			90 &	85 to 89
2,6 2,2 1.8 1.7	1 1 2 1	1 1 1				x		
1.4 1.3 1.2	1 1 1	1 0 1				x		
1.1 . 1.0 . 9	1 1 1 1	1 0 1 1				x		
.8 .7 .6 .5		1 2 6				ХX		
。3 .2 .1	4 6 2 1 4	2 0 4			x			
0 ~ ,1 ~ ,2 ~ .3	4 2 5 3 1 2 1 2 2 2 2 2	2 2 5 3						
= .5 = .5 = .6	1 2 1	0 2 0				x		
7 8 9	2 2 2	0 5 5				x	•	*
~1.0 ~1.1 ~1.3 *1.4	3 1	2 1 1				x		
-1.6 -2.1 -2.3	1 2 1 1	2 1 0				x		
Total Elimin. Retained	63 17 2	50 16 2	0	O	1	11 x	0	1
(no fligh Retained	nt records							

TABLE 5

OCCURRENCE OF SYSTOLIC AND DIASTOLIC DISABILITIES
IN TERMS OF THE "INSTRUMENT TEST" DISTRIBUTION
Clewiston, Florida

Standard Score	Instru- ment Test	No <u>Disability</u>	140 & over	135 to	olic 100 & under	101 to 105	Dias 90 & over	tolic 85 to 89
2.0	1	į						
1.6 <b>1.5</b>	ì l	1 1						
1.4	1	õ				×		
1.3	2 2	2						
1.2	2	l				<b>X</b>		
1.1 .9	4	1 3 2 2 2 1				x		
,8	2	2						
<b>.7</b>	2	2						
ه6	2	1				X		
<b>ა</b> 5	2	0			x	X X		
.4 .3	4 2 2 2 2 2 2 1 1 4	<u>1</u>				*		
ູ້ຂໍ	ī	ā						
.1	4	1 3 1 3 1 2 2 3 0 3 3 2 1 1				I		
0	3 1	3						
≖ 。1 ~ 。2	i,	Ţ				x		
- 3	2	í				X		
<b>-</b> ,5	3	2				x		
~ <u>.</u> 6	2	2						
≈ .7	3	3						X
= ,8 - ,9	4 2 3 2 3 1 3 3 2	U 2						
-1.1	3	3						
-1.2	2	Ź						
<b>-1</b> .5	1	1						
-1.7	1 1	]						^
≃1.9 ~2.0	2	کے						
~2.4	ī	õ				x		
Total	63	50	o	o	J.	11	0	1
Elimin.	17	16				x		
Retained	. 2	, 2						
(no flight Retained	t recorce 1	1						

TABLE 6

OCCURRENCE OF SYSTOLIC AND DIASTOLIC DISABILITIES
IN TERMS OF THE "LINK TEST" DISTRIBUTION
Clewiston, Florida

Standard Score	Link <u>Test</u>	No <u>Disability</u>	140 &		olic 100 & under	101 to 105	Diasi 90 & over	tolic 85 to _89
1.9	1	1						
1.8	1	1 1 2						
1.6	3	2				x		
1.5	42132212336322322	3 2				x		
1.3	2	2	•					
1.2	1	1						
1.0	3	2				x		
.9 .8	2	1				*		
.8	2	2 1 2 1 2 2 3 6						
<u>.6</u>	1	1						
.5 .3 .2	2	2						
.3	3	2						X
.2	3	3						
0	6							
<u>1</u>	3	2			x			
3	2	2						
4	2	2						
6	3	3						
7	2	2						
9		2 2 3 2 2 2						
-1.0	4	2				XX		
-1.2	4 5 3 2	2				XXX		
-1.3	3	1 2				**		
<b>~1.</b> 5		i						
~1 <b>.</b> 6	1	1						
Total	63	50	0	0	1	11	0	1
Elimin.	17	16				x		
Retained	2	2						
(no flight		ds)						
Retained	1	1						

TABLE 7

OCCURRENCE OF SYSTOLIC AND DIASTOLIC DISABILITIES
IN TERMS OF THE "NIGHT TEST" DISTRIBUTION
Clewiston, Florida

Standard Score	Night <u>Test</u>	No <u>Disability</u>	140 &			101 to 105		tolic 85 to 89
2.7	1	1						
1.6	4	4						
1.3	1	O.				x		
1.1	8 1 2	406123433722431111111				<b>XX</b>		
•9	1	1						
.7		2						
.7 .5 .3 .2	4 3 4 8	3				x		
•3	4	4						
.2	3	3						
0	4	3				I		
2		7				X		
4	4	2				XX		
6	4	2				x		X
≂ •8	4 5 3 2 1	4				x		
9	٤	3						
-1.1	2	1			X			
-1.3		7						
-1.7	1	1						
-1.9 -2.1	ì	7						
-2.1 -2.8	i	0				x		
-£ 00	+	U				•		
Total	63	50	0	0	1	11	0	1
Elimin.	17	<b>16</b>	-	•	_	x	-	_
Retained	2	2						
(no flight		a contract of the contract of						
Retained	1	1						

TABLE 8

OCCURRENCE OF SYSTOLIC AND DIASTOLIC DISABILITIES
IN TERMS OF THE "APPLIED FLYING TEST" DISTRIBUTION
Clewiston, Florida

Standard Score	Applied Flying Test	No Disability	140 &	135 to	olic 100 & under	101 to	90 &	85 to 89
1.9	ľ	ì	•					
1.8	1	0				x		3/
1.7	1	1						
1.6	1.	1						
1.4 1.3	1	1 1						
1.2	2	2				*		
1,1	2	Õ				жX		
•9	3							
ŝ	2	ź						
.7	1	3 2 1						
•5	5	4				x		
•4	6	5						x
-3	2	2						
.2	122321562232424231	4 5 2 1 3 2				x		
- °J 0	2	3						
~ .2	7	7						
3	2	4 2						
~ •5	<u>.</u>	~						
~ "6́	2	2						
~ .7	3	2 2				x		
<b>~1.0</b>	1.	0				x		
-1,1	3	1				XX		
-1.2	ĺ	1						
-1.4 -1.6	1 1	1						
-1.8 -1.7	i	1 0				<b>.</b>		
-1.9	î	Ö				ж ж		
-2.Ó	ī	ĭ				•		
-2.1	ī	ī						
~2.4	1	0			x			
Total	63	50	0	0	1	11	0	1
Elimin.	17	16	-	-	-	X	•	•
Retained	2	2						
(no flight	t records							
Retained	1	1						

### APPENDIX 8b

TABLE O

#### OCCURRENCE OF SYSTOLIC AND DIASTOLIC DISABILITIES IN TERMS OF THE "FLYING TEST" DISTRIBUTION Miami, Oklahoma

Standard Score	Flying Test	No <u>Disability</u>	140 & over_	<u>Syst</u> 135 to <u>139</u>	clic 100 & under	101 to	Dias 90 & over	tolic 85 to 89
~1.8	1	0		x				
-1.6	3 2	3 1						
<b>-1</b> ₀5	2	1						x
-1.4	3	3						
~1.3	3 2 2	3 2 2						
-1.2		2						
-1.1	1	1 2						
<b>~1</b> ₀0	2 2 2	2						
~ .9	2	1		x				
- " <b>8</b>	2	2						
<b>~</b> .7	2	2 2 4						
<del>-</del> .6	4	4						
- 05	2	1 0		x				
= .4 = .3	2	3	XX					
• °2	2 2 3 1 2	<b>3</b> 1						
~ .1	2	î		ж				
°ô	2	1 1 1		x				
Ĭ.	ĩ	ī		<del></del>				
<u>.2</u>	3	3						
ءَ	1 3 5 4 2 2 2 2	- <del>3</del> 4				x		
₀5	4							
<sub>8</sub> 6	2	O.	XX					
.7	2	2						
. <b>8</b>	2	2						
۰9		Ţ				X		
1.0	4	4 0 2 2 1 3 1	X.					
1.1	1	1						
1.2 1.3	3	2						
1.4	2	1						
1.5	2	ۇ -						
1.6	~	~						
1.7	1 2 3 2	3 2 1 2 3				I		
	<del>,</del>	<del>-</del>				•		
Total	<b>7</b> 7	63	5	5	0	3	0	l
Elimin.	9	8				x		
Retained	2	2						
(no flight	t records)	)						

TABLE 10

OCCURRENCE OF SYSTOLIC AND DIASTOLIC DISABILITIES
IN TERMS OF THE "GROUND EXAM TEST" DISTRIBUTION
Miami, Oklahoma

Standard Score	Ground Exam Test	No Disability	140 & over	<u>Syst</u> 135 to 139	olic 100 & under	101 to 105	Dias 90 & over	tolic 85 to 89
-1.8	ı	0		x				
~1.7	2	0		XX				
-1.6	2232222233133223232314	22320222221232132323121223022						
<b>~1</b> 。5	2	2						
~1.4	3	3						
-1.3	2	2						
-1.2	2	0		x				X.
-1.1	2	2						
-1.0	2	2						
9	2	2						
g 6	2	2				_		
5	2	2	x			I		
4	1	r Y	•					
3	3	2	x					
2	3	<u> </u>	•					
- "ī	ź	ź						
Ö	2	ī				x		
.1	ž	3						
.2	2	2						
.3	3	3						
-4	2	2						
ء5	3	3						
ه.	1	1						
.7	4	2	X					
.8	ī	1						
.9	2	2						
1.0	2	2						
1,1	1 2 2 3 1 3	,	_					
1.2	2	2	X			_		
1.3 1.4	3	2		x		I		
1.5	í			•				
1,6	3	3						
1.7	3 1	1 3 1						
- 0 7	_	-						
Total	7 <b>7</b>	63	5	5	0	3	0	1
Blimin.	9	8 2	-			X		
Retained								
(no fligh	t record	s)						

TABLE 11

OCCURRENCE OF SYSTOLIC AND DIASTOLIC DISABILITIES
IN TERMS OF "CHARACTER AND LEADERSHIP" DISTRIBUTION
Midri, Oklahome

Standard Score	Char. and Lead.	No <u>Disability</u>	140 &	135 to	olic 100 & under	101 to	Dies 90 & over	
~1.7	1	1						
-1.6	3	3						
~1.5	1 3 3	1		I		I		
-1.4	1	1						
-1.3	4	3		x				
-1.1	4 3	2		x				
-1.0	4	4						
- "8	<b>4</b> <b>6</b>	4 3		x		<b>T</b>		
- 5	10	9						X
Ō	11	7	XXX	x				^
ւ5	7	6	x					
.8	5	5						
1.0	12	11	x					
1.5	2	2						
1.7	4	4						
1.9	ì	ĺ						
Total	77	63	5	5	0	3	0	1,
Elimin,	ġ	8	•	•	_	<b>x</b>		
Retained	ź	2				<del></del>		
(no flight								

TABLE 12

OCCURRENCE OF SYSTOLIC AND DIASTOLIC DISABILITIES
IN TERMS OF THE "GENERAL TEST" DISTRIBUTION
Migmi, Oklahoma

Standard Score	General Test	No Disability	140 &	135 to	olic 100 & under	101 to	Dias 90 & over	tolic 85 to 89
1.9	3	2		£				
1.5	3 1	1						
1.4	4 2 1	4 1 3 2 2						
1.3	2	7 						x
1.2	1	ì						
1.1	3	3						
٠9	3 4 2 2 3 1	2	XX					
.B	2	2		_				
a <b>?</b>	2	1 2		x				
<sub>2</sub> 5	3	í		x				
.4 .3	i	1						
.2	1							
.1	<b>4</b> 6	7						
۰ô	5	2		<b>3</b> 53		x		
ĭ	5 2 3 3 2 1 5 3 2	4 6 2 3 1 2 1 5 2 2 1 2		,				
- 2	3	<u>3</u>						
<b>-</b> ₃3	3	ì	XX					
4	2	2						
- "5	l	ı						
<b>-</b> ₅6	5	5						
~ <sub>0</sub> 7	3	2				x		
~ "8	2	2						
9	1	1						
<b>-1.1</b>	4	2	x			x		
-1.2	1	1						
-1.5	1	ļ						
-1.6	1 1	1 1						
-1.7 -1.8	2	2						
-1.9	î	î						
-1.9 -2.0	ī	i						
~2.5	i	ì						
0/	*	•						
Total	<b>7</b> 7	63	5	5	0	3	0	1
Klimin.	9	8				x		
Retained	2	2						
(no flight	records)							

TABLE 13

OCCURRENCE OF SYSTOLIC AND DIASTOLIC DISABILITIES
IN TERMS OF THE "INSTRUMENT TEST" DISTRIBUTION
Mismi, Oklahoma

Standard Score	Instru- went Test	No <u>Disability</u>	140 & over	135 to		101 to 105		tolic 85 to 89
1.9	1	ı						
1.8	1	1						
1.7	1	0						X
1.6	1	1						
1.5	2	2						
1.2 1.0	4 1	1 1 3	x	XX				
.9	3	3						
ို့နိ	á	í						
.7	3	3						
್ಷ6	3	2		x				
ه5	3 4 3 1 2 6 4 3 8 5 3 4 3 2 1	4 3 2 1 2 5 3 3 8 3 2 4 3 1 1 2 2						
٠4	2	2						
٠3	6	5	x					
.2 .1	4	3		X				
°1	ر بو	) R						
~ 。2	5	3	I			x		
- °3	ล์	2	I			^		
- 4	á	Ž	_					
5	ž	3						
<b>8</b>	2	ĺ		x				
<del>-</del> 。9	ı	1						
-1.0	2	2						
-1.3	1	0				x		
-1.4	1	1						
-1.5 -1.6	1	1						
-1.7	i	1 1						
~1.9	i	î						
-2.4	ī	î						
-2.6	ī	ō	x					
-3.3	ī	Ô				x		
Total	<b>7</b> 7	63	5	5	0	3	0	1
Elimin.	, ,	ž			•	x	•	-
Retained	Ź	2						
(no flight								

TABLE 14

OCCURRENCE OF SYSTOLIC AND DIASTOLIC DISABILITIES
IN TERMS OF THE "LINK TEST" DISTRIBUTION
IMAMI, Cklahoma

				Syst	<u>olic</u>	_	Djag	stolic
Standard	Link	No	140 &	135 to	100 &	101 to	90 &	85 to
Score	<u>Test</u>	<u>Disability</u>	o <b>ve</b> r	139	under	105	OAGL	<u>. 89</u>
3.0	1	0		X				
2.3	1	l						
2.1	2	1		x				
1.4	1	1						
1.2	3	3						
۰9	1 2 1 3 6	5						x
.5	2	1 3 5 2						
.2	18	13	XX	x		.EX		
0	9	8	x					
2	13	11	x	x				
~ °5	3	2				x		
7	í							
~ ຶ່9	4 7 1 2	4 6 1 1 2	x					
-1.2	า๋	ĭ						
-1.4	5	์ า		X				
-1.6	2	2		^				
-3.2	2	2						
~J.E	2	٤						
Total	77	63	5	5	0	3	0	1
Blimin.	9	8	-	-		x		
Retained	ź	2						
(no flight								

TABLE 15

OCCURRENCE OF SYSTOLIC AND DIASTOLIC DISABILITIES
IN TERMS OF THE "NIGHT TEST" DISTRIBUTION
Hiami, Oklahoma

Standard Score	Night <u>Test</u>	No <u>Disability</u>	140 & <u>over</u>	135 to	olic 100 & under	101 to 105	Dias 90 & over	tolic 85 to <u>69</u>
2.7	1	1						
2,4	1 2	0				x		
1:7	1	2 0						
1.6 1.5	i	1		x				
1.3	i	1						
1,2	i	i						
1.1		2	x	x				
<u> </u>	3	3		-				
.7	2	2						
.6	4 3 2 3 11	3						
•6 •5	11	9		IX			`	
.4 .3	2	1	X					
•3	1	1						J
.2	1 8 3 2 3 4 6 2 3 1 2 3 1	1123239111722235131221						
0	8	7	x					
1	3	2						x
3 4	2	2	_					
~ .5	,	2	I I					
= ,6	6	5	•	x				
7	2	í		•		x		
~ .°8	3	3				_		
<b></b> 9	í	ĺ						
<b>~1.0</b>	2	2						
~ <b>l</b> .l	3	2				x		
-1.8								
<b>-2</b> .3	4	4						
Total	77	63	5	5	0	3	0	1
Elimin.	9	É			_	x	-	_
Retained	2	8 2						
(no flight	records	3)						

TABLE 16

OCCURRENCE OF SYSTOLIC AND DIASTOLIC DISABILITIES
IN TERMS OF THE "APPLIED FLYING TEST" DISTRIBUTION
Miami, Oklahoma

Standard Score	Applied Flying Test	No <u>Disability</u>	140 & over	135 to			90 &	tolic 85 to 89
2.6	1	ı						
1.8	1	1						
1.7	7	1 6 3 3 1 2		x				
1.2	3	3						
1.0	3 2 3 1 2	3						
.8	2	1		x				
.7	3	2				*		
.6	1	0	I					
5ء	2	2 1 3 2 4 3 1 9 1 5						
۰4	1	1						
۰3	4	3		X				
ء2	4 3 2	2	x					
.1	2	2				**		
0	4	4						
<b>~</b> ₀2	4	3						x
3	2	1	I					
4	10	9	I					
5	1	1						
- "6	5	5						
7	2 2 1 2 3	1 2 0 1 2 2	x					
8	2	2						
9	1	0				I		
-1.0	2	1		x				
-1.1	3	2				X ~		
-1.3		2						
-1.4	1	1						
-1.5	1	0		X				
-1.7	1	Ī				•		
-1.8	2	2						
-2,2	1	1						
Total	<b>7</b> 7	63	5	5	0	3	0	1
Elimin.	` <del>9</del>	É	•		-	X ·	_	_
Retained	ź	2				'		
(no flight								

#### APPENDIX 8c

#### TABLE 17

#### OCCURRENCE OF SYSTOLIC AND DIASTOLIC DISABILITIES IN TERMS OF THE "FLYING TEST" DISTRIBUTION Terrell, Texas

Standard Score	Flying Test	No <u>Disability</u>	140 & over	§vat 135 to 139	<u>olio</u> 100 & under	101 to _105		85 to 89
-1.8 -1.7 -1.6 -1.5 -1.3 -1.2 -1.0 8 6 5 4	121413322221222	121413322221222322						
2 1 0 .1 .2 .4 .5 .6 .7 .8 9 1 .2 1 .3 1 .5 1 .7	133222212223222313332332322221	32213022322322221	x x	x x				
Total Elimin. Retained (no flight	74 7 6 records	69 5 6 3)	2	3 xx	0	O	0	0

TABLE 18

OCCURRENCE OF SYSTOLIC AND DIASTOLIC DISABILITIES
IN TERMS OF THE "GROUND EXAM TEST" DISTRIBUTION
Terrell, Texas

Standard Score	Ground Exam Test	No <u>Disability</u>	140 & over			101 to 105	Diasi 90 & over	85 to
-1.8 -1.7 -1.6 -1.5 -1.3 -1.2 -1.1 -1.0 8 6 5 4 3 3 3 3	121312322332123123223222	1213123222321231232222231	x			,		
0 •1 •2 •3	2 2 3 2	2 2 2 2		x				
.4 .5 .6 .7 .8 .9 1.0	2 2 3 2 2 1 3 2	2 3 1 1 2 2	x	x				
1.2 1.3 1.4 1.5 1.6 1.7	1 3 2 1 2 2	1 3 2 1 1 2		x				
Total Elimin. Retained (no flight	74 7 6 t records 1	69 5 6 5	2	3 ***	0	0	0	0

OCCURRENCE OF SYSTOLIC AND DIASTOLIC DISABILITIES
IN TERMS OF THE "CHARACTER AND LEADERSHIP" DISTRIBUTION
Terrell, Texas

Standard Score	Char. and Lead.	No <u>Disability</u>	140 & over	Syst 135 to 139	olic 100 & under	101 to _105	Dies 90 & over	tolic 85 to _89
-1.7	1	1						
~1,6	12232321326	2 2 3 2 2 2 0						
~1.5	2	2						
~1 .4	3	3						
-1.3	2	2						
~1.2	3	2		I				
-1.1	2	2						
-1.0	1		X					
<b>9</b>	3	2 2 6 '		x				
8	2	2						
<b>~ .7</b>	6							
- 4	4 6	4 6						
1	6	6						
٠ <u>1</u>	1 4 1 2 4 3 6 4 3 4 3 2	1		1	1			
.2	4	4						
3،	1	1						•
•4	2	2						
•5 •7	4	4 3 6						
•7	۶	3						
.8	0							
1.1	4	4 2						
1.3	3			X				
1.4	4	4 2 2						
1.5	3	2	X					
1.7	2	2						
Total	74	69	2	3	0	0	0	0
Elimin.	7	5		<b>X</b>	-	-	_	_
Retained	6	5 6		_				
(no flight		1)						
Retained	1	1						

TABLE 20

OCCURRENCE OF SYSTOLIC AND DIASTOLIC DISABILITIES
IN TERMS OF THE FORTERAL TEST\* DISTRIBUTION
Termal, Texas

Standard Score	General Test	No <u>Disability</u>	L40 &	Syst 135 to 139		101 to 105	90 &	tolic 85 to _89
2.2	2	2						
2.1	1	1						
1.6	2	2 1						
1.5	1	1						
1.4	1	1						
1.2	1 2 3 5 4 3 2 2	1						
1.0	2	2						
•9	2	3		_				
.7 .6	7	4		x				
•5	4 2	4						
.4	á	2		•				
.3	2	$\tilde{2}$						
.1		3	x					
1	4 6 9 1	1 1 2 3 4 4 3 2 2 3 6	-					
2	9	8		<b>x</b>				
3	1	1						
4	1	1						
5	2	2						
6	2	2						
7	3	2	X					
8 -	Ţ	1						
9 -1.0	2	2						
-1.0 -1.2	<i>)</i>	,						
-1.3	5	1		x				
-1.5	1 2 3 1 2 3 2 2 2	1 2 2 1 2 3 2 1 2 3		•				
-1.7	$\tilde{3}$	3						
-2.1	3 1	í						
-2.6	1	1						
Total	74	69	2	3	0	0	0	0
Elimin.	7	5		XX				
Retained	6	6						
(no flight		_						
Retained	1	1						

OCCURRENCE OF SYSTOLIC AND DIASTOLIC DISABILITIES
IN TERMS OF THE "INSTRUMENT TEST" DISTRIBUTION
Terrell, Texas

Standard Score	Instru- ment Test	No <u>Disability</u>	140 &	135 to		101 to 105	90 &	tolic 85 to _89
2.3	ı	ı						
2.1	1	1						
1.9	1	1 2					~	
1.7	2	2						
1.6	j	1						
1.5	ļ	Ţ						
1.4 1.1	1 1	<u> </u>						
1.0	± ;	า์						
•9	2	2						
ė	~ 2	2						
.6	1 2 2 6	11122544265121351315211		I				
۰5	4	4						
.4	4	4						
.3 .2	4 2 6	2						
<sub>a</sub> 2	6	6		,				
0	5 1 2 2 3 5	5						
1	Ţ	7						
~ .2 ~ .3	2	2		=6				
∞ .j ≈ .4	2	3		×				
~ °5	5	5						
6	í	í						
~ .8	4	3		x				
-1.0	i	ĺ						
~1.2	1 6 3 1	5	x					
<b>-1.3</b>	3	2.	x					
<b>-1.7</b>	1	1						
-1 .8		1						
-1.9	2	2						
-2.5	1	1						
Total	74	68	2	3	0	O	0	0
Elimin.	7	5	~	) )(X)	•	¥	J	-
Retained	6	5 6						
(no flight	records)							
Retained	1	1						

TABLE 22

OCCURRENCE OF SYSTOLIC AND DIASTOLIC DISABILITIES
IN TERMS OF THE "LINK TEST" DISTRIBUTION
Terrell, Texas

				Syst			_	tolic	
Standard	. Link	No		135 to		101 to	=	85 to	
Score	<u>Test</u>	<u>Disability</u>	OAGL	139	under	<u> 105                                    </u>	OVEL	_69	
0 1	,	2		4	*			•	
2.4	3	•							
1.5	4	4							
.7	24	22	XX						
<b>⇒ ₀2</b>	20	19		x					
<b>-1</b> .0	18	16		XX				y.	
<del>-</del> 1.9	5	5				,			
			_	_	_	_	_	<b>₹</b> _}	
Total	74	69	2	3	0	0	0	Ű	
Blimin.	7	5		XX.					
Retained	6	6						-	
	(no flight records)								
Retained	1	1							

TABLE 23

OCCURRENCE OF SYSTOLIC AND DIASTOLIC DISABILITIES
IN TERMS OF THE "NIGHT TEST" DISTRIBUTION
Terrell, Texas

Standard Score	Night <u>Test</u>	No Disability		Syst 135 to 139		101 to 105	90 &	stolic 85 to 89
	_	-						
2.4	1	1 7 1 1						
1.5	1 8 1 1	1	_					
1.3	8	7	X					
1.1	1	Ţ						
1.0	Ţ	1						
۰ <u>7</u>	1							
5.	20	18 1 4 2 3 5 3 3 3 6 1 1 1 1 4 1	x	x				
٠4	1	1						
ه2 .	4	4						
0	3	2		X				
- "l	3	3						
و	5	5						
- 4	4 3 3 5 3 3 3 6 1 1 1	3						
6، –	3	3						
<b>9</b>	3	3						
-1.1	6	6						
~1.2	1	1						
<del>-</del> 1 .4	1	1						
~1.6	1,	1						
-1.7		1						
~1.9	1 5 1	4		x				
-2.5	1	í						
Total	74	69	2	3	0	0	0	0
Elimin.	7	5	~	жx	-	-	_	_
Retained	6	6		<del>,</del> -				
(no flight								
Retained	1	1						

TABLE 24

OCCURRENCE OF SYSTOLIC AND DIASTOLIC DISABILITIES
IN TERMS OF THE "APPLIED FLYING TEST" DISTRIBUTION
TOTTOIL, Texas

Standard Score	Applied Flying Test	No Disability	140 & over	135 to	olic 100 & under	101 to 105	Dias 90 & over	tolic 85 to 89
3.4	1 2	1						
2.1	2	2						
1.6	1 3 3 6 5 2 3 4	0	X					
1.3	1	1						
1.2	3	1 3 6 5 2 3 4						
1.1	3	3						
.8	D E	Ō						
.7 .6	2	2						
.5	2	2						
.4	,	, ,						
.3	4	4						
.2	4							
Õ	4	3		x				
~ .l	4	4 3 3		x				
a .2	ĺ	ī						
3	ı	1						
<b>4</b>	2	1 2 1 3 1						
- •5	ı	1						
6	3	3						
~ .7	1	ļ						
8	1	1						
~ .9	2	2						
-1.0	Ţ	7						
-1.1 -1.2	1 2 1 3 1 2 1 3 3	3						
-1.4	4	1 2 1 3 3 2	x	x				
~1.7	ĩ	ĩ	-	•				
-1.8	ī	ī						
-1.9	ī	ī						
-2.0	ī	ī						
Total	74	69	2	3	0	0	0	O
Elimin.	7	5 6		XX				
Retained	6							
(no fligh		s)						
Retained	ı	ı						

#### APPENDIX 8d

TABLE 25

## OCCURRENCE OF SYSTOLIC AND DIASTOLIC DISABILITIES IN TERMS OF THE "FLYING TEST" DISTRIBUTION Terrell, Texas

Standard Score	Flying Test	No Disability	140 & over	Syst 135 to 139	nnget 100 %	101 to 105	Dias 90 & over	tolic 85 to 89
-1.8	1	ı						
-1.7	1	1						
-1.6 -1.5	1	0	_	X				
-1.4	2	1	X					x
~î.3	2	2						*
-1.2	22233232132322213113251	112322310220						
-1.1	3	2		x				
- °5	2	2						
≈ .8 = .7	3	<i>3</i>		_				
7 6	ح ٦	T	x	x				
5	3	2	<i>2.</i>	1				
- 4	2	2		_				
~ <sub>•</sub> 3	3	2	x					
2	2		XX					
~ .1	2	2						
0 •1	2	0	XX					
.2	7 T	1 3 1						
.3	1	1						
.4	ī	ī						
<sub>8</sub> 5	3	1 1 2	XX					
ه.	2	2						
.7	5	5 0						
.9			x					
1.0 1.1	4	4						
1.2	1 1	1						
1.3	2	1 1 3 1	x					
1.4	3	3	•					
1.5	í	ĩ						
1.6	4	4						
1.7	1	1						
Total	71	55	11	4	0	0	0	1
Elimin.	iô	7	XX	ı	· ·	J	•	a.c.
Retained	12	σό	X	<b>(C</b> ■	X			
(no flight					_			

TARLE 26

OCCURPENCE OF SYSTOLIC AND DIASTOLIC DISABILITIES
IN TERFS OF THE "GROUND EXAM TEST" DISTRIBUTION

Mesa, Arizona

Standard Score	Ground Exam Test	No <u>Disebility</u>	140 & <u>over</u>	135 to	olic 100 & under	101 to 105	3 OV 3 OV 1970	tollo 85 to 89
-1.6 -1.5 -1.4 -1.3 -1.2	2 3 2 3 3 3 2 2	2 2 1 2	x x					x
~1.0 ~ .9 ~ .8 ~ .7	4	3 0 1 1	3000K	x x				
6 5 4 3 2	1 1 2 1 4	1 1 1 4	×					
1 0 .1 .2 .3	1 2 2 1 3	1 2 2 0 2	31 X					
.4 .5 .6 .7	21322222213312	2 2 2 2 2 2 2 1 2 1 2						
.9 1.0 1.1 1.2	2 2 1 3	2 2 1	*	x				
1.3 1.4 1.5 1.6 1.7	1 2 2 3	1 2 1 2	x	x				
Total Elirin. Retained (no fligh	71 10 12 at record	55 7 10 (s)	11 xx x	4 *	0 <b>x</b>	0	0	1

OCCURRENCE OF SYSTOLIC AND DIASTOLIC DISABILITIES
IN TERMS OF THE "CHARACTER AND LEADERSHIP" DISTRIBUTION
Mess, Arizons

Standard Score	Char. and Lead.	No <u>Disability</u>	140 & over	<u>Syst</u> 135 to <u>139</u>	olic 100 & under	101 to 105	Dies 90 & over	tolic 85 to 69
-1.7 -1.6 -1.5 -1.4 -1.3	1 1 2 3 2	1 1 0 3 2	хх					
-1.2 -1.1 -1.0 9	2 3 2 2	3 2 2 2 2 1 2		x x				
8 7 6 5	2 2 2 1	2 1 1 3 1	x	x				
4 3 2 1 0	1232232222131231232223223221211	3 1 1 1	X XX					
.1 .2 .3 .4	2 3 2 2	1 2 1	x x x	x				
.5 .6 .7 .8	2 3 2 2	1 2 3 2 1 3 2 1 1	x					
.9 1.0 1.1 1.2 1.3	2 2 1 2	2 2 1	x					
1.4 1.5 1.6 1.7	1 2 2 1	1 2 2 1 0						
1.9 Total Elimin. Retained	71 10 12	55 7	11 xx x	4 *	0 <b>x</b>	0	0	x 1
(no flight								

TABLE 28

OCCURRENCE OF SYSTOLIC AND DISSTOLIC DISABILITIES
IN TERMS OF THE "GENERAL TEST" DISTRIBUTION

Mosá, Arizona

g		a.	3.5		olic			tolic
	General	No		135 to		101 to		85 to
Score	Test	Disebility	<b>197</b> 0	139	under	105	over	89
3.2	1	,						
	2	<u>.</u>						
1.9	2	1						X
1.6	÷	Ŧ						
1.3	4 1	3		x				
.8	1	1						
.7	18	13	XXX	XX				
0	12	8	XXXX					
3	3	2	x					
6	18	15	75	x				
<b>-</b> ₀9	2	ì	x					
-1.3	4	4						
-1.9	4	4						
-2.5	i	i						
		_						
Total	71	55	11	4	0	Ω	0	1
Elimin.	io	7	<b>3</b> XX	I	-	-	_	_
Retained	12	10	x		_			
			^		X			
(no fligh	t records	,						

TABLE 29

OCCURRENCE OF SYSTOLIC AND DIASTOLIC DISABILITIES
IN TERMS OF THE "INSTRUMENT TEST" DISTRIBUTION
Mesa, Arizona

	Instru-			Syst	olic		Dias	tolic
Standard	ment	No	140 &	135 to	100 &	101 to	90 &	85 to
Score	Test	<u>Disability</u>	Over	139	under	105	OVEL	89
1.0	•	2						
1.8	2	2 2						
1.4	4 5		x	X				
•9	5	4						X
.8	1	1						
.7	2	1 2						
.5	18	14	ж	XX				
.1	8	<u> 5</u>	XX					
∽ ₀ <b>3</b>	18	14	XXX	x				
<b></b> 7	2		X					
-1,1	3	3						
-1.6	3	1 3 2	x					
-2.0	2	2						
-2.4	2	2						
-3.6	1	ì						
Total	71	55	1 <b>1</b>	4	O	0	0	J.
Elimin.	10	7	XX	x				
Retained	12	10	ж		x			
(no flight		<del>.</del>	72		•			

OCCURRENCE OF SYSTOLIC AND DIASTOLIC DISABILITIES
IN TERMS OF THE "LINK TEST" DISTRIBUTION
Mesa, Arizona

				Syst	olic		Diag	tolic
Standard	Link	No	140 &	135 to	170 &	101 to	90 ♣	85 to
Score	Tost	Disability	over	139	under	105	<u>over</u>	_89
2,4	2	2						
2.0	5	4						x
1.0	10	6	XXX	x				
5 .5	9	9						
Ō	9	5	XX	XX				
<b>-</b> .4	21	18	XXX					
- o <b>9</b>	10	6	<b>.</b>	x				
-1,4	2	2						
-1.9	3	3						
Total	71	55	11	4	O	0	0	1
Elimin.	10	7	XX	x				
Retained	12	10	x		x			
(no flight	record	lø)						

TABLE 31

OCCURRENCE OF SYSTOLIC AND DIASTOLIC DISABILITIES
IN TERMS OF THE "NIGHT TEST" DISTRIBUTION

Mesa, Arizona

		,		Şyst	olic		Dias	tolic
Standard	Night	No	140 &	135 to	100 &	101 to	90 &	85 to
Score	Test	<u>Disability</u>	over	139	under	105	<u>over</u>	89
1.7	5	3	<b>30</b> 0					
1.5	3	3						
1.3	1	0		x				
۰9	1	1						
۰7	19	14	2000	XX				x
3ء	1	Ó	X					
<b>-</b> ₀2	28	22	XXXXXX	x				
~ 04	ı	0	x					
-1.2	6	6						
-2.1	6	6						
Total	71	55	11	4	O	0	o	1
Elimin.	10	7	XX	x				
Retained	12	10	x		x			
(no flight	t records	3)						

TABLE 32

OCCURRENCE OF SYSTOLIC AND DIASTOLIC DISABILITIES
IN TERMS OF THE "APPLIED FLYING TEST" DISTRIBUTION
Mesa, Arizona

	Applied		•	Syat	<u>0110</u>		Dias	tolic
Standard	Flying	No	140 &	135 to		101 to	90 ♣	
Score	Test	Disability	OVer	139	under	105	OVOI	89
2.4	3	1	x	x				
1.5		3	ī	_				
1.3	ĩ	í	^					
1.1	2	i		x				
1.0	4 1 2 2	ī		I				
.7	13	12	x	-				
å <b>6</b>	ĩ	0	-	x				
ຶ່ 5		ĩ						
³2́	1 1	Õ	x					
,ī	ī	Ŏ	<u> </u>					
~ ¸2	17	15	x					x
4	ì	Ő	x					-
<b>-</b> .6	5	4	x					
-1.Î	14	11	XXX					
<b>-1.</b> 5	_; 3	3						
-1.9	14 3 2	2						
Total	71	55	11	4	0	0	0	1
Elimin.	10	7	XX	x		~		
Retained	12	10	x		x			
(no fligh	t records	ı)						

CRITERION STANDARD SCORE DIVISION USED IN COMPUTATION OF CHI-SQUARE'S

### CRITERION STANDARD SCORE DIVISION USED IN COMPUTATION OF CHI-SQUAREDS

### VISUAL DEFECT AND CARDIOVASCULAR (Elementary)

Mesa. Arizona	
Flying Test ) -1.0 and bels	ow.
Ground Exam (5 to9 0 to4	
Character and Leadership .1 to .5 .6 to 1.0	
1.1 and above	70
General 1.1 and above	ve
Instrument / .6 to 1.0 Night / .1 to .5	
Link 0 to4	
Dual to 1st Solo (Day)5 to9 Total Dual (Day) -1.0 and belo	OW
•	
Terrell, Texas	
Flying Test ) -1.0 and belo	
Ground Exam (5 to9 0 to4	
\ .1 to .5	
Character and Leadership .6 to 1.0	
•	
General 1.1 and above 1.6 to 1.0	
Night .1 to .5	
Dual to 1st Solo (Day) 0 to4	
Total Dual (Day) /5 to9	
-1.0 and belo	OTI
1.1 and above	
.1 to 1.0	
0 to4 Link5 to9	
-1,0 and belo	

### VISUAL DEFECT AND CARDIOVASCULAR (Elementary)

Test	Miani. Oklahoma	Standard Score
Flying Test	)	-1.0 and below
Ground Exam	} .	5 to9 0 to4
Character and Leaders	sh <b>i</b> p	.1 to .5 .6 to 1.0
	- /	1.1 and above
General -	)	1.1 and above
Tactument	<b>{</b>	.6 to 1.0 .1 to .5
Instrument	(	0 to4
Night	)	5 to9
	,	-1.0 and below
*		1.1 and above
- a - s.		.1 to 1.0 0 to9
L1nk		-1.0 and below
		1.1 and above
		.6 to 1.0
		.1 to .5
Dual to 1st Solo (Day	<b>7</b> ) }	0 to4
Total Dual (Day)	<b>}</b>	5 to9 -1.0 and below
TO MATE (DATA)	<i>)</i>	no score

### VISUAL DEFECT (Elementary)

Test	Clewiston, Florida	Standard Score
Flying Test	)	-1.0 and below
Ground Exam	{	5 to9 0 to4
Character and Leadersh	ip)	.1 to .5 .6 to 1.0 1.1 and above
	,	1.1 and above .6 to 1.0
General	)	.5 to9 -1.0 and below
Instrument		1.1 and above
Night	)	.1 to 1.0 0 to9 -1.0 and below
Link Dual to let Solo (Day) Total Dual (Day)	}	1.1 and above .6 to 1.0 .1 to .5 0 to4 5 to9 -1.0 and below

### CARDIOVASCULAR (Élementary)

Test		Standard Score
	Cleviston, Florida	
Flying Test	)	-1.0 and below
Ground Exam	}	5 to ≒.9 0 to4
CIOMA: BAGM	\	.1 to .5
Character and Leader	ship)	.6 to 1.0
	<del>-</del> ,	1.1 and shove
		1.1 and above
_		.1 to 1.0
General		0 to9
*		-1.0 and below
		.6 and above
		.5 to4
Instrument		5 to9
<b>*</b>		-1.0 and below
		.6 and above
		.1 to .5
llight	•	0 to9
		-1.0 and below
Link	)	1.1 and above
	. 1	.6 to 1.0
Dual to 1st Solo (Day	y) {	.1 to .5
Madal Dual (Dam)	<b>\</b>	0 to -,4
Total Dual (Day)	)	5 to9
		-I'O STUT DETOM

S. T.

### VISUAL DEFECT AND CARDIOVASCULAR (Advanced)

Test Mesa. Arizon	Standard Score
Flying Test	-1.0 and below
Ground Exam	5 to9 0 to4
Character and Leadership	.1 to .5 .6 to 1.0 1.1 and above
General	1.1 and above ,1 to 1.0 0 to4 5 to9 -1.0 and below
Instrument	1.1 and above .6 to 1.0
Link	.1 to .5
Applied Flying	0 to4 5 to9 -1.0 and below
Gardiovascular - A	dvanced
Night	1.1 and above .6 to 1.0 .1 to .5 0 to4 5 and below
Visual Defect - Ad	vanced
Night	1.1 and above .6 to 1.0 .1 to .5 0 to9 -1.0 and below

### VISUAL DEFECT AND CARDIOVASCULAR (Advanced)

Test	Standard Score
Terrell. Teres	
Flying Test	-l.0 and below
Ground Exam	5 to9 0 to4 .1 to .5
Character and Leadership)	.6 to 1.0 1.2 and above
General )	1.1 and above
Instrument	.1 to .5
7	0 to4
Night	5 to9 -1.0 and below
Applied Flying	Tio was boxen
Link	1.1 and above .1 to 1.0 0 to9
Time.	-1.0 and below
Miami, Oklahoma	
Flying Test	-1.0 and below
<b>\</b>	-,5 to9
Ground Exem	0 to ~.4 .1 to .5
Character and Leadership	.6 to 1.0
	1.1 and above
General.	1.1 and above
Instrument	.6 to 1.0
Night	.1 to .5 0 to4
Applied Flying	5 to9
	-1.0 and below

### VISUAL DEFECT AND CARDIOVASCULAR (Advanced)

Test Cleviston, Florida	Standard Score			
Flying Test	-1.0 and below			
Ground Exam	5 to9 0 to4			
Character and Leadership	.1 to .5 .6 to 1.0			
	1.1 and above			
General )	1.1 and above			
Instrument Night	.6 to 1.0 .1 to .5			
L1nk	0 to4			
Applied Flying	5 to9 -1.0 and below			
(Elementary)				
All Schools*				
Suitability:				
Bomber	3			
Fighter	2			
Instructor )	1			
	0			
	•			
	3			
Suitability (Highest Rating)	2			
(1178hana 140 Ame)	1			

<sup>\*</sup>Scores on suitability were unavailable for elementary students at Miami, and for edvanced students at all schools.

DISTRIBUTION OF DEFFECT CASES IN ORDER OF FLYING TEST RATING, LOW TO HIGH (Clewiston, Florida)

#### TABLE 1

CASES WITH VISUAL DEFECT IN CLEWISTON, FLA. CLASSES IN ORDER OF FLYING TEST RATING LOW TO HIGH (Measures below Army and Navy standards are underlined)\*

Flying Visual R.E.	Acuity L.E.	Depth Percep- tion		at 6	ophor meter R.H.	<u>B_</u>	Prism Diver- gence	Angle Convers PcB.	of Accommo- gence dation Pd. Rt. Lt.
93 20/20 88 20/40-20/20 85 20/20 75 20/30-20/20 75 20/30-20/20 68 20/25-20/20 64 20/20 52 20/30 52 20/30 52 20/30 52 20/30 52 20/30 52 20/20 44 20/20 44 20/20 44 20/20 44 20/20 44 20/20 44 20/20 44 20/20 40 20/20 20 20/20	20/20 20/40-20/20 20/20	30614 98 6 210 8 22 4 30 12 9 9 13 28 23 11 7 29 7 10 3 12 12 12 12 12 12 12 12 12 12 12 12 12	00100020500013004040002300	1002020102400001000000000	000000000000000000000000000000000000000	000000000000000000000000000	46744654658485658686864589	49 470 55 56 470 542 55 55 55 55 55 55 55 55 55 55 55 55 55	64 9.0 9.0 70 7.5 8.0 65 14.0 14.0 69 8.5 8.5 63 14.0 14.0 64 13.0 13.0 61 9.0 8.5 64 15.0 15.0 52 10.0 10.0 67 11.0 12.0 62 11.0 11.0 60 14.0 14.0 63 10.0 8.5 60 7.5 7.0 61 11.0 11.0 62 14.0 15.0 62 14.0 15.0 62 14.0 15.0 63 6.0 6.0 67 7.0 7.0 59 8.5 7.5 63 8.5 9.0 65 11.0 11.0 64 10.0 10.0 64 10.0 10.0 64 10.0 10.0 63 13.0 13.0
20/20 13 20/20 7 20/20 7 20/20 2 20/20 20/20 20/20 20/20 20/20 20/20 20/20	20/20 20/20 20/20 20/20 20/20 20/20 20/15 20/20 20/20 20/20 20/20 20/20	7 8 29 26 29	0 1 0 2 0 shou	0 0 0 1	00000 000000		\$6764 4448 <u>10</u> 8	53 50 45 50 65 50 60 52 55 50	62 11.0 12.0 66 14.0 14.0 65 9.5 10.0 63 8.5 8.5 64 11.0 10.0 62 12.0 12.0 60 12.0 12.0 64 8.0 12.0 55 11.0 11.0 60 11.0 11.0 63 9.0 7.5

<sup>\*</sup>Cases underlined in black are below Navy standards Cases underlined in red are below Army standards.

TABLE 1 (Continued)

### CASES WITH VISUAL DEFECT IN CLEMISTON, FLA. CLASSES IN ORDER OF FLYING TEST RATING LOW TO HIGH

				Char.			•	_		•			
Flying		Ground		and		`Gen-		Instru-		Night		Link	
Test	$\mathbf{S}_{\bullet}\mathbf{S}_{\bullet}$	Exam	<b>S.S.</b>	Lead.	5.5	<u>eral</u>	s.s.	ment	<u>s.s.</u>	<u>Test</u>	S.S.	Test	<u>s.s.</u>
93	1.8	80	1.2	55	-4	<i>3</i> 30	-1.2	135	-1.3	54	-1.3	25	-1.9
88	1.6	61	۰5	55	-4	330	-1.2	135	-1.3	54	-1.3	37	.3
85	1.5	44	2	9	-1.3	330	-1.2	142	-1.0	69	.5	30	-1.0
75	1.1	77	1.1	72	1.0	360	6	125	-1.8	<del>69</del> .	.5	24	-2.1
75	1.1	68	.7	31	~ .5	348	<b>~ .8</b>	135	-1.3	<b>58</b> `	9	36	.5
75	1.1	17	-1.2	86	1.6	348	8	142	+1.0°	58	9	<i>3</i> 6	.1
68	.8	<i>3</i> 6	5	72	1.0	348	8	142	-1.0	69 58	<b>~5</b>	34	- "2
64,	۰,7	59	-4	84	1.5	360	6	142	-1.0	- 58	9	36	.1
52	.2	62	•5	28	6، ~	360	6	150	~ .6	60	6	44	1.6
52	.2	52	.1	23	6	360	- "6	150	6	60 `	6	<b>36</b>	.1
52	.2	34	<b>⊸ .6</b>	19	~ .9	360	6	150	6	60	6	37	.3
52	2,	3	~1.6	12	-1.2	360	6	142	-1.0	58	9	46	2.0
50	.1	63	۰5	31	5	330	-1.2	170	-4	78	1.5	38	۰5
44	<b>~</b> 。1	87	1.5	31	5	380	6	187	<b>T.3</b>	. 60	6	28	-1.3
44	<b>1</b>	70	.8	78	1.3	360	6	170	.4	76	1.5	<b>3</b> 2	6
44	- "l	28	8	55	.4	<b>360</b> ,	6	187	1.3	60,	6	34	2
44	1	8	-1.6	3	1.5	360	- •6	170	-4	69	۰,5	40	۰9
42	2	82	1.3	28	<b></b> 6	360	6	187	1.3	6 <del>9</del>	۰5	38	•5
30	≁ "6	93	1.7	55	.4	430	.8	170	-4	69	•5	27	-1.5
-30	<b>~ .6</b>	91	1.6	31	5	430	. <b>8</b>	170	.4	69	.5	30	<b>~1.0</b>
20	<b>⊶1.</b> 0	86	1.4	76	1.3	430	.8	170	.4	69	۰5	39	.7
20	~1.0	35	5	66	.8	430	.8	187	1.3	58	9	37	٠3
20	~1.0	24	<b>-1.</b> 0	1	~1 <b>.</b> 6	430	.8	170	-4	69	-5	38	٠5
20	-l <sub>-</sub> 0	2	-1.8	12	-1.2	430	.8	170	-4	69	•5	43	1.4
13	~1 <sub>°</sub> 3	55	.2	49	.2	470	1.5	187	1.3	78	1.5	39	.7
13 13	-1.3	49	0	31	5	470	1.5	187	1.3	78	1.5	35	0
	-1.3	48	0	55	.4	470	1.5	187	1.3	78	1.5	36	.1
13	<b>~1.3</b>	5	·~1.7	91	1.7	470	1.5	183	1.2	79	1.6	37	.3
7	~1.5	43	2	49	2،	470	1.5	200	1.9	69	۰5	40	۰9
7	-1.5	25	~ .9	55	.4	470	1.5	200	1.9	78	1.5	33	4
2	-1.7	27	<b>9</b>	55	.4	510	2.3	212	2.5	85	2.4	41	1,1

### TABLE 1 (Continued)

### CASES WITH VISUAL DEFECT IN CLEWISTON, FLA. CLASSES IN ORDER OF FLYING TEST RATING LOW TO HIGH

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Dual to 1st         Total Solo         Suss.         Dual S.S.         Bomber         Fighter         Instructor           8:22         -1.0         30:055         1         0         0           9:43         -2         23:10 .6         1         0         0           9:41         .1         30:321         1         2         1           9:32         0         31:25 .2         2         1         1         1           9:32         0         31:25 .2         2         1		7.8	7			
Solo         S.S.         Dual         S.S.         Bonber         Fighter         Instructor           8:22         -1.0         30:055         1         0         0           10:41         1.0         29:11 - 1.0         2         0         0           9:43         .2         32:10 .6         1         0         0           9:41         .1         30:321         1         2         1           9:32         0         31:25 .2         2         2         1         1           8:27        9         30:442         1         1         1         1           10:09         .5         32:59 1.1         2         1         1         1           10:09         .5         32:59 1.1         2         1         1         1           10:09         .5         32:59 1.1         2         0         1         1         1           10:09         .5         32:59 1.1         2         0         1         2         0         1         1         1         1         1         1         1         1         1         1         1         1         1 <t< th=""><th></th><th></th><th></th><th></th><th></th><th></th></t<>						
8:22       -1.0       30:05      5       1       0       0         10:41       1.0       29:11       -1.0       2       0       0         9:43       .2       32:10       .6       1       0       0         9:41       .1       30:32      1       1       2       1         9:32       0       31:25       .2       2       1       1         8:27      9       30:44      2       1       1       1         10:09       -5       32:59       1.1       2       1       1       1         10:29      9       31:13       .1       2       0       1						
10:41 1.0 29:11 -1.0 2 0 0 0 9:43	<u>Solo</u>	S.S.	Dual S.S.	Bomber	<u>Fighter</u>	<u>Instructor</u>
10:41 1.0 29:11 -1.0 2 0 0 0 9:43				_	_	_
9:43				1		
9:41       .1       30:321       1       2       1         9:32       0       31:25 .2       2       1       1         8:27      9       30:442       1       1       1         10:09       .5       32:59       1.1       2       1       1         10:09       .5       32:59       1.1       2       0       1       2         9:01      4       30:115       2       1       0       1       2       0       1       2       0       0       2       1       1       1       1       0       1       2       0       0       2       1       1       0       1       2       1       1       0       1       2       1       1       1       0       1       2       1       1       1       1       1       1       1       1       1       1						
9:32  0  31:25  .2  2  1  1  1  1  1  1  1  1  1  1  1  1						
8:27      9       30:44      2       1 <t< td=""><td></td><td>.1</td><td></td><td></td><td></td><td></td></t<>		.1				
10:09	9:32			2		
10:35				1		
9:01      4       30:11      5       2       1       1         8:00       -1.3       20:10       -1.0       1       2       0         9:20      2       27:37       -1.9       2       1       0         8:23       -1.0       30:39      2       2       1       0         10:24       .7       32:47       1.0       1       1       0         11:17       1.5       32:54       1.1       1       1       0         11:17       1.5       32:54       1.1       1       1       0         9:57       .3       31:05       0       2       1       2       2       1       2       2       1       2       2       1       2       2       1       2       1       2       2       1       1       2       2       1       1       2       2       1       1       2       2       1       1       3       3       1       1       2       2       1       1       3       9       2       1       1       1       2       1       1       3       1       1       0		•5		2	1	1
8:00 -1.3 20:10 -1.0 1 2 0 9:202 27:37 -1.9 2 1 0 8:23 -1.0 30:392 2 1 0 10:24 .7 32:47 1.0 1 1 1 0 11:17 1.5 32:54 1.1 1 1 0 9:57 .3 31:05 0 2 1 2 9:43 .2 34:23 1.9 2 1 1 9:261 30:551 2 1 2 9:57 .3 29:477 1 0 0 8:506 30:59 0 2 1 1 1 10:43 1.0 30:511 2 2 1 9:202 32:20 .7 1 1 2 9:50 .2 30:352 1 2 9:004 29:378 2 1 9:172 34:31 2.0 1 11:00 1.2 35:08 2.3 1 1 0 9:172 30:382 2 1		.9		2		
9:20      2       27:37 -1.9       2       1       0         8:23       -1.0       30:392       2       1       0         10:24       .7       32:47	9:01	4	30:115		1	1
8:23       -1.0       30:392       2       1       0         10:24       .7       32:47       1.0       1       1       0         11:17       1.5       32:54       1.1       1       1       0         9:57       .3       31:05       0       2       1       2         9:43       .2       34:23       1.9       2       1       1         9:26      1       30:55      1       2       1       3         9:30       0       27:06       -2.2       1       1       0         9:57       .3       29:47      7       1       0       0         8:50      6       30:59       0       2       1       1         10:43       1.0       30:51      1       2       2       1         9:20      2       32:20       .7       1       1       2         9:30      4       31:49       .4       1       2       2         9:00      4       29:37      8       2       1       1         9:29       0       29:51      7       2       1 <td>8:00</td> <td>-1.3</td> <td>20:10 -1.0</td> <td>1</td> <td>2</td> <td>0</td>	8:00	-1.3	20:10 -1.0	1	2	0
8:23       -1.0       30:392       2       1       0         10:24       .7       32:47       1.0       1       1       0         11:17       1.5       32:54       1.1       1       1       0         9:57       .3       31:05       0       2       1       2         9:43       .2       34:23       1.9       2       1       1         9:26      1       30:55      1       2       1       3         9:30       0       27:06       -2.2       1       1       0         9:57       .3       29:47      7       1       0       0         8:50      6       30:59       0       2       1       1         10:43       1.0       30:51      1       2       2       1         9:20      2       32:20       .7       1       1       2         9:30      4       31:49       .4       1       2       2         9:00      4       29:37      8       2       1       1         9:29       0       29:51      7       2       1 <td>9:20</td> <td>2</td> <td>27:37 -1.9</td> <td>2</td> <td>1</td> <td>0</td>	9:20	2	27:37 -1.9	2	1	0
10:24	8:23	-1.0		2	1	0
11:17       1.5       32:54       1.1       1       1       0         9:57       .3       31:05       0       2       .1       2         9:55       .3       33:54       1.6       2       1       2         9:43       .2       34:23       1.9       2       1       1         9:26      1       30:55      1       2       1       3         9:30       0       27:06       -2.2       1       1       0         9:57       .3       29:47      7       1       0       0         8:50      6       30:59       0       2       1       1         10:43       1.0       30:51      1       2       2       1         9:20      2       32:20       .7       1       1       2         9:50       .2       30:35      2       1       2       2         9:03      4       31:49       .4       1       2       2         9:00      4       29:37      8       2       1       1         9:17      2       34:31       2.0       1	10:24	.7		1		0
9:57       .3       31:05       0       2       .1       2         9:55       .3       33:54       1.6       2       1       2         9:43       .2       34:23       1.9       2       1       1         9:26      1       30:55      1       2       1       3         9:30       0       27:06       -2.2       1       1       0         9:57       .3       29:47      7       1       0       0         8:50      6       30:59       0       2       1       1         10:43       1.0       30:51      1       2       2       1         9:20      2       32:20       .7       1       1       2       2         9:50       .2       30:35      2       1       2       2       2         9:03      4       31:49       .4       1       2       2       2         9:00      4       29:37      8       2       1       1       0         9:17      2       34:31       2.0       1       2       1       1       1       0 <td>11:17</td> <td>1.5</td> <td></td> <td>1</td> <td>1</td> <td>0</td>	11:17	1.5		1	1	0
9:55       .3       33:54       1.6       2       1       2         9:43       .2       34:23       1.9       2       1       1         9:26      1       30:55      1       2       1       3         9:30       0       27:06       -2.2       1       1       0         9:57       .3       29:47      7       1       0       0         8:50      6       30:59       0       2       1       1       1         10:43       1.0       30:51      1       2       2       1       1       1       1       2       1       1       2       1       1       2       1       1       2       1       1       2       1       1       2       2       1       1       2       2       1       1       2       2       2       1       1       2       2       2       1       1       2       2       2       1       1       2       2       2       1       1       1       2       2       1       1       1       2       1       1       1       2       1	9:57	.3		2	· 1	2
9:43       .2       34:23       1.9       2       1       1         9:26      1       30:55      1       2       1       3         9:30       0       27:06       -2.2       1       1       0         9:57       .3       29:47      7       1       0       0         8:50      6       30:59       0       2       1       1         10:43       1.0       30:51      1       2       2       1         9:20      2       32:20       .7       1       1       2       2         9:50       .2       30:35      2       1       2       2       2         9:03      4       31:49       .4       1       2       2       2         9:00      4       29:37      8       2       1       1       0         9:17      2       34:31       2.0       1       2       1       1         1:00       1.2       35:08       2.3       1       1       0       1       1       0       1         9:17      2       30:38      2       2<				2	1	2
9:26      1       30:55      1       2       1       3         9:30       0       27:06       -2.2       1       1       0         9:57       .3       29:47      7       1       0       0         8:50      6       30:59       0       2       1       1         10:43       1.0       30:51      1       2       2       1         9:20      2       32:20       .7       1       1       2       2         9:50       .2       30:35      2       1       2       2       2         9:03      4       31:49       .4       1       2       2       2         9:00      4       29:37      8       2       1       1       1         9:17      2       34:31       2.0       1       2       1       1         11:00       1.2       35:08       2.3       1       1       0       1       1       0         9:17      2       30:38      2       2       1       1       1       1       0       1       1       0				2	1	1
9:30 0 27:06 -2.2 1 1 0 0 9:57 .3 29:477 1 0 0 0 8:506 30:59 0 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				2	1	3
9:57       .3       29:477       1       0       0         8:50      6       30:59       0       2       1       1         10:43       1.0       30:511       2       2       1         9:20      2       32:20       .7       1       1       2         9:50       .2       30:352       1       2       2         9:03      4       31:49       .4       1       2       2         9:00      4       29:378       2       1       1         9:29       0       29:517       2       1       0         9:17      2       34:31       2.0       1       2       1         11:00       1.2       35:08       2.3       1       1       0         9:17      2       30:382       2       1       1		0		1	1	
8:506 30:59 0 2 1 1 10:43 1.0 30:511 2 2 1 9:202 32:20 .7 1 1 2 9:50 .2 30:352 1 2 2 9:034 31:49 .4 1 2 2 9:004 29:378 2 1 1 9:29 0 29:517 2 1 0 9:172 34:31 2.0 1 2 1 11:00 1.2 35:08 2.3 1 1 0 9:172 30:382 2 1		.3		1		0
9:20      2       32:20       .7       1       1       2         9:50       .2       30:35      2       1       2       2         9:03      4       31:49       .4       1       2       2         9:00      4       29:37      8       2       1       1         9:29       0       29:51      7       2       1       0         9:17      2       34:31       2.0       1       2       1         11:00       1.2       35:08       2.3       1       1       0         9:17      2       30:38      2       2       1       1				2	1	
9:20      2       32:20       .7       1       1       2         9:50       .2       30:35      2       1       2       2         9:03      4       31:49       .4       1       2       2         9:00      4       29:37      8       2       1       1         9:29       0       29:51      7       2       1       0         9:17      2       34:31       2.0       1       2       1         11:00       1.2       35:08       2.3       1       1       0         9:17      2       30:38      2       2       1       1				2	2	1
9:50				1	1	2
9:034 31:49 .4 1 2 2 9:004 29:378 2 1 1 9:29 0 29:517 2 1 0 9:172 34:31 2.0 1 2 1 11:00 1.2 35:08 2.3 1 1 0 9:172 30:382 2 1					2	2
9:00    4     29:378     2     1     1       9:29     0     29:517     2     1     0       9:17    2     34:31     2.0     1     2     1       11:00     1.2     35:08     2.3     1     1     0       9:17    2     30:382     2     1     1					2	2
9:29 0 29:517 2 1 0 9:172 34:31 2.0 1 2 1 11:00 1.2 35:08 2.3 1 1 0 9:172 30:382 2 1				2	1	1
9:172 34:31 2.0 1 2 1 11:00 1.2 35:08 2.3 1 1 0 9:172 30:382 2 1 1					1	
11:00 1.2 35:08 2.3 1 1 0 9:172 30:382 2 1 1		2			2	
9:172 30:382 2 1 1		_			1	0
					1	1
8:299 29:10 -1.0 1 2 1				ı	2	1

TABLE 2

CASES WITH CARDIOVASCULAR DEFECT IN CLEMISTON CLASSES
IN ORDER OF ELEMENTARY FLYING TEST RATING LOW TO HIGH
(Advanced)

Flying Test	<u>s,s,</u>	Ground Exam	S. <b>S.</b>	Char. and Lead.	<u>5.3.</u>	Gen-	<u>s.s.</u>	In- etru- ment	<u>s.s.</u>	Night <u>Test</u>	₽ <b>`</b> ā•	Link <u>Test</u>	<u>s.s.</u>	Applied Flying	S.S.
73 40	1.9 .3	61 43	1.1 .2	28 72	4 1.7	243 262	-2.3 -1.1	137 192	-2.4 .6	56 69	-2.8 4	25 27	~1.3 -1.0	134 151	-1.1 1.1
28	3	68	1.4	56	.9	289	.6	201	1.1	69	4	26	-1,2	128	-1.9
68	1.6	31	4	56	<i>i</i> 9	266	9	175	3	67	~ .8	26	-1.2	129	-1.7
59	1.2	22	- "B	42	-3	263	-1.1	189	-5	68	<b></b> 6	26	-1.2	134	-1,1
3	~1.5	11	-1.4	23		309	1.8	207	1.4	74	-5	40	-9	137	7
40	3ء	35	<b>~</b> .2	<b>3</b> 3	~ .2		.2	190	.5	65	-1.1	33	1	124	-2.4
59	1.2	67	1.4	18	~ .9	265	9	168	7	68	6	36	.3	146	.4
28	3	29	5	10	-1.3	271	6	172	5	77	1.1	44	1.5	147	۰5
					y	El:	iminat	ted				ŧ		*	Ē
25	- 4	26	6	18	- <b>.</b> 9	290	.6	203	1,2	71	0	25	-1.3	135	~1.0
8	-1.2	2	~l.8	6	~1.5	-	1.0	182	.1	<b>7</b> 7	1.1	41	1.0	151	1.1
3	~l.5	4	-1.7	15	-1.1		1.3	187	-4	78	1.3	45	1.6	157	1.8
50	8.	73	1.7	56	•9	274	4	177	2	70	2	27	-1.0	144	.2

### TABLE 2 (Continued)

#### CASES WITH CARDIOVASCULAR DEFECT IN MIAMI CLASSES IN ORDER OF ELEMENTARY FLYING TEST RATING LOW TO HIGH (Advanced)

Flying Test		Ground Exam	S.S.	Char. and Lead.	<u>s.s.</u>	Gen∽ eral	s.s.	In stru- ment		Night <u>Tost</u>		Link <u>Test</u>	S.S.	Applied	
35	4	64	<b>.7</b>	41	0	256	-1.1	194	1.2	80	1.1	33	2	134	6،
						El:	<u>imin</u> ai	bed							
33	5	15	<i>-</i> 1.2	41	٥	278	0	195	1.2	80	1.1	33	2	114	-1.0
70	1.0	75	1.2	41	ō	298	ģ	132	-2.5	70	0	30	9	123	- ,3
7	-1.5	16	-1.2	29	5	307	1.3	203	1.7	69	1	38	ŝ	124	2
22	<b>~</b> .9	2	-1.7	9	-1.3	289	-15	178	.2	75	.5	35	.2	137	.8
87	1.7	30	6	23	8	-	~1,1	120	-3.3	60	-1,1	35	.2	115	9
53	.3	45	Ō	5	-1.5	264		153	-1.3	92	2.4	35	.2	136	.7
61	.6	38	3	66	1.0	273	3	170	~ .3	67	4	35	.2	128	.2
45	0	3	-1.7	5	-1.5	279	Ö	161	8	75	•5	43	2.1	131	.3
68	۰9	78	1.3	23	~ .8	278	Ō	171	2	64	7	32	5	113	-1.1
61	6ء	34	5	41	0	273	3	180	.3	66	· .5	34	ő	121	4,
35	4	62	۰7	54	۰,5	299	.9	171	2	74	.4	35	,2	118	<b>-</b> .7
1	-1.8	1	-1.8		~1.1	320	1.9	185	.6	85	1.6	17	3.0	149	1.7
43	- °J	<b>8</b> 2	1.4	23	8, -	294	.7	195	1.2	65	<b>~</b> .6	28	-1.4	108	-1.5

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### TABLE 2 (Continued)

# CASES WITH CARDIOVASCULAR DEFECT IN TERRELL CASES IN ORDER OF ELEMENTARY FLYING TEST RATING LOW TO HIGH (Advanced)

	lying Test	<u>S.S.</u>	Ground Exam	<u>s.s.</u>	Char. and Lead.	<u>s.s.</u>	Gen- <u>eral</u>	<u>s.s.</u>	In stru- ment	<u>s.s.</u>	Night <u>Test</u>	<u>ş.s.</u>	Link Test			
							Eli	minate	sd.					•		
	<u>Eliminated</u>															
,	55 62 46 52 50	.5 .8 .1 .4	21 79 46 59	9 1.6 .2 .7	12 19 70	1.5 -1.2 9 1.3	270 300 324		175 198 186 180 173	-1.2 .6 3 8	80 77 80 65 85	.5 .5 -1.9	37 36 35 35	.7 2 -1.0 -1.0	137 150 151 137 167	~1.4 ~ .1 0 -1.4 1.6

TABLE 2 (Continued)

# CASES WITH CARDIOVASCULAR DEFECT IN MESA CLASSES IN ORDER OF ELEMENTARY FLYING TEST RATING LOW TO HIGH (Advanced)

Flying	\$.\$. - ,2 -1.5 0	17	•.3 -1.0 -1.6 -1.6	43 5 38 23	,2 ~1.5 ~ .1 ~ .7	260 260 250 240	.7 .7 0 6	160 170 150 150	1.4 3 3	60, 70 65 60	S.S. 2 1.7 .7 2	38 35 - 35 36	1.0 4 4	140 123 118	5. -1 1
53 29 28	.5 5 6	6 <del>9</del> 20 17	9 -1.0	48 19 46	9 -3		6 6	150 150 145	3 3 7	60 60 60	~ .2 2 2	34 38 34	9 1.0 9	150	7
		_	-	ı			aina	<b>te</b> d							W -
94 52 9 38 42 72 16	3 .5 ~1.4 • 0 1.3 -1.1	1	1.5 -1.3 -1.4 -1.4 1.3	58 37 83 69 35 4	.8 1 1.9 1.3 2 -1.5	250 280 250		155 165 155	.1 .1 .2 .1 .5 -1.6	63 65	1.7 2 .7 .3 .7 4	36 38 40 35 38 34 36	0 1.0 2.0 4 1.0 ~ .9	120 125 130 115	
						ED:	inina	ted							3
						El:	imina	ted							4
26 26	-1.6 7	70 81	1.2 1.7	13 26	~1.1 ~ .6	270 260	1.3	170 160	1.4 .5	68 65	1.3	36 34	0 9	135 129	, -