

AD-A107 115

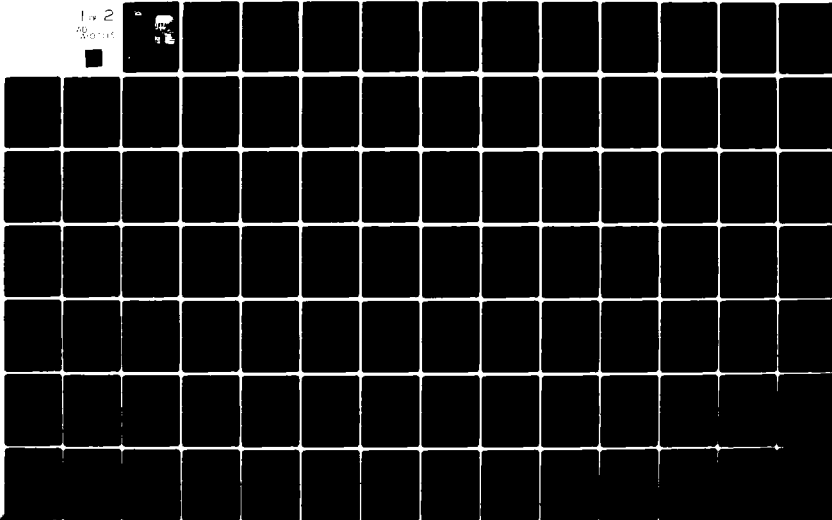
AIR FORCE OCCUPATIONAL MEASUREMENT CENTER RANDOLPH AFB TX F/G 5/9
AVIONIC COMMUNICATIONS AND AVIONIC NAVIGATION SYSTEMS SPECIALTY--ETC(U)
SEP 81

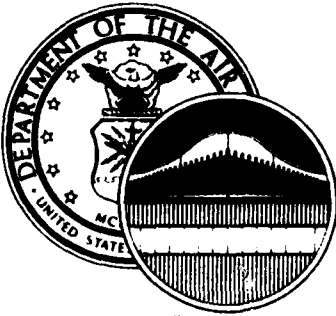
UNCLASSIFIED

NL

1 of 2

8/8/81





LEVEL ⁴¹

UNITED STATES AIR FORCE

AD A107115

OCCUPATIONAL SURVEY REPORT



AVIONIC COMMUNICATIONS AND AVIONIC
NAVIGATION SYSTEMS SPECIALTIES

AFS 328X0 AND 328X1

AFPT 90-328-417

SEPTEMBER 1981

DTIC FILE COPY

OCCUPATIONAL ANALYSIS PROGRAM
USAF OCCUPATIONAL MEASUREMENT CENTER
AIR TRAINING COMMAND
RANDOLPH AFB, TEXAS 78148

APPROVED FOR PUBLIC RELEASE; DISTRIBUTION UNLIMITED

81 11 03 025

TABLE OF CONTENTS

	<u>PAGE NUMBER</u>
PREFACE -----	iv
SUMMARY OF RESULTS -----	v
INTRODUCTION -----	1
Objectives -----	1
Specialty Background -----	1
SURVEY METHODOLOGY -----	2
Inventory Development -----	2
Survey Administration -----	3
Data Processing and Analysis -----	3
Survey Sample -----	4
Task Factor Administration -----	5
CAREER LADDER STRUCTURE -----	9
Job Structure Overview -----	9
Avionic Communications Job Groups -----	13
Avionic Communications/Navigation Systems Job Groups -----	14
Avionic Navigation Systems Job Groups -----	20
Management and Support Job Groups -----	23
Analysis of Job Difficulty -----	25
Career Ladder Structure Summary -----	26
ANALYSIS OF DUTY AFSC GROUPS -----	37
Overview of AFS 328X0 Skill Level Progression -----	37
AFS 328X0 Skill Level Progression -----	37
AFS 328X1 Skill Level Progression -----	38
Evaluation of Commonality Between Specialties -----	39
Summary -----	39
COMPARISON OF SURVEY DATA TO AFR 39-1 SPECIALTY DESCRIPTIONS -----	43
ANALYSIS OF MAJOR COMMAND DIFFERENCES -----	44
ANALYSIS OF EXPERIENCE (AFMS) GROUPS -----	56
Job Satisfaction -----	56
First Enlistment Personnel -----	57

TABLE OF CONTENTS (CONTINUED)

TRAINING ANALYSIS -----	74
AFS 328X0 Training -----	74
AFS 328X1 Training -----	76
Training Analysis Summary -----	78
ANALYSIS OF WRITE-IN COMMENTS -----	87
COMPARISON TO PREVIOUS SURVEY DATA -----	90
IMPLICATIONS -----	94
APPENDIX A - Background and Job Satisfaction Data on Job Types Within Clusters -----	96
APPENDIX B - Representative Tasks Performed By Members of Clusters and Independent Job Groups -----	97

PREFACE

This report presents the results of a detailed Air Force Occupational Survey of the Avionic Communications (AFS 328X0) and the Avionic Navigation Systems (AFS 328X1) Specialties. The report was prepared for the Directorate of Maintenance and Supply, HQ USAF in response to their request for occupational data on the tasks and jobs performed by AFS 328X0 and AFS 328X1 personnel. Authority for conducting occupational surveys is contained in AFR 35-2. Computer products from which this report was produced are available for use by operations and training officials.

The survey instrument used in this project was developed by Second Lieutenant Kevin Morefield, Inventory Development Specialist. Second Lieutenant Randall Agee analyzed the survey data and wrote the final report. This report has been reviewed and approved by Lieutenant Colonel Jimmy L. Mitchell, Chief, Airman Career Ladders Analysis Section, Occupational Analysis Branch, USAF Occupational Measurement Center, Randolph AFB Texas 78150.

The Occupational Survey Program within the Air Force has been in existence since 1956 when initial research was undertaken by the Air Force Human Resources Laboratory to develop the methodology for conducting occupational surveys. In 1969 an operational survey program was established within Air Training Command to conduct occupational surveys.

Computer programs for analyzing the occupational data were designed by Dr. Raymond E. Christal, Manpower and Personnel Division, Air Force Human Resources Laboratory (AFHRL), and were written by the Computer Programming Branch, Technical Services Division, AFHRL.

Copies of this report are available to air staff sections, major commands, and other interested training and management personnel upon request to the USAF Occupational Measurement Center, attention to the Chief, Occupational Analysis Branch (OMY), Randolph AFB, Texas 78150.

PAUL T. RINGENBACH, Col, USAF
Commander
USAF Occupational Measurement
Center

WALTER E. DRISKILL, Ph.D.
Chief, Occupational Analysis Branch
USAF Occupational Measurement
Center

Accession For	
NTIS GRA&I	☒
DTIC TAB	☐
Unannounced	☐
Justification	
By _____	
Distribution/	
Availability Codes	
Avail and/or	
Dist	Special

A

SUMMARY OF RESULTS

- This report evaluates -

1. Survey Objectives: This report was requested by HQ USAF Directorate of Maintenance and Supply to evaluate the feasibility of consolidating Avionic Communications (AFS 328X0) and Avionic Navigation Systems (AFS 328X1) specialties to decrease specialization and job dissatisfaction, and to increase personnel utilization.
2. Survey Coverage: Between July and October 1980, 2,900 USAF job inventory booklets were administered worldwide to members of AFS 328X0 and AFS 328X1. From the 2,036 respondents, 894 were from AFS 328X0 personnel (47 percent of assigned) and 1,123 were from AFS 328X1 personnel (48 percent of assigned). All major commands and paygrade groups were represented in the sample.
3. Job Structure: The job structure resulting from the combined sample of AFS 328X0 and AFS 328X1 was very heterogeneous. Sixty-nine job types making up 12 clusters and four independent job types were found. These grouped into four functional areas; primarily 328X0 technical jobs; technical jobs which overlapped the 328X0 and 328X1 specialties; primarily 328X1 technical jobs; and management and support jobs. The area of overlap was relatively small in proportion to the specialty specific functional areas.
4. AFR 39-1 Specialty Descriptions: The jobs of the specialty specific functional areas adequately support the specialty descriptions as currently written. While the area of overlap is not clearly presented in the specialty descriptions, the relatively small proportion of cross utilization may not justify changing the descriptions.
5. MAJCOM Analysis: Differences were noted among the primary using commands in percent performing various tasks and time spent on duties. These differences appear to be based on MAJCOM missions, types of aircraft used, and maintenance policies employed. Job satisfaction is quite low for personnel assigned under the Production Oriented Maintenance Organization to Aircraft Generation Squadrons.
6. Training Analysis: Training personnel are encouraged to review the survey data matched to training documents to determine whether additional areas of training should be included in future STSs and POIs.
7. Implications: The findings of this study indicate that, while merger of these two specialties is possible, the majority of jobs are being served satisfactorily by the present classification structure. Both career ladder analysis and duty AFSC analysis show that the degree of differentiation is far greater than the degree of commonality. Review of the training programs indicate that such an AFSC consolidation would impact negatively on more jobs that it would help.

**OCCUPATIONAL SURVEY REPORT
AVIONIC COMMUNICATIONS SYSTEMS SPECIALTY (AFS 328X0)
AVIONIC NAVIGATION SYSTEMS SPECIALTY (AFS 328X1)**

INTRODUCTION

This is a report of an occupational survey of the Avionic Communications (AFS 328X0) and Avionic Navigation Systems (AFS 328X1) specialties completed by the Occupational Analysis Branch, USAF Occupational Measurement Center, in July 1981. The 328X0 specialty was last surveyed in 1973, and the 328X1 specialty was surveyed in 1979.

Objectives

The current project was initially requested by the Directorate of Maintenance and Supply, HQ USAF, in order to identify the types of jobs performed by AFS 328X0 and AFS 328X1 personnel to evaluate the feasibility of merging the two specialties. Emphasis was placed upon possible overspecialization, unsatisfactory personnel usage, and job dissatisfaction. Topics discussed in this report include: (1) Specialty Background; (2) Survey Methodology; (3) Job Structure within the ladders; (4) Analysis of Skill Level and MAJCOM; (5) Training Analysis; (6) a summary of write-in comments; and (7) a comparison of the results of the current survey with previous surveys.

Specialty Background

The 328X0 and 328X1 specialties have remained relatively stable over their 29-year history. Both were created in May 1951, and were originally designated as AFS's 301X0 and 301X1. Their original titles were Aircraft Radio Repair and Aircraft Electronic Navigation Equipment Repair. The AFS designations and titles were changed in January 1972 to the current 328X0 and 328X1 designations and titles. A shredout of AFS 328X0 personnel responsible for maintaining Airborne Command Post systems was created in March 1966, but was deleted from the specialty in January 1972 and designated as the AFS 328X5, Airborne Command Post Equipment Maintenance specialty.

Most of the major changes in these specialties have occurred at the 9-skill level. Originally, 9-skill level personnel were named Air Electronics Superintendents and designated AFS 30190. The designation was changed to AFS 30195 in March 1969. A year later, the name and title were changed again, to AFS 30194, Communication-Electronics Systems Superintendents. The designation and title were again changed in January 1972 to 32894, Avionic Communications-Navigation Systems Superintendents, bringing the 9-skill level personnel in line with the 3-, 5-, and 7-skill levels. The designation was changed, finally, to 32899 in April 1979. A CEM Code designated 32900, Avionics Manager was created 31 Oct 78.

APPROVED FOR PUBLIC RELEASE; DISTRIBUTION UNLIMITED

Members of these two specialties are responsible for the installation, maintenance, repair, overhaul, and modification of avionic communication and electronic navigation systems and associated test equipment. Personnel in the Avionic Communications specialty (AFS 328X0) maintain HF transceivers, transmitters, and receivers; interphone systems; VHF AM and FM, and UHF transceivers; UHF Automatic Direction Finders; emergency radios, data link; and crash position indicators. Personnel in the Avionic Navigation Systems specialty (AFS 328X1) maintain marker beacon systems; LORAN and Omega equipment; search and weather radar; station keeping radar; forward-looking radar; multimode radar; terrain-following radar; instrument landing systems; IFF/SIF; radio compass; TACAN; VOR; and electronic altimeters.

Newly assigned personnel in these specialties attend a basic technical training course. Personnel in the 328X0 specialty attend a 20-week course, 3ABR32830, at Keesler AFB MS, where they are trained in Electronic Principles, circuit analysis, circuit testing, shop and flightline practices, soldering and cable fabrication, and principles of maintenance associated with electronic communication equipment. Personnel in the 328X1 specialty attend a 21.8-week course, 3ABR32831, also at Keesler AFB. These students are trained in Electronic Principles, circuit analysis, circuit testing, shop and flightline practices, soldering, and cable fabrication, and principles of maintenance associated with electronic navigation equipment.

The majority of personnel assigned to these two specialties are concentrated in TAC, MAC, and SAC (68 percent of the AFS 328X0s and 67 percent of the AFS 328X1s). There is a major distinction between the maintenance utilization concepts of TAC and other MAJCOMs. Personnel in TAC are governed by AFR 66-5, Production Oriented Maintenance Organization, while members of most other commands are governed by AFR 66-1, Vol 5, Maintenance Management, Communications-Electronic Equipment Maintenance.

SURVEY METHODOLOGY

Inventory Development

The data collection instrument for this occupational survey was USAF Job Inventory AFPT 90-328-417. The starting point for the current inventory was an inventory prepared for the December 1979 study of the 328X1 specialty. A proposed 1974 inventory covering the 328X0 specialty was completely revised and incorporated with the 1979 inventory of AFS 328X1 tasks. Pertinent career ladder publications and directives were also reviewed to ensure complete coverage of the responsibilities of both specialties. From these reviews, a tentative task list was created. Seventeen subject matter specialists were then consulted at four Air Force bases (Keesler, Dyess, Holloman, and Luke) to determine the completeness and accuracy of the tentative task list. This process resulted in a final inventory of 1,007 tasks grouped under 26 duty headings and a background section of 43 questions that included information about the respondents, such as grade, time in service, job satisfaction, duty titles and locations, and specific communications and navigation equipment maintained.

Survey Administration

During the period July through October 1980, Consolidated Base Personnel Offices at operational units worldwide administered the job inventory to personnel with duty AFSCs 328X0 and 328X1 who were eligible to participate in the survey. Eligibility to participate in an occupational survey is limited to personnel who hold appropriate AFSCs, who have at least eight weeks on the job, or who are not expected to have PCS moves or to retire within the data collection phase of the study.

Respondents first checked the tasks they performed and then rated each task they checked on a nine-point scale indicating the relative amount of time spent on that task compared to all other tasks performed. The rating scale ranged from one (a very small amount of time spent) to nine (a very large amount of time spent). A rating of five represented an average amount of time spent performing a task.

Data Processing and Analysis

Once the job inventories were returned from the field, they were prepared so that task responses and background information could be optically scanned. Other biographical information (such as name, base, autovon number) were keypunched onto disks and entered directly into the computer. Once both sets of data (keypunched and optically scanned data) were entered, the task, background, and biographical information were merged to form a complete case record for each respondent. Comprehensive Occupational Data Analysis Programs (CODAP) techniques were then applied to the data.

CODAP produces job descriptions for respondents based upon their responses to specific inventory tasks. Computer generated job descriptions are available for DAFSC, TAFMS, CONUS versus Overseas, and MAJCOM groups, and include such information as percent members performing each task, the percent members using various pieces of equipment, and the percent time spent by members performing tasks grouped into duty headings.

A key part of the USAF occupational analysis of Air Force specialties is to examine the structure of jobs within specialties on the basis of what people report they are actually doing in the field, rather than how official career ladder documents say they are organized. It can also help managers understand changing personnel utilization, resulting in a need for modification of directives and standards. This examination of job structure is accomplished by performing analysis of responses among personnel who perform similar tasks and spend similar amounts of time on tasks. To determine the relative amount of time an individual spent on each task, all of an individual's ratings were assumed to account for 100 percent of time on the job. The ratings for all tasks were then totalled, each task rating was divided by the total number of responses, and the quotient multiplied by 100. This procedure provided a basis for comparing tasks not only in terms of percent members performing, but also in terms of average percent time spent. Detailed examination of job groups and comparisons between job groups of relative time spent on tasks may then give insight into issues of training, classification, and job satisfaction.

Survey Sample

Personnel were selected to participate in this survey so as to insure an accurate representation across all MAJCOM and paygrade groups. A stratified random sample of 70 percent of the personnel assigned to both specialties (2,900 of the 4,240 assigned personnel) was identified by a computer-generated mailing list from personnel data tapes maintained by the Air Force Human Resources Laboratory (AFHRL). In all, 2,036 booklets were returned. Nineteen of these booklets were from members holding DAFSC 32899, leaving 2,017 booklets (a 70 percent return rate) from respondents holding 3-, 5-, and 7-skill levels. This sample of 2,017 booklets represents a 48 percent sample of assigned AFS 328X0 personnel and a 47 percent sample of assigned AFS 328X1 personnel. Table 1 contains the distribution of assigned and sampled personnel across MAJCOMs as of October 1980. Table 2 reflects the paygrade distribution of assigned and sampled personnel. Table 3 displays the AFMS distribution of this sample. The sample is much the same as the current assigned manning data in MAJCOM and Paygrade factors, and thus, is considered to be adequately representative of the two specialties.

Task Factor Administration

A second mailing list was generated from the personnel data tapes at AFHRL which contained all the DAFSC 32870 and 32871 personnel who did not appear on the mailing list produced for the job inventory sample. These selected senior NCOs were asked to complete either a training emphasis or task difficulty booklet. The booklets were processed separately from the job inventories.

When used in conjunction with other factors, such as percent members performing, the training emphasis and task difficulty ratings can provide insight into the training requirements of specialties. This may help validate the lengthening or shortening of specific units of instruction to refine various training programs, or even merging units of instruction common to two specialties.

Task Difficulty: Each senior NCO completing a task difficulty booklet was asked to rate the relative difficulty of all of the tasks on a nine point scale from extremely low to extremely high difficulty. Difficulty was defined as the length of time required for an average member to learn to do that task. Task difficulty data were independently solicited from experienced 7-skill level personnel stationed worldwide. In examining the initial returns, it was found that there was a disproportionately small return from personnel in MAC and TAC. Therefore, a second mailing to senior NCOs in those two MAJCOMs was made. Care was taken to ensure that no one submitted more than one task difficulty booklet. Table 4 shows the final distribution of task difficulty raters of both specialties by major command. Although there are minor differences in the ratios of task difficulty raters to the percentage of major command personnel assigned, the sample of raters does appear satisfactory, since the commands with the largest percentages of personnel have the most substantial proportions of raters. The task difficulty ratings were processed separately for the AFS 328X0 raters and the AFS 328X1 raters. The interrater reliability (as determined through components of variance of

standard group means) for the AFS 328X0 raters was .89, and for the AFS 328X1 raters was .93. The interrater reliability was recalculated for both AFS 328X0 and AFS 328X1 raters combined. The correlation coefficient of agreement within the combined sample was .96, and is considered very acceptable under normal reliability criteria. Ratings were then adjusted to have a mean of 5.0 and a standard deviation of 1.0. This results in a rank ordering of tasks indicating the relative degree of difficulty for each task in the inventory.

Training Emphasis: Individuals completing training emphasis booklets were asked to rate all of the tasks on a ten-point scale from no training required to extremely heavy training required. Training emphasis is a rating of tasks indicating where emphasis should be placed in structured training for first-term personnel. Structured training is defined as training provided at resident technical schools, Field Training Detachments (FTD), Mobile Training Teams (MTT), formal OJT, or any other organized method of training. Training emphasis data were independently solicited from experienced 7-level personnel stationed worldwide. The problem of under-representation in MAC and TAC of task difficulty raters also occurred with training emphasis raters. Additional training emphasis booklets were sent out concurrently with task difficulty booklets, but to different individuals to insure that no one submitted more than one set of responses. The distribution of training emphasis raters assigned to major commands is also presented in Table 4. Only PACAF and USAFE are somewhat underrepresented in the final sample, but raters were included from these two commands. The commands with the most substantial percentages of personnel assigned contributed the greatest proportions of raters to the sample. The interrater reliability (as assessed through components of variance of standard group means) for the 54 DAFSC 32870 raters was .98, and for the 74 DAFSC 32871 raters was .97. These correlation coefficients of agreement are considered quite satisfactory. Tasks rated by the DAFSC 32870 personnel had an average training emphasis rating of 1.44 and a standard deviation of 1.47. Tasks rated by the DAFSC 32871 personnel had an average training emphasis rating of 2.69 and a standard deviation of 2.55.

Job Difficulty Index: One issue to be addressed in the analysis of jobs within a career ladder is the degree of difficulty of jobs relative to one another. The Job Difficulty Index (JDI) provides a measure of relative difficulty among the different groups identified in the CAREER LADDER STRUCTURE analysis. The JDI is a composite score which combines the average task difficulty per unit time spent (ATDPUT) by members of a group and the average number of tasks performed by that group. JDI values in this study are based on the combined task difficulty ratings of the AFS 328X0 raters and the AFS 328X1 raters. Once the JDI for each job group is identified, jobs may be ranked in terms of difficulty. This information may help to understand the structure of job groups, explain job dissatisfaction, and identify training issues.

TABLE 1
COMMAND REPRESENTATION OF SURVEY SAMPLE

COMMAND	AFS 328X0		AFS 328X1	
	PERCENT OF ASSIGNED	PERCENT OF SAMPLE	PERCENT OF ASSIGNED	PERCENT OF SAMPLE
TAC	25	27	20	19
MAC	24	27	26	28
SAC	19	19	21	25
ATC	8	9	8	9
USAFE	8	8	10	11
PACAF	4	4	4	4
AFSC	3	3	2	2
AAC	1	1	1	1
AFLC	*	*	*	*
OTHER	8		8	

* INDICATES LESS THAN ONE PERCENT

TOTAL 328X0 ASSIGNED - 1,910
TOTAL 328X0 SAMPLED - 894
PERCENT 328X0 SAMPLED - 47%

TOTAL 328X1 ASSIGNED - 2,330
TOTAL 328X1 SAMPLED - 1,123
PERCENT 328X1 SAMPLED - 48%

TOTAL 328X0/X1 POPULATION - 4,240
70 PERCENT STRATIFIED RANDOM SAMPLE** - 2,900
NUMBERS RETURNED - 2,036***
RETURN RATE - 70%

**ALSO EXCLUDES THOSE IN PCS MOVEMENT, LESS THAN SIX WEEKS ON THE JOB, ETC

***INCLUDES 19 RESPONDENTS HOLDING DAFSC 32899 IN ADDITION TO 2,017
RESPONDENTS HOLDING DAFSCs 328X0 AND 328X1

TABLE 2
PAYGRADE DISTRIBUTION OF SURVEY SAMPLE

<u>PAYGRADE</u>	<u>AFS 328X0</u>		<u>AFS 328X1</u>	
	<u>PERCENT OF ASSIGNED</u>	<u>PERCENT OF SAMPLE</u>	<u>PERCENT OF ASSIGNED</u>	<u>PERCENT OF SAMPLE</u>
E-7	8	7	7	7
E-6	12	11	12	12
E-5	22	25	24	27
E-4	32	33	28	28
AIRMAN	<u>26</u>	<u>24</u>	<u>28</u>	<u>26</u>
TOTAL	100	100	100	100

TABLE 3
TAFMS DISTRIBUTION OF SURVEY SAMPLE

	<u>MONTHS TIME IN SERVICE</u>		
	<u>1-48</u>	<u>49-96</u>	<u>97+</u>
NUMBER 328X0 IN SAMPLE	425	184	284
PERCENT OF 328X0 SAMPLE	48%	20%	32%
NUMBER 328X1 IN SAMPLE	495	257	369
PERCENT OF 328X1 SAMPLE	44%	23%	33%

TABLE 4

DISTRIBUTION OF TASK DIFFICULTY AND TRAINING EMPHASIS

MAJOR COMMAND	328X0			328X1		
	PERCENT OF ASSIGNED	PERCENT OF TASK DIFFICULTY RATERS	PERCENT OF TRAINING EMPHASIS RATERS	PERCENT OF ASSIGNED	PERCENT OF TASK DIFFICULTY RATERS	PERCENT OF TRAINING EMPHASIS RATERS
MAC	24	26	35	26	19	30
SAC	19	18	26	21	24	23
TAC	25	26	16	20	22	19
ATC	8	15	11	8	14	12
USAFE	8	5	4	10	10	9
PACAF	4	2	4	4	2	1
AAC	1	3	2	1	7	3
AFSC	3	3	2	2	2	3
AFLC	*	2	-	*	-	-
OTHER	8					
		100	100		100	100

* INDICATES LESS THAN ONE PERCENT

TABLE 2
PAYGRADE DISTRIBUTION OF SURVEY SAMPLE

<u>PAYGRADE</u>	<u>AFS 328X0</u>		<u>AFS 328X1</u>	
	<u>PERCENT OF ASSIGNED</u>	<u>PERCENT OF SAMPLE</u>	<u>PERCENT OF ASSIGNED</u>	<u>PERCENT OF SAMPLE</u>
E-7	8	7	7	7
E-6	12	11	12	12
E-5	22	25	24	27
E-4	32	33	28	28
AIRMAN	<u>26</u>	<u>24</u>	<u>28</u>	<u>26</u>
TOTAL	100	100	100	100

TABLE 3
TAFMS DISTRIBUTION OF SURVEY SAMPLE

	<u>MONTHS TIME IN SERVICE</u>		
	<u>1-48</u>	<u>49-96</u>	<u>97+</u>
NUMBER 328X0 IN SAMPLE	425	184	284
PERCENT OF 328X0 SAMPLE	48%	20%	32%
NUMBER 328X1 IN SAMPLE	495	257	369
PERCENT OF 328X1 SAMPLE	44%	23%	33%

TABLE 4

DISTRIBUTION OF TASK DIFFICULTY AND TRAINING EMPHASIS

MAJOR COMMAND	328X0			328X1		
	PERCENT OF ASSIGNED	PERCENT OF TASK DIFFICULTY RATERS	PERCENT OF TRAINING EMPHASIS RATERS	PERCENT OF ASSIGNED	PERCENT OF TASK DIFFICULTY RATERS	PERCENT OF TRAINING EMPHASIS RATERS
MAC	24	26	35	26	19	30
SAC	19	18	26	21	24	23
TAC	25	26	16	20	22	19
ATC	8	15	11	8	14	12
USAFE	8	5	4	10	10	9
PACAF	4	2	4	4	2	1
AAC	1	3	2	1	7	3
AFSC	3	3	2	2	2	3
AFLC	*	2	-	*	-	-
OTHER	8					
		100	100		100	100

* INDICATES LESS THAN ONE PERCENT

CAREER LADDER STRUCTURE

The primary objective of this study is to examine the feasibility of merging the Avionic Communications (AFS 328X0) and Avionic Navigation Systems (AFS 328X1) maintenance specialties into one career ladder. One way to examine the issue is through the use of Comprehensive Occupational Data Analysis Program (CODAP). CODAP permits the comparison of jobs on the basis of similarity of tasks performed by incumbents and the amount of time they spend performing those tasks. Thus, the degree of commonality and difference between specialties can be evaluated irrespective of official career ladder documents, such as AFR 39-1 specialty descriptions.

The specialty structure analysis process consists of identifying the characteristics and structure of functional job groups among respondents to a survey. The functional job groups that are identified in this process include job types, clusters, and independent job types. A job type is a group of individuals who perform many of the same tasks and also spend similar amounts of time performing them. When there is a substantial degree of similarity between two or more job types, they are merged together and labeled as clusters. Some specialized job types are too dissimilar to be grouped into any cluster. These unique groups are labeled independent job types.

Job Structure Overview

The patterning of job structure for the 328X0 and 328X1 maintenance specialties was determined from analysis of the responses of 2,036 members, (894 AFS 328X0 respondents and 1,123 AFS 328X1 respondents, plus 19 respondents holding DAFSC 32899). Twelve clusters and four independent job types were identified, accounting for 1,762 members (87 percent) of the total sample. These job groups are listed below, and are also displayed in Figure 1.

I. INFLIGHT COMMUNICATIONS MAINTENANCE CLUSTER (GP0064, N=34)

- a. Senior E-3A Maintenance Personnel (GP0222, N=11)
- b. Junior E-3A Maintenance Personnel (GP0257, N=10)

II. COMMUNICATIONS MAINTENANCE CLUSTER (GP0101, N=551)

- a. MAC HF Field Maintenance Personnel (GP0287, N=11)
- b. Transport Aircraft Communications Maintenance Personnel (GP0256, N=17)
- c. Communications Maintenance Field Training Instructors (GP0179, N=10)
- d. Firstline Communications Maintenance Supervisors (GP0345, N=10)
- e. Radio Equipment Maintenance Personnel (GP0325, N=56)
- f. Communications Maintenance Supervisors (GP0587, N=48)
- g. HF Systems Maintenance Personnel (GP0458, N=270)
- h. Junior Communications Systems Maintenance Personnel (GP0512, N=56)
- i. Junior Component Repair Personnel (GP0258, N=18)

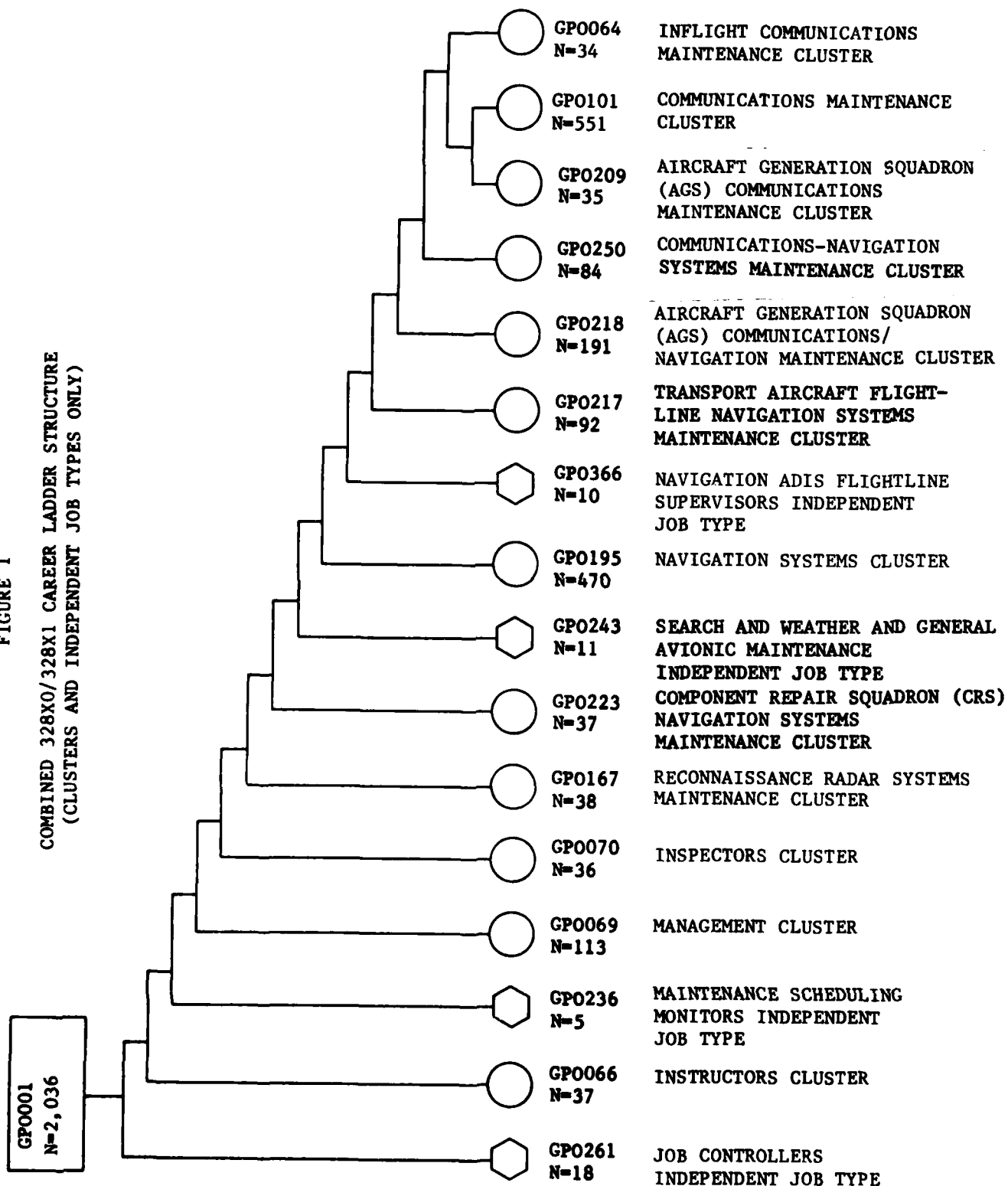
- III. AIRCRAFT GENERATION SQUADRON (AGS) COMMUNICATIONS MAINTENANCE CLUSTER (GPO209, N=35)
 - a. AGS Communications Maintenance Personnel (GPO288, N=30)
 - b. AGS Communications/Navigation Maintenance Personnel (GPO264, N=5)
- IV. COMMUNICATIONS/NAVIGATION SYSTEMS MAINTENANCE CLUSTER (GPO250, N=84)
 - a. First-line Component Repair Supervisors (GPO302, N=24)
 - b. Communications/Navigation Equipment Maintenance Personnel (GPO374, N=40)
 - c. Navigation Aids Maintenance Personnel (GPO354, N=15)
 - d. Reconnaissance Mission Navigation Equipment Maintenance Personnel (GPO352, N=5)
- V. AIRCRAFT GENERATION SQUADRON (AGS) COMMUNICATIONS/NAVIGATION SYSTEMS MAINTENANCE CLUSTER (GPO218, N=191)
 - a. Flightline Maintenance Crew Personnel (GPO470, N=19)
 - b. Flightline Maintenance Crew (GPO456, N=16)
 - c. Avionic Flightline Maintenance Personnel (GPO558, N=97)
 - d. First Enlistment Flightline Maintenance Crew Personnel (GPO494, N=26)
 - e. Flightline Maintenance Supervisor/Trainers (GPO446, N=11)
 - f. VOR/ILS Flightline Navigation Maintenance Personnel (GPO327, N=15)
- VI. TRANSPORT AIRCRAFT FLIGHTLINE NAVIGATION SYSTEMS MAINTENANCE CLUSTER (GPO217, N=92)
 - a. Flightline Radar Maintenance Personnel (GPO472, N=33)
 - b. Flightline/Shop Radar Maintenance Personnel (GPO511, N=16)
 - c. Junior Transport Aircraft Navigation Maintenance Personnel (GPO336, N=10)
 - d. Overseas Transport Aircraft Radar Navigation Maintenance Personnel (GPO443, N=14)
- VII. NAVIGATION AIDS FLIGHTLINE SUPERVISORS INDEPENDENT JOB TYPE (GPO366, N=10)
- VIII. NAVIGATION SYSTEMS MAINTENANCE CLUSTER (GPO195, N=470)
 - a. Aircraft Identification Systems Maintenance Personnel (GPO367, N=124)
 - b. Search and Weather Radar Maintenance Personnel (GPO346, N=324)
 - c. Operations Managers (GPO420, N=6)
 - d. Overseas LORAN Maintenance Personnel (GPO427, N=5)
- IX. SEARCH AND WEATHER RADAR AND GENERAL AVIONIC MAINTENANCE INDEPENDENT JOB TYPE (GPO243, N=11)

- X. COMPONENT REPAIR SQUADRON (CRS) NAVIGATION SYSTEMS MAINTENANCE CLUSTER (GPO223, N=37)
 - a. IFF/General Avionic Maintenance Personnel (GPO388, N=12)
 - b. RRA Maintenance Personnel (GPO538, N=6)
 - c. VOR/ILS Maintenance Personnel (GPO436, N=8)
 - d. TAC/USAFE Component Repair Squadron Supervisors (GPO343, N=8)
- XI. RECONNAISSANCE RADAR MAINTENANCE CLUSTER (GPO167, N=38)
 - a. Component Repair Squadron Recon Radar Personnel (GPO316, N=22)
 - b. Aircraft Generation Squadron Recon Radar Personnel (GPO295, N=16)
- XII. INSPECTORS CLUSTER (GPO070, N=36)
 - a. Inspectors (GPO268, N=11)
 - b. Quality Control Inspectors (GPO321, N=11)
 - c. SAC Standardization/Evaluation Inspectors (GPO322, N=7)
- XIII. MANAGEMENT CLUSTER (GPO069, N=113)
 - a. Administration/Maintenance Supervisors (GPO461, N=6)
 - b. Communications Maintenance Shop Chiefs (GPO385, N=5)
 - c. MMICS Communications Maintenance Administrators (GPO361, N=45)
 - d. Test Equipment Maintenance Supervisors (GPO301, N=5)
 - e. Maintenance Administration Supervisors (GPO292, N=10)
 - f. Navigation Maintenance Shop Chiefs (GPO281, N=5)
 - g. AMS Flight Supervisors (GPO290, N=6)
 - h. Communications/Navigation Systems NCOICs (GPO231, N=5)
 - i. Resource Managers (GPO228, N=5)
- XIV. MAINTENANCE SCHEDULING MONITORS INDEPENDENT JOB TYPE (GPO236, N=5)
- XV. INSTRUCTORS CLUSTER (GPO066, N=37)
 - a. Senior Instructors (GPO255, N=6)
 - b. Junior Instructors (GPO377, N=14)
- XVI. JOB CONTROLLERS INDEPENDENT JOB TYPE (GPO261, N=18)

The 12 clusters and four independent job types basically grouped into four fairly discrete functional areas. The first functional area consists of the first three clusters, which are comprised primarily of AFS 328X0 personnel responsible for maintaining avionic communications systems. The second functional area consists of two clusters, and contains members from both 328X0 and 328X1 specialties. There is some overlap of responsibilities, with most AFS 328X0 personnel maintaining some navigation systems, and most AFS 328X1 personnel maintaining some communications systems. The third functional area consists of five clusters and two of the independent job types. This functional area consists primarily of AFS 328X1 personnel who are responsible for maintaining navigation systems. The fourth functional area is composed of the remaining three clusters and two independent job types. Members in these groups perform a variety of supervisory, administrative,

FIGURE 1

COMBINED 328X0/328X1 CAREER LADDER STRUCTURE
(CLUSTERS AND INDEPENDENT JOB TYPES ONLY)



and support activities. Each of the 12 clusters and four independent job types are briefly described below. Additional background information concerning each cluster and independent job type is provided in Tables 5 through 8 at the end of this section. Job satisfaction data for these groups are presented in Tables 9 through 12. Background information on the job types which combine to form the clusters are presented in Appendices A and B.

Avionic Communications Job Groups

The first three clusters contain personnel who are characterized by the commonality of maintaining communications systems, particularly UHF radio systems.

I. INFLIGHT COMMUNICATIONS MAINTENANCE CLUSTER (GPO064). Most of the 34 members of this cluster indicate that they fly E-3A aircraft and maintain communications systems inflight. Although 91 percent hold DAFSC 328X0, their job is fairly unique from others in the Avionic Communications ladder. Fifty-six percent hold an "A" prefix, indicating that they are aircrew members. Another 15 percent hold a "K" prefix, indicating that they are aircrew instructors. Distinguishing tasks for this group include:

- perform preflight inspections
- remove or replace UHF receiver-transmitters
- remove or replace VHF-AM receiver-transmitters
- isolate malfunctions in VHF-FM systems
- remove or replace VHF-FM receiver-transmitters
- isolate malfunctions in HF systems
- isolate malfunctions in interphone systems
- operationally check PA systems

Job satisfaction responses of members of this cluster were relatively high, with fairly high percentages of the members finding their job interesting and perceiving their talents and training being utilized well.

There were two job types identified within this cluster, differing primarily in experience. The Senior E-3A Maintenance Personnel had an average of 179 months AFMS, and performed supervision tasks, while the Junior E-3A Maintenance Personnel only had an average of 80 months AFMS, and indicated that they are not supervisors. Background data and job satisfaction data on these two job types may be found in Appendix A. Representative tasks performed members of each job type may be found in Appendix B.

II. COMMUNICATIONS MAINTENANCE CLUSTER (GPO101). The 551 members of this cluster perform jobs more typical of the Avionic Communications Maintenance specialty than the previous cluster. They are responsible for troubleshooting, removing or replacing, and bench checking/repairing a variety of communications systems at flightline and shop locations. Ninety-nine percent hold DAFSC 328X0. Some of the tasks which distinguish this cluster from other groups in this study are:

- adjust ultra high frequency (UHF) radio systems
- isolate malfunctions in UHF receiver-transmitters
- set up UHF system peculiar test equipment
- isolate malfunctions in VHF-AM systems
- remove or replace VHF-AM antennas
- operationally check HF systems using FTE
- align HF receiver-transmitters
- bench check PA amplifiers
- remove or replace ER subassemblies

Nine job types were identified within this cluster. They ranged from the very unique Field Training Detachment Instructors to job groups which are differentiated more by experience and breadth of job than uniqueness.

III. AIRCRAFT GENERATION SQUADRON (AGS) COMMUNICATIONS MAINTENANCE CLUSTER (GPO209). These 35 members basically perform a flightline job under the POMO concept. These members are responsible for removing or replacing and troubleshooting UHF radios and interphone systems on the aircraft. Seventy-five percent are assigned to TAC, USAFE, or PACAF. Members of this groups are fairly inexperienced, averaging only 48 months AFMS. Some of the tasks which distinguish this cluster from other groups in this study are:

- remove or replace UHF receiver-transmitters
- remove or replace UHF tuning indicators
- operationally check interphone systems
- remove or replace interphone monitor control units
- walk wings or tails during aircraft towing operations
- safety wire or bond system components

The job satisfaction indices for this cluster are substantially below those of other job groups of this study. Seventy-one percent indicated feeling their training is used little or not at all. This group also had one of the lowest expressed intentions to reenlist (42 percent).

Two job types make up the bulk of this cluster. The members of the AGS Communications Maintenance Personnel work almost exclusively on the communications systems, while the AGS Communications/Navigation Maintenance Personnel work on both communications and navigation systems. Job satisfaction and other background data on these two job types are presented in Appendix A. Representative tasks performed by members of the two job types are displayed in Appendix B.

Avionic Communications/Navigation Systems Job Groups

The two clusters which make up the second functional area in this study represents the functional commonality in technical jobs of members of these two specialties. Both clusters contain members from both specialties. Both clusters also have members maintaining both communications and navigation systems. Since the results of analysis of these two clusters have critical impact upon the primary objective of this study, a more detailed discussion of the job types within each cluster is in order.

IV. COMMUNICATIONS/NAVIGATION SYSTEMS MAINTENANCE CLUSTER (GPO250). The 84 members of this cluster indicate that their jobs involve work in both flightline and shop environments. All major commands are represented in this cluster with ATC (33 percent), TAC (31 percent), and SAC (19 percent) having the greatest proportion of representation. Forty-five percent hold 328X0 DAFSCs, and the remaining 55 percent hold 328X1 DAFSCs. Four job types were identified among these 84 respondents.

IVa. First-line Component Repair Supervisors (GPO302). The 24 members of this job type are responsible for performing both technical and supervisory duties. Eighty-seven percent indicated that their jobs involve work in both flightline and shop environments. Forty-five percent hold DAFSC 328X0, and the remaining 55 percent hold DAFSC 328X1. Systems maintained by the majority of members of both specialties includes UHF, VHF, and interphone communications systems; and instrument landing, aircraft identification (IFF) and TACAN navigation systems. Sixty-seven percent are assigned to TAC, with another 13 percent assigned to PACAF. The remaining 20 percent are assigned to SAC, ATC, and AAC. Some tasks representative of this job type include:

- remove or replace UHF receiver subassemblies
- remove or replace interphone cord components
- isolate malfunctions in avionics systems wiring or cables
- bench check UHF receiver transmitters
- locate maintenance information in technical publications or Air Force technical orders (TO)
- solder avionics system wiring
- diagnose mock-up malfunctions

IVb. Communications/Navigation Equipment Maintenance Personnel (GPO374). The 40 members of this job type represent the largest group of respondents in this cluster who perform most of the same tasks, and perform them in similar proportions of time. Forty percent hold DAFSC 328X0, and the remaining 60 percent hold DAFSC 328X1. Sixty-five percent indicated being assigned to ATC, and the remaining members indicated assignment in TAC, PACAF, SAC, and USAFE. A review of systems maintained by most of these 40 members include: UHF (100 percent), interphone (97 percent), aircraft identification (100 percent), TACAN (95 percent), and instrument landing (87 percent). In addition, 10 of the 16 AFS 328X0 personnel and 12 of the 24 AFS 328X1 personnel maintain emergency radios. Fifty-eight percent reported being assigned to Component Repair Squadrons; however, 80 percent said their jobs involve work at both flightline and shop locations. Some tasks which are characteristic of members of this job type are:

- remove or replace IFF/SIF/AIMS receiver-transmitters
- remove or replace interphone cords
- remove or replace UHF receiver-transmitters
- operationally check IFF/SIF/AIMS using FTE
- operate associated systems checking VOR/ILS
- isolate malfunctions in TACAN systems
- operationally check glideslopes using FTE

IVe. Navigation Aids Maintenance Personnel (GPO354). The 15 members of this job type perform jobs only partly similar to the previously discussed job types within this cluster. All 15 members hold DAFSC 328X1. Sixty percent are assigned to SAC, and 13 percent are assigned to MAC. The remaining 27 percent are evenly distributed among AFSC, PACAF, TAC, and USAFE. The two background factors that draw this group to the previous two job types are: (1) 67 percent indicated that their jobs involve work at both flightline and shop locations; and (2) these members perform maintenance tasks on three of the major systems maintained by the previous job types, instrument landing, airborne identification, and TACAN systems. Members of this job type, however, also maintain rendezvous radar beacon, radio/radar altimeter, and search and weather radar systems. Some tasks characteristic of this job type are:

- isolate malfunctions in visual omni range (VOR) systems
- isolate malfunctions in instrument landing systems (ILS)
- remove or replace glideslope receivers
- operationally check RRA using BITE or self-test sets
- remove or replace IFF/SIF/AIMS self-test sets
- remove or replace marker beacon receivers
- isolate malfunctions in TACAN systems

IVd. Tanker Aircraft Navigation Equipment Maintenance Personnel (GPO352). The five members of this job type grouped with the other three job types in this cluster due to the high degree of commonality in maintaining TACAN, airborne identification, and instrument landing systems. Four members also maintain LORAN systems. TACAN maintenance duties alone accounted for 33 percent of this group's time on the job, with ILS maintenance accounting for another 12 percent. As was seen in the previous three job types, a large proportion (80 percent) indicated that their jobs involve working both on flightline and in shop locations. Four members hold DAFSC 328X1, and the fifth holds DAFSC 328X0. Three of the five members indicated that their jobs support the SR-71 and KC-135Q aircraft, while the remaining two indicate supporting KC-135A aircraft. Some tasks performed by all members of this job type include:

- align TACAN receiver-transmitters
- bench check TACAN receiver-transmitters
- set up TACAN peculiar test equipment
- remove or replace TACAN amplifier subassemblies
- isolate malfunctions in instrument landing systems (ILS)
- operationally check glideslopes using FTE

Job satisfaction indicators for members of the Communications/Navigation Systems Maintenance cluster were fairly positive, relative to the responses of members of other clusters and independent job types within this study. Forty-nine percent of these 84 members plan to reenlist. Of the job types within this cluster, Tanker Aircraft Navigation Equipment Maintenance personnel are most satisfied with their jobs, with 100 percent indicating that their jobs are interesting, their talents are well utilized, and they gain a satisfactory sense of accomplishment from their jobs. The Firstline Component

Repair Maintenance Supervisors, however, had the highest proportion intending to reenlist (63 percent). This is understandable in light that members of this job type have more commitment to careers, having an average of 97 months AFMS compared to the other three job types ranging from 42 to 76 months AFMS.

V. AIRCRAFT GENERATION SQUADRON (AGS) COMMUNICATIONS/NAVIGATION SYSTEMS MAINTENANCE CLUSTER (GPO218). This is the second cluster of jobs in this study which has substantial overlap between members of the 328X0 and 328X1 specialties performing the same jobs. The major functional difference between this cluster of jobs and the previous cluster is that these 191 members spend a relatively larger amount of time on the job performing Assist-Task responsibilities, such as assisting other flightline crew members in changing tires, walking wings during aircraft towing, operating flightline AGE, and other flightline maintenance crew member duties. In terms of background information, members of this cluster differ from the previous cluster in the percentage of personnel assigned to AGS units, with 89 percent of these 191 members in AGS, and only six percent of the previous cluster in AGS.

The major functional similarity between these 191 members and the previous cluster is that both clusters have a major proportion of personnel maintaining UHF and interphone communications systems as well as instrument landing, airborne identification, and TACAN navigation systems, with very little specialization according to AFSC. Six job types were identified within the AGS Communications/Navigation Systems Maintenance Cluster.

Va. Flightline Maintenance Crew Personnel (GPO470). The 19 members of this job type are all assigned to AGS units. Seventy-four percent are assigned to TAC, and the remainder are in USAFE. Forty-seven percent hold DAFSC 328X1, and the remaining 53 percent hold DAFSC 328X0. All 19 members maintain UHF radios, 16 members maintain TACAN and airborne identification systems, and 15 members maintain interphones. Tasks characteristic of this job type include:

- walk wings or tails during aircraft towing operations
- tow aircraft
- operate aerospace ground equipment (AGE, such as power units, heaters, or light carts
- set up flightline maintenance stands
- preset frequencies in UHF control units
- remove or replace UHF receiver-transmitters
- operationally check TACAN systems using ground stations
- perform preflight inspections

Vb. Flightline Maintenance Crew Supervisors (GPO456). All 16 members of this job type are also assigned to AGS units. Seventy-five percent of the members hold DAFSC 328X1. Sixty-nine percent hold the 7-skill level. Twelve members indicated they supervise others, and they average more than six subordinates each. As was seen by the previous group, the majority of members in this group maintain UHF and interphone communications systems and TACAN and airborne identification systems, irrespective of which AFSC they hold. In contrast to the previous group,

however, the majority of these members also maintain instrument landing and radio/radar altimeter systems. Members have an average of 147 months AFMS and 136 months TICF. The average number of tasks performed is 160. Tasks characteristic of this job type include:

- operate aerospace ground equipment (AGE), such as power units, heaters, or light carts
- make entries on reparable item processing tag forms (AFTO Form 350)
- operationally check TACAN systems using ground stations
- walk wings or tails during aircraft towing operations
- remove or replace UHF receiver-transmitters
- operationally check IFF/SIF/AIMS using BITE or self-test sets
- operationally check interphone systems
- prepare APRs
- direct flightline maintenance activities
- supervise avionic navigation systems specialists (AFSC 32851)
- supervise avionic communications systems specialists (AFSC 32850)

Vc. Avionic Flightline Maintenance Personnel (GPO558). The 97 members of this job type are responsible for maintaining essentially the same avionic systems as the two previous job groups: UHF and interphone communications systems; and TACAN, instrument landing, and airborne identification systems. The major difference, however, is that Avionic Flightline Maintenance personnel spend substantially less time on the job performing assist tasks such as chocking tires, washing airplanes, and walking wings and tails. Rather, the bulk of their time is spent in maintaining avionic systems. Ninety-six percent indicated that their jobs involve flightline work. TAC and USAFE are the assigned MAJCOM of 75 percent, with the remainder in PACAF, ATC, MAC, and AAC. Members have an average of 69 months AFMS and 64 months TICF. The average number of tasks they perform is 105. Some of the tasks characteristic of this job type are:

- solder avionic system wiring
- safety wire or bond system components
- remove or replace TACAN receiver-transmitters
- remove or replace IFF/SIF/AIMS receiver-transmitters
- remove or replace UHF control units
- isolate malfunctions in instrument landing systems (ILS)
- operationally check interphone systems
- isolate malfunctions in glideslope systems

Vd. First Enlistment Flightline Maintenance Crew Personnel (GPO494). All 26 members of this job type are first enlistment personnel. Their responsibilities include maintenance of essentially the same five systems as have been identified with the previous three job types: UHF, interphone, instrument landing, airborne identification, and TACAN systems. This group, however, performs a more limited number of tasks than the three previous job types, probably due to their limited experience in the career field, averaging 38 months AFMS and 34 month TICF. They perform an average of only 69 tasks; substantially fewer than any of the previous job types. Some tasks characteristic of this job type include:

- safety wire or bond system components
- isolate malfunctions in UHF receiver-transmitters
- isolate malfunctions in TACAN systems
- preset frequencies in UHF control units
- remove or replace IFF/SIF/AIMS receiver-transmitters
- operationally check interphone systems
- walk wings or tails during aircraft towing operations

Ve. Flightline Maintenance Supervisor/Trainers (GPO446). The 11 members of this job type are somewhat similar to the other supervisor job type within this cluster, with two major functional differences. This group of supervisors spend substantially less time on the job performing assist tasks, such as walking wings and maintaining hydraulic systems, and spend a greater proportion of time performing training activities. The average TAFMS for members of this job type is 120 months, and an average of 104 months TICF. They perform an average of 88 tasks, slightly more than half the number performed by the other supervisor job type. Some tasks characteristic of this job type are:

- isolate malfunctions in UHF systems
- operationally check interphone systems
- prepare APRs
- supervise avionic communications specialists (AFSC 328X0)
- supervise apprentice avionic navigation systems specialists (AFSC 32831)
- maintain training records, charts, or graphs
- direct flightline maintenance activities
- conduct OJT or qualification training

Vf. VOR/ILS Flightline Navigation Maintenance Personnel (GPO327). The final job type of this cluster contains 15 members. Their average of 60 months AFMS and 45 months TICF make these members the second most junior job type in the cluster. Only two of the 15 members hold DAFSC 328X0, and the remainder hold DAFSC 328X1, making this the most homogeneous job type of the cluster in terms of background. Functionally, this job type is distinguished from the others of this cluster in that fewer members indicated being cross utilized into avionic systems not related to their AFSC. The maintenance of TACAN, airborne identification, and instrument landing systems is the commonality factor drawing this job type into the cluster. The members reported that they perform an average of only 67 tasks, the lowest number of tasks endorsed by any of the six job types. An interaction between being relatively junior in experience and being homogeneously composed of AFS 328X1 personnel probably explains the low number of tasks performed. Some tasks characteristic of this job type include:

- remove or replace TACAN control units
- remove or replace IFF/SIF/AIMS KIT computers
- isolate malfunctions in visual omni range (VOR) systems
- isolate malfunctions in glideslope systems
- operate aerospace ground equipment (AGE), such as power units, heaters, or light carts
- launch or recover aircraft
- key IFF/SIF/airborne identification mark XII systems (AIMS) equipment
- remove or replace avionic system wiring or cables

The job satisfaction responses for members of the AGS Communications/Navigation Systems Maintenance Cluster are substantially lower than for most clusters and independent job types in this study. The job satisfaction indicator of most concern is in perceived utilization of training. Sixty-four percent feel that their jobs utilize their training very little or not at all. Nearly half (48 percent) also feel their talents are under utilized. Fifty-two percent do not intend to reenlist. Forty-eight percent indicate that they are satisfied with the sense of accomplishment gained from their jobs; however, another 41 percent are dissatisfied. A more detailed examination of job satisfaction within the job types which make up this cluster reveals that these patterns are distributed throughout all six job types with little variation. In perceived utilization of training, for example, Flightline Maintenance Crew personnel have the most extreme negative perception, with 89 percent indicating underutilization of training, but this perception is also shared by at least 53 percent of the other five job types. Some variance is noted in intention to reenlist, with two job types, Flightline Maintenance Crew Supervisors and Flightline Maintenance Supervisor/Trainers having relatively large proportions intending to reenlist (75 percent and 73 percent, respectively). This is probably a consequence of their extensive investments of time in careers, and possibly an anticipation of moving into more supervisory and administrative activities which would move them out of the flightline maintenance environment. The remaining four job types, however, have reenlistment intentions ranging from 32 percent to 45 percent.

Avionic Navigation Systems Job Groups

The next cluster marks another shift in the nature of jobs identified in this study. The four clusters and two independent job types in this functional area are heterogeneous AFS 328X1 jobs.

VI. TRANSPORT AIRCRAFT FLIGHTLINE NAVIGATION SYSTEMS MAINTENANCE CLUSTER (GPO217). The 92 members of this cluster are responsible for maintaining navigation systems on large aircraft, particularly transport aircraft. Eighty-three percent of the members are assigned to MAC. Ninety-eight percent hold DAFSC 328X1. The systems maintained which distinguish this cluster from other groups are automatic direction finder and search and weather radar systems. Some of the tasks which distinguish this cluster from others are:

- isolate malfunctions in ADF systems
- operationally check ADF systems
- remove or replace SW antennas
- remove or replace SW electronic control amplifiers (ECA)
- remove or replace SW synchronizers
- isolate malfunctions in localizer systems
- operationally check IFF/SIF/AIMS using FTE
- operationally check TACAN systems using ground stations
- remove or replace RRA indicators

The job satisfaction indicators are fairly positive, although only 50 percent indicated an intent to reenlist. A more in-depth examination of the four job types making up this cluster reflects a wide range of experience, from the Overseas Transport Aircraft Radar Maintenance Personnel with an average

AFMS of 100 months, to the Junior Transport Aircraft Navigation Maintenance Personnel having an average AFMS of only 23 months.

VII. NAVIGATION AIDS FLIGHTLINE SUPERVISORS INDEPENDENT JOB TYPE (GPO366). The ten members of this group perform both supervisory and administrative tasks as well as technical tasks. Members of this group maintain some of the same systems maintained by previous clusters, such as instrument landing, radio/radar altimeter, airborne identification, TACAN, and automatic direction finder systems. They also maintain reconnaissance radar. What distinguishes members of this group from previous groups, however, is their responsibilities for supervising and administering flightline maintenance activities. Distinguishing tasks include:

- direct flightline maintenance activities
- supervise avionic navigation systems specialists (AFSC 32851)
- inspect completed jobs
- conduct OJT or qualification training
- operationally check marker beacon using BITE
- operationally check RRA using BITE or self-test sets
- remove or replace IFF/SIF/AIMS kit computers
- isolate malfunctions in TACAN indicator systems
- remove or replace ADF equipment mounts
- operationally check FL/MM/TF aft indicators

The job satisfaction indices for this group are fairly positive. While only 50 percent indicate that they intend to reenlist, this must be viewed within the context of another 40 percent approaching retirement.

VIII. NAVIGATION SYSTEMS MAINTENANCE CLUSTER (GPO195). The 470 members of this cluster comprise the bulk of AFS 328X1 personnel performing specialty-specific jobs. Ninety-nine percent hold DAFSC 328X1, with 63 percent holding the 5-skill level. All major commands sampled are represented in this cluster. The jobs they perform involve both flightline and shop maintenance on instrument landing, radio/radar altimeter, airborne identification, TACAN, and search and weather radar systems. The members of this cluster had the highest average number tasks performed (307 tasks). Some tasks which distinguish this group include:

- isolate malfunctions in localizer systems
- align glideslope receivers
- remove or replace VOR/ILS control unit components
- adjust radio/radar altimeter (RRA) systems
- remove or replace IFF/SIF/AIMS transmitter subassemblies
- remove or replace TACAN mount power relays
- align SW antennas
- remove or replace SW ECA components

Four job types were identified within this cluster. While all four perform a common core of maintenance tasks, three of the four appear to specialize in specific navigation systems (See Appendix A for background information on these job types).

IX. SEARCH AND WEATHER RADAR AND GENERAL AVIONIC MAINTENANCE INDEPENDENT JOB TYPE (GPO243). The 11 members of this independent job type are responsible for performing general avionic equipment maintenance and maintenance on search and weather radar systems. All of the members hold DAFSC 328X1. Some tasks which distinguish this independent job type from other groups include:

- locate maintenance information in technical publications or Air Force Technical Orders (TO)
- inspect waveguides (other than in rendezvous radar beacon systems)
- clean parts or components
- diagnose mockup malfunctions
- inspect avionic equipment for corrosion
- set up flightline maintenance stands
- operationally check SW systems
- align SW receiver-transmitters

X. COMPONENT REPAIR SQUADRON (CRS) NAVIGATION SYSTEMS MAINTENANCE CLUSTER (GPO223). The 37 members of this cluster are responsible for performing shop maintenance on three navigation systems: the airborne identification, instrument landing, and radio/radar altimeter systems. Eighty-one percent of this cluster are assigned to TAC or USAFE, with 76 percent assigned to component repair squadrons. Some tasks which distinguish these personnel from other groups are:

- locate maintenance information in technical publications or Air Force technical orders (TO)
- isolate malfunctions in instrument landing systems (ILS)
- bench check marker beacon receivers
- remove or replace VOR localizer receiver components
- align IFF/SIF/AIMS receivers
- bench check IFF/SIF/AIMS coders
- bench check glideslope receivers

The job satisfaction indicators for this cluster are average relative to other groups in the study. Members feel fairly positive about the utilization of their talents and training, and most feel their jobs are interesting.

Four job types were identified within this cluster. They differ primarily in that each spends a greater proportion of time maintaining one of the three systems common to this cluster. The greatest distinction among the four groups is that one job type differs from the others by performing a substantial amount of administrative/supervisory responsibilities associated with directing component repair activities.

XI. RECONNAISSANCE RADAR MAINTENANCE CLUSTER (GPO167). Although these 38 members maintain a variety of navigation systems, they tend to specialize in the maintenance of reconnaissance radar systems. Members are responsible for all phases of maintenance, from operationally checking and removal of nonfunctioning components, through the bench check, repair, and realignment of the components, to the reinstallation of repaired components.

Two job types were identified within this cluster. They were differentiated based on POMO squadron assigned. The AGS group is primarily responsible for flightline inspection, removal, and replacement of components; and the CRS group is responsible for taking components apart, repairing the nonfunctioning subassemblies, and returning the components to operational readiness. Some tasks which distinguish this cluster from others are:

- adjust forward-looking/multimode/terrain-following (FL/MM/TF)
- radar receivers and transmitters
- remove or replace FL/MM/TF aft indicators
- align FL/MM/TF magnatrons
- remove or replace FL/MM/TF computer card modules
- remove or replace FL/MM/TF magnatrons
- operationally check FL/MM/TF modes
- set up FL/MM/TF peculiar test equipment
- bench check FL/MM/TF control boxes

The job satisfaction indicators for this cluster are low relative to other job groups in this study. Fifty-eight percent indicated an intention not to reenlist. This was accompanied by 50 percent of the cluster feeling their jobs use their training very little or not at all. Upon examination of the two job types making up this cluster, the job satisfaction indicators are even more dramatic. Sixty-nine percent of the AGS job type indicated their training is used little or not at all, compared to only 36 percent of the CRS job type holding that opinion. In terms of sense of accomplishment gained from the job, 81 percent of the AGS group indicated being dissatisfied or so-so, while 73 percent of the CRS group indicated being satisfied. This finding points to substantial problems in morale for the Aircraft Generation Squadron personnel.

Management and Support Job Groups

The next cluster marks the last shift in the types of jobs identified in the job analysis procedure. Previous groups have primarily been involved in maintenance of communications and navigation systems, either in traditional or cross utilization situations. The remaining clusters and job types mark a shift toward management and support responsibilities and away from the technician/specialist maintenance roles.

XII. INSPECTORS CLUSTER (GPO070). The 36 members of this cluster are responsible for performing inspections on maintenance accomplished by members of both the AFS 328X0 and AFS 328X1 specialties. The members of this cluster have a rather narrow, specialized job, performing an average of only 46 tasks. Even though these members are quite senior, averaging 195 months time in service, they reported performing few supervisory activities. Some tasks which distinguish this cluster are:

- brief supervisory personnel on inspection findings
- direct quality control programs
- evaluate inspection systems
- conduct ground safety inspections
- inspect completed jobs
- investigate accidents or incidents

Job satisfaction indicators for this cluster are fairly high compared to other groups in this study. Sixty-one percent indicated they intend to reenlist, but an additional 31 percent have enough active duty time to retire.

Three job types were differentiated within this cluster. One group is composed exclusively of SAC personnel who perform Standardization-Evaluation inspections. The other two groups differed not so much by what they do, but more in the emphasis in time spent on particular tasks, and on the average number of tasks performed.

XIII. MANAGEMENT CLUSTER (GPO069). The 113 members of this cluster perform a variety of supervisory and administrative jobs such as computer-assisted management of maintenance activities, resource management, first-line shop or flightline supervision, and administration of maintenance activities. Nine job types were found within this cluster, each specializing in a particular phase of supervision or administration. The responsibilities that bring them all together and contrast them from the previous group involve the direct supervision of maintenance personnel. Some of the tasks which distinguish this cluster are:

- assign personnel to duty stations
- determine work priorities
- establish requirements for tools or equipment
- counsel personnel on military related problems or personal problems
- direct maintenance or utilization of equipment
- direct shop maintenance activities
- analyze workload requirements
- prepare APRs
- evaluate OJT trainers
- maintain MMICS workcenter listings

The job satisfaction indicators for this cluster are high relative to other groups in this study. While only 51 percent intend to reenlist, another 35 percent plan to retire. Substantial percentages of members indicate that their talents and training are well utilized by their jobs.

XIV. MAINTENANCE SCHEDULING MONITORS INDEPENDENT JOB TYPE (GPO236). The five members of this independent job type perform a very narrow, highly specialized function of maintaining supply records. The average number of tasks performed by these members is 32. Some of the tasks which distinguish this independent job type are:

- establish status of reparable assets
- inventory reparable assets
- maintain supply logs of ordered parts
- verify daily supply document listings
- direct preparation of requisitions for supplies or equipment
- establish priorities for restoring equipment to operational status
- make entries on supply turn-in or issue forms, such as DD Form 1577, AF Form 2005, or DD Form 1150

The job satisfaction indicators for this independent job type are slightly below the average of other groups in this study. This doesn't seem to indicate a major morale problem, though, since 80 percent expressed an intention to reenlist.

XV. INSTRUCTORS CLUSTER (GPO066). The 37 members of this cluster are responsible for technical training. The main characteristics of these members' jobs include the preparation and presentation of instruction, and testing the progress of students in residential technical training programs. There are two job types within this cluster. The distinction between the two groups appears to be the member's experience in the job. Both groups have about the same length of military service, but the Senior Instructors have about twice as many months in their present job as do the Junior Instructors. Some tasks which distinguish this cluster are:

- administer tests
- conduct resident course classroom training
- demonstrate how to locate technical information
- develop training aids
- prepare lesson plans
- score tests
- write test questions

Although the job satisfaction indicators are fairly positive, only 43 percent expressed an intention to reenlist.

XVI. JOB CONTROLLERS INDEPENDENT JOB TYPE (GPO261). The 18 individuals in this group perform few of the tasks listed in the survey instrument, responding to an average of only 13 tasks. These members direct and coordinate activities of maintenance personnel. Some tasks which distinguish this independent job type are:

- determine work priorities
- direct flightline maintenance activities
- assign job control numbers
- coordinate flightline maintenance activities with workload
- control sections
- maintain specialist dispatch boards

The job satisfaction indicators for these members are slightly below the average for other groups in this study. Half of the members indicated that they intend to reenlist, and 17 percent indicated that they will retire.

Analysis of Job Difficulty

The Job Difficulty Index (JDI) is a measurement designed to permit the relative difficulty of jobs to be compared. The JDI takes into consideration the number of tasks performed, the amount of time spent on those tasks, and the relative difficulty of tasks performed by a job group. Once the JDI's are computed for each job group, taking these three factors into consideration, the JDI's are adjusted so that the average JDI is equal to 13.0. Comparisons can then be made which may impact upon training, classification, and utilization of personnel. Table 13 shows the JDI for each cluster and independent job type in this study.

Within the first functional area, the JDI values range from slightly above average (13.3 for the Communications Maintenance Cluster) to the second lowest (5.2 for the AGS Communications Maintenance Cluster). The second functional area contains two job groups. The Communications/Navigation Systems Maintenance Cluster has an above average JDI (14.2), while the AGS Communications/Navigation Systems Maintenance Cluster has the fourth lowest (8.7). The third functional area contains six job groups. The JDIs of the third functional area were relatively high, ranging from the highest value seen in this study (19.1 for the Navigation Systems Maintenance Cluster) to slightly below average (12.0 for the Transport Aircraft Flightline Navigation Systems Maintenance Cluster). The fourth functional area contains five groups. The JDIs for these groups range from slightly below average (12.2 for the Management Cluster) to the lowest value (4.1 for the Job Controllers Independent Job Type).

The average number of tasks performed by group members has a substantial effect upon the JDI in this study. Comparing the largest homogeneous AFS 328X0 and AFS 328X1 job groups, the Communications Maintenance Cluster and the Navigation Systems Maintenance Cluster, for example, shows the effect quite clearly. The Navigation Systems Maintenance Cluster performs an average of 307 tasks, and the Communications Maintenance cluster performs an average of 135 tasks. Concurrently, these two groups have JDIs of 19.1 and 13.3. Thus, it appears that the tasks of the Navigation group are not substantially more difficult than the tasks of the Communications group, but that they just have a larger number of tasks to perform. In contrast to these two groups, the Job Controllers have a JDI of only 4.1 and only perform an average of 13 tasks.

Functionally, it appears that jobs performed by AFS 328X1 personnel are more difficult than those of the AFS 328X0 personnel. This is probably due to performing maintenance on a generically wider range of avionic systems resulting in their performing more tasks. The difficulty level of jobs where there is substantial overlap between the 328X0 and 328X1 specialties, the second functional area, indicates that while large overlap exists in terms of systems maintained, the tasks being performed in these jobs are not the most difficult. Finally, the JDIs of groups in the fourth functional area are substantially lower than for the two functional areas most representative of the technical jobs of AFS 328X0 and AFS 328X1 personnel. This is understandable in that these jobs are limited in the average numbers of tasks performed by members, and the perception that the technical tasks are more difficult than are the tasks involved with administration, record keeping, and coordinating flightline maintenance.

Career Ladder Structure Summary

A major issue prompting this study is whether it is feasible to merge the 328X0 and 328X1 specialties. One important way to address this question is by analyzing jobs performed by members of both specialties simultaneously in one occupational survey. The results of that examination indicate that jobs in these two specialties may be grouped into four functional areas. The first group includes flightline, shop, and inflight duties of AFS 328X0 personnel who maintain avionic communications systems. Another group, the third functional area includes flightline and shop jobs of AFS 328X1 personnel who

maintain avionic navigation systems. A third group, the second functional area, represents the area of overlap between the primarily AFS 328X0 and the primarily AFS 328X1 functional areas, with members of both specialties maintaining both communications and navigation systems. The fourth group of supervisory, administrative, and support jobs, also contains a mixture of AFS 328X0 and AFS 328X1 personnel. Three of these four functional areas address the issues of feasibility to merge these specialties.

The first and third functional areas represent the current structure of the two career ladders. The fact that the majority of respondents performing technical jobs are contained in these two areas supports the established AFSCs. The fourth area represents the nontechnical aspects of administration, quality control, coordination, and training. These elements are necessary common functions found in almost every Air Force specialty. Overlap of personnel performing similar tasks in these areas provide some minor support for addressing the issue of specialty merger. The only functional area where sufficient overlap in the technical maintenance of communications and navigation systems occurs is in the second functional area.

To put the overlap into perspective, the second functional area, made up of ten job types contained in two clusters, represents only 13.5 percent of the respondents to this study. On closer examination, even the clusters within the overlapping functional area contain some job types that are primarily navigation maintenance jobs, and are manned primarily by AFS 328X1 personnel. Further, the difficulty of the jobs in the overlap functional area rank from average to below average relative to the jobs in the primarily communications and primarily navigation functional areas. The jobs within the AGS Communications/Navigation Systems Maintenance Cluster are primarily manned by TAC and USAFE personnel, but some MAC, ATC, and AAC personnel also grouped in this cluster. The jobs within the Communications/Navigation Systems Maintenance Cluster contained some TAC and USAFE personnel, but most of the members are assigned to SAC, MAC and ATC. Thus, the jobs in this functional area cannot be attributed exclusively to unique major command maintenance policies. Telephone conversations with some respondents in this functional area suggest that size of the unit may be a major contributing factor to the overlapping responsibilities. Managers of smaller units are sometimes inclined to cross utilize personnel more extensively in response to local requirements. With larger units this occurs less often.

These findings suggest that it is possible for members of both specialties to maintain either communications or navigation systems, at least in the average to below average difficulty tasks. Some 13.5 percent of the jobs involve this cross utilization approach. There are ramifications, however, if the cross utilization is instituted across the board by merging the two specialties. The trade-off in impact upon assignments, manpower, and training may negatively affect the 82 percent of technical jobs in the other two functional areas where cross utilization is less common.

TABLE 5

**BACKGROUND INFORMATION FOR CLUSTERS AND INDEPENDENT JOB TYPES
IN THE AVIONIC COMMUNICATIONS FUNCTIONAL AREA**

	INFLIGHT COMMUNICATIONS MAINTENANCE CLUSTER (N=34)	COMMUNICATIONS MAINTENANCE CLUSTER (N=551)	AIRCRAFT GENERATION SQUADRON (AGS) COMMUNICATIONS MAINTENANCE CLUSTER (N=35)
AVERAGE NUMBER TASKS	56	135	46
AVERAGE GRADE	5.3	4.2	3.9
PERCENT ASSIGNED IN THE CONUS	88%	74%	69%
DUTY AFSC (PERCENT OF GROUP)			
32830	-	12%	11%
32850	15%	64%	74%
32870	77%	23%	6%
32831	-	*	-
32851	6%	*	9%
32871	3%	*	-
32899	-	*	-
MAJOR COMMAND (PERCENT OF GROUP)			
MAC	23%	36%	-
SAC	3%	28%	2%
TAC	74%	14%	56%
USAFE	-	7%	7%
PACAF	-	3%	10%
ATC	-	6%	10%
AFSC	-	4%	2%
AAC	-	*	10%
AVERAGE MONTHS IN PRESENT JOB	26	28	19
AVERAGE MONTHS ACTIVE FEDERAL MILITARY SERVICE	126	71	48
PERCENT WHO PERFORM CROSS UTILIZATION TRAINING (CUT) TASKS	18	29	66
JOB DIFFICULTY INDEX	9.6	13.3	5.2

* INDICATES LESS THAN ONE PERCENT

TABLE 6

BACKGROUND INFORMATION FOR CLUSTERS AND INDEPENDENT JOB TYPES
IN THE AVIONIC COMMUNICATIONS/NAVIGATION SYSTEMS FUNCTIONAL AREA

	COMMUNICATIONS/ NAVIGATION SYSTEMS MAINTENANCE CLUSTER (N=84)	AIRCRAFT GENERATION SQUADRON COMMUNICATIONS/ NAVIGATION SYSTEMS MAINTENANCE CLUSTER (N=191)
AVERAGE NUMBER TASKS	186	99
AVERAGE GRADE	4.2	4.2
PERCENT ASSIGNED IN THE CLUSTERS	77%	56%
DUTY AFSC PERCENT OF GROUP		
32830	2%	2%
32850	30%	32%
32870	13%	10%
32831	7%	6%
32851	36%	35%
32871	12%	14%
32899	-	-
MAJOR COMMAND (PERCENT OF GROUP)		
MAC	4%	1%
SAC	19%	-
TAC	31%	53%
USAFE	3%	27%
PACAF	8%	9%
ATO	33%	6%
AFSC	1%	-
AAC	1%	4%
AVERAGE MONTHS IN PRESENT JOB	29	25
AVERAGE MONTHS ACTIVE FEDERAL MILITARY SERVICE	64	73
PERCENT WHO PERFORM CROSS UTILIZATION TRAINING (CUT) TASKS	55	87
JOB DIFFICULTY INDEX	14.2	8.7

TABLE 7

BACKGROUND INFORMATION FOR CLUSTERS AND INDEPENDENT JOB TYPES
IN THE AVIONIC NAVIGATION SYSTEMS FUNCTIONAL AREA

	TRANSPORT AIRCRAFT FLIGHTLINE NAVIGATION SYSTEMS MAINTENANCE CLUSTER (N=92)	NAVIGATION AIDS FLIGHTLINE SUPERVISORS INDEPENDENT JOB TYPE (N=10)	NAVIGATION SYSTEMS MAINTENANCE CLUSTER (N=470)	SEARCH AND WEATHER RADAR AND GENERAL AVIONIC MAINTENANCE INDEPENDENT JOB TYPE (N=11)	COMPONENT REPAIR SQUADRON (CRS) NAVIGATION SYSTEMS MAINTENANCE CLUSTER (N=37)	RECONNAISSANCE RADAR MAINTENANCE CLUSTER (N=38)
AVERAGE NUMBER TASKS	141	172	307	181	151	109
AVERAGE GRADE	4.1	6.1	4.2	5.0	4.6	4.1
PERCENT ASSIGNED IN THE CONUS	72%	70%	80%	64%	54%	61%

DUTY AFSC (PERCENT OF GROUP)

32830	-	-	-	-	-	-
32850	2%	-	1%	-	5%	-
32870	-	20%	*	-	3%	-
32831	16%	-	11%	-	8%	13%
32851	64%	10%	63%	55%	57%	68%
32871	18%	70%	25%	45%	27%	16%
32899	-	-	-	-	-	-

MAJOR COMMAND (PERCENT OF GROUP)

MAC	83%	50%	31%	27%	-	5%
SAC	7%	-	39%	-	3%	-
TAC	6%	30%	10%	33%	41%	53%
USAFE	2%	20%	6%	-	40%	18%
PACAF	1%	-	2%	9%	5%	21%
ATC	-	-	5%	27%	11%	-
AFSC	1%	-	4%	-	-	3%
AAC	-	-	2%	-	-	-

AVERAGE MONTHS IN PRESENT JOB
AVERAGE MONTHS ACTIVE FEDERAL
MILITARY SERVICE
PERCENT WHO PERFORM CROSS
UTILIZATION TRAINING (CUT) TASKS
JOB DIFFICULTY INDEX

AVERAGE MONTHS IN PRESENT JOB	31	19	31	28	27	22
AVERAGE MONTHS ACTIVE FEDERAL MILITARY SERVICE	65	187	71	127	89	67
PERCENT WHO PERFORM CROSS UTILIZATION TRAINING (CUT) TASKS	34	60	25	55	73	58
JOB DIFFICULTY INDEX	12.0	14.8	19.1	16.5	15.1	14.1

TABLE 8

BACKGROUND INFORMATION FOR CLUSTERS AND INDEPENDENT JOB TYPES
IN THE MANAGEMENT AND SUPPORT FUNCTIONAL AREA

	INSPECTORS CLUSTER (N=36)	MANAGEMENT CLUSTER (N=113)	MAINTENANCE SCHEDULING MONITORS		INSTRUCTORS CLUSTER (N=5)		JOB CONTROLLERS INDEPENDENT JOB TYPE (N=18)	
			JOB TYPE (N=37)					
AVERAGE NUMBER TASKS	46	89	23		32		13	
AVERAGE GRADE	6.1	6.5	4.8		5.4		5.2	
PERCENT ASSIGNED IN THE CONUS	67	71	92		80		67	
DUTY AFSC (PERCENT OF GROUP)								
32830	-	-	3%		-		-	
32850	3%	2%	19%		-		11%	
32870	28%	30%	16%		-		17%	
32831	-	1%	3%		-		-	
32851	6%	4%	40%		40%		28%	
32871	64%	55%	19%		60%		44%	
32899	-	5%	-		-		-	
MAJOR COMMAND (PERCENT OF GROUP)								
MAC	25%	28%	8%		20%		39%	
SAC	42%	16%	-		-		28%	
TAC	17%	27%	5%		60%		11%	
USAFE	11%	11%	3%		20%		6%	
PACAF	-	7%	-		-		-	
ATC	3%	7%	84%		-		11%	
AFSC	3%	3%	-		-		-	
AAC	-	-	-		-		6%	
AVERAGE MONTHS IN PRESENT JOB								
AVERAGE MONTHS ACTIVE FEDERAL MILITARY SERVICE	19	14	21		9		24	
PERCENT WHO PERFORM CROSS UTILIZATION TRAINING (CUT) TASKS	175	198	106		129		137	
JOB DIFFICULTY INDEX	47	33	16		20		11	
	9.8	12.2	9.2		5.3		4.1	

TABLE 9

BACKGROUND INFORMATION FOR CLUSTERS AND INDEPENDENT JOB TYPES
IN THE AVIONIC COMMUNICATIONS FUNCTIONAL AREA
(PERCENT RESPONDING)

	INFLIGHT COMMUNICATIONS MAINTENANCE CLUSTER (N=34)	COMMUNICATIONS MAINTENANCE CLUSTER (N=551)	AIRCRAFT GENERATION SQUADRON (AGS) COMMUNICATIONS MAINTENANCE CLUSTER (N=35)
<u>HOW DO YOU FIND YOUR JOB:</u>			
DULL	6	11	20
SO-SO	18	19	24
INTERESTING	73	70	56
<u>HOW DOES YOUR JOB UTILIZE YOUR TALENTS:</u>			
NOT AT ALL OR VERY LITTLE	23	22	41
FAIRLY WELL TO PERFECTLY	77	77	59
<u>HOW DOES YOUR JOB UTILIZE YOUR TRAINING:</u>			
NOT AT ALL OR VERY LITTLE	32	23	71
FAIRLY WELL TO PERFECTLY	68	77	29
<u>HOW SATISFIED ARE YOU WITH THE SENSE OF ACCOMPLISHMENT YOU GAIN FROM YOUR WORK:</u>			
DISSATISFIED	23	22	29
SO-SO	12	14	12
SATISFIED	65	63	59
<u>DO YOU PLAN TO RETIRE:</u>			
I WILL RETIRE (20 YEARS SERVICE)	12	3	-
NO OR PROBABLY NO	26	51	56
YES OR PROBABLY YES	62	45	42

TABLE 10

BACKGROUND INFORMATION FOR CLUSTERS AND INDEPENDENT JOB TYPES
IN THE AVIONIC COMMUNICATIONS/NAVIGATION SYSTEMS FUNCTIONAL AREA
(PERCENT RESPONDING)

	COMMUNICATIONS/ NAVIGATION SYSTEMS MAINTENANCE CLUSTER (N=84)	AIRCRAFT GENERATION SQUADRON COMMUNICATIONS/ NAVIGATION SYSTEMS MAINTENANCE CLUSTER (N=191)
<u>HOW DO YOU FIND YOUR JOB:</u>		
DULL	7	26
SO-SO	14	17
INTERESTING	79	56
<u>HOW DOES YOUR JOB UTILIZE YOUR TALENTS:</u>		
NOT AT ALL OR VERY LITTLE	18	48
FAIRLY WELL OR PERFECTLY	82	52
<u>HOW DOES YOUR JOB UTILIZE YOUR TRAINING:</u>		
NOT AT ALL OR VERY LITTLE	30	64
FAIRLY WELL TO PERFECTLY	69	36
<u>HOW SATISFIED ARE YOU WITH THE SENSE OF ACCOMPLISHMENT YOU GAIN FROM YOUR WORK:</u>		
DISSATISFIED	19	41
SO-SO	14	10
SATISFIED	66	48
<u>DO YOU PLAN TO REENLIST:</u>		
I WILL RETIRE (20 YEARS SERVICE)	1	1
NO OR PROBABLY NO	49	52
YES OR PROBABLY YES	49	45

TABLE 11

BACKGROUND INFORMATION FOR CLUSTERS AND INDEPENDENT JOB TYPES
IN THE AVIONIC NAVIGATION SYSTEMS FUNCTIONAL AREA
(PERCENT RESPONDING)

	TRANSPORT AIRCRAFT FLIGHTLINE NAVIGATION SYSTEMS MAINTENANCE CLUSTER (N=92)	NAVIGATION AIDS FLIGHTLINE SUPERVISORS INDEPENDENT JOB TYPE (N=10)	NAVIGATION SYSTEMS MAINTENANCE CLUSTER (N=470)	SEARCH AND WEATHER RADAR AND GENERAL AVIONIC MAINTENANCE INDEPENDENT JOB TYPE (N=11)	COMPONENT REPAIR SQUADRON (CRS) NAVIGATION SYSTEMS MAINTENANCE CLUSTER (N=37)	RECONNAISSANCE RADAR MAINTENANCE CLUSTER (N=38)
HOW DO YOU FIND YOUR JOB:						
DULL	10	10	9	9	16	16
SO-SO	23	10	12	-	11	24
INTERESTING	64	80	79	91	73	60
HOW DOES YOUR JOB UTILIZE YOUR TALENTS:						
NOT AT ALL OR VERY LITTLE	35	20	15	9	24	32
FAIRLY WELL TO PERFECTLY	65	80	85	91	76	68
HOW DOES YOUR JOB UTILIZE YOUR TRAINING:						
NOT AT ALL OR VERY LITTLE	38	20	16	27	27	50
FAIRLY WELL TO PERFECTLY	61	80	83	73	73	50
HOW SATISFIED ARE YOU WITH THE SENSE OF ACCOMPLISHMENT YOU GAIN FROM YOUR WORK:						
DISSATISFIED	31	30	18	18	22	29
SO-SO	9	-	10	9	8	21
SATISFIED	59	70	71	73	70	50
DO YOU PLAN TO REENLIST:						
I WILL RETIRE (20 YEARS SERVICE)	1	40	5	9	5	5
NO OR PROBABLY NO	50	10	49	18	43	58
YES OR PROBABLY YES	46	50	45	73	49	37

TABLE 12

BACKGROUND INFORMATION FOR CLUSTERS AND INDEPENDENT JOB TYPES
(PERCENT RESPONDING)

	INSPECTORS CLUSTER (N=36)	MANAGEMENT CLUSTER (N=113)	MAINTENANCE SCHEDULING MONITORS INDEPENDENT JOB TYPE (N=37)	INSTRUCTORS CLUSTER (N=5)	JOB CONTROLLERS INDEPENDENT JOB TYPE (N=18)
<u>HOW DO YOU FIND YOUR JOB:</u>					
DULL	6	8	11	-	17
SO-SO	11	10	19	40	22
INTERESTING	83	80	67	60	61
<u>HOW DOES YOUR JOB UTILIZE YOUR TALENTS:</u>					
NOT AT ALL OR VERY LITTLE	17	14	27	40	39
FAIRLY WELL TO PERFECTLY	83	84	73	60	61
<u>HOW DOES YOUR JOB UTILIZE YOUR TRAINING:</u>					
NOT AT ALL OR VERY LITTLE	25	27	22	40	67
FAIRLY WELL TO PERFECTLY	72	72	78	60	33
<u>HOW SATISFIED ARE YOU WITH THE SENSE OF ACCOMPLISHMENT YOU GAIN FROM YOUR WORK:</u>					
DISSATISFIED	14	19	24	40	39
SO-SO	8	3	16	-	17
SATISFIED	78	77	60	60	44
<u>DO YOU PLAN TO REENLIST:</u>					
I WILL RETIRE (20 YEARS SERVICE)	31	33	14	-	17
NO OR PROBABLY NO	5	15	43	20	33
YES OR PROBABLY YES	61	52	43	80	50

TABLE 13

AVIONIC COMMUNICATIONS MAINTENANCE SPECIALTY AND NAVIGATION
MAINTENANCE SPECIALTY JOBS IN ORDER OF JOB DIFFICULTY INDEX

GROUP		JDI	AVERAGE NUMBER OF TASKS PERFORMED	PERCENT 328X0 PERSONNEL	PERCENT 328X1 PERSONNEL
195	NAVIGATION SYSTEMS CLUSTER	19.2	307	1	99
243	AIRCRAFT IDENTIFICATION SYSTEMS MAINTENANCE INDEPENDENT JOB TYPE	16.5	181	0	100
223	COMPONENT REPAIR SQUADRON (CRS) NAVIGATION SYSTEMS MAINTENANCE CLUSTER	15.1	151	8	92
366	NAVIGATION AIDS FLIGHTLINE SUPERVISORS INDEPENDENT JOB TYPE	14.8	172	20	80
250	COMMUNICATIONS/NAVIGATION SYSTEMS MAINTENANCE CLUSTER	14.2	186	45	55
167	RECONNAISSANCE RADAR SYSTEMS MAINTENANCE CLUSTER**	14.1	109	0	97
101	COMMUNICATIONS MAINTENANCE CLUSTER	13.3	135	99	*
069	MANAGEMENT CLUSTER**	12.2		32	60
217	TRANSPORT AIRCRAFT FLIGHTLINE NAVIGATION SYSTEMS MAINTENANCE CLUSTER	12.0	141	2	98
070	INSPECTORS CLUSTER	9.8	46	31	69
064	INFLIGHT COMMUNICATIONS MAINTENANCE CLUSTER	9.6	56	91	9
066	INSTRUCTORS CLUSTER	9.2	23	38	62
218	AIRCRAFT GENERATION SQUADRON (AGS) COMMUNI- CATIONS MAINTENANCE CLUSTER	8.7	46	44	56
236	MAINTENANCE SCHEDULING MONITORS INDEPENDENT JOB TYPE	5.3	32	0	100
209	AIRCRAFT GENERATION SQUADRON (AGS) COMMUNICATIONS/NAVIGATION SYSTEMS MAINTENANCE CLUSTER	5.2	99	91	9
261	JOB CONTROLLERS INDEPENDENT JOB TYPE	4.1	13	28	72

* INDICATES LESS THAN ONE PERCENT

** CONTAINS MEMBERS RESPONDING WHO HELD DAFSC 32899 OR WHO FAILED TO INDICATE
THEIR AFSC

ANALYSIS OF DUTY AFSC GROUPS

In addition to identifying the job structure of career ladders, it is also relevant to examine trends as career ladder incumbents progress across the various skill levels. This analysis helps to identify similarities and differences among the skill level groups and aids in the evaluation of career ladder documents such as AFR 39-1 Specialty Descriptions and the Specialty Training Standards.

Overview of AFS 328X0 and AFS 328X1 Skill Level Groups

As with most specialties, the jobs of apprentice (3-skill level) respondents are primarily technical in nature. Table 14 presents data on the relative amounts of time spent on the various duties by 3-, 5-, and 7-skill level members of both the 328X0 and 328X1 ladders. The data show that apprentice personnel in both ladders spend the bulk of their time in specialty-specific and general avionic maintenance duties.

Upon completion of on-the-job training (OJT), members are upgraded to the specialist (5-skill) level. The 328X0 and 328X1 specialists continue to spend the majority of time on their jobs in the same duties as their apprentice counterparts. Specialists also begin to assume some supervisory and administrative duties. With increasing experience and training, specialists upgrade to the technician (7-skill) level. Technicians continue to perform tasks specific to their specialties and tasks of a general avionic maintenance nature, but, relative to specialists, the technicians spend a greater proportion of their job time involved in supervisory, administrative, and training activities.

AFS 328X0 Skill Level Progression

Among Avionic Communications personnel, the progression from apprentice to technician follows the pattern seen in the majority of maintenance career ladders in the Air Force. The tasks performed by apprentices involve primarily flightline responsibilities of operationally checking, isolating malfunctions, and removing and replacing components of UHF radio and interphone systems. Only a few of the tasks associated with shop environments, such as bench checking, removing or replacing subassemblies, and aligning interphone and UHF radio components, were endorsed by apprentices. The jobs performed by specialists tend to include more diversity than among the apprentices. Personnel at the specialist level continue to maintain UHF radio and interphone systems, but they also may maintain components of HF, VHF, AM, and emergency radio systems. Some specialists (38 percent) also indicated that they supervise AFS 32830 personnel. The broadening of responsibilities at the specialist level can be seen in the number of tasks accounting for the bulk of their time on the job. Only 56 tasks account for half of the time spent by apprentices on their jobs, while 81 tasks account for the same proportion of job time for specialists. Also, within these two groups of tasks, the percent members performing data associated with apprentices are generally higher than for specialists. This implies that the jobs of specialists are more diverse than the jobs of apprentices.

At the technician level respondents endorsed an even greater proportion of tasks in the supervisory, administrative, and training areas than did the specialists. Of the 101 tasks that account for 50 percent of technicians time on the job, 46 tasks were of a supervisory or training nature. Another 13 tasks were maintenance administration tasks related to completing forms, locating technical information, and coordinating avionic maintenance with other mission maintenance activities. Only 42 tasks involved performing general avionic maintenance activities or maintenance tasks related specifically to avionic communications systems. The trend of lower percent members performing tasks, seen in the jobs of specialists relative to apprentices, is even more pronounced at the technician level. This indicates that the technicians perform jobs with even more diversity than do the specialists. Table 15 contains 25 tasks that illustrate the differences among the three skill level groups in the 328X0 career ladder. While this list is not exhaustive, the nature of the tasks and the associated percent performing data reflect general distinctions between these skill level groups.

AFS 328X1 Skill Level Progression

The progression from apprentice to technician within the Avionic Navigation Systems specialty follows essentially the same pattern as was seen through the 328X0 career ladder. The major difference between the two ladders, in terms of the pattern of skill level progression is that AFS 328X1 personnel are responsible for maintaining a wider variety of equipment than the 328X0 specialty. Again, the jobs of apprentice AFS 328X1 members include primarily flightline tasks of operationally checking, isolating malfunctions, and removing or replacing specialty-specific system components; in this case, navigation systems. The primary systems occupying their time on the job include airborne identification, instrument landing, TACAN, search and weather radar, and radio/radar altimeter systems. With so many systems to maintain, the jobs of AFS 32831 personnel are more heterogeneous than the jobs of the AFS 32830 personnel. At the specialist level, the pattern of increasing diversity of jobs was seen again in the 328X1 ladder. Specialists spend half of their time on the job performing 155 tasks, while apprentices spend the same proportion on only 124 tasks. Specialists in the 328X1 ladder perform essentially the same type of tasks, such as operationally checking, isolating malfunctions, and removing or replacing components, on the same types of equipment as was seen in the apprentice group. The major differences, essentially, are the breadth of jobs performed by specialists and the fact that they assume some supervisory tasks.

There are minor differences in the career progression between the technicians in the Avionic Navigation Systems specialty and the 328X0 specialty. In this case, technicians actually perform fewer tasks (125) than do specialists (155 tasks) in accounting for half of their time on the job. However, within the 125 tasks, the parallel between AFS 32871 respondents and the AFS 32870 respondents is observable, with most AFS 32871 personnel endorsing 60 supervisory or training tasks and 23 administrative record keeping and coordinating tasks. The 42 technical tasks endorsed by most 7-skill level respondents in the 328X1 career ladder included general avionic maintenance and specialty-specific maintenance of the same systems maintained by the 328X1 apprentices and specialists. Table 16 presents some tasks which

highlight the differences among the 3-, 5-, and 7-skill levels of the 328X1 career ladder. Again, caution should be used in viewing this table in that these tasks are meant to highlight differences in the nature of jobs at these three skill levels, not to be an exhaustive description of specialty differences. Such products are available in the extracts of computer data on which this report is based.

Evaluation of Commonality Between Specialties

Since one of the primary issues to be addressed in this study is whether it is feasible to merge the 328X0 and 328X1 career ladders, it is useful to reexamine Table 14 in light of the overlap of the specialties performing maintenance on systems designated to be maintained by the other career ladder. The data contained in that table indicate that the degree of cross utilization within these career fields is minimal. In most cases, less than one percent of any skill level group indicated performing maintenance duties not designated to their career ladder according to AFR 39-1, Specialty Descriptions. Of the few exceptions, the greatest cross utilization appears to be in apprentice and specialist AFS 328X0 personnel maintaining the instrument landing, airborne identification, TACAN, and automatic direction finder navigation systems; and apprentice and specialist AFS 328X1 personnel maintaining UHF communications systems. Relative to the amount of time spent in specialty-specific maintenance activities, the degree of overlap into cross utilization maintenance activities appears inconsequential.

Summary

The analysis of survey respondents by duty AFSC groups reveals a common pattern of skill level progression, from limited technical, OJT-oriented jobs at the apprentice levels, through expanding responsibilities as technical skill increases with experience at the specialist levels, to broad responsibilities at the technician levels, not only for the specialty-specific maintenance tasks, but also for the maintenance administration, supervision, and training responsibilities necessary for the effective operation of avionic maintenance activities. The degree of overlap in technical, specialty-specific types of tasks indicates that the degree of cross-utilization actually being performed is small relative to the specialty-designated technical maintenance of both career ladders.

TABLE 14

RELATIVE PERCENT TIME SPENT ON DUTIES BY DAFSC GROUP

DUTIES	DAFSC					
	32830 N=82	32850 N=541	32870 N=271	32831 N=129	32851 N=632	32871 N=362
A ORGANIZING AND PLANNING	*	2	7	*	1	7
B DIRECTING AND IMPLEMENTING	*	4	14	*	4	13
C EVALUATING AND INSPECTING	*	2	9	*	1	8
D TRAINING	1	2	7	1	3	6
E PERFORMING MAINTENANCE ADMINISTRATION FUNCTIONS	7	9	13	6	7	13
F PERFORMING ASSIST TASK QUALIFICATION TRAINING (ATQT) DUTIES	4	6	4	4	4	3
G PERFORMING GENERAL AIRCRAFT AVIONICS SYSTEMS MAINTENANCE	14	14	9	14	11	8
AFS 328X0 DUTIES						
H MAINTAINING ULTRA HIGH FREQUENCY (UHF) RADIO SYSTEMS	17	12	7	2	2	*
J MAINTAINING VERY HIGH FREQUENCY (VHF) RADIO AMPLITUDE MODULATED (AM) SYSTEMS	6	5	3	*	*	*
L MAINTAINING VERY HIGH FREQUENCY (VHF) RADIO FREQUENCY MODULATED (FM) SYSTEMS	3	2	2	*	*	*
N MAINTAINING HIGH FREQUENCY (HF) RADIO SYSTEMS	14	13	8	*	*	*
P MAINTAINING INTERPHONE SYSTEMS	13	9	5	*	1	*
R MAINTAINING PUBLIC ADDRESS (PA) SYSTEMS	2	2	1	*	*	*
T MAINTAINING ULTRA HIGH FREQUENCY (UHF) DIRECTION FINDER (DF) SYSTEMS	3	3	3	*	*	*
V MAINTAINING EMERGENCY RADIO (ER) SYSTEMS	2	1	*	*	*	*
X MAINTAINING CRASH POSITION INDICATING/CRASH DATA POSITION INDICATING AND RECORDING (CPI/CDPIR) SYSTEMS	4	3	2	*	*	*
AFS 328X1 DUTIES						
I MAINTAINING VISUAL OMIRANGE/INSTRUMENT LANDING (VOR/ILS) SYSTEMS	2	2	1	16	13	8
K MAINTAINING RENDEZVOUS RADAR BEACON (RRB) SYSTEMS	*		*	2	2	1
M MAINTAINING RADIO/RADAR ALTIMETERS (RRA)	*		*	5	5	3
O MAINTAINING AIRBORNE IDENTIFICATION SYSTEMS	2	2	1	12	14	9
Q MAINTAINING TACTICAL AIR NAVIGATION (TACAN) SYSTEMS AND ASSOCIATED INSTRUMENTATION EQUIPMENT	2	3	1	10	9	9
S MAINTAINING LONG RANGE NAVIGATION (LORAN) AND OMEGA SYSTEMS	0	*	*	1	2	1
U MAINTAINING AUTOMATIC DIRECTION FINDER (ADF) SYSTEMS	2	3	*	5	3	2
W MAINTAINING SEARCH AND WEATHER RADAR (SW) SYSTEMS	*	*	*	12	11	6
Y MAINTAINING STATION KEEPING EQUIPMENT (SKE) SYSTEMS	0	*	*	2	2	*
Z MAINTAINING RECONNAISSANCE RADAR SYSTEMS	*	*	*	3	3	1

* INDICATES LESS THAN ONE PERCENT

TABLE 15

TASKS ILLUSTRATIVE OF 328X0 SKILL LEVEL DIFFERENCES

TASKS		32830 (N=82)	32850 (N=541)	32870 (N=271)
C92	PREPARE APRs	1	21	66
B29	COUNSEL PERSONNEL ON MILITARY RELATED PROBLEMS OR PERSONAL PROBLEMS	1	19	63
C86	INSPECT COMPLETED JOBS	9	28	61
B59	SUPERVISE AVIONIC COMMUNICATIONS SPECIALISTS (AFSC 32850)	0	26	58
B54	ORIENT NEWLY ASSIGNED PERSONNEL	9	30	57
D104	DEMONSTRATE HOW TO LOCATE TECHNICAL INFORMATION	10	32	56
A5	DETERMINE WORK PRIORITIES	5	25	49
D100	CONDUCT OJT OR QUALIFICATION TRAINING	4	21	48
A17	PLAN WORK ASSIGNMENTS	1	15	48
D119	MAINTAIN TRAINING RECORDS, CHARTS, OR GRAPHS	1	17	47
T715	ISOLATE MALFUNCTIONS IN UHF DF SYSTEMS	30	40	41
G232	REMOVE OR REPLACE RADIO FREQUENCY (RF) COAXIAL CABLE	78	80	57
F178	OPERATE AEROSPACE GROUND EQUIPMENT (AGE), SUCH AS POWER UNITS, HEATERS, OR LIGHT CARTS	49	62	45
G228	REMOVE OR REPLACE AVIONIC SYSTEM RELAYS	49	61	42
N443	BENCH CHECK HF RECEIVER-TRANSMITTERS	51	58	31
H243	REMOVE OR REPLACE UHF CONTROL UNITS	93	83	65
P531	ISOLATE MALFUNCTIONS IN INTERPHONE SYSTEMS	90	79	64
G235	SOLDER AVIONIC SYSTEM WIRING	89	82	62
G233	SAFETY WIRE OR BOND SYSTEM COMPONENTS	89	78	53
H239	ADJUST ULTRA HIGH FREQUENCY (UHF) RADIO SYSTEMS	88	74	54
E162	MAKE ENTRIES ON REPARABLE ITEM PROCESSING TAG FORMS (AFTO FORM 350)	81	72	61
H258	REMOVE OR REPLACE UHF RECEIVER-TRANSMITTER SUBASSEMBLIES	81	60	42
E160	MAKE ENTRIES ON MAINTENANCE DATA COLLECTION RECORD FORMS (AFTO FORM 349)	78	71	59
G211	CLEAN PARTS OR COMPONENTS	69	61	41
J321	REMOVE OR REPLACE VHF AM ANTENNAS	49	43	30

TABLE 16

TASKS ILLUSTRATIVE OF 328X1 SKILL LEVEL DIFFERENCES
(PERCENT MEMBERS PERFORMING)

TASKS	32831 (N=129)	32851 (N=632)	32871 (N=362)
C92 PREPARE APRs	4	23	70
C86 INSPECT COMPLETED JOBS	9	30	68
B29 COUNSEL PERSONNEL ON MILITARY RELATED PROBLEMS OR PERSONAL PROBLEMS	2	19	61
D104 DEMONSTRATE HOW TO LOCATE TECHNICAL INFORMATION	10	32	60
B61 SUPERVISE AVIONIC NAVIGATION SYSTEMS SPECIALISTS (AFSC 32851)	2	23	60
A5 DETERMINE WORK PRIORITIES	10	26	58
E173 RESEARCH OR IDENTIFY PARTS USING ILLUSTRATED PARTS BREAKDOWN	34	49	54
A17 PLAN OR SCHEDULE WORK ASSIGNMENTS	5	18	53
D103 COUNSEL TRAINEES ON TRAINING PROGRESS	3	19	51
D100 CONDUCT OJT OR QUALIFICATION TRAINING	8	23	48
O460 ISOLATE MALFUNCTIONS IN IDENTIFICATION FRIEND OR FOE/SELF IDENTIFICATION FEATURE (IFF/SIF/AIMS)	68	74	55
I266 OPERATE ASSOCIATED SYSTEMS CHECKING VOR/ILS	65	72	54
Q547 ISOLATE MALFUNCTIONS IN TACAN SYSTEMS	64	71	53
I273 REMOVE OR REPLACE GLIDESLOPE RECEIVERS	67	70	49
G231 REMOVE OR REPLACE MULTIPLE WIRE PLUGS	75	69	49
G218 INSPECT PARTS RECEIVED FROM SUPPLY OR MANUFACTURERS	57	68	55
G212 DIAGNOSE MOCKUP MALFUNCTIONS	53	62	49
G223 PERFORM CORROSION CONTROL ON AVIONIC EQUIPMENT	52	58	47
M392 REMOVE OR REPLACE RRA	35	47	35
Q556 REMOVE OR REPLACE TACAN ANTENNAS	63	63	47
G233 SAFETY WIRE OR BOND SYSTEM COMPONENTS	91	81	55
O469 REMOVE OR REPLACE IFF/SIF/AIMS RECEIVER-TRANSMITTERS	77	75	44
Q565 REMOVE OR REPLACE TACAN RECEIVER-TRANSMITTERS	75	71	54
G229 REMOVE OR REPLACE AVIONIC SYSTEM WIRING OR CABLES	74	71	50
I284 REMOVE OR REPLACE VOR/ILS INDICATORS	64	63	41
W800 REMOVE OR REPLACE SW ANTENNAS	50	46	31
W796 ISOLATE MALFUNCTIONS IN SW SYSTEMS	47	46	31

COMPARISON OF SURVEY DATA TO AFR 39-1 SPECIALTY DESCRIPTIONS

The survey data collected in this study were compared to the current (31 October 1979) AFR 39-1 Specialty Descriptions for DAFSCs 32870, 32810/32830/32850, 32871, and 32811/32831/32851. The AFR 39-1 descriptions are intended to give a broad overview of duties and tasks required of personnel assigned to Air Force Specialties at the various skill levels.

Overall, the descriptions in the current AFR 39-1 were well supported by data collected in this study. Two comments, however, can be made regarding these Specialty Descriptions. First, a substantial group of personnel in both specialties and at most skill levels perform assist-tasks, such as operating Aerospace Ground Equipment (AGE), operating or servicing maintenance dispatch vehicles, launching or recovering aircraft, and transporting test equipment to or from the flightline. These tasks may warrant consideration for inclusion into any upcoming revisions of AFR 39-1. The second suggestion is that the specialty descriptions adequately describe the jobs of AFS 328X0 and AFS 328X1 personnel in situations where sufficient numbers of personnel assigned allow managers to maintain separate communications and navigation systems maintenance activities, but only describe part of the jobs of personnel in units where managers must cross-utilize personnel in order to accomplish the maintenance mission.

The degree of overlap noted in the second functional area of the CAREER LADDER STRUCTURE section and in the percent time spent overlapping duties observed in the ANALYSIS OF DUTY AFSC GROUPS section suggest that the small degree of overlap fails to support major revision of the Specialty Descriptions. A minor change to reflect the fact that cross utilization activities may be part of incumbents' jobs would clarify the AFR 39-1 Specialty Descriptions.

ANALYSIS OF MAJOR COMMAND DIFFERENCES

An analysis of several types of occupational survey data reported by members of major command (MAJCOM) groups commonly forms part of each Occupational Survey Report. In many specialties, the jobs performed by various groups of personnel differ little across MAJCOMs; however, this is not the case with the 328X0 and 328X1 specialties. To aid in the analysis of the five largest using MAJCOMs, tables at the end of this section provide a variety of information which highlight the differences among MAJCOMs. Table 17 displays the distribution of members of job groups identified in the CAREER LADDER STRUCTURE section, by MAJCOM of assignment. Tables 18 and 19, respectively, show the relative amounts of time spent performing various duties by AFS 328X0 and AFS 328X1 personnel assigned to the five MAJCOMs. Tables 20 and 21 expand on the previous tables by identifying specific tasks performed by AFS 328X0 and AFS 328X1 personnel in the MAJCOM groups. These tasks illustrate differences in utilization of MAJCOM personnel. Tables 22 and 23 contain background data on personnel in the MAJCOM groups. Finally, Tables 24 and 25 present job satisfaction indices of the MAJCOM groups.

The differences found in this analysis are probably due to three factors. The first factor is the types of aircraft and associated avionic systems employed by the MAJCOMs. SAC and MAC appear to have a commonality based upon the fact that they generally employ large aircraft which range over long distances. Thus, they are characterized by maintaining high frequency radios (used in long distance communication), and search and weather radar (used when the aircraft must operate independently from ground controls). The smaller aircraft generally found in TAC, USAFE, and ATC appear to be common due to their shorter range and flight time, which generates greater emphasis on tactical navigation and reconnaissance radar systems.

A second factor generating differences appears related to missions of the MAJCOMs. MAC personnel spend a substantial amount of time on crash position indicators and station keeping equipment (used in maintaining positions during air-to-air refueling activities). SAC personnel spend a substantial amount of time maintaining rendezvous radar beacon systems (used in long range flight activities). The training mission of ATC is reflected in the training tasks and duties performed by ATC-assigned personnel.

The third factor generating MAJCOM differences appears to be related to the maintenance organization philosophy used by each command. TAC and USAFE, and to some degree ATC, which are organized under POMO, are characterized by substantial amounts of time on the job and percent members performing tasks related to nonavionic aircraft maintenance and cross-utilization between specialties. MAC and SAC, however, tend to perform few cross-utilization or assist-task functions. Their jobs focus more on maintaining specialty-specific systems.

SAC

The 449 SAC respondents include 172 personnel with DAFSC 328X0 and 277 personnel with DAFSC 328X1. They are found primarily in the Communications Maintenance, Navigation Systems, and Instructors clusters. The maintenance concept of AFR 66-1 appears to divide these respondents into discrete groups, according to specialty; with communications specialty personnel focusing on maintaining ultra high frequency and high frequency radio systems, and navigation specialty personnel focusing on maintaining airborne identification systems, rendezvous radar beacons, and radio/radar altimeters. The job satisfaction responses of SAC personnel in both specialties are the highest of any of the MAJCOM groups. The perceived utilization of talents of both specialties are particularly high (85 percent of AFS 328X0s and 82 percent of AFS 328X1s indicating their jobs utilize their talents fairly well or better).

MAC

The 557 MAC respondents include 243 who hold DAFSC 328X0 and 314 who hold DAFSC 328X1. MAC personnel also concentrate in the specialty specific job groups of Communications Maintenance and Navigation Systems clusters. They also concentrate in the Transport Aircraft Flightline Navigation Systems Maintenance cluster. The jobs of MAC personnel with DAFSC 328X0 are characterized by tasks related to maintaining VHF AM and FM radio, high frequency radio, public address, and crash data position indicating and recording systems. The jobs of MAC personnel with DAFSC 328X1 are characterized by tasks related to maintaining station keeping equipment, OMEGA long range navigation and multimode radar systems. The job satisfaction indices are high for MAC personnel relative to the other MAJCOMs. Perceived utilization of talents and training are notably higher than most other MAJCOMs.

ATC

The 187 respondents assigned to ATC include 81 DAFSC 328X0 and 106 DAFSC 328X1 personnel. The two job groups containing the majority of ATC personnel are the Instructors and the Communication/Navigation Systems Maintenance clusters. The primary mission of ATC is most clearly identified in tasks performed by members of both specialties, such as developing training aids, writing test questions, and preparing lesson plans. The similarity of ATC to TAC and USAFE are illustrated in the cross utilization of AFS 328X0 personnel in maintaining instrument landing and TACAN systems, and of AFS 328X1 personnel in maintaining interphone and UHF radio systems. The job satisfaction indices of ATC personnel are fairly high. ATC personnel have the highest percentages of members intending to reenlist. This is probably related to the fact that ATC personnel are the most senior in terms of active military service, with AFS 328X0 respondents averaging 103 months, and AFS 328X1 respondents averaging 112 months.

TAC and USAFE

These two commands are discussed together rather than separately, since they are quite similar to one another. Both differ from the other MAJCOMs substantially. The 449 members of TAC include 241 with DAFSC 328X0, and 208 with DAFSC 328X1. The 203 members of USAFE included 78 who hold DAFSC 328X0, and 125 who hold DAFSC 328X1. Job groups which had the largest concentrations of respondents were the Aircraft Generation Squadron (AGS) Communications/Navigation Maintenance, the Component Repair Squadron (CRS), Navigation Systems Maintenance and the Reconnaissance Radar Maintenance clusters. TAC also had substantial concentrations of respondents in the Inflight Communications Maintenance and Aircraft Generation Squadron (AGS) Communications Maintenance clusters. Tasks characteristic of these two MAJCOMs include cross utilization and assist task activities. Communications specialty personnel of TAC and USAFE differ from AFS 328X0 personnel of other MAJCOMs in that substantially higher percentages of TAC and USAFE perform maintenance tasks on TACAN, instrument landing, airborne identification, and radio/radar altimeter systems. Likewise, AFS 328X1 personnel in TAC and USAFE had higher percentages than other MAJCOMs in maintenance on UHF, VHF, FM, and VHF AM radio, and inter-phone systems. In addition, TAC and USAFE personnel of both specialties also have higher percentages than do other MAJCOMs performing assist-tasks, such as walking wings and tails, chocking aircraft, and jacking or leveling aircraft. This commonality between TAC and USAFE appears primarily due to the POMO maintenance concept.

Under the POMO concept, the responsibilities for maintaining avionic systems are divided between two types of units. The Aircraft Generation Squadrons perform two activities. First, they perform tasks related to isolating malfunctions to the component level and remove or replace components of communications or navigation systems. Second, they assist in performing any other tasks that help in generating aircraft sorties once their specialty-specific jobs are completed. The Component Repair Squadrons, on the other hand perform fewer cross-utilization tasks or assist tasks, but rather, spend most of their time repairing defective communications or navigation components (black boxes) identified by the flightline AGS personnel. The job satisfaction indices for TAC and USAFE personnel were somewhat lower than other MAJCOMs. The most substantial differences noted were in perceived utilization of talents, training, and sense of accomplishment gained from jobs. Yet, these job satisfaction indices are somewhat misleading. A more detailed look within POMO units provides a more striking difference.

POMO Units

The first enlistment respondents to this survey were divided into groups based upon their responses to the background question of their assignment to POMO Units. Tables 26 and 27 contain the job satisfaction responses of first enlistment groups of AFS 328X0 and AFS 328X1 personnel, respectively, who are either not assigned under POMO, or are assigned to Aircraft Generation Squadrons (AGS) or Component Repair Squadron (CRS). The data for members of Equipment Maintenance Squadrons and Deputy Commander for

Maintenance units were not included since very few members of either specialty are assigned to these units. The data show that, within POMO units, there are substantial differences in perceptions of members regarding how well their jobs utilize talents and training, and in the sense of accomplishment gained from their jobs. Most members of CRSs indicated that their talents and training were well utilized. Dramatically lower percentages of AGS personnel felt that their jobs utilized talents and training well. The consistency between AFS 328X0 and AFS 328X1 personnel in response patterns to these indices indicate that there are substantial problems in the job satisfaction areas of training and talent utilization.

TABLE 17

MAJOR COMMAND DISTRIBUTION ACROSS JOB GROUPS
(NUMBER RESPONDING)

JOB GROUP	SAC (N=449)	MAC (N=557)	ATC (N=187)	TAC (N=449)	USAFE (N=203)	OTHER MAJCOMS (N=167)
GP0101 COMMUNICATIONS MAINTENANCE CLUSTER	153	199	32	79	41	47
GP0195 NAVIGATION SYSTEMS CLUSTER	185	146	26	46	27	40
GP0070 INSPECTORS CLUSTER	15	9	1	6	4	1
GP0069 MANAGEMENT CLUSTER	19	32	8	30	12	12
GP0217 TRANSPORT AIRCRAFT FLIGHTLINE NAVIGATION SYSTEMS MAINTENANCE CLUSTER	6	76	-	6	2	2
GP0066 INSTRUCTORS CLUSTER	-	3	31	2	1	
GP0250 COMMUNICATIONS-NAVIGATION SYSTEMS MAINTENANCE CLUSTER	16	3	28	26	2	9
GP0064 INFLIGHT COMMUNICATIONS MAINTENANCE CLUSTER	1	8	-	25	-	-
GP0209 AIRCRAFT GENERATION SQUADRON (AGS) COMMUNICATIONS SYSTEMS MAINTENANCE CLUSTER	1	-	3	19	3	9
GP0218 AIRCRAFT GENERATION SQUADRON (AGS) COMMUNICATIONS/NAVIGATION SYSTEMS MAINTENANCE CLUSTER	-	2	12	101	52	24
GP0223 COMPONENT REPAIR SQUADRON (CRS) NAVIGATION SYSTEMS MAINTENANCE CLUSTER	1	-	4	15	15	2
GP0167 RECONNAISSANCE RADAR SYSTEMS MAINTENANCE CLUSTER	-	2	-	20	7	9
GP0366 NAVIGATION AIDS FLIGHTLINE SUPERVISORS INDEPENDENT JOB TYPE	-	5	-	3	2	-
GP0243 SEARCH AND WEATHER RADAR AND GENERAL AVIONICS MAINTENANCE INDEPENDENT JOB TYPE	-	3	3	4	-	1
GP0236 MAINTENANCE SCHEDULING MONITORS INDEPENDENT JOB TYPE	-	1	-	3	1	-
GP0261 JOB CONTROLLERS INDEPENDENT JOB TYPE	5	7	2	2	1	1
NOT GROUPED	47	61	37	62	33	10

TABLE 18

RELATIVE PERCENT TIME SPENT ON DUTIES BY AFS 328X0 PERSONNEL
IN FIVE MAJOR COMMANDS

<u>DUTIES</u>	<u>SAC</u>	<u>MAC</u>	<u>ATC</u>	<u>TAC</u>	<u>USAFE</u>
A ORGANIZING AND PLANNING	2	3	3	4	4
B DIRECTING AND IMPLEMENTING	7	6	8	8	7
C EVALUATING AND INSPECTING	3	3	3	5	3
D TRAINING	2	2	20	3	1
E PERFORMING MAINTENANCE ADMINISTRATION FUNCTIONS	10	9	9	10	10
F PERFORMING ASSIST TASK QUALIFICATION TRAINING (ATQT) DUTIES	3	4	3	6	10
G PERFORMING GENERAL AIRCRAFT AVIONIC SYSTEMS MAINTENANCE	14	11	11	12	12
N MAINTAINING HIGH FREQUENCY (HF) RADIO SYSTEMS	21	17	6	5	6
H MAINTAINING ULTRA HIGH FREQUENCY (UHF) RADIO SYSTEMS	12	9	9	12	12
P MAINTAINING INTERPHONE SYSTEMS	10	8	6	8	7
T MAINTAINING ULTRA HIGH FREQUENCY (UHF) DIRECTION FINDER (DF) SYSTEMS	5	2	2	3	3
J MAINTAINING VERY HIGH FREQUENCY(VHF) RADIO AMPLITUDE MODULATED (AM) SYSTEMS	2	8	3	3	5
L MAINTAINING VERY HIGH FREQUENCY (VHF) RADIO FREQUENCY MODULATED (FM) SYSTEMS	*	3	2	3	3
U MAINTAINING AUTOMATIC DIRECTION FINDER (ADF) SYSTEMS	3	*	*	3	3
V MAINTAINING EMERGENCY RADIO (ER) SYSTEMS	2	1	*	1	1
X MAINTAINING CRASH POSITION INDICATING/CRASH DATA POSITION INDICATING AND RECORDING (CPI/CDPIR) SYSTEMS	*	7	2	*	*
I MAINTAINING VISUAL OMNI RANGE/INSTRUMENT LANDING (VOR/ILS) SYSTEMS	*	*	5	4	1
Q MAINTAINING TACTICAL AIR NAVIGATION SYSTEMS AND ASSOCIATED INSTRUMENTATION EQUIPMENT	*	*	3	4	4
O MAINTAINING AIRBORNE IDENTIFICATION SYSTEMS	*	*	2	3	4
R MAINTAINING PUBLIC ADDRESS (PA) SYSTEMS	*	5	1	*	*
M MAINTAINING RADIO/RADAR ALTIMETERS (RRA)	*	*	-	1	1
Z MAINTAINING RECONNAISSANCE RADAR SYSTEMS	*	*	1	*	*
K MAINTAINING RENDEZVOUS RADAR BEACON (RRB) SYSTEMS	*	*	-	*	*
S MAINTAINING LONG RANGE NAVIGATION (LORAN) AND OMEGA SYSTEMS	-	*	-	*	*
W MAINTAINING SEARCH AND WEATHER RADAR (SW) SYSTEMS	*	*	*	*	*
Y MAINTAINING STATION KEEPING EQUIPMENT (SKE) SYSTEMS	*	*	*	*	-

* INDICATES LESS THAN ONE PERCENT

TABLE 19
RELATIVE PERCENT TIME SPENT ON DUTIES BY AFS 328X1 PERSONNEL
IN FIVE MAJOR COMMANDS

DUTIES	SAC	MAC	ATC	TAC	USAF
A ORGANIZING AND PLANNING	2	3	4	4	4
B DIRECTING AND IMPLEMENTING	6	5	7	8	8
C EVALUATING AND INSPECTING	3	4	3	4	5
D TRAINING	2	3	16	3	3
E PERFORMING MAINTENANCE ADMINISTRATION FUNCTIONS	9	7	10	10	10
F PERFORMING ASSIST-TASK QUALIFICATION TRAINING (ATQT) DUTIES	3	3	2	6	7
G PERFORMING GENERAL AIRCRAFT AVIONIC SYSTEMS MAINTENANCE	11	10	9	11	10
W MAINTAINING SEARCH AND WEATHER RADAR (SW) SYSTEMS	16	14	4	2	3
I MAINTAINING VISUAL OMNI RANGE/INSTRUMENT LANDING (VOR/ILS) SYSTEMS	13	12	13	10	8
O MAINTAINING AIRBORNE IDENTIFICATION SYSTEMS	13	9	12	12	14
Q MAINTAINING TACTICAL AIR NAVIGATION SYSTEMS AND ASSOCIATED INSTRUMENTATION EQUIPMENT	7	7	7	10	7
M MAINTAINING RADIO/RADAR ALTIMETERS (RRA)	7	4	3	4	5
U MAINTAINING AUTOMATIC DIRECTION FINDER (ADF) SYSTEMS	*	7	1	2	1
S MAINTAINING LONG RANGE NAVIGATION (LORAN) AND OMEGA SYSTEMS	*	2	1	*	3
Z MAINTAINING RECONNAISSANCE RADAR SYSTEMS	*	2	*	5	3
H MAINTAINING ULTRA HIGH FREQUENCY (HF) RADIO SYSTEMS	*	*	2	3	3
P MAINTAINING INTERPHONE SYSTEMS	*	*	2	2	2
L MAINTAINING VERY HIGH FREQUENCY (VHF) RADIO FREQUENCY MODULATED (FM) SYSTEMS	*	*	*	1	1
K MAINTAINING RENDEZVOUS RADAR BEACON (RRB) SYSTEMS	5	*	*	*	1
Y MAINTAINING STATION KEEPING EQUIPMENT (SKE) SYSTEMS	*	5	*	*	*
J MAINTAINING VERY HIGH FREQUENCY (VHF) RADIO AMPLITUDE MODULATED (AM) SYSTEMS	*	*	*	*	*
N MAINTAINING HIGH FREQUENCY (HF) RADIO SYSTEMS	*	*	*	*	*
R MAINTAINING PUBLIC ADDRESS (PA) SYSTEMS	-	*	*	*	*
T MAINTAINING ULTRA HIGH FREQUENCY (UHF) DIRECTION FINDER (DF) SYSTEMS	*	*	*	*	*
V MAINTAINING EMERGENCY RADIO (ER) SYSTEMS	*	*	*	*	*
X MAINTAINING CRASH POSITION INDICATING/CRASH DATA POSITION INDICATING AND RECORDING (CPI/CDPIR) SYSTEMS	-	*	*	*	*

* INDICATES LESS THAN ONE PERCENT

TABLE 20

TASKS PERFORMED BY AFS 328X0 PERSONNEL WHICH BEST DIFFERENTIATE MAJOR COMMAND GROUPS
(PERCENT MEMBERS PERFORMING)

TASKS	SAC	MAC	ATC	TAC	USAFE
P531 ISOLATE MALFUNCTIONS IN INTERPHONE SYSTEMS	85	77	59	74	67
H250 BENCH CHECK UHF RECEIVER-TRANSMITTERS	84	63	58	37	54
H247 ALIGN UHF RECEIVER-TRANSMITTERS	80	59	54	37	54
T715 ISOLATE MALFUNCTIONS IN UHF DF SYSTEMS	62	29	25	3	40
V787 ALIGN EMERGENCY RADIOS (ER)	51	31	19	13	17
N432 REMOVE OR REPLACE HF COUPLERS	86	84	25	25	33
N429 OPERATIONALLY CHECK HF SYSTEMS USING FTE	77	63	19	18	31
J323 REMOVE OR REPLACE VHF AM RECEIVER-TRANSMITTERS	31	78	25	35	39
R611 OPERATIONALLY CHECK PA SYSTEMS	24	78	21	20	18
J325 ALIGN VHF AM RECEIVER-TRANSMITTERS	16	57	26	13	32
X876 REMOVE OR REPLACE CDPIR TRANSMITTERS	3	34	0	1	1
L362 ISOLATE MALFUNCTIONS IN VHF FM SYSTEMS	10	31	23	34	28
U740 OPERATIONALLY CHECK ADF SYSTEMS	30	5	9	31	19
I262 ISOLATE MALFUNCTIONS IN INSTRUMENT LANDING SYSTEMS (ILS)	2	2	25	27	18
Q547 ISOLATE MALFUNCTIONS IN TACAN SYSTEMS	3	3	21	30	32
O463 OPERATIONALLY CHECK IFF/SIF/AIMS USING BITE OR SELF- TEST SETS	*	3	14	27	27
M397 REMOVE OR REPLACE RRA RECEIVER-TRANSMITTERS	1	1	0	15	11
M389 OPERATIONALLY CHECK RRA USING BITE OR SELF-TEST SETS	*	2	0	12	10
F195 POSITION OR REMOVE AIRCRAFT CHOCKS	4	11	4	19	37
F183 GROUND AIRCRAFT	16	16	15	19	33
F185 JACK OR LEVEL AIRCRAFT	1	11	3	12	29
F193 PERFORM THRU FLIGHT OR POSTFLIGHT INSPECTIONS	3	9	10	12	24
F196 REMOVE OR INSTALL AIRCRAFT EXTERNAL FUEL TANKS	0	1	0	2	18
D122 PREPARE LESSON PLANS	2	4	52	3	0
D110 DEVELOP TRAINING AIDS	6	5	37	7	0
D130 WRITE TEST QUESTIONS	*	3	35	6	0

* INDICATES LESS THAN ONE PERCENT

TABLE 21

TASKS PERFORMED BY AFS 328X1 PERSONNEL WHICH BEST DIFFERENTIATE MAJOR COMMAND GROUPS
(PERCENT MEMBERS PERFORMING)

TASKS	SAC	MAC	ATC	TAC	USAFE
M390 OPERATIONALLY CHECK RRA USING FTE	71	25	19	19	19
K335 ISOLATE MALFUNCTIONS IN RRB SYSTEMS	66	5	6	14	22
Q544 ADJUST TACTICAL AIR NAVIGATION (TACAN) SYSTEMS	63	40	38	41	37
K347 ALIGN RRB RECEIVERS	56	3	7	9	14
O481 BENCH CHECK IFF/SIF/AIMS ANTENNA SELECTORS	43	25	26	18	16
I265 ISOLATE MALFUNCTIONS IN VISUAL OMNI RANGE (VOR) SYSTEMS	78	76	54	51	54
W797 OPERATIONALLY CHECK SW SYSTEMS	73	64	20	11	10
W809 REMOVE OR REPLACE SW RECEIVER-TRANSMITTERS	69	67	17	12	10
G210 ADJUST OR ALIGN AVIONIC PRESSURIZATION SYSTEMS	67	50	11	13	17
U740 OPERATIONALLY CHECK ADF SYSTEMS	16	72	23	25	19
Y909 REMOVE OR REPLACE SKE RECEIVER-TRANSMITTERS	*	39	2	0	2
S642 REMOVE OR REPLACE OMEGA COMMAND/CONTROL DISPLAY UNITS	1	31	9	3	3
S645 REMOVE OR REPLACE OMEGA RECEIVER PROCESSOR UNITS	1	31	9	3	3
Z955 ISOLATE MALFUNCTIONS IN FL/MM/TF SYSTEMS	*	28	3	11	11
D122 PREPARE LESSON PLANS	3	3	37	4	2
D110 DEVELOP TRAINING AIDS	4	5	23	5	5
V788 BENCH CHECK ERs	1	1	17	10	14
P534 REMOVE OR REPLACE INTERPHONE CORDS	2	5	32	35	34
H240 ISOLATE MALFUNCTIONS IN UHF SYSTEMS	2	7	29	39	45
F208 WALK WINGS OR TAILS DURING AIRCRAFT TOWING OPERATIONS	5	11	1	40	31
F195 POSITION OR REMOVE AIRCRAFT CHOCKS	5	11	0	31	27
F183 GROUND AIRCRAFT	11	17	13	26	26
T715 ISOLATE MALFUNCTIONS IN UHF DF SYSTEMS	*	3	2	16	20
L370 REMOVE OR REPLACE VHF FM RECEIVER-TRANSMITTERS	2	4	0	12	11
J323 REMOVE OR REPLACE VHF AM RECEIVER-TRANSMITTERS	1	6	3	11	11

* INDICATES LESS THAN ONE PERCENT

TABLE 22

BACKGROUND INFORMATION ON AFS 328X0 PERSONNEL IN MAJOR COMMAND GROUPS

	SAC (N=172)	MAC (N=243)	ATC (N= 81)	TAC (N=241)	USAFE (N= 78)
AVERAGE NUMBER TASKS PERFORMED:	134	129	92	91	103
AVERAGE MONTHS AFMS:	76	77	103	83	87
AVERAGE PAYGRADE:	E4-E5	E4-E5	E5	E4-E5	E4-E5
DUTY AFSC:					
32830	9%	10%	6%	12%	5%
32850	68%	65%	47%	51%	62%
32870	23%	25%	47%	37%	33%
PERCENT PERFORMING CROSS UTILIZATION TRAINING TASKS	9%	29%	25%	64%	64%

TABLE 23

BACKGROUND INFORMATION ON AFS 328X1 PERSONNEL IN MAJOR COMMAND GROUPS

	SAC (N=277)	MAC (N=314)	ATC (N=106)	TAC (N=208)	USAFE (N=125)
AVERAGE NUMBER TASKS PERFORMED:	233	199	132	135	144
AVERAGE MONTHS AFMS:	83	78	112	85	103
AVERAGE PAYGRADE:	E4-E5	E4	E5	E4-E5	E5
DUTY AFSC:					
32831	13%	13%	6%	15%	3%
32851	55%	59%	53%	51%	59%
32871	32%	28%	41%	34%	38%
PERCENT PERFORMING CROSS UTILIZATION TRAINING TASKS	13%	26%	19%	72%	73%

TABLE 24

JOB SATISFACTION DATA FOR AFS 328X0 PERSONNEL IN MAJOR COMMAND GROUPS
(PERCENT MEMBERS RESPONDING)

	<u>SAC</u>	<u>MAC</u>	<u>ATC</u>	<u>TAC</u>	<u>USAFE</u>
PERCENT FINDING THEIR JOB INTERESTING:	74%	65%	77%	74%	63%
PERCENT FEELING THEIR JOB UTILIZES THEIR TALENTS FAIRLY WELL OR BETTER:	85%	75%	78%	69%	56%
PERCENT FEELING THEIR JOB UTILIZES THEIR TRAINING FAIRLY WELL OR BETTER:	74%	76%	74%	59%	53%
PERCENT FEELING SENSE OF ACCOMPLISHMENT GAINED FROM THEIR JOB IS SATISFACTORY:	69%	60%	73%	64%	58%
PERCENT EXPRESSING INTENT TO REENLIST:	44%	47%	50%	48%	48%

TABLE 25

JOB SATISFACTION DATA FOR AFS 328X1 PERSONNEL IN MAJOR COMMAND GROUPS
(PERCENT MEMBERS RESPONDING)

	<u>SAC</u>	<u>MAC</u>	<u>ATC</u>	<u>TAC</u>	<u>USAFE</u>
PERCENT FINDING THEIR JOB INTERESTING:	73%	73%	73%	68%	62%
PERCENT FEELING THEIR JOB UTILIZES THEIR TALENTS FAIRLY WELL OR BETTER:	82%	77%	78%	68%	58%
PERCENT FEELING THEIR JOB UTILIZES THEIR TRAINING FAIRLY WELL OR BETTER:	80%	71%	76%	53%	56%
PERCENT FEELING SENSE OF ACCOMPLISHMENT GAINED FROM THEIR JOB IS SATISFACTORY:	68%	65%	70%	59%	54%
PERCENT EXPRESSING INTENT TO REENLIST:	44%	45%	49%	45%	41%

TABLE 26

JOB SATISFACTION DATA FOR FIRST ENLISTMENT AFS 328X0 PERSONNEL
IN NON-POMO AND POMO ORGANIZATIONS
(PERCENT MEMBERS RESPONDING)

	NON POMO (N=247)	POMO AGS (N=76)	POMO CRS (N=71)
PERCENT FINDING THEIR JOB INTERESTING:	62	67	76
PERCENT FEELING THEIR JOB UTILIZES THEIR TALENTS FAIRLY WELL OR BETTER:	76	53	83
PERCENT FEELING THEIR JOB UTILIZES THEIR TRAINING FAIRLY WELL OR BETTER:	73	35	77
PERCENT FEELING SENSE OF ACCOMPLISHMENT GAINED FROM THEIR JOB IS SATISFACTORY:	60	65	72
PERCENT EXPRESSING INTENT TO REENLIST:	23	30	39

TABLE 27

JOB SATISFACTION DATA FOR FIRST ENLISTMENT AFS 328X1 PERSONNEL
IN NON-POMO AND POMO ORGANIZATIONS
(PERCENT MEMBERS RESPONDING)

	NON POMO (N=279)	POMO AGS (N=78)	POMO CRS (N=74)
PERCENT FINDING THEIR JOB INTERESTING:	72	69	87
PERCENT FEELING THEIR JOB UTILIZES THEIR TALENTS FAIRLY WELL OR BETTER:	77	59	84
PERCENT FEELING THEIR JOB UTILIZES THEIR TRAINING FAIRLY WELL OR BETTER:	78	32	78
PERCENT FEELING SENSE OF ACCOMPLISHMENT GAINED FROM THEIR JOB IS SATISFACTORY:	69	56	74
PERCENT EXPRESSING INTENT TO REENLIST:	33	33	38

ANALYSIS OF EXPERIENCE (TAFMS) GROUPS

In addition to the analysis of skill level groups, respondents were also examined on the basis of months of Total Active Federal Military Service (TAFMS). This analysis aids in determining how jobs and job perceptions change over time, and can help describe the nature of jobs more junior personnel can expect to perform as their careers progress.

A normal pattern commonly found among experience groups in most specialties is that junior personnel initially perform limited technical jobs, and with increasing experience assume broader technical responsibilities plus supervisory and administrative duties. Ultimately, personnel with substantial military service experience move out of technical jobs into supervisory and administrative roles. This pattern was found among the experience groups of both the 328X0 and 328X1 specialties. As seen in Tables 28 and 29, technical and general aircraft maintenance duties occupy the largest proportion of time on the job for members of both specialties in their first and second enlistments (1-48 months and 49-96 months TAFMS). At the beginning of the third enlistment (97 months TAFMS and beyond), the majority of time on the job is taken up with such duties as Directing and Implementing, Inspecting and Evaluating, and Performing Maintenance Administration Functions. This pattern is also reflected in the experience levels of personnel who grouped together into clusters and independent job types. Table 30 shows the distribution of survey respondents in each job group according to experience groups. (A graphic presentation of job group membership for first enlistment 328X0 personnel appears in Figure 2, and first enlistment 328X1 personnel appears in Figure 3.) Those job groups containing the greatest proportions of first and second enlistment personnel are primarily technical in nature, while those groups containing the greatest proportions of senior personnel (third enlistment and beyond) are supervisory and administrative jobs.

Job Satisfaction Analysis

Job satisfaction indices for personnel in the first job (1-24 months TAFMS), first enlistment (1-48 months TAFMS), second enlistment (49-96 months TAFMS), and career (97+ months TAFMS) groups were also examined for both specialties. Reported job interest, perceived utilization of talents and training, sense of accomplishment gained, and reenlistment intentions are presented in Tables 31 and 32 for the AFS 328X0 and AFS 328X1 specialties respectively. Along with the job satisfaction indices, the tables also contain the same type of data for personnel from all related career fields surveyed in 1980. (These career fields are Mission Equipment Maintenance specialties and include the 302X0, 307X0, 308X0, 322X2A/B/C, and 427X3 career ladders.) When compared to these other career fields, AFS 328X0 first enlistment personnel report somewhat higher job interest, perceived utilization of talents, and sense of accomplishment; however, the perceived utilization of training and intention to reenlist of AFS 328X0 first enlistment respondents is not substantially different from the comparative sample (see Table 31). For first and second enlistment AFS personnel, job interest and perceived utilization of training is about the same, but perceived utilization of talents and sense of accomplishment is higher for the first enlistment group. The

second enlistment group indicate a higher percent intending to reenlist. For the second enlistment group of AFS 328X0 personnel and the same experience group in the comparative sample, the only substantial difference noted is in job interest, with a slightly greater percentage of AFS 328X0 personnel indicating that they find their jobs interesting than the comparative sample. The comparison of career personnel to second enlistment personnel in the AFS 328X0 specialty, all of the job satisfaction indices are higher, including intention to reenlist. The comparison between career AFS 328X0 personnel and career personnel in the comparative sample shows no substantial differences in any of the indices.

A similar series of comparisons was made between the AFS 328X1 experience groups and the 1980 Mission Equipment Maintenance comparative sample (see Table 32). The responses of first enlistment AFS 328X1 personnel and first enlistment personnel in the comparative sample indicate that perceived utilization of training and intention to reenlist are about the same for both groups, but that job interest, perceived utilization of talents, and sense of accomplishment, are substantially higher for the AFS 328X1 respondents. The comparison between first and second enlistment respondents in the AFS 328X1 sample indicates that, while a greater percentage of first enlistment members gain a satisfactory sense of accomplishment from their jobs, the second enlistment respondents reported a higher proportion intending to reenlist. All other job satisfaction indices between these two groups are about the same. In comparing second enlistment AFS 328X1 personnel and the same experience group in the comparative sample, job interest for AFS 328X1 personnel is substantially higher, and perceived utilization of talents is slightly higher, but the percent reporting a satisfactory sense of accomplishment and intending to reenlist is slightly lower. The comparison between AFS 328X1 second enlistment and career personnel indicate no major difference in job interest, perceived utilization of talents or training, or sense of accomplishment gained from their jobs. There is a substantial difference, though, in intent to reenlist, with career personnel reporting a higher percent planning to reenlist than the four-to-eight year group. This is even more significant in that 24 percent of the career group indicate that they plan to retire, while less than one percent of the second termers plan to retire. In a final comparison between the career groups of the AFS 328X1 sample and the comparative sample, the AFS 328X1 sample report substantially lower percentages of members perceiving that their jobs utilize their talents well and planning to reenlist. No major differences were found in the two groups' responses to other job satisfaction questions.

First Enlistment Personnel

First enlistment personnel were also examined on the basis of both common tasks performed and various background information. Tasks performed by the greatest percentages of AFS 328X0 and AFS 328X1 first enlistees are presented in Tables AFM6 and AFM7, respectively. The most common tasks performed by first enlistment Communications Maintenance personnel primarily involve isolating malfunctions and removal and replacement of wiring and components in ultra high frequency radio and interphone systems (see Table 33). The most common tasks performed by first enlistment

Navigation Systems Maintenance personnel include inspecting, isolating malfunctions, and removal and replacement of wiring and components in instrument landing, aircraft identification, and tactical navigation systems (see Table 34).

Various types of background information for first enlistment personnel is also examined. Table 35 shows this background data for first enlistees in both the AFS 328X0 and AFS 328X1 specialties. In general, both specialties responded similarly to background questions. The exceptions occurred only on specialty related issues. On the question of major command (MAJCOM) of assignment, the AFS 328X1's have slightly greater proportions in MAC and SAC, and the AFS 328X0's are slightly greater in TAC. The AFS 328X0 personnel responded with slightly higher percentages having duty titles of Flight Duty and Shift Supervisor. A somewhat higher proportion of AFS 328X0's also reported performing cross utilization tasks. The question regarding technological category of equipment maintained was designed rather specialty-specific. It is evident, however, that some AFS 328X0 personnel do perform maintenance on navigation systems, and some AFS 328X1's also perform maintenance on communications systems. Clearly, the most common category in both types of systems is the solid state technology. Eighty-six percent of the AFS 328X1's reported maintaining solid state navigation systems, while 82 percent of the AFS 328X0's reported maintaining solid state communications systems. This information may be useful for training personnel in determining appropriate allocation of course time for first enlistment personnel entering training. In preparing trainees for their first enlistment, it may also be useful to review Level and Location of maintenance performed, and the question on assignments within the Production Oriented Maintenance Organization (POMO) concept. Flightline maintenance and field maintenance are the most common levels of maintenance performed. Further, the most common location where first enlistment respondents perform their jobs is the combination of flightline and shop, rather than exclusively working in either location. Members of both specialties indicated that permanent 8-hour shifts are the most common work schedules. Of those individuals assigned to POMO organizations, Aircraft Generation and Component Repair Squadrons are the most common in both specialties. Greater proportions of AFS 328X1s, however, reported Deputy Commander for Maintenance and Equipment Maintenance Squadron assignments than did AFS 328X0s.

Tables 36 and 37 contain lists of systems maintained by experience groups in these two specialties. Table 36 shows the 18 systems maintained by at least 20 percent of the members in AFS 328X0 experience groups. The AN/ARC-164 UHF is the most common system maintained by Avionic Communications personnel, with nearly all first enlistment respondents indicating that they service this equipment. The AN/PRC-90 emergency radio and the AN/AIC-18 interphone systems are the next most commonly serviced equipment. The only Navigation system maintained by at least 20 percent of the AFS 328X0 personnel is the ARN-118 TACAN system, with 21 percent of first enlistees responding. Table 37 shows the 26 systems maintained by at least 20 percent of the members in AFS 328X1 experience groups. The ARN-118 TACAN and KIT-1A Airborne Identification are the most common systems maintained by Avionic Navigation personnel. The only communications system commonly maintained by AFS 328X1 personnel is the AN/ARC-164 UHF radio, with 22 percent of the AFS 328X1 first enlistment group responding.

TABLE 28

PERCENT TIME SPENT ON DUTIES BY 328X0 AFMS GROUPS

DUTIES	MONTHS AFMS							
	1-24 (N=129)	25-48 (N=296)	1-48 (N=425)	49-96 (N=184)	97-144 (N=108)	145-192 (N=93)	193-240 (N=64)	241+ (N=19)
MANAGEMENT, SUPERVISION, AND TRAINING:								
A ORGANIZING AND PLANNING	*	1	*	2	4	7	13	7
B DIRECTLY AND IMPLEMENTING	1	-	2	7	11	13	18	23
C INSPECTING AND EVALUATING	*	1	1	3	5	9	11	15
D TRAINING	*	1	1	4	6	8	12	5
GENERAL MAINTENANCE FUNCTIONS:								
E PERFORMING MAINTENANCE ADMINISTRATIVE FUNCTIONS	6	7	7	10	11	13	17	20
F PERFORMING ASSIST TASK QUALIFICATION TRAINING (ATQT)	5	6	5	6	4	4	3	4
DUTIES	15	14	14	13	11	9	6	5
G PERFORMING GENERAL AIRCRAFT AVIONIC SYSTEMS MAINTENANCE								
SPECIALIZED MAINTENANCE FUNCTIONS:								
H MAINTAINING ULTRA HIGH FREQUENCY (UHF) RADIO SYSTEMS	17	14	15	10	8	6	4	4
I MAINTAINING VISUAL OMNI RANGE/INSTRUMENT LANDING (VOR/ILS) SYSTEMS	3	2	3	1	2	1	*	1
J MAINTAINING VERY HIGH FREQUENCY (VHF) RADIO AMPLITUDE MODULATED (AM) SYSTEMS	6	5	5	5	4	3	2	2
K MAINTAINING RENDEZVOUS RADAR BEACON (RRB) SYSTEMS	*	*	*	*	*	*	*	-
L MAINTAINING VERY HIGH FREQUENCY (VHF) RADIO FREQUENCY MODULATED (FM) SYSTEMS	3	2	3	2	2	1	1	*
M MAINTAINING RADIO/RADAR ALTIMETERS (RRA)	*	*	*	*	*	*	*	*

* INDICATES LESS THAN ONE PERCENT

- INDICATES ZERO PERCENT

TABLE 28
(CONTINUED)

PERCENT TIME SPENT ON DUTIES BY 328X0 AFMS GROUPS

DUTIES	MONTHS AFMS										
	1-24	25-48	1-48	49-96	97-144	145-192	193-240	241+			
N MAINTAINING HIGH FREQUENCY (HF) RADIO SYSTEMS	11	14	13	13	12	7	4	3			
O MAINTAINING AIRBORNE IDENTIFICATION SYSTEMS	2	2	2	1	2	*	*	*			
P MAINTAINING INTERPHONE SYSTEMS	12	10	11	8	7	5	3	3			
Q MAINTAINING TACTICAL AIR NAVIGATION (TACAN) SYSTEMS AND ASSOCIATED INSTRUMENTATION EQUIPMENT	3	3	3	2	2	1	*	2			
R MAINTAINING PUBLIC ADDRESS SYSTEMS	2	2	2	2	1	1	1	1			
S MAINTAINING LONG RANGE NAVIGATION (LORAN) AND OMEGA SYSTEMS	-	*	*	*	-	*	*	*			
T MAINTAINING ULTRA HIGH FREQUENCY (UHF) DIRECTION FINDER (DF) SYSTEMS	3	3	3	3	3	4	2	1			
U MAINTAINING AUTOMATIC DIRECTION FINDER (ADF) SYSTEMS	3	3	3	2	*	1	*	*			
V MAINTAINING EMERGENCY RADIO (ER) SYSTEMS	2	1	2	1	*	*	*	*			
W MAINTAINING SEARCH AND WEATHER RADAR (SW) SYSTEMS	*	*	*	*	*	*	-	*			
X MAINTAINING CRASH POSITION INDICATING/CRASH DATA POSITION INDICATING AND RECORDING (CPI/CDPIR) SYSTEMS	3	3	3	3	3	2	*	1			
Y MAINTAINING STATION KEEPING EQUIPMENT (SKE) SYSTEMS	-	*	*	*	-	*	*	-			
Z MAINTAINING RECONNAISSANCE RADAR SYSTEMS	*	*	*	*	*	1	*	*			

* INDICATES LESS THAN ONE PERCENT

- INDICATES ZERO PERCENT

TABLE 29

PERCENT TIME SPENT ON DUTIES BY 328X1 AFMS GROUPS

DUTIES	MONTHS AFMS							
	1-24 (N=163)	25-48 (N=332)	1-48 (N=495)	49-96 (N=257)	97-144 (N=125)	145-192 (N=111)	193-240 (N=96)	241+ (N=37)
<u>MANAGEMENT, SUPERVISION, AND TRAINING FUNCTIONS:</u>								
A ORGANIZATION AND TRAINING	*	*	*	2	4	7	9	14
B DIRECTING AND IMPLEMENTING	*	2	2	5	9	13	16	22
C INSPECTING AND EVALUATING	*	1	1	2	4	8	12	15
D TRAINING	1	2	2	4	5	7	7	7
<u>GENERAL MAINTENANCE FUNCTIONS:</u>								
E PERFORMING MAINTENANCE ADMINISTRATIVE FUNCTIONS	6	6	6	9	11	13	13	16
F PERFORMING ASSIST TASK QUALIFICATION TRAINING (ATQT)	4	4	4	4	4	4	3	2
G PERFORMING GENERAL AIRCRAFT AVIONIC SYSTEMS MAINTENANCE DUTIES	13	12	12	10	9	8	7	7
<u>SPECIALIZED MAINTENANCE FUNCTIONS:</u>								
H MAINTAINING ULTRA HIGH FREQUENCY (UHF) RADIO SYSTEMS	1	1	1	2	1	1	*	*
I MAINTAINING VISUAL OMNI RANGE/INSTRUMENT LANDING (VOR/ILS) SYSTEMS	16	14	15	11	10	7	5	5
J MAINTAINING VERY HIGH FREQUENCY (VHF) RADIO AMPLITUDE MODULATED (AM) SYSTEMS	*	*	*	*	*	*	*	-
K MAINTAINING RENDEZVOUS RADAR BEACON (RRB) SYSTEMS	3	2	2	2	2	1	1	*
L MAINTAINING VERY HIGH FREQUENCY (VHF) RADIO FREQUENCY MODULATED (FM) SYSTEMS	*	*	*	*	*	*	*	-
M MAINTAINING RADIO/RADAR ALTIMETERS (RRA)	5	6	5	5	4	3	3	*

* INDICATES LESS THAN ONE PERCENT

TABLE 29
(CONTINUED)

PERCENT TIME SPENT ON DUTIES BY 328X1 AFMS GROUPS

DUTIES	MONTHS AFMS									
	1-24	25-48	1-48	49-96	97-144	145-192	193-240	241+		
N MAINTAINING HIGH FREQUENCY (HF) RADIO SYSTEMS	*	*	*	*	*	*	*	-		
O MAINTAINING AIRBORNE IDENTIFICATION SYSTEMS	13	14	14	13	11	8	8	5		
P MAINTAINING INTERPHONE SYSTEMS	1	1	1	1	*	1	*	*		
Q MAINTAINING TACTICAL AIR NAVIGATION (TACAN) SYSTEMS AND ASSOCIATED INSTRUMENTATION SYSTEMS	10	10	10	8	7	6	5	2		
R MAINTAINING PUBLIC ADDRESS SYSTEMS	*	*	*	*	*	*	*	-		
S MAINTAINING LONG RANGE NAVIGATION (LORAN) AND OMEGA SYSTEMS	1	2	1	1	2	1	2	*		
T MAINTAINING ULTRA HIGH FREQUENCY (UHF) DIRECTION FINDER (DF) SYSTEMS	*	*	*	*	*	*	*	*		
U MAINTAINING AUTOMATIC DIRECTION FINDER (ADF) SYSTEMS	5	3	4	3	2	1	1	*		
V MAINTAINING EMERGENCY RADIO (ER) SYSTEMS	*	*	*	*	*	*	-	*		
W MAINTAINING SEARCH AND WEATHER RADAR (SW) SYSTEMS	13	11	11	11	9	6	4	1		
X MAINTAINING CRASH POSITION INDICATING/CRASH DATA POSITION INDICATING AND RECORDING (CPI/CDPIR) SYSTEMS	-	*	*	*	*	*	*	-		
Y MAINTAINING STATION KEEPING EQUIPMENT (SKE) SYSTEMS	2	2	2	1	1	*	*	*		
Z MAINTAINING RECONNAISSANCE RADAR SYSTEMS	2	4	3	3	1	1	1	*		

* INDICATES LESS THAN ONE PERCENT

- INDICATES ZERO PERCENT

TABLE 30

DISTRIBUTION OF MEMBERS IN JOB GROUPS BY EXPERIENCE GROUP
(IN DESCENDING ORDER OF TAFMS)

JOB GROUP	MONTH TAFMS						AVERAGE TAFMS
	1-48 (N=920)	49-96 (N=441)	97-144 (N=233)	145-192 (N=204)	193-240 (N=160)	241+ (N=56)	
GPO069 MANAGEMENT CLUSTER	1	3	5	30	38	21	199
GPO366 NAVIGATION AIDS FLIGHTLINE SUPERVISORS INDEPENDENT JOB TYPE	-	-	2	4	2	2	187
GPO070 INSPECTORS CLUSTER	-	5	6	8	12	5	175
GPO261 JOB CONTROLLERS INDEPENDENT JOB TYPE	1	4	7	2	3	1	137
GPO236 MAINTENANCE SCHEDULE MONITORS INDEPENDENT JOB TYPE	-	2	1	1	1	-	129
GPO243 SEARCH AND WEATHER RADAR AND GENERAL AVIONICS MAINTENANCE INDEPENDENT JOB TYPE	3	-	3	3	2	-	127
GPO067 INFIGHT COMMUNICATIONS MAINTENANCE CLUSTER	6	7	9	5	6	1	126
GPO066 INSTRUCTORS CLUSTER	7	13	8	3	4	2	106
GPO223 COMPONENT REPAIR SQUADRON (CRS) NAVIGATION SYSTEMS MAINTENANCE CLUSTER	14	13	3	3	3	1	89
GPO218 AIRCRAFT GENERATION SQUADRON (AGS) COMMUNICATIONS/NAVIGATION SYSTEMS MAINTENANCE CLUSTER	95	47	23	18	8	-	73
GPO101 COMMUNICATION MAINTENANCE CLUSTER	296	115	66	46	22	6	71
GPO195 NAVIGATION SYSTEMS CLUSTER	240	124	46	33	22	5	71
GPO167 RECONNAISSANCE RADAR SYSTEMS MAINTENANCE CLUSTER	23	8	3	2	2	-	67
GPO217 TRANSPORT A/C FLIGHTLINE NAVIGATION SYSTEMS MAINTENANCE CLUSTER	49	20	14	6	3	-	65
GPO250 COMMUNICATIONS/NAVIGATION SYSTEMS MAINTENANCE CLUSTER	47	21	8	6	2	-	64
GPO209 AIRCRAFT GENERATION SQUADRON (AGS) COMMUNICATIONS SYSTEMS MAINTENANCE CLUSTER	29	11	1	-	-	-	48
TOTAL GROUPED	811	393	206	173	133	47	
NOT GROUPED	109	48	27	31	27	9	

FIGURE 6

JOB GROUPS OF 328X0 FIRST ENLISTMENT PERSONNEL

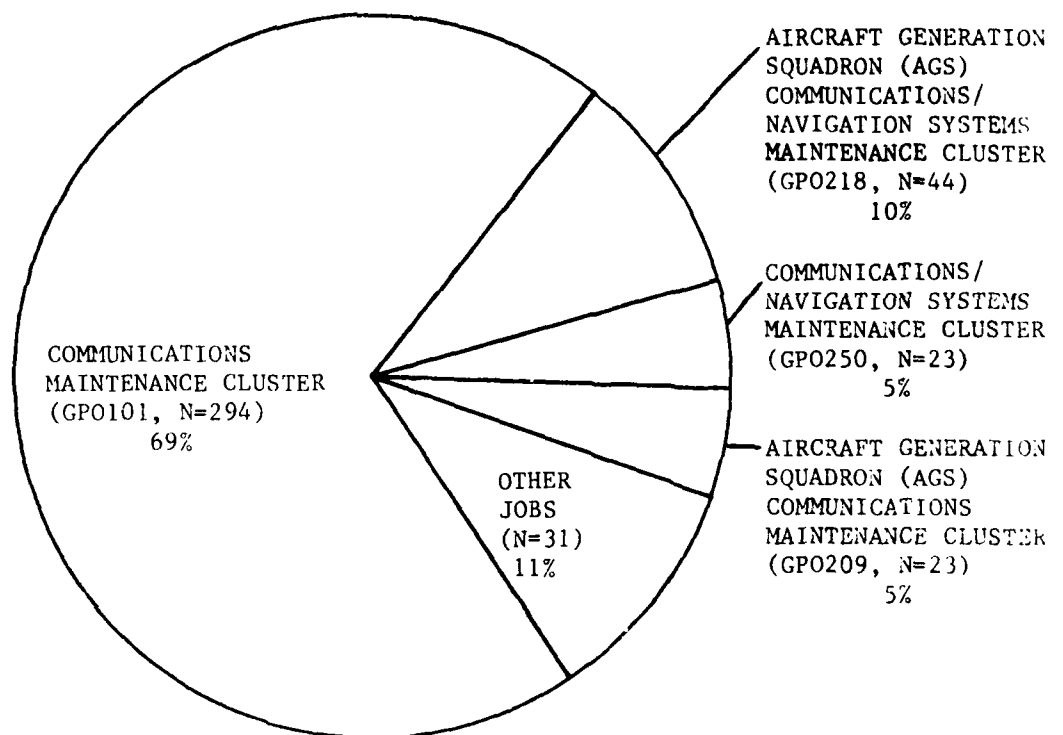


FIGURE 7

JOB GROUPS OF 328X1 FIRST ENLISTMENT PERSONNEL

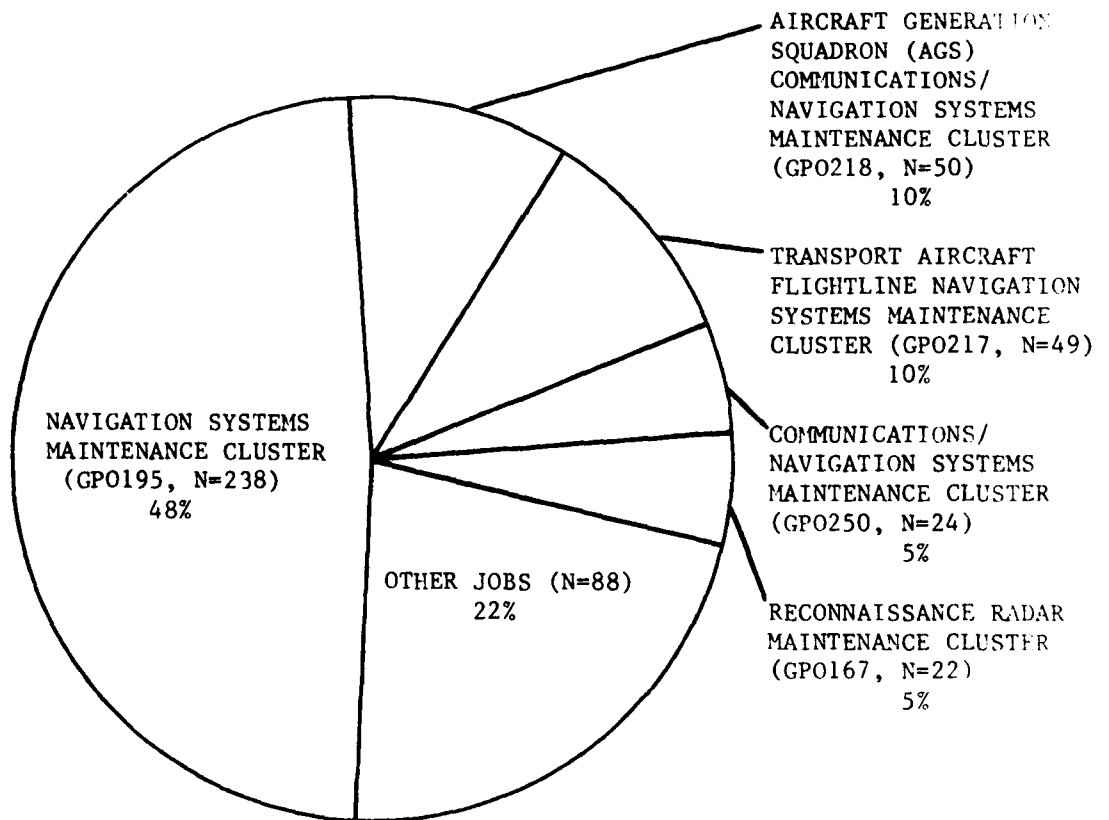


TABLE 31

JOB SATISFACTION COMPARISON OF 328X0 PERSONNEL AND 1980 COMPARATIVE SAMPLE
(PERCENT MEMBERS RESPONDING)

	FIRST JOB 328X0 (N=129)	1980 COMP* DATA (N=555)	FIRST ENLIST 328X0 (N=425)	1980 COMP* DATA (N=1,374)	SECOND ENLIST 328X0 (N=184)	1980 COMP* DATA (N=853)	CAREER 328X0 (N=284)	1980 COMP* DATA (N=1,326)
<u>HOW DO YOU FIND YOUR JOB:</u>								
DULL	7	18	13	24	18	17	9	14
SO-SO	10	18	20	20	14	22	16	16
INTERESTING	83	64	67	56	66	61	74	70
<u>HOW DOES YOUR JOB UTILIZE YOUR TALENTS:</u>								
NOT AT ALL OR VERY LITTLE	19	32	26	37	33	31	21	24
FAIRLY WELL TO PERFECTLY	81	68	74	63	65	69	79	76
<u>HOW DOES YOUR JOB UTILIZE YOUR TRAINING:</u>								
NOT AT ALL OR VERY LITTLE	27	23	32	30	36	28	30	25
FAIRLY WELL TO PERFECTLY	73	77	68	70	64	72	70	75
<u>HOW SATISFIED ARE YOU WITH THE SENSE OF ACCOMPLISHMENT YOU GAIN FROM YOUR WORK:</u>								
DISSATISFIED	16	24	23	33	32	31	22	27
AMBIVALENT	9	17	14	15	14	11	11	11
SATISFIED	74	58	63	51	54	58	66	61
<u>DO YOU PLAN TO REENLIST:</u>								
I WILL RETIRE (20 YEARS SERVICE)	1	**	**	**	-	**	18	**
NO OR PROBABLY NO	57	60	67	66	48	51	15	32
YES OR PROBABLY YES	41	39	32	33	51	48	66	67

*INCLUDES RESPONDENTS IN 1980 SURVEYS OF MISSION EQUIPMENT MAINTENANCE SPECIALTIES
302X0, 307X0, 308X0, 322X2A/B/C, AND 427X3

**INDICATES LESS THAN ONE PERCENT

TABLE 32

JOB SATISFACTION COMPARISON OF 328X1 PERSONNEL AND 1980 COMPARATIVE SAMPLE
(PERCENT MEMBERS RESPONDING)

	FIRST JOB 328X1 (N=163)	1980 COMP* DATA (N=555)	FIRST ENLIST 328X1 (N=495)	1980 COMP* DATA (N=1,374)	SECOND ENLIST 328X1 (N=257)	1980 COMP* DATA (N=853)	CAREER 328X1 (N=369)	1980 COMP* DATA (N=1,426)
<u>HOW DO YOU FIND YOUR JOB:</u>								
DULL	8	18	11	24	16	17	14	14
SO-SO	13	18	16	20	16	22	16	16
INTERESTING	78	64	73	56	68	61	69	70
<u>HOW DOES YOUR JOB UTILIZE YOUR TALENTS:</u>								
NOT AT ALL OR VERY LITTLE	24	32	26	37	25	31	25	24
FAIRLY WELL TO PERFECTLY	76	68	74	63	75	69	75	76
<u>HOW DOES YOUR JOB UTILIZE YOUR TRAINING:</u>								
NOT AT ALL OR VERY LITTLE	25	23	30	30	34	28	30	25
FAIRLY WELL TO PERFECTLY	74	77	69	70	65	72	69	75
<u>HOW SATISFIED ARE YOU WITH THE SENSE OF ACCOMPLISHMENT YOU GAIN FROM YOUR WORK:</u>								
DISSATISFIED	18	24	22	33	29	33	27	27
AMBIVALENT	6	17	10	15	14	11	10	11
SATISFIED	75	58	67	51	57	58	63	61
<u>DO YOU PLAN TO REENLIST:</u>								
I WILL RETIRE (20 YEARS SERVICE)	-	**	-	**	**	**	24	**
NO OR PROBABLY NO	53	60	64	66	54	51	15	32
YES OR PROBABLY YES	44	39	34	33	45	48	59	67

*INCLUDES RESPONDENTS IN 1980 SURVEYS OF MISSION EQUIPMENT MAINTENANCE SPECIALTIES
302X0, 307X0, 308X0, 322X2A/B/C, AND 427X3

**INDICATES LESS THAN ONE PERCENT

TABLE 33

REPRESENTATIVE TASKS PERFORMED BY AFS 328X0 PERSONNEL
IN THEIR FIRST ENLISTMENT (1-48 MONTHS AFMS)
(N=425)

TASKS	PERCENT FIRST- ENLISTMENT MEMBERS PERFORMING
H240 ISOLATE MALFUNCTIONS IN UHF SYSTEMS	89
H244 REMOVE OR REPLACE UHF RECEIVER-TRANSMITTERS	88
H243 REMOVE OR REPLACE UHF CONTROL UNITS	88
H242 PRESET FREQUENCIES IN UHF CONTROL UNITS	88
G235 SOLDER AVIONIC SYSTEM WIRING	87
G236 TEST CONTINUITY OF COAXIAL CABLES	86
P532 OPERATIONALLY CHECK INTERPHONE SYSTEMS	84
P531 ISOLATE MALFUNCTIONS IN INTERPHONE SYSTEMS	83
G233 SAFETY WIRE OR BOND SYSTEM COMPONENTS	83
G238 TRACE CIRCUITS OR SIGNALS USING WIRING DIAGRAMS OR SCHEMATICS	83
H239 ADJUST ULTRA HIGH FREQUENCY (UHF) RADIO SYSTEMS	81
P534 REMOVE OR REPLACE INTERPHONE CORDS	80
P533 REMOVE OR REPLACE INTERPHONE CORD COMPONENTS	80
P536 REMOVE OR REPLACE INTERPHONE STATION CONTROL UNITS	74
G229 REMOVE OR REPLACE AVIONIC SYSTEM WIRING OR CABLES	72
E162 MAKE ENTRIES ON REPARABLE ITEM PROCESSING TAG FORMS (AFTO FORM 350)	72
G221 LOCATE MAINTENANCE INFORMATION IN TECHNICAL PUBLICATIONS OR AIR FORCE TECHNICAL ORDERS (TO)	72
E160 MAKE ENTRIES ON MAINTENANCE DATA COLLECTION RECORD FORMS (AFTO FORM 349)	71
P535 REMOVE OR REPLACE INTERPHONE MONITOR CONTROL UNITS	71
H241 OPERATIONALLY CHECK UHF SYSTEM USING FLIGHTLINE TEST EQUIPMENT (FTE)	70
H250 BENCH CHECK UHF RECEIVER-TRANSMITTERS	70
G216 INSPECT AVIONIC EQUIPMENT FOR CORROSION	70
G220 ISOLATE MALFUNCTIONS IN AVIONIC SYSTEMS WIRING OR CABLES	70
H253 ISOLATE MALFUNCTIONS IN UHF RECEIVER-TRANSMITTERS	68
H247 ALIGN UHF RECEIVER-TRANSMITTERS	68

TABLE 34

REPRESENTATIVE TASKS PERFORMED BY AFS 328X1 PERSONNEL
IN THEIR FIRST ENLISTMENT (1-48 MONTHS AFMS)
(N=495)

TASKS	PERCENT FIRST- ENLISTMENT MEMBERS PERFORMING
G235 SOLDER AVIONIC SYSTEM WIRING	88
G233 SAFETY WIRE OR BOND SYSTEM COMPONENTS	87
G238 TRACE CIRCUITS OR SIGNALS USING WIRING DIAGRAMS OR SCHEMATICS	85
G236 TEST CONTINUITY OF COAXIAL CABLES	85
G220 ISOLATE MALFUNCTIONS IN AVIONIC SYSTEMS WIRING OR CABLES	82
I261 ISOLATE MALFUNCTIONS IN GLIDESLOPE SYSTEMS	82
I262 ISOLATE MALFUNCTIONS IN INSTRUMENT LANDING SYSTEMS (ILS)	80
I263 ISOLATE MALFUNCTIONS IN LOCALIZER SYSTEMS	79
I265 ISOLATE MALFUNCTIONS IN VISUAL OMNI RANGE (VOR) SYSTEMS	78
G221 LOCATE MAINTENANCE INFORMATION IN TECHNICAL PUBLICATIONS OR AIR FORCE TECHNICAL ORDERS (TO)	78
E162 MAKE ENTRIES ON REPARABLE ITEM PROCESSING TAG FORMS (AFTO FORM 350)	78
O470 REMOVE OR REPLACE IFF/SIF/AIMS RECEIVER-TRANSMITTERS	78
G232 REMOVE OR REPLACE RADIO FREQUENCY (RF) COAXIAL CONNECTORS	77
G229 REMOVE OR REPLACE AVIONIC SYSTEM WIRING OR CABLES	76
E160 MAKE ENTRIES ON MAINTENANCE DATA COLLECTION RECORD FORMS (AFTO FORM 349)	75
Q553 OPERATIONALLY CHECK TACAN SYSTEMS USING GROUND STATIONS	75
O460 ISOLATE MALFUNCTIONS IN IDENTIFICATION FRIEND OR FOE/SELF IDENTIFICATION FEATURE (IFF/SIF)/AIMS	75
G216 INSPECT AVIONIC EQUIPMENT FOR CORROSION	74
Q565 REMOVE OR REPLACE TACAN RECEIVER-TRANSMITTERS	74
I266 OPERATE ASSOCIATED SYSTEMS CHECKING VOR/ILS	73
Q547 ISOLATE MALFUNCTIONS IN TACAN SYSTEMS	72
I281 REMOVE OR REPLACE VOR LOCALIZER RECEIVERS	71
G211 CLEAN PARTS OR COMPONENTS	71
Q557 REMOVE OR REPLACE TACAN CONTROL UNITS	71

TABLE 35
BACKGROUND INFORMATION FOR FIRST ENLISTMENT
(1-48 MONTHS TAFMS) PERSONNEL IN 328X0 AND 328X1 SPECIALTIES

	AFS 328X0 (N=425)	AFS 328X1 (N=495)
<u>AVERAGE NUMBER OF TASKS PERFORMED</u>		
<u>AVERAGE PAY GRADE</u>	3.5	3.4
<u>PERCENT WITH DUTY AFSC</u>		
32830	19	-
32850	81	-
32870	*	-
32831	-	23
32851	-	77
32871	-	-
32899	-	-
NO RESPONSE	-	-
<u>PERCENT ASSIGNED TO MAJOR COMMANDS</u>		
MAC	29	31
SAC	20	26
TAC	28	21
USAFE	8	8
PACAF	4	4
ATC	6	6
AFSC	3	2
AAC	2	2
NO RESPONSE		
<u>DUTY TITLE</u>		
BENCH CHECK/REPAIR	48	51
FLIGHT DUTY	4	2
FLIGHTLINE	44	46
SHIFT SUPERVISOR	3	*
<u>PERCENT PERFORMING CROSS UTILIZATION TASKS</u>	41	35
<u>LEVEL OF MAINTENANCE PERFORMED</u>		
NO MAINTENANCE	4	5
DEPOT MAINTENANCE	2	3
FIELD MAINTENANCE	56	54
FLIGHTLINE MAINTENANCE	81	84
ORGANIZATIONAL MAINTENANCE	36	36

* INDICATES LESS THAN ONE PERCENT

TABLE 35
(CONTINUED)

	<u>AFS 328X0</u>	<u>AFS 328X1</u>
<u>TECHNOLOGICAL CATEGORY OF NAV EQUIPMENT MAINTAINED</u>		
DO NOT MAINTAIN	66	5
DO NOT KNOW	3	3
INTEGRATED CIRCUIT	12	33
SOLID STATE	25	86
VACUUM TUBE	13	66
<u>TECHNOLOGICAL CATEGORY OF COM EQUIPMENT MAINTAINED</u>		
DO NOT MAINTAIN	4	65
DO NOT KNOW	2	2
INTEGRATED CIRCUIT	45	9
SOLID STATE	82	25
VACUUM TUBE	59	13
<u>LOCATION WHERE MAJOR MAINTENANCE TASKS ARE PERFORMED</u>		
DO NOT PERFORM	3	3
FLIGHTLINE	30	31
FLIGHTLINE AND SHOP	53	56
SHOP	19	16
<u>NORMAL WORK SCHEDULE</u>		
DAY SHIFT (SUCH AS 0800-1600)	40	38
SWING SHIFT (SUCH AS 1600-2400)	36	36
MID SHIFT (SUCH AS 2400-0800)	15	17
12-HOUR DAY (SUCH AS 0700-1900)	2	1
12-HOUR NIGHT (SUCH AS 1900-0700)	*	1
ROTATING 8-HR SHIFTS	5	4
ROTATING 12-HR SHIFTS	*	1
VARIABLE DEPENDING ON WORKLOAD/SEASON	11	13
<u>PRODUCTION ORIENTED MAINTENANCE ORGANIZATION</u>		
NOT UNDER POMO	58	56
DEPUTY COMMANDER FOR MAINTENANCE COMPLEX	4	7
AIRCRAFT GENERATION SQUADRON	18	16
EQUIPMENT MAINTENANCE SQUADRON	*	3
COMPONENT REPAIR SQUADRON	17	15

* INDICATES LESS THAN ONE PERCENT

TABLE 36

SYSTEMS MAINTAINED BY AT LEAST 20 PERCENT OF AFS 328X0 EXPERIENCE GROUPS
(DECENDING ORDER OF PERCENT FIRST ENLISTMENT RESPONDING)

SYSTEMS MAINTAINED	FIRST ENLISTMENT 1-48 MONTHS (N=425)	SECOND ENLISTMENT 49-96 MONTHS (N=184)	CAREER 97+ MONTHS (N=284)
AN/ARC-164 ULTRA HIGH FREQUENCY RADIO (UHF)	91	79	59
AN/PRC EMERGENCY RADIO (ER)	57	40	28
AN/AIC-18 INTERPHONE (IP)	55	53	38
AN/AIC-10 IP	49	48	31
AN/URT-10 ER	41	33	23
HF-101 HIGH FREQUENCY RADIO (HF)	39	35	29
WILCOX 807A VERY HIGH FREQUENCY RADIO (VHF)	38	27	27
AN/URT-33 ER	36	34	24
AN/ARA-25 DIRECTION FINDER (DF)	32	38	29
AN/AIC-25 IP	29	21	18
VHF-101 VHF	26	30	27
AN/AIC-13 IP	24	17	17
AN/ARC-58 HF	23	34	20
AN/ARC-34 UHF	22	17	12
ARN-118 TACAN	21	19	15
ARA-50 DF	21	18	22
FM-622 VHF	20	20	16
KY-28 SECURE SPEECH UNIT	19	25	22

TABLE 37

SYSTEMS MAINTAINED BY AT LEAST 20 PERCENT OF AFS 328X1 EXPERIENCE GROUPS
(DECENDING ORDER OF PERCENT FIRST-ENLISTMENT RESPONDING)

SYSTEMS MAINTAINED	FIRST ENLISTMENT 1-48 MONTHS (N=495)	SECOND ENLISTMENT 49-96 MONTHS (N=257)	CAREER 97+ MONTHS (N=369)
ARN-118 TACTICAL AIR NAVIGATION (TACAN)	81	82	63
KIT-1A AIRBORNE IDENTIFICATION SYSTEMS (AIDS)	74	69	57
APN-59 SEARCH AND WEATHER RADAR (S&W)	57	53	38
APX-64 AIDS	53	53	44
KIR-1A AIDS	50	48	35
APX-72 AIDS	44	51	30
51R-6 INSTRUMENT LANDING SYSTEM (ILS)	39	40	32
ARN-140D ILS	37	41	23
51V-4 ILS	36	41	33
APN-133 RADIO/RADAR ALTIMETER (RRA)	33	37	25
APN-150 RRA	30	31	21
APN-67 RENDEZVOUS RADAR BEACON (RRB)	27	25	21
860 FI RRA	27	24	23
ARN-32 ILS	25	29	21
SCR-718 RRA	23	25	20
ARN-6 AUTOMATIC DIRECTION FINDER (ADF)	23	27	10
ARN-127 ILS	22	24	21
VOR-101 ILS	21	27	17
AN/ARC-164 ULTRA HIGH FREQUENCY RADIO (UHF)	21	27	21
DFA-73 ADF	20	23	15
SST-181 RRB	19	27	19
ARN-21 TACAN	18	22	11
512-3 ILS	16	27	18
512-4 ILS	16	22	13
ARN-67 ILS	15	22	13
ARN-131 LONG RANGE AIR NAVIGATION (LORAN)	15	21	11

TRAINING ANALYSIS

Occupational survey data is one of several sources of information which can be used to help make training programs more relevant and meaningful to students. The four most commonly used types of occupational survey information are: the percent of first enlistment respondents performing each of the tasks covered by the job inventory; the percent of personnel in the survey using various pieces of equipment, the ratings by senior NCOs of the relative level of difficulty of tasks in the inventory; and the ratings by senior NCOs of the relative emphasis that should be placed on each task for first enlistment training. These sets of information can be used in evaluating the Specialty Training Standard (STS) and the Plan of Instruction (POI) for each specialty covered in an occupational survey.

Personnel at the Technical Training Center, Keesler AFB, MS provided matchings of the job inventory to four training documents to be examined in this study; the POI for course 3ABR32830, dated January 1980; the STS 328X0, dated July 1975; the POI for course 3ABR32831, dated January 1980; and the STS 328X1, dated February 1978. Complete computer listings have been forwarded to the technical school personnel for their use in reviewing training documents.

AFS 328X0 Training

Analysis of Training Emphasis: Fifty-four experienced 7-skill level Avionic Communications NCOs rated each task in the job inventory for the degree of emphasis they feel should be placed upon the tasks in first enlistment training. These ratings were processed to produce an ordered listing ranked to show which tasks should have the highest to lowest emphasis in first enlistment training. The average rating was 1.44 with a standard deviation of 2.0. Tasks receiving ratings of 3.44 or higher may be considered to have relatively high training emphasis ratings. (For a more complete description of these ratings, see the section on Task Factor Administration in the INTRODUCTION.)

Tasks receiving the highest ratings for first enlistment training are primarily the technical communications maintenance tasks involving isolation of malfunctions and alignment of high frequency radio, and interphone systems and components. Table 38 contains 20 of the tasks which received the highest training emphasis ratings. The table shows that those tasks receiving the highest emphasis for training are also being performed by substantial percentages of the AFS 328X0 first enlistment respondents.

While the majority of tasks within Table 38 involve maintenance procedures associated with specific communications systems, the table does contain four tasks of a general avionic maintenance nature. The fact that these four tasks are rated above average possibly indicates concern of NCOs in the field that these tasks are integral to the completion of the avionic maintenance mission.

In contrast to the tasks receiving high training emphasis, Table 39 contains 22 tasks which received the lowest ratings for first enlistment training. These tasks are of two types: either they can be quickly learned without formal training (such as washing aircraft or towing aircraft), or are tasks rarely performed by first enlistment personnel (such as drafting budgets or maintaining cost center accounts).

Analysis of Task Difficulty: The relative difficulty of each task in the inventory was evaluated by 39 experienced 7-skill level Avionic Communications NCOs. Their ratings were processed to produce an ordered listing of all tasks in terms of the relative difficulty of any one task to all others in the inventory. The ratings were then adjusted so that the average difficulty rating is 5.0 with a standard deviation of 1.0. Thus, tasks with ratings of 6.0 or higher can be considered as above average in difficulty.

Tasks rated most difficult by the senior AFS 328X0 NCOs can be described as either technical-maintenance oriented or supervisory-administrative oriented. The difficult technical-maintenance tasks include the isolation of malfunctions in high frequency and very high frequency (AM and FM receivers, transmitters, couplings, and wiring. Some of these tasks appear in Table 38, Tasks Rated Above Average in Training Emphasis. The difficult supervisory-administrative tasks include evaluating and drafting budgets and supervising civilians. Some of these tasks appear in Table 39, Tasks Rated Below Average in Training Emphasis. While these tasks are quite difficult to perform, it is understandable that they would receive low emphasis for first enlistment training since they are rarely performed by members in their first enlistment.

Tasks in the inventory which received the lowest difficulty ratings primarily involve general avionic maintenance and assist-tasks. Assist-tasks include positioning aerospace ground equipment (AGE), operating dispatch vehicles, inventorying tool kits, and transporting test equipment. General avionic maintenance tasks include safety wiring components, cleaning parts, setting up maintenance stands, and dusting equipment.

Analysis of the Specialty Training Standard (STS) 328X0: The 328X0 Specialty Training Standard (STS) was compared to the survey data for first enlistment, 5-, and 7-skill level Avionic Communications personnel. Subject matter specialists at the Keesler Technical Training Center assisted the analysis by matching inventory tasks to specific paragraphs of the STS. Each paragraph of the STS was analyzed using the training emphasis, task difficulty, and percent members performing information, according to the guidelines of ATCR 52-22. Each of the STS paragraphs requiring proficiency in task knowledge and performance were adequately supported by the occupational survey data.

A review of the tasks which were not matched to any of the STS paragraphs reveals that 85 tasks rated above average for first enlistment training were not matched. Of these 85 tasks, 33 are performed by at least 30 percent of first enlistment respondents. Training personnel should review the list of tasks not referenced to determine: (1) whether the task is actually described by an existing paragraph, or (2) whether the task or a group of tasks indicates a need for training that is absent in the current STS. A cursory examination of the 33 tasks (see Table 40) indicates that

most of the tasks could probably be used to lend support for STS paragraphs describing maintenance of HF, interphone, emergency radio, UHF direction finding, and public address systems.

Analysis of the 328X0 Plan of Instruction: The Plan of Instruction for course 3ABR32830, dated January 1980, was also evaluated against the guidelines of ATCR 52-22, using tasks matched by training personnel to criterion objectives (CO), and task difficulty ratings, training emphasis ratings, and percent of first enlistment personnel performing information. All of the COs in this POI which are measured by student performance appear to be well supported by occupational survey data.

As was noted in the 328X0 STS, a substantial number of tasks from the job inventory were not matched to specific COs of the POI. Of 110 tasks which received high training emphasis ratings, 39 tasks were performed by more than 30 percent of first enlistment personnel (see Table 41). Thirty-two of the 39 tasks appearing in the table of tasks not referenced to the POI also appear in the table of tasks not referenced to STS 328X0. Again, training personnel should review the tasks not referenced to identify areas which may need to be included in future revisions of the POI.

AFS 328X1 Training

Analysis of Training Emphasis: Seventy-four experienced 7-skill level Avionic Navigation Systems NCOs rated each task in the job inventory for the degree of emphasis they believe should be placed upon the tasks in first enlistment training. Their ratings were processed to produce an ordered listing ranked to show the tasks which they believe should have the highest emphasis in first enlistment training. The average rating was 2.69 with a standard deviation of 1.77. Thus, tasks with ratings of 4.46 or higher should be considered for inclusion in some type of training program. (For a more complete description of training emphasis ratings see the Task Factor Administration section of the INTRODUCTION.

Tasks rated highest by the AFS 328X1 training emphasis raters are of three types: general avionic maintenance, maintenance administration, and specialty-specific maintenance. General avionic maintenance tasks include locating maintenance information, tracing circuits with schematics, soldering, and testing the continuity of cables. Maintenance administration includes tasks such as completion of maintenance forms and locating stock numbers. Specialty-specific maintenance refers tasks associated with maintaining systems identified by career ladder documents as the responsibility of AFS 328X1 personnel, such as isolating malfunctions in airborne identification, TACAN, and radio/radar altimeter systems. Nineteen tasks are shown in Table 42 which received the highest training emphasis ratings. The fact that the tasks with the highest training emphasis ratings are performed by substantial percentages of the first enlistment personnel in the sample validates the ratings given by the AFS 328X1 NCOs.

In contrast to the tasks receiving the highest training emphasis ratings, Table 43 shows some of the tasks rated by the same group of NCOs as requiring the least emphasis in first enlistment training. As was previously

seen with the 328X0 training emphasis, tasks receiving the least training emphasis ratings are either quickly learned without formal training (such as tying down aircraft and bleeding brake systems) or are tasks seldom performed by first enlistment personnel (such as preparing unit emergency plans and evaluating engineering change proposals).

Analysis of Task Difficulty: The relative difficulty of each task in the inventory was evaluated by 42 senior AFS 328X1 NCOs. Their ratings were processed to produce an ordered listing of all tasks in terms of difficulty relative to all other tasks in the inventory. These ratings were then adjusted so that the average rating is 5.0 with a standard deviation of 1.0. Thus, any task rated 6.0 or higher can be considered above average in difficulty.

Tables 42 and 43, which display tasks receiving the highest and lowest training emphasis ratings, also show the task difficulty rating for each task. The tasks with highest emphasis for training and highest difficulty ratings are activities associated with specialty-specific maintenance, such as isolating malfunctions and aligning components of airborne identification, station keeping equipment, search and weather radar, and long range navigation systems. The tasks which received the lowest emphasis for training but had high difficulty ratings are supervisory and administrative in nature, such as preparing deployment or mobility plans or writing staff studies. Such supervisory or administrative tasks are performed by relatively few first enlistment personnel. Tasks with the lowest difficulty ratings are fairly simple to learn and require a minimal amount of instruction.

Analysis of the Specialty Training Standard (STS) 328X1. The 328X1 Specialty Training Standard (STS) was compared to survey data for first enlistment, 5-, and 7-skill level Avionic Navigation Systems personnel. Subject matter specialists at the Keesler Technical Training center assisted the analysis by matching tasks in the inventory to specific items of the STS. Each paragraph of the STS was then reviewed, according to the guidelines of AFR 52-22, to determine if occupational survey data supports the paragraph. Each of the STS paragraphs requiring proficiency in task knowledge and performance were adequately supported by the occupational survey data.

Only eight tasks were found in the list of tasks not referenced to the STS which received above average training emphasis ratings (see Table 44). Seven of the eight are performed by 30 percent or more of the first enlistment 328X1 personnel. Training personnel are encouraged to review these tasks to see if they: (1) can lend support to existing STS items, and (2) indicate a need to create an addition to the current STS.

Analysis of the 328X1 Plan of Instruction: The Plan of Instruction for course 3ABR32831, dated January 1980, was evaluated using the occupational survey data with tasks matched by training personnel to criterion objectives (CO) of the POI. For each of the COs which require a performance measurement of the student, support was found in percentages of first enlistment members performing and training emphasis ratings to validate the COs.

A substantial number of tasks in the job inventory were not matched to any CO of the POI (see Table 45). Of the 110 tasks not matched which received above average ratings for training emphasis, 23 tasks are performed by more than 30 percent of first enlistment personnel, and also received above average difficulty ratings. Tasks within this group are associated with maintaining airborne identification, instrument landing, search and weather radar, and radio/radar altimeter systems. Training personnel should review the list of tasks not referenced to determine whether additional COs should be added to the POI.

Training Analysis Summary

In the constant review of training programs, occupational survey data provides useful tools to validate the inclusion of specific objectives and the establishment of specific standards within training documents. In the programmed re-evaluation of specialty training standards, for example, the recommended emphasis for first enlistment training, the relative difficulty level, and the percent performing data can be used to validate the addition or deletion of specific standards. Further, the survey data not only addresses the issue of first enlistment training, but may also be adapted to identify the job performance for specialist and technician level personnel.

The contents of the STSs and POIs for both specialties are supported by occupational survey data obtained in this study. In the 328X0 STS, and in both POIs, however, a number of tasks were not referenced which have high training emphasis ratings and are performed by substantial percentages of first enlistment personnel. Training managers should examine these tasks not referenced in order to determine whether they lend support to existing parts of these documents or whether they indicate additional areas which need to be trained.

TABLE 38

EXAMPLE TASKS RATED ABOVE AVERAGE IN TRAINING EMPHASIS BY SENIOR 328X0 PERSONNEL
(PERCENT FIRST ENLISTMENT)

TASKS	TRAINING EMPHASIS*	TASK DIFFICULTY*	PERCENT FIRST ENLISTMENT PERFORMING (N=425)
N427 ISOLATE MALFUNCTIONS IN HF SYSTEMS	7.52	6.93	51
G238 TRACE CIRCUITS OR SIGNALS USING WIRING DIAGRAMS OR SCHEMATICS	7.24	6.31	83
N448 ISOLATE MALFUNCTIONS IN HF RECEIVER- TRANSMITTERS	7.09	7.10	46
H253 ISOLATE MALFUNCTIONS IN UHF RECEIVER- TRANSMITTERS	7.07	6.87	69
H240 ISOLATE MALFUNCTIONS IN UHF SYSTEMS	7.06	6.41	89
N438 ALIGN HF RECEIVER-TRANSMITTERS	6.94	6.97	48
N426 ADJUST HIGH FREQUENCY (HF) RADIO SYSTEMS	6.93	6.21	55
N446 ISOLATE MALFUNCTIONS IN HF COUPLERS	6.91	7.14	43
H241 OPERATIONALLY CHECK UHF SYSTEMS USING FLIGHT- LINE TEST EQUIPMENT (FTE)	6.87	5.13	70
H247 ALIGN UHF RECEIVER-TRANSMITTERS	6.85	6.33	67
P531 ISOLATE MALFUNCTIONS IN INTERPHONE SYSTEMS	6.83	5.53	83
G220 ISOLATE MALFUNCTIONS IN AVIONIC SYSTEMS WIRING OR CABLES	6.69	7.23	70
H250 BENCH CHECK UHF RECEIVER-TRANSMITTERS	6.69	5.44	70
N443 BENCH CHECK HF RECEIVER-TRANSMITTERS	6.67	6.06	49
G235 SOLDER AVIONIC SYSTEM WIRING	6.65	5.05	87
N428 OPERATE ASSOCIATED SYSTEMS CHECKING HF SYSTEMS	6.65	5.21	53
H239 ADJUST ALTRA HIGH FREQUENCY (UHF) RADIO SYSTEMS	6.63	5.82	81
H252 ISOLATE MALFUNCTIONS IN UHF CONTROL UNITS	6.63	6.18	64
G232 REMOVE OR REPLACE RADIO FREQUENCY (RF) COAXIAL CONNECTORS	6.54	5.33	83
N437 ALIGN HF COUPLERS	6.52	7.10	41

* NOTE: TASK DIFFICULTY AND TRAINING EMPHASIS RATINGS IN THESE TWO
COLUMNS WERE OBTAINED FROM SENIOR 328X0 NCOs

TABLE 39

EXAMPLE TASKS RATED BELOW AVERAGE IN TRAINING EMPHASIS BY SENIOR 328X0 PERSONNEL
(PERCENT FIRST ENLISTMENT)

TASKS	TRAINING EMPHASIS**	TASK DIFFICULTY**	PERCENT FIRST ENLISTMENT PERFORMING (N=425)
A15 PLAN LAYOUT OF FACILITIES	.32	5.53	2
D96 ACT AS UNIT OR STAFF LEVEL TRAINING ADVISOR	.28	6.57	1
E146 MAINTAIN COST CENTER ACCOUNTS	.28	5.81	*
C69 ENDORSE CIVILIAN PERFORMANCE RATINGS OR SUPERVISORY APPRAISALS	.24	6.39	*
A7 DRAFT BUDGET OR FINANCIAL REQUIREMENTS	.20	7.57	*
B43 FORECAST OR SUBMIT BUDGET REQUIREMENTS	.19	7.03	1
C95 WRITE STAFF STUDIES, SURVEYS, OR SPECIAL REPORTS	.19	7.00	1
F185 JACK OR LEVEL AIRCRAFT	.19	5.20	10
F192 PERFORM SINGLE-POINT AIRCRAFT REFUELING OR DEFUELING	.17	4.27	6
F205 TOW AIRCRAFT	.17	4.05	12
F109 PERFORM OVER-THE-WING AIRCRAFT REFUELING OR DEFUELING	.15	3.73	3
F209 WASH AIRCRAFT	.15	2.18	11
B61 SUPERVISE AVIONIC NAVIGATION SYSTEMS SPECIALISTS (AFSC 32851)	.11	6.15	2
B62 SUPERVISE AVIONIC NAVIGATION SYSTEMS TECHNICIANS (AFSC 32871)	.09	6.29	*
C72 EVALUATE BUDGET OR FINANCIAL REQUIREMENTS	.09	7.13	1
F182 BLEED OR SERVICE BRAKE SYSTEMS	.09	4.27	4
F204 TIE DOWN AIRCRAFT	.07	3.00	3
F203 SERVICE AIRCRAFT TIRES	.06	3.50	6
F189 PERFORM HOT-PIT AIRCRAFT REFUELING OR DEFUELING	.04	4.44	3
F196 REMOVE OR INSTALL AIRCRAFT EXTERNAL FUEL TANKS	.02	4.30	6
F197 REMOVE OR INSTALL AIRCRAFT PODS	.02	4.30	2
F198 REMOVE OR REPLACE AIRCRAFT BRAKE ASSEMBLIES	.02	5.15	1

* INDICATES LESS THAN ONE PERCENT

**NOTE: TASK DIFFICULTY AND TRAINING EMPHASIS RATINGS IN THESE TWO COLUMNS
WERE OBTAINED FROM SENIOR 328X0 NCOs

TABLE 41

TASKS NOT REFERENCED TO POI 3ABR32830

TASKS	TRAINING EMPHASIS	TASK DIFFICULTY	PERCENT FIRST ENLISTMENT PERFORMING (N=425)
N446 ISOLATE MALFUNCTIONS IN HF COUPLERS	6.91	7.14	43
G235 SOLDER AVIONIC SYSTEM WIRING	6.65	5.05	87
G232 REMOVE OR REPLACE RADIO FREQUENCY (RF) COAXIAL CONNECTORS	6.54	5.33	83
N437 ALIGN HF COUPLERS	6.52	7.10	41
N445 ISOLATE MALFUNCTIONS HF COUPLER CONTROLS	6.44	6.77	39
N441 BENCH CHECK HF COUPLERS	6.33	5.97	45
G236 TEST CONTINUITY OF COAXIAL CABLES	6.13	4.30	86
N436 ALIGN HF COUPLER CONTROLS	6.13	6.76	41
N440 BENCHCHECK HF COUPLER CONTROLS	6.06	5.53	42
N432 REMOVE OR REPLACE HF COUPLERS	6.04	5.38	59
G231 REMOVE OR REPLACE MULTIPLE WIRE PLUGS	5.95	6.36	65
N430 REMOVE OR REPLACE HF ANTENNAS	5.91	5.90	46
G229 REMOVE OR REPLACE AVIONIC SYSTEM WIRING OR CABLES	5.87	6.61	73
N451 REMOVE OR REPLACE HF COUPLER COMPONENTS	5.78	5.31	43
N454 REMOVE OR REPLACE HF COUPLER SUBASSEMBLIES	5.72	4.84	41
G212 DIAGNOSE MOCKUP MALFUNCTIONS	5.63	5.98	55
N452 REMOVE OR REPLACE HF COUPLER CONTROL COMPONENT	5.57	5.08	39
V788 BENCHCHECK ERs	5.54	4.35	47
N453 REMOVE OR REPLACE HF COUPLER CONTROL SUBASSEMBLIES	5.48	4.68	39
P533 REMOVE OR REPLACE INTERPHONE CORD COMPONENTS	5.43	3.76	80
V792 SET UP ER PECULIAR TEST EQUIPMENT	5.39	4.70	40
T716 OPERATE ASSOCIATED SYSTEMS CHECKING UHF DF SYSTEMS	5.37	4.98	38
V787 ALIGN EMERGENCY RADIONS (ER)	5.17	5.06	33
P534 REMOVE OR REPLACE INTERPHONE CORDS	5.15	3.61	81
T714 ADJUST ULTRA HIGH FREQUENCY (UHF) DIRECTION FINDER (DF) SYSTEMS	5.07	5.78	31
E173 RESEARCH OR IDENTIFY PARTS USING ILLUSTRATED PARTS BREAKDOWN (IPB)	5.09	4.23	46
R611 OPERATIONALLY CHECK PA SYSTEMS	4.93	3.96	37
G228 REMOVE OR REPLACE AVIONIC SYSTEM RELAYS	4.67	5.21	61
J321 REMOVE OR REPLACE VHF AM ANTENNAS	4.57	4.03	44
T718 REMOVE OR REPLACE UHF DF AMPLIFIERS	4.48	4.25	32
G218 INSPECT PARTS RECEIVED FROM SUPPLY OR MANUFACTURERS	4.39	3.86	57
T719 REMOVE OR REPLACE UHF DF ANTENNAS	4.33	4.98	37
F184 INVENTORY CONSOLIDATED TOOL KITS (CTK)	4.20	2.81	45
R612 REMOVE OR REPLACE PA AMPLIFIERS	4.20	3.82	34
R613 REMOVE OR REPLACE PA LOUD SPEAKERS	4.09	3.94	33
R615 REMOVE OR REPLACE PA SET CONTROL UNITS	4.06	3.62	33
R614 REMOVE OR REPLACE PA MICROPHONES	4.02	3.65	33
G234 SET UP FLIGHTLINE MAINTENANCE STANDS	3.89	2.60	54
E167 PREPARE OR MAKE ENTRIES ON SPECIALIST DISPATCH CONTROL LOG FORMS (AF FORM 2430)	3.70	3.33	33

NOTE: THIS TABLE CONTAINS 39 TASKS WHICH ARE PERFORMED BY AT LEAST 30 PERCENT OF 328X0 FIRST ENLISTMENT PERSONNEL AND HAVE ABOVE AVERAGE TRAINING EMPHASIS RATINGS. THESE 39 TASKS ARE AMONG 95 TASKS RECEIVING ABOVE AVERAGE TRAINING EMPHASIS RATINGS BY SENIOR 328X1 NCOs, BUT WERE NOT REFERENCED TO SPECIFIC STS PARAGRAPHS.

TABLE 42

TASKS RATED ABOVE AVERAGE IN TRAINING EMPHASIS BY SENIOR 328X1 PERSONNEL

TASKS	TRAINING EMPHASIS*	TASK DIFFICULTY*	PERCENT FIRST ENLISTMENT PERFORMING (N=495)
G238 TRACE CIRCUITS OR SIGNALS USING WIRING DIAGRAMS OR SCHEMATICS	7.28	6.45	85
G235 SOLDER AVIONIC SYSTEM WIRING	7.16	4.75	85
G221 LOCATE MAINTENANCE INFORMATION IN TECHNICAL PUBLICATIONS OR AIR FORCE TECHNICAL ORDERS (TO)	7.11	5.15	78
G220 ISOLATE MALFUNCTIONS IN AVIONIC SYSTEMS WIRING OR CABLES	7.03	6.87	82
E160 MAKE ENTRIES ON MAINTENANCE DATA COLLECTION RECORD FORMS (AFTO FORM 349)	6.99	4.10	75
E162 MAKE ENTRIES ON REPARABLE ITEM PROCESSING TAG FORMS (AFTO FORM 350)	6.87	3.72	78
0460 ISOLATE MALFUNCTIONS IN IDENTIFICATION FRIEND OR FOE/SELF IDENTIFICATION FEATURE (IFF/SIF)/AIMS	6.81	6.08	75
0530 SET UP IFF/SIF/AIMS PECULIAR TEST EQUIPMENT	6.50	5.75	45
Q547 ISOLATE MALFUNCTIONS IN TACAN SYSTEM	6.46	5.81	72
G232 REMOVE OR REPLACE RADIO FREQUENCY (RF) COAXIAL CONNECTORS	6.42	4.98	77
0462 OPERATIONALLY CHECK IFF/SIF/AIMS USING FTE	6.42	5.13	46
G212 DIAGNOSE MOCKUP MALFUNCTIONS	6.39	6.23	61
E144 LOCATE PART OR STOCK NUMBERS IN TECHNICAL PUBLICATIONS	6.30	3.78	56
G231 REMOVE OR REPLACE MULTIPLE WIRE PLUGS	6.28	6.27	73
M414 ISOLATE MALFUNCTIONS IN RRA RECEIVER- TRANSMITTERS	6.28	6.80	40
G236 TEST CONTINUITY OF COAXIAL CABLES	6.27	3.62	85
Q608 SET UP TACAN PECULIAR TEST EQUIPMENT	6.24	5.03	38
M388 ISOLATE MALFUNCTIONS IN RRA SYSTEMS	6.22	6.47	57
G505 ISOLATE MALFUNCTIONS IN IFF/SIF/AIMS RECEIVERS	6.18	6.48	45

* NOTE: TASK DIFFICULTY AND TRAINING EMPHASIS RATINGS IN THESE TWO COLUMNS
WERE OBTAINED FROM SENIOR 328X1 NCOs

TABLE 43

TASKS RATED BELOW AVERAGE IN TRAINING EMPHASIS BY SENIOR 328X1 PERSONNEL

TASKS	TRAINING EMPHASIS*	TASK DIFFICULTY*	PERCENT FIRST ENLISTMENT PERFORMING (N=495)
A20 PREPARE UNIT DEPLOYMENT OR MOBILITY PLANS	.24	6.42	2
F192 PERFORM SINGLE-POINT AIRCRAFT REFUELING OR DEFUELING	.20	3.66	8
F196 REMOVE OR INSTALL AIRCRAFT EXTERNAL FUEL TANKS	.19	4.50	6
F203 SERVICE AIRCRAFT TIRES	.19	3.26	3
A3 DETERMINE PERSONNEL REQUIREMENTS	.18	5.95	4
A21 PREPARE UNIT EMERGENCY PLANS	.18	6.38	2
C84 EVALUATE SUGGESTIONS	.18	5.68	2
F197 REMOVE OR INSTALL AIRCRAFT PODS	.18	4.63	3
F182 BLEED OR SERVICE BRAKE SYSTEMS	.16	3.62	4
F198 REMOVE OR REPLACE AIRCRAFT BRAKE ASSEMBLIES	.16	5.53	3
F201 SERVICE AIRCRAFT HYDRAULIC SYSTEMS	.16	3.54	3
F202 SERVICE AIRCRAFT SHOCK STRUTS	.16	4.06	2
F204 TIE DOWN AIRCRAFT	.16	3.14	3
F189 PERFORM HOT-PIT AIRCRAFT REFUELING OR DEFUELING	.15	4.51	3
C05 WRITE STAFF STUDIES, SURVEYS, OR SPECIAL REPORTS	.12	6.62	3
C117 RESEARCH OR PREPARE FORMS FOR REVERSE POSITIONS	.12	5.10	1
F190 PERFORM OVER-THE-WING AIRCRAFT REFUELING OR DEFUELING	.11	3.31	4
B41 DEVELOP OR REVIEW PROCEDURES FOR BASE DISASTER RECOVERY EXERCISES	.09	5.77	2
C74 PREPARE ENGINEERING CHANGE PROPOSALS	.05	4.75	1
A1 PREPARE MAINTENANCE ACTIVITY REPORTS	.03	5.97	3
C10 INVESTIGATE ACCIDENTS OR INCIDENTS	.00	5.84	2
B96 ACT AS UNIT OR STAFF LEVEL TRAINING ADVISOR	.00	5.77	3
B11 EVALUATE PROGRESS OF RESIDENT COURSE STUDENTS	.00	5.13	2

NOTE: TASK DIFFICULTY AND TRAINING EMPHASIS RATINGS IN THESE TWO COLUMNS
WERE OBTAINED FROM SENIOR 328X1 NCOs

TABLE 44

TASKS NOT ANNOTATED TO STS 328X1

TASKS	TRAINING EMPHASIS	TASK DIFFICULTY	PERCENT FIRST ENLISTMENT PERFORMING (N=495)
G236 TEST CONTINUITY OF COAXIAL CABLES	6.27	3.62	85
E173 RESEARCH OR IDENTIFY PARTS USING ILLUSTRATED PARTS BREAKDOWN (IPB)	5.66	4.11	40
G222 MAINTAIN PHYSICAL SECURITY OF AIRBORNE INTERROGA- TION MARK XII SYSTEM (AIMS) COMPONENTS, DATA, OR PUBLICATIONS	5.63	4.69	32
W795 ISOLATE MALFUNCTIONS IN SW PRESSURIZATION SYSTEMS	5.20	5.39	42
G219 INSPECT WAVE GUIDES (OTHER THAN IN RENDEZVOUS RADAR BEACON SYSTEMS)	4.88	4.11	53
G225 PERFORM OPERATIONAL CHECKS OF AVIONIC PRESSURIZA- TION SYSTEMS	4.77	3.95	55
D104 DEMONSTRATE HOW TO LOCATE TECHNICAL INFORMATION	4.69	4.41	18
F187 OPERATE AEROSPACE GROUND EQUIPMENT (AGE), SUCH AS POWER UNITS, HEATERS, OR LIGHT CARTS	4.58	4.35	57

TABLE 45

TASKS NOT REFERENCED TO POI 3ABR32831

TASKS	TRAINING EMPHASIS	TASK DIFFICULTY	PERCENT FIRST ENLISTMENT PERFORMING (N=495)
G212 DIAGNOSE MOCKUP MALFUNCTIONS	6.39	6.23	61
G231 REMOVE OR REPLACE MULTIPLE WIRE PLUGS	6.28	6.27	73
M387 ADJUST RADIO/RADAR ALTIMETER (RPA) SYSTEMS	6.13	6.23	46
I298 ISOLATE MALFUNCTIONS IN GLIDESLOPE RECEIVERS	6.03	6.04	57
O478 ALIGN IFF/SIF/AIMS RECEIVERS	6.01	6.25	49
O473 ALIGN IFF/SIF/AIMS CODERS/DECODERS	5.92	6.23	44
G229 REMOVE OR REPLACE AVIONIC SYSTEM WIRING OR CABLES	5.88	6.25	76
W796 ISOLATE MALFUNCTIONS IN SW SYSTEMS	5.88	6.63	46
O475 ALIGN IFF/SIF/AIMS INTERMEDIATE FREQUENCY (IF) AMPLIFIERS	5.84	6.46	45
W822 ALIGN SW RECEIVER-TRANSMITTERS	5.84	7.17	34
M402 ALIGN RRA RECEIVERS	5.80	6.20	39
O477 ALIGN IFF/SIF/AIMS RADIO FREQUENCY (RF) AMPLIFIERS	5.80	6.38	43
W793 ADJUST SEARCH AND WEATHER RADAR (SW) SYSTEMS	5.78	6.52	42
M403 ALIGN RRA TRANSMITTERS	5.77	5.22	37
W869 SET UP SW PECULIAR TEST EQUIPMENT	5.68	6.12	31
W851 ISOLATE MALFUNCTIONS IN SW SYSTEM MOCKUPS	5.63	6.87	30
W821 ALIGN SW INDICATORS	5.58	6.49	34
W816 ALIGN SW ANTENNAS	5.51	6.48	33
O479 ALIGN IFF/SIF/AIMS REFERENCE SIGNAL GENERATORS	5.45	6.14	37
W839 ISOLATE MALFUNCTIONS IN SW ANTENNAS	5.35	6.60	32
W817 ALIGN SW ECAS	5.32	6.11	31
W841 ISOLATE MALFUNCTIONS IN SW ECAS	5.19	6.15	31
O496 ISOLATE MALFUNCTIONS IN IFF/SIF/AIMS BITE OR SELF- TEST SETS	4.99	6.33	33

NOTE: THIS TABLE CONTAINS 23 TASKS THAT: (1) ARE PERFORMED BY AT LEAST 30 PERCENT OF 328X1 FIRST ENLISTMENT PERSONNEL, (2) RECEIVE ABOVE AVERAGE TASK DIFFICULTY RATINGS, AND (3) TASKS ARE AMONG 125 TASKS RECEIVING ABOVE AVERAGE TRAINING EMPHASIS RATINGS BY SENIOR 328X1 NCOs, BUT WERE NOT REFERENCED TO SPECIFIC STS PARAGRAPHS.

ANALYSIS OF WRITE-IN COMMENTS

In the administration of occupational surveys, respondents are encouraged to comment upon their jobs, their career field, and the survey instrument. Often, respondents submit interesting and informative comments with their booklets. Generally, comments are of three major types. Some respondents comment on unique parts of their job or unique training which serves to help understand otherwise ambiguous job groups, and also serve to improve the scope of future inventories. Other respondents comment upon utilization or training problems that are not directly addressed by the inventory. Finally, some respondents reveal the status of morale by expressing in an uninhibited way, the effects of training, management, or utilization policies upon themselves personally.

In this study, quite a large number of write-ins were received. Most were of the first type described; comments on special training courses and on special tasks performed by relatively small numbers of personnel. About one-fourth of the write-ins, however, were comments regarding training and utilization of personnel and comments reflecting the morale of the respondents.

On issues related to training, respondents repeatedly hit on one theme. Many of the comments indicated the feeling that the basic electronics course is insufficient for the needs of the field. Some representative write-ins are:

"I strongly believe that the basic electronics portion of tech school is far too short to give the individual a good understanding of the fundamentals required for use in the field or on the bench... I would like to see the "sets" blocks shortened to little more than block diagram system functioning. The time saved could be devoted to B.E.D. with lots of practical demonstrations of circuit theory and the function of individual parts." (MSgt, SAC)

"I believe that a more in-depth basic electronic course at Keesler would help out first-termers... These young troops need more basic electronics to build on." (SSgt, ATC)

"If a better basic electronics course were available, then the "sets" portion of the Keesler course could be done away with except for advanced courses on complex or special systems." (TSgt, MAC)

"It is important that first-term airmen receive good basic electronics theory training." (TSgt, MAC)

"Most of the 3-skill levels we get out of tech school Don't know how to solder, read a T.O. or wiring diagram or fill out a 349 and 350 tag, and they know very little very basic electronics." (TSgt, SAC)

"I am teaching a basic 328X1 course - what we teach them and what they need to know out in the field go together as good as swimming and lead pants. We cannot teach these people anything if they know nothing about electronic principles." (SSgt, ATC)

There was another large group of write-in comments related to the utilization of personnel under the POMO concept and its effects upon promotion testing, of a perceived waste of training, and upon morale. In effects on promotion testing, most respondents complained that working in AGS units does not provide continual experience in working with the internal components of black boxes, while their contemporaries in CRS units are constantly getting hands-on experience, and that the SKT tests are primarily geared to work performed by CRS personnel. The most common suggestions to resolve this problem relate to utilization changes, such as redesignating AGS personnel as an entirely distinct specialty, or at least, providing alternate SKTs for them. Some respondents complained that personnel assigned to AGS activities were overtrained. In effect, they were saying that the Air Force is not fulfilling their enlistment contract by training them to be electronics systems maintenance specialists, and then utilizing them in general flightline/crew chief positions. Some comments also addressed morale, indicating that previously mentioned factors were greatly depressing their job satisfaction. Some representative comments on these three issues are:

"I am presently working in an AGS unit. I haven't worked on Avionic Communications equipment since technical school which was approximately two years ago. I am now required to take a WAPS test for promotion to SSgt that deals mostly with in-shop work. There is no doubt this one-sided system of testing is grossly unfair to those of us working on the flightline... A fair testing program must be devised... (or) eventually the gap between in-shop and flightline promotions will be so staggering that flightline maintenance will become a dumping ground for unmotivated, uncaring personnel who have no incentive to take on the needed responsibility and leadership to keep highly technical aircraft operational." (E-4, TAC)

"The amount of comm/nav work I do now could be taught in two weeks of on-the-job training. Thanks to POMO, I do no in-shop work at all on any comm or nav system. Instead I remove and replace black boxes. And when I'm not doing that I am usually stuck washing airplanes... Rewrite the Avionic AFSCs for in-shop and flightline shredouts. That way money would not be wasted training someone for in-shop work only to have them in an AGS squadron doing nothing but flightline and crew chief work." (A1C, USAFE)

"In order to save tax dollars and allow for more equitable promotion opportunities, steps should be taken to reclassify all 328X0/X1 personnel in POMO to another AFS. It is also unfair to tell a new enlistee that he will be trained and assigned as an Avionics Specialist, when in fact he may be assigned to POMO (AGS) as an aircraft mechanic. This policy is causing much dissatisfaction in the field and it is driving out some very promising and valuable technicians." (MSGT, TAC)

After recounting a morale issue related to a perceived inequity in recognition for the success of a recent unit mission, one airman went on to say, "Another bad situation is the testing for rank within specialties. The people who are thrown into the POMO concept and put onto the flightline have a very slim chance of passing a test that is set up for people in the shop. The system is not fair." (A1C, TAC)

"POMO is not a good vehicle for training an Avionics Specialist: in the shop, people don't have a chance to learn the peculiarities of aircraft "on-equipment" applications - just as the flightline troop has no way to learn the physical aspects of the "why" a system works the way it does." (NCO, USAFE)

"Personnel under AFR 66-5 Production Oriented Maintenance (POMO) should also receive some training on items 182 through 209" (the assist-task items in the inventory). (TSgt, AAC)

"Being assigned to an AGS unit puts me at a considerable disadvantage when it comes to promotion testing. This virtually necessitates separate SKT tests for AGS and CRS personnel in 328X1 and 328X0 career fields." (SSgt, USAFE)

"Flightline workers lose proficiency very fast when not exposed to shop benches, theory is forgotten. The valuable knowledge gained from benchmen to flightline men is lost under POMO. There isn't much communication between shop and flightline." (MSgt, AAC)

"Training first-term airmen for work in their specialty is almost impossible with POMO. The only thing he or she will be required is a basic knowledge of how the system works and a lot of changing tires, marshalling aircraft, and doing aircraft inspections, since 90 percent of the time will be spent being a crew chief instead of their career specialty." (TSgt, USAFE)

"Both the 328X0/X1 should be recombined into two AFSCs; one for shop and one for aircraft. As long as we have POMO under AFR 66-5 the 328XX airmen are under an unfair promotion system. The present SKTs are based for shop people and not flightline people. The first-termer should spend his first enlistment in the flightline maintenance. Then, if they extend for two years or reenlist, send them back for shop maintenance training if they desire. This would cut total training cost and losses by 75 percent." (TSgt, ATC)

"I find it a loss to the Air Force when qualified technicians with valuable in shop experience and knowledge are restricted and their skills wasted." (SSgt, PACAF)

"Better training and more cross-utilization would greatly increase my interest as my system does not break often and I don't like being a crew chief. The cross-utilization for Avionics troops should be in Avionics Mechanics, etc. (E-4, AAC)

"POMO may fly aircraft, but it isn't oriented to retain our experienced first-termers and others." (TSgt, USAFE)

COMPARISON TO PREVIOUS SURVEY

In order to understand the historical shifts within specialties, it is common for Occupational Survey Reports to compare current findings to the findings of previous reports on the same specialty. Since the 328X0 specialty was last surveyed in March 1973 (AFPT 90-328-079), there have been substantial changes in equipment used by AFS 328X0 personnel and in personnel utilization policies, no comparison was made between this study and the previous report. The 328X1 specialty, however, was surveyed fairly recently (December 1979, AFPT 90-328-379).

The job structure of the current study differed substantially from what was found in 1979. The paramount reason for the difference lies in the nature of the samples and in the nature of the survey instruments used. The 1979 study was a single ladder study (aimed directly at AFS 328X1) using a task list constructed to cover only the 328X1 specialty. The current study contains both AFS 328X0 and AFS 328X1 personnel, and the instrument contains tasks of both the 328X0 and 328X1 specialties. The opportunity for AFS 328X1 personnel in the less traditional roles of performing cross-utilization activities in the traditionally AFS 328X0 responsibilities has revealed a somewhat different picture of the structure in the 328X1 career ladder. Table 46 shows the relationship between the job groups identified in the two studies. The first four job groups of both studies perform essentially the same responsibilities. The more technical job groups which were clearly differentiated in the earlier study appear in the current study to comprise parts of several new job groups. Thus, the job structure appears to be undergoing a shift away from the differentiation by aircraft-size toward differentiation by systems maintained.

The job satisfaction indicators of AFS 328X1 experience groups of the two study samples appear in Table 47. The responses of the third, fourth, and fifth enlistment groups indicate moderate decline in satisfaction among these groups with their jobs. The expressed intention to reenlist exemplifies this decline. While first job, first-term, and second term personnel in the current study indicate slightly more favorable intentions to reenlist, members in the third enlistment group and beyond have from 10 to 16 percent fewer members planning to reenlist. Although the dramatic drop among the 193-240 month (16-20 year) group may be indicative only of a large proportion of members approaching retirement, the substantial decline of reenlistment intentions of the 97-192 months (eight to 16 year) groups indicates a cause for some concern. This decline is also seen, to some degree, in other job satisfaction indices.

Overall, the comparison of the two studies reveals a shift in structure away from aircraft specific toward avionic systems specific job orientation. This shift is seen concurrent with a moderate decline in job satisfaction among the most experienced AFS 328X1 personnel, although the less experienced members appear somewhat more satisfied than their counterparts in the 1979 study.

AD-A107 115

AIR FORCE OCCUPATIONAL MEASUREMENT CENTER RANDOLPH AFB TX F/G 5/9
AVIONIC COMMUNICATIONS AND AVIONIC NAVIGATION SYSTEMS SPECIALTI--ETC(U)
SEP 81

UNCLASSIFIED

NL

2 of 2

30/11/81



END

DATE

FILED

12-81

DTIC

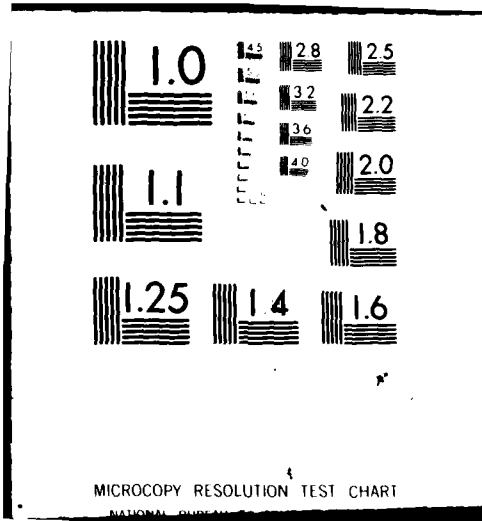


TABLE 46

COMPARISON TO PREVIOUS STUDY

<u>DECEMBER 1979 328X1 STUDY</u>	<u>CURRENT STUDY</u>
PROGRAM MANAGEMENT PERSONNEL (GRP057, N=102)	MANAGEMENT CLUSTER (GRP069, N=113)
QUALITY CONTROL INSPECTORS (GRP071, N=32)	INSPECTORS CLUSTER (GRP070, N=36)
JOB CONTROL PERSONNEL (GRP053, N=44) (GRP261, N=18)	JOB CONTROLLERS INDEPENDENT JOB TYPE
TRAINING PERSONNEL (GRP020, N=36)	INSTRUCTORS CLUSTER (GRP066, N=18)
HEAVY AIRCRAFT SHOP AND FLIGHTLINE REPAIRMEN (GRP247, N=521)	TRANSPORTATION AIRCRAFT FLIGHTLINE NAVIGATION SYSTEMS MAINTENANCE CLUSTER (GRP217, N=92)
	NAVIGATION MAINTENANCE CLUSTER (GRP195, N=470)
	COMMUNICATIONS/NAVIGATION SYSTEMS MAINTENANCE CLUSTER (GRP250, N=84)
TACTICAL AIRCRAFT SHOP AND FLIGHTLINE REPAIRMEN (GRP292, N=180)	AIRCRAFT GENERATION SQUADRONS (AGS) COMMUNICATIONS/NAVIGATION SYSTEMS MAINTENANCE CLUSTER (GRP218, N=191)
	COMPONENT REPAIR SQUADRONS (CRS) NAVIGATION SYSTEMS CLUSTER (GRP223, N=37)
STRATEGIC AIRCRAFT SYSTEMS REPAIRMEN (GRP246, N=16)	COMMUNICATIONS/NAVIGATION SYSTEMS MAINTENANCE CLUSTER (GRP250, N=84)
HEAVY AIRCRAFT FIRSTLINE SUPERVISORS (GRP153, N=43)	NAVIGATION AIDS FLIGHTLINE SUPERVISORS INDEPENDENT JOB TYPE (GRP366, N=10)
AIRLIFT SYSTEMS IN-SHOP REPAIRMEN (GRP249, N=15)	COMMUNICATIONS/NAVIGATION SYSTEMS MAINTENANCE CLUSTER (GRP250, N=84)
HEAVY AIRCRAFT FLIGHTLINE REPAIRMEN (GRP119, N=207)	SEARCH AND WEATHER RADAR AND GENERAL AVIONICS MAINTENANCE INDEPENDENT JOB TYPE (GRP243, N=11)
	NAVIGATION MAINTENANCE CLUSTER (GRP195, N=470)
	TRANSPORT AIRCRAFT FLIGHTLINE NAVIGATION SYSTEMS MAINTENANCE CLUSTER (GRP217, N=92)
TACTICAL AIRCRAFT IN-SHOP REPAIRMEN (GRP091, N=149)	COMPONENT REPAIR SQUADRONS (CRS) NAVIGATION SYSTEMS CLUSTER (GRP223, N=37)

TABLE 46 (CONTINUED)
COMPARISON TO PREVIOUS STUDY

<u>DECEMBER 1979 328X1 STUDY</u>	<u>CURRENT STUDY</u>
TEST EQUIPMENT INSPECTORS (GRP070, N=8)	MANAGEMENT CLUSTER (GRP069, N=113)
STATIONKEEPING EQUIPMENT REPAIRMEN (GRP066, N=16)	NAVIGATION MAINTENANCE CLUSTER (GRP195, N=470)
TACTICAL AIRCRAFT SYSTEMS REPAIRMEN (POMO) (GRP050, N=260)	AIRCRAFT GENERATION SQUADRON (AGS) COMMUNICATIONS/NAVIGATION SYSTEMS MAINTENANCE CLUSTER (GRP218, N=191)
INSTRUCTOR-TECHNICIANS (GRP030, N=26)	NOT IDENTIFIED
SUPPLY AND EQUIPMENT MONITORS (GRP028, N=22)	MAINTENANCE SCHEDULING MONITORS INDEPENDENT JOB TYPE (GRP236, N=5)
FORWARD LOOKING RADAR REPAIRMEN (GRP085, N=25)	RECONNAISSANCE RADAR SYSTEMS MAINTENANCE CLUSTER (GRP167, N=38)
LORAN REPAIRMEN (GRP192, N=21)	NAVIGATION MAINTENANCE CLUSTER (GRP195, N=470)

TABLE 47

COMPARISON OF JOB SATISFACTION INDICES OF 328X1 PERSONNEL IN THE
1979 AND CURRENT SURVEY SAMPLES

	1-24 MONTHS	25-48 MONTHS	49-96 MONTHS	97-144 MONTHS	145-192 MONTHS	193-240 MONTHS	241+ MONTHS
<u>PERCENT FINDING THEIR JOB FAIRLY INTERESTING OR BETTER:</u>							
1979 STUDY	76	71	63	75	75	78	78
CURRENT STUDY	83	67	66	66	72	69	73
<u>PERCENT FEELING THEIR JOB UTILIZES THEIR TALENTS FAIRLY WELL OR BETTER:</u>							
1979 STUDY	78	76	72	78	82	81	81
CURRENT STUDY	81	74	65	67	80	75	81
<u>PERCENT FEELING THEIR JOB UTILIZES THEIR TRAINING FAIRLY WELL OR BETTER:</u>							
1979 STUDY	74	72	67	75	80	77	78
CURRENT STUDY	73	68	64	66	72	68	73
<u>PERCENT INDICATING INTENTION TO REENLIST:</u>							
1979 STUDY	33	29	43	83	97	41	26
CURRENT STUDY	41	32	51	73	85	25	27

IMPLICATIONS

This occupational survey was conducted to investigate the feasibility of consolidating the Avionic Communications (AFS 328X0) and Avionic Navigation Systems specialties, with the expectation that such a merger would decrease overspecialization and job dissatisfaction while increasing personnel utilization. Several findings address the issue of feasibility for such a merger. The Career Ladder Structure section demonstrates that, for the most part, the jobs being performed by members of these two specialties are discrete, as demonstrated by the relative proportions of the sample in the first and third functional areas. The area of overlap between these two specialties accounted for only 13 percent of all respondents to this study. Within this area of overlap, jobs were identified in both exclusively flightline, and combined flightline-shop environments. This small proportion of overlap between the two specialties indicates that it is possible for members of either specialty to learn jobs of either communications or navigation systems maintenance; however, the greater proportion of members working within their designated specialties indicates that the present classification structure serves the interests of most jobs within these two specialties.

Analysis of duty AFSC groups indicates that the vast proportion of time spent on the job by incumbents of these two specialties are consistent with the designation of the present classification structure. While there is a minor amount of overlap in time spent maintaining systems designated for one another's specialties, the amount of cross utilization occurring appears to be a result of special mission requirements, not a general commonality based upon skills of the members. This is also supported by the findings of the major command analysis and job structure analysis. The MAJCOM data indicate that some differences exist within MAJCOMs due to differences in missions, aircraft systems, and maintenance policies. Within tactical air forces, such as TAC, USAFE, and PACAF, the use of Production Oriented Maintenance Organizations (POMO) results in a substantial degree of commonality for flightline workers, but shop workers are fairly distinct. Further, the career ladder structure analysis reveals that even for MAC, SAC, and ATC, some overlap may be found, especially in smaller units where limited numbers of personnel necessitate cross utilization. When not pressured to cross utilize, as in larger SAC, MAC, and ATC units, the classification structure appears to be satisfying the needs of management. These findings lead to a conclusion that, if necessary, these two specialties could be consolidated, but in most cases, the retention of separate career ladders will serve the greater majority of situations.

The job satisfaction data from members of various experience groups shows that there are few substantial differences between members of these two specialties and members of other Mission Equipment Maintenance specialties studied during 1980. Further examination of job satisfaction responses shows that important differences do exist within members of this study. The most dramatic discrepancy in job satisfaction appears to be related to maintenance organization policy employed. Members working under POMO, specifically in Aircraft Generation Squadrons (AGS), have substantially fewer positive responses to utilization of training than personnel assigned under the more traditional maintenance policy of AFR 66-1. In contrast, personnel in POMO

Componet Repair Squadron (CRS) responded with a higher percent of positive responses about utilization training than either AGS or Non-POMO personnel. This finding occurred in both specialties.

The consolidation of AFSCs 328X0 and 328X1 would logically require a merger of the basic resident training courses and merger of specialty training documents. Both courses as currently constructed require at least 20 weeks to complete. Any merger would necessitate lengthening the basic course, resulting in less time available to use the member before the end of the four year enlistment. As presently structured, the two separate courses satisfy the training requirements of the two largest functional areas identified by this study. The suggested merger may aid in training of the small percentage of personnel in cross utilization situations but could result in unnecessary training for most of the members in the specialty-specific functional areas.

APPENDIX A

BACKGROUND AND JOB SATISFACTION DATA ON JOB TYPES WITHIN CLUSTERS

TABLE A1

BACKGROUND INFORMATION FOR JOB TYPES WITHIN THE INFLIGHT
COMMUNICATIONS MAINTENANCE CLUSTER

	<u>SENIOR E-3A MAINTENANCE PERSONNEL</u>	<u>JUNIOR E-3A MAINTENANCE PERSONNEL</u>
NUMBER IN GROUP:	11	10
AVERAGE NUMBER TASKS PERFORMED:	81	29
JOB DIFFICULTY INDEX:	11.8	7.9
AVERAGE PAY GRADE:	6.1	4.7
DUTY AFSC PREFIX: (PERCENT MEMBERS)		
"A" AIRCREW	64	90
"K" AIRCREW INSTRUCTOR	36	10
"T" TECHNICAL TRAINING INSTRUCTOR	-	-
DUTY AFSC: (PERCENT MEMBERS)		
37830	-	-
32850	9	20
37870	91	80
32831	-	-
32851	-	-
32871	-	-
32899	-	-
NO RESPONSE	-	-
PERCENT WHO SUPERVISE OTHERS:	36	-
AVERAGE NUMBER SUBORDINATES FOR EACH SUPERVISOR:	6.7	-
AVERAGE MONTHS IN PRESENT JOB:	23	17
AVERAGE MONTHS IN CAREER FIELD:	165	77
AVERAGE MONTHS ACTIVE MILITARY SERVICE:	179	80
PERCENT PERFORMING CROSS UTILIZATION TRAINING (CUT) TASKS:	9	-
MAJOR COMMAND: (PERCENT MEMBERS)		
AAC	-	-
AFLC	-	-
AFSC	-	-
ATC	-	-
MAC	-	-
PACAF	-	-
SAC	-	-
TAC	100	100
USAFE	-	-
NO RESPONSE	-	-

TABLE A2

JOB INTEREST AND RELATED DATA BY JOB TYPES WITHIN THE
TAC E-3A COMMUNICATIONS MAINTENANCE CLUSTER
(PERCENT MEMBERS RESPONDING)

	SENIOR E-3A MAINTENANCE PERSONNEL	JUNIOR E-3A MAINTENANCE PERSONNEL
<u>I FIND MY JOB:</u>		
DULL	-	10
SO-SO	18	20
INTERESTING	82	60
NO RESPONSE	-	10
<u>MY JOB UTILIZES MY TALENTS:</u>		
NOT AT ALL OR VERY LITTLE	91	80
FAIRLY WELL TO PERFECTLY	91	80
NO RESPONSE	-	-
<u>MY JOB UTILIZES MY TRAINING:</u>		
NOT AT ALL OR VERY LITTLE	9	40
FAIRLY WELL TO PERFECTLY	91	60
NO RESPONSE	-	-
<u>THE SENSE OF ACCOMPLISHMENT GAINED FROM MY JOB:</u>		
DISSATISFIED	9	30
AMBIVALENT	9	30
SATISFIED	82	40
NO RESPONSE	-	-
<u>MY PLAN TO REENLIST IS:</u>		
NO, I WILL RETIRE WITH 20 YEARS SERVICE	27	-
NO OR PROBABLY NO	9	30
YES OR PROBABLY YES	64	70
NO RESPONSE	-	-

TABLE A3

BACKGROUND INFORMATION FOR JOB TYPES WITHIN THE COMMUNICATIONS MAINTENANCE CLUSTER

	HF SYSTEMS MAINTENANCE PERSONNEL	COMMUNICATIONS MAINTENANCE SUPERVISORS	JUNIOR COMMUNICATIONS SYSTEMS MAINTENANCE PERSONNEL	RADIO EQUIPMENT MAINTENANCE PERSONNEL	FIRSTLINE COMMUNI- CATIONS MAINTENANCE SUPERVISORS	COMMUNI- CATIONS FIELD TRAINING INSTRUCTORS	TRANSPORT AIRCRAFT COMMUNICATIONS MAINTENANCE PERSONNEL	JUNIOR COMPONENT REPAIR PERSONNEL	MAC HF FIELD MAINTENANCE PERSONNEL
NUMBER IN GROUP:	270	48	56	56	10	10	17	17	11
AVERAGE NUMBER OF TASKS PERFORMED:	154	230	101	97	115	101	78	40	54
JOB DIFFICULTY INDEX:	14.7	17.7	10.8	10.4	12.9	13.9	7.0	8.3	11.7
AVERAGE PAY GRADE:	4.0	5.3	3.5	4.0	5.1	5.7	4.7	3.2	4.6

DUTY AFSC: (PERCENT MEMBERS)

32830	12	2	21	13	-	-	-	41	-
32850	71	36	73	69	30	20	59	59	82
32870	16	58	4	18	70	80	41	-	18
32831	-	-	-	-	-	-	-	-	-
32851	*	-	-	-	-	-	-	-	-
32871	-	2	-	-	-	-	-	-	-
32899	-	2	-	-	-	-	-	-	-
NO RESPONSE	*	-	2	-	-	-	-	-	-

PERCENT WHO SUPERVISE OTHERS:

34	81	18	30	100	30	23	-	9
AVERAGE NUMBER SUBORDINATES FOR EACH SUPERVISOR:	4.1	6.8	1.9	3.6	3.9	7.7	1.7	2.0
AVERAGE MONTHS IN PRESENT JOB:	32	26	21	25	34	28	21	13
AVERAGE MONTHS IN CAREER FIELD:	53	117	31	53	95	141	88	17
AVERAGE MONTHS ACTIVE MILITARY SERVICE:	60	129	36	62	99	151	92	25
PERCENT PERFORMING CROSS UTILIZATION TRAINING (CUT) TASKS:	23	17	41	27	90	10	53	29

* INDICATES LESS THAN ONE PERCENT

TABLE A3 (CONTINUED)

BACKGROUND INFORMATION FOR JOB TYPES WITHIN THE COMMUNICATIONS MAINTENANCE CLUSTER

	HF SYSTEMS MAINTENANCE PERSONNEL		COMMUNICATIONS MAINTENANCE SUPERVISORS		JUNIOR COMMUNICATIONS SYSTEMS MAINTENANCE PERSONNEL		RADIO EQUIPMENT MAINTENANCE PERSONNEL		FIRSTLINE COMMUNICATIONS MAINTENANCE SUPERVISORS		COMMUNICATIONS MAINTENANCE, FIELD TRAINING INSTRUCTORS		TRANSPORT AIRCRAFT COMMUNICATIONS MAINTENANCE PERSONNEL		JUNIOR COMPONENT REPAIR PERSONNEL		MAC HF FIELD MAINTENANCE PERSONNEL	
	PERSONNEL	PERCENT	PERSONNEL	PERCENT	PERSONNEL	PERCENT	PERSONNEL	PERCENT	PERSONNEL	PERCENT	PERSONNEL	PERCENT	PERSONNEL	PERCENT	PERSONNEL	PERCENT	PERSONNEL	PERCENT
MAJOR COMMAND: (PERCENT MEMBERS)																		
AAC	*	-	-	-	4	-	4	-	-	-	-	-	-	-	*	-	-	-
AFLC	-	1	4	4	-	18	-	5	-	-	-	-	-	-	-	1	-	-
AFSC	4	-	9	-	-	-	5	-	-	-	90	-	-	-	4	-	-	-
ATC	46	-	21	-	4	-	59	-	-	-	-	-	71	-	46	-	100	-
HAC	3	-	-	-	-	-	2	-	10	-	-	-	-	-	3	-	-	-
PACAF	34	-	60	-	39	-	5	-	-	-	-	-	-	-	34	-	-	-
SAC	6	-	4	-	28	-	20	-	60	-	10	-	29	-	6	-	-	-
TAC	6	-	2	-	7	-	-	-	30	-	-	-	-	-	6	-	-	-
USAFE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NO RESPONSE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

* INDICATES LESS THAN ONE PERCENT

TABLE A4

JOB INTEREST AND RELATED DATA BY JOB TYPES WITHIN THE COMMUNICATIONS MAINTENANCE CLUSTER
(PERCENT MEMBERS RESPONDING)

A5

	HF SYSTEMS		COMMUNICATIONS		JUNIOR		RADIO		FIRSTLINE		COMMUNI-		TRANSPORT		JUNIOR		MAC HF FIE	
	MAINTENANCE	PERSONNEL	MAINTENANCE	SUPERVISORS	COMMUNICATIONS	SYSTEMS	MAINTENANCE	EQUIPMENT	COMMUNI-	CATIONS	MAINTENANCE	FIELD	COMMUNICATIONS	PERSONNEL	COMPONENT	REPAIR	PERSONNEL	PERSONNEL
I FIND MY JOB:																		
DULL	11		8		3			9					23		29		27	
SO-SO	22		15		20			18					18		6		-	
INTERESTING	67		77		77			73				100	59		75		73	
NO RESPONSE	*		-		-			-				-	-		-		-	
MY JOB UTILIZES MY TALENTS:																		
NOT AT ALL OR VERY LITTLE	18		17		20			29					71		35		27	
FAIRLY WELL TO PERFECTLY	81		83		80			71				90	29		65		73	
NO RESPONSE	1		-		-			-				-	-		-		-	
MY JOB UTILIZES MY TRAINING:																		
NOT AT ALL OR VERY LITTLE	18		23		13			34					65		23		36	
FAIRLY WELL TO PERFECTLY	81		77		87			66				100	35		77		64	
NO RESPONSE	*		-		-			-				-	-		-		-	
THE SENSE OF ACCOMPLISHMENT GAINED																		
FROM MY JOB:																		
DISSATISFIED	23		21		18			20					29		29		18	
SO-SO	14		6		14			21					30		6		18	
SATISFIED	63		73		68			59				80	41		75		64	
NO RESPONSE	-		-		-			-				-	-		-		-	
MY PLAN TO REENLIST IS:																		
NO, I WILL RETIRE WITH 20 YEARS																		
SERVICE	1		8		-			5				30	-		-		-	
NO OR PROBABLY NO	55		29		63			57				30	35		82		45	
YES OR PROBABLY YES	43		63		37			36				40	65		18		55	
NO RESPONSE	*		-		-			2				-	-		-		-	

* INDICATES LESS THAN ONE PERCENT

TABLE A5

BACKGROUND INFORMATION FOR JOB GROUPS WITHIN THE AIRCRAFT GENERATION SQUADRON
(AGS) COMMUNICATIONS MAINTENANCE CLUSTER

	AGS COMMUNICATIONS MAINTENANCE PERSONNEL	AGS COMMUNICATIONS/ NAVIGATION MAINTENANCE PERSONNEL
NUMBER IN GROUP:	30	5
AVERAGE NUMBER TASKS PERFORMED:	49	29
JOB DIFFICULTY INDEX:	5.5	3.7
AVERAGE PAY GRADE:	3.9	3.6
DUTY AFSC (PERCENT MEMBERS)		
32830	10	20
32850	80	40
32870	7	-
32831	-	-
32851	3	40
32871	-	-
32899	-	-
NO RESPONSE	-	-
PERCENT WHO SUPERVISE OTHERS:	17	-
AVERAGE NUMBER SUBORDINATES FOR EACH SUPERVISOR:	1.8	-
AVERAGE MONTHS IN PRESENT JOB:	19	20
AVERAGE MONTHS IN CAREER FIELD:	40	23
AVERAGE MONTHS ACTIVE MILITARY SERVICE:	48	42
PERCENT PERFORMING CROSS UTILIZATION TRAINING (CUT) TASKS:	67	60
MAJOR COMMAND: (PERCENT MEMBERS)		
AAC	13	-
AFLC	-	-
AFSC	3	-
ATC	4	40
MAC	-	-
PACAF	10	20
SAC	3	-
TAC	57	40
USAFE	10	-
NO RESPONSE	-	-

TABLE A6

JOB INTEREST AND RELATED DATA BY JOB TYPES WITHIN THE
AIRCRAFT GENERATION SQUADRON (AGS) COMMUNICATIONS MAINTENANCE CLUSTER
(PERCENT MEMBERS RESPONDING)

	<u>AGS COMMUNICATIONS MAINTENANCE PERSONNEL</u>	<u>AGS COMMUNICATIONS/ NAVIGATION MAINTENANCE PERSONNEL</u>
<u>I FIND MY JOB:</u>		
DULL	23	20
SO-SO	20	40
INTERESTING	57	40
NO RESPONSE	-	-
<u>MY JOB UTILIZES MY TALENTS:</u>		
NOT AT ALL OR VERY LITTLE	47	40
FAIRLY WELL TO PERFECTLY	53	60
NO RESPONSE	-	-
<u>MY JOB UTILIZES MY TRAINING:</u>		
NOT AT ALL OR VERY LITTLE	70	60
FAIRLY WELL TO PERFECTLY	30	40
NO RESPONSE	-	-
<u>THE SENSE OF ACCOMPLISHMENT GAINED FROM MY JOB:</u>		
DISSATISFIED	30	40
AMBIVALENT	13	-
SATISFIED	57	60
NO RESPONSE	-	-
<u>MY PLAN TO REENLIST IS:</u>		
NO, I WILL RETIRE WITH 20 YEARS SERVICE	-	-
NO OR PROBABLY NO	63	60
YES OR PROBABLY YES	33	40
NO RESPONSE	4	-

TABLE A7

BACKGROUND INFORMATION FOR JOB TYPES WITHIN THE
COMMUNICATIONS/NAVIGATION SYSTEMS MAINTENANCE CLUSTER

	COMMUNICATIONS/ NAVIGATION EQUIPMENT MAINTENANCE PERSONNEL		NAVIGATION AIDS MAINTENANCE PERSONNEL		RECONNAISSANCE MISSION NAVIGATION EQUIPMENT MAINTENANCE PERSONNEL		FIRSTLINE COMPONENT REPAIR SUPERVISORS
NUMBER IN GROUP:	40		15		5		24
AVERAGE NUMBER TASKS PERFORMED:	160		182		158		240
JOB DIFFICULTY INDEX:	12.6		13.3		14.5		16.9
AVERAGE PAY GRADE:	3.7		4.5		4.4		4.8
DUTY AFSC: (PERCENT MEMBERS)							
32830	5		-		-		-
32850	35		-		20		42
32870	-		-		-		46
32831	13		-		20		-
32851	42		67		20		8
32871	5		33		40		4
32899	-		-		-		-
NO RESPONSE	-		-		-		-
PERCENT WHO SUPERVISE OTHERS:	13		40		80		63
AVERAGE NUMBER SUBORDINATES FOR EACH SUPERVISOR:	1.6		4.0		3.5		4.7
AVERAGE MONTHS IN PRESENT JOB:	24		31		24		37
AVERAGE MONTHS IN CAREER FIELD:	35		79		72		93
AVERAGE MONTHS ACTIVE MILITARY SERVICE:	42		69		76		97
PERCENT PERFORMING CROSS UTILIZATION TRAINING (CUT) TASKS:	55		13		20		87
MAJOR COMMAND: (PERCENT MEMBERS)							
AAC	-		-		-		4
AFLC	-		-		-		-
AFSC	-		7		-		-
ATC	65		-		-		8
MAC	-		13		20		-
PACAF	7		7		-		13
SAC	5		60		60		8
TAC	20		7		20		67
USAFE	3		6		-		-
NO RESPONSE	-		-		-		-

TABLE A8

JOB INTEREST AND RELATED DATA BY JOB TYPES WITHIN THE
COMMUNICATIONS/NAVIGATION SYSTEMS MAINTENANCE CLUSTER
(PERCENT MEMBERS RESPONDING)

	COMMUNICATIONS/ NAVIGATION EQUIPMENT MAINTENANCE PERSONNEL			NAVIGATION AIDS MAINTENANCE PERSONNEL			RECONNAISSANCE MISSION NAVIGATION EQUIPMENT MAINTENANCE PERSONNEL			FIRST-LINE COMPONENT REPAIR MAINTENANCE SUPERVISORS		
<u>I FIND MY JOB:</u>												
DULL	15	-	-	-	-	-	-	-	-	-	-	-
SO-SO	22	-	7	-	-	-	-	-	-	8	-	-
INTERESTING	63	-	93	-	-	-	100	-	-	92	-	-
NO RESPONSE	-	-	-	-	-	-	-	-	-	-	-	-
<u>MY JOB UTILIZES MY TALENTS:</u>												
NOT AT ALL OR VERY LITTLE	33	-	7	-	-	-	-	-	-	4	-	-
FAIRLY WELL TO PERFECTLY	67	-	93	-	-	-	100	-	-	96	-	-
NO RESPONSE	-	-	-	-	-	-	-	-	-	-	-	-
<u>MY JOB UTILIZES MY TRAINING:</u>												
NOT AT ALL OR VERY LITTLE	40	-	-	-	-	-	20	-	-	25	-	-
FAIRLY WELL TO PERFECTLY	57	-	100	-	-	-	80	-	-	75	-	-
NO RESPONSE	3	-	-	-	-	-	-	-	-	-	-	-
<u>THE SENSE OF ACCOMPLISHMENT GAINED FROM MY JOB:</u>												
DISSATISFIED	27	-	7	-	-	-	-	-	-	17	-	-
AMBIVALENT	23	-	13	-	-	-	-	-	-	4	-	-
SATISFIED	47	-	80	-	-	-	100	-	-	79	-	-
NO RESPONSE	3	-	-	-	-	-	-	-	-	-	-	-
<u>MY PLAN TO REENLIST IS:</u>												
NO, I WILL RETIRE WITH 20 YEARS SERVICE	-	-	-	-	-	-	-	-	-	4	-	-
NO OR PROBABLY NO	57	-	53	-	-	-	60	-	-	29	-	-
YES OR PROBABLY YES	43	-	47	-	-	-	40	-	-	63	-	-
NO RESPONSE	-	-	-	-	-	-	-	-	-	-	-	-

TABLE A9

BACKGROUND INFORMATION FOR JOB TYPES WITHIN THE AIRCRAFT GENERATION SQUADRON (AGS)
COMMUNICATIONS/NAVIGATION SYSTEMS MAINTENANCE CLUSTER

	FLIGHTLINE MAINTENANCE CREW PERSONNEL	FLIGHTLINE MAINTENANCE CREW SUPERVISORS	AVIONIC FLIGHTLINE MAINTENANCE PERSONNEL	FIRST ENLISTMENT FLIGHTLINE MAINTENANCE CREW PERSONNEL	FLIGHTLINE MAINTENANCE SUPERVISOR/ TRAINERS	VOR/ILS FLIGHTLINE NAVIGATION MAINTENANCE PERSONNEL
NUMBER IN GROUP:	19	16	97	26	11	15
AVERAGE NUMBER TASKS PERFORMED:	89	160	105	69	88	67
JOB DIFFICULTY INDEX:	6.8	12.2	9.1	6.7	9.8	6.3
AVERAGE PAY GRADE:	4.1	5.4	4.2	3.5	5.4	4.1
DUTY AFSC: (PERCENT MEMBERS)						
32830	-	-	3	4	-	-
32850	48	6	28	61	27	13
32870	5	19	10	4	36	-
32831	5	-	4	11	-	20
32851	37	25	43	20	-	53
32871	5	50	12	-	36	14
32899	-	-	-	-	-	-
NO RESPONSE	-	-	-	-	-	-
PERCENT WHO SUPERVISE OTHERS:	32	75	38	8	91	13
AVERAGE NUMBER SUBORDINATES FOR EACH SUPERVISOR:	7.0	6.6	3.7	4.5	4.6	3.0
AVERAGE MONTHS IN PRESENT JOB:	26	22	26	20	25	22
AVERAGE MONTHS IN CAREER FIELD:	67	136	64	34	104	45
AVERAGE MONTHS ACTIVE MILITARY SERVICE:	72	147	69	38	120	60
PERCENT PERFORMING CROSS UTILIZATION TRAINING (CUT) TASKS:	79	100	89	92	82	67

TABLE A9 (CONTINUED)

BACKGROUND INFORMATION FOR JOB TYPES WITHIN THE AIRCRAFT GENERATION SQUADRON (AGS)
 COMMUNICATIONS/NAVIGATION SYSTEMS MAINTENANCE CLUSTER

MAJOR COMMAND: (PERCENT MEMBERS)	FLIGHTLINE MAINTENANCE CREW			FLIGHTLINE MAINTENANCE CREW SUPERVISORS			AVIONIC FLIGHTLINE MAINTENANCE PERSONNEL			FIRST ENLISTMENT FLIGHTLINE MAINTENANCE CREW PERSONNEL			FLIGHTLINE MAINTENANCE SUPERVISOR/ TRAINERS			VOR/ILS FLIGHTLINE NAVIGATION MAINTENANCE PERSONNEL		
	PERSONNEL						PERSONNEL			PERSONNEL			PERSONNEL			PERSONNEL		
AAC	-			-			1			-			9			33		
AFLC	-			-			-			-			-			-		
AFSC	-			-			-			-			-			-		
ATC	-			-			12			-			-			-		
MAC	-			-			1			-			-			-		
PACAF	-			6			11			4			9			7		
SAC	-			-			-			-			-			-		
TAC	26			38			55			7			73			40		
USAFE	74			56			20			19			9			20		
NO RESPONSE	-			-			-			-			-			-		

TABLE A10

JOB INTEREST AND RELATED DATA BY JOB TYPES WITHIN THE AIRCRAFT GENERATION SQUADRON (AGS)
 COMMUNICATIONS/NAVIGATION SYSTEMS MAINTENANCE CLUSTER
 (PERCENT MEMBERS PERFORMING)

	FLIGHTLINE MAINTENANCE CREW PERSONNEL			FLIGHTLINE MAINTENANCE CREW SUPERVISORS		AVIONIC FLIGHTLINE MAINTENANCE PERSONNEL		FIRST ENLISTMENT FLIGHTLINE MAINTENANCE CREW PERSONNEL		FLIGHTLINE MAINTENANCE SUPERVISOR/ TRAINERS		VOR/ILS FLIGHTLINE NAVIGATION MAINTENANCE PERSONNEL	
<u>I FIND MY JOB:</u>													
DULL	42			6		28		27		27		20	
SO-SO	16			19		17		8		18		20	
INTERESTING	42			75		55		65		46		60	
NO RESPONSE	-			-		-		-		9		-	
<u>MY JOB UTILIZES MY TALENTS:</u>													
NOT AT ALL OR VERY LITTLE	68			37		49		42		36		40	
FAIRLY WELL TO PERFECTLY	32			63		51		58		55		60	
NO RESPONSE	-			-		-		-		9		-	
<u>MY JOB UTILIZES MY TRAINING:</u>													
NOT AT ALL OR VERY LITTLE	89			69		62		54		55		53	
FAIRLY WELL TO PERFECTLY	11			31		38		46		36		47	
NO RESPONSE	-			-		-		-		9		-	
<u>THE SENSE OF ACCOMPLISHMENT GAINED FROM MY JOB:</u>													
DISSATISFIED	63			31		39		31		55		40	
AMBIVALENT	-			6		16		4		18		-	
SATISFIED	37			56		44		65		27		60	
NO RESPONSE	-			7		1		-		-		-	
<u>MY PLAN TO REENLIST IS:</u>													
NO, I WILL RETIRE WITH 20 YEARS SERVICE	-			-		2		-		-		-	
NO OR PROBABLY NO	68			19		51		65		27		67	
YES OR PROBABLY YES	32			75		45		35		73		33	
NO RESPONSE	-			6		2		-		-		-	

TABLE A11

**BACKGROUND INFORMATION FOR JOB TYPES WITHIN THE TRANSPORT
AIRCRAFT FLIGHTLINE NAVIGATION SYSTEMS MAINTENANCE CLUSTER**

	<u>FLIGHTLINE RADAR MAINTENANCE PERSONNEL</u>	<u>FLIGHTLINE/ SHOP RADAR MAINTENANCE PERSONNEL</u>	<u>JUNIOR TRANSPORT AIRCRAFT NAVIGATION MAINTENANCE PERSONNEL</u>	<u>OVERSEAS TRANSPORT AIRCRAFT RADAR MAINTENANCE PERSONNEL</u>
NUMBER IN GROUP:	33	16	10	14
AVERAGE NUMBER TASKS PERFORMED:	140	169	156	145
JOB DIFFICULTY INDEX:	12.1	14.3	13.6	10.9
AVERAGE PAY GRADE:	4.4	3.9	3.1	4.9
DUTY AFSC: (PERCENT MEMBERS)				
32830	-	-	-	-
32850	-	-	-	14
32870	-	-	-	-
32831	6	12	30	-
32851	73	69	70	57
32871	21	19	-	29
32899	-	-	-	-
NO RESPONSE	-	-	-	-
PERCENT WHO SUPERVISE OTHERS:	30	25	-	43
AVERAGE NUMBER SUBORDINATES FOR EACH SUPERVISOR:	4.3	4.7	-	4.0
AVERAGE MONTHS IN PRESENT JOB:	35	34	18	32
AVERAGE MONTHS IN CAREER FIELD:	70	47	22	95
AVERAGE MONTHS ACTIVE MILITARY SERVICE:	81	50	23	100
PERCENT PERFORMING CROSS UTILIZATION TRAINING (CUT) TASKS:	21	37	10	64
MAJOR COMMAND: (PERCENT MEMBERS)				
AAC	-	-	-	-
AFLC	-	-	-	-
AFSC	-	-	-	-
ATC	-	-	-	-
MAC	88	100	100	86
PACAF	3	-	-	-
SAC	9	-	-	-
TAC	-	-	-	-
USAFE	-	-	-	7
NO RESPONSE	-	-	-	-

TABLE A12

JOB INTEREST AND RELATED DATA BY JOB TYPES WITHIN THE TRANSPORT
AIRCRAFT FLIGHTLINE NAVIGATION SYSTEMS MAINTENANCE CLUSTER
(PERCENT MEMBERS RESPONDING)

	<u>FLIGHTLINE RADAR MAINTENANCE PERSONNEL</u>	<u>FLIGHTLINE/ SHOP RADAR MAINTENANCE PERSONNEL</u>	<u>JUNIOR TRANSPORT AIRCRAFT NAVIGATION MAINTENANCE PERSONNEL</u>	<u>OVERSEAS TRANSPORT AIRCRAFT RADAR MAINTENANCE PERSONNEL</u>
<u>I FIND MY JOB:</u>				
DULL	9	6	10	7
SO-SO	21	25	20	43
INTERESTING	67	69	60	43
NO RESPONSE	3	-	10	3
<u>MY JOB UTILIZES MY TALENTS:</u>				
NOT AT ALL OR VERY LITTLE	33	19	30	64
FAIRLY WELL TO PERFECTLY	67	81	70	36
NO RESPONSE	-	-	-	-
<u>MY JOB UTILIZES MY TRAINING:</u>				
NOT AT ALL OR VERY LITTLE	45	25	10	57
FAIRLY WELL TO PERFECTLY	55	75	90	43
NO RESPONSE	-	-	-	-
<u>THE SENSE OF ACCOMPLISHMENT GAINED FROM MY JOB:</u>				
DISSATISFIED	36	13	30	36
AMBIVALENT	9	12	10	7
SATISFIED	55	75	60	50
NO RESPONSE	-	-	-	7
<u>MY PLAN TO REENLIST IS:</u>				
NO, I WILL RETIRE WITH 20 YEARS SERVICE	3	-	-	-
NO OR PROBABLY NO	45	63	70	21
YES OR PROBABLY YES	49	37	20	71
NO RESPONSE	3	-	10	7

TABLE A13

**BACKGROUND INFORMATION FOR JOB TYPES WITHIN
THE NAVIGATION SYSTEMS MAINTENANCE CLUSTER**

	<u>AIRCRAFT IDENTIFICATION SYSTEMS MAINTENANCE PERSONNEL</u>	<u>SEARCH AND WEATHER RADAR MAINTENANCE PERSONNEL</u>	<u>OPERATIONS MANAGERS</u>	<u>OVERSEAS LORAN MAINTENANCE PERSONNEL</u>
NUMBER IN GROUP:	124	324	6	5
AVERAGE NUMBER TASKS PERFORMED:	255	317	273	375
JOB DIFFICULTY INDEX:	18.0	19.7	19.2	22.9
AVERAGE PAY GRADE:	4.3	4.1	5.2	4.4
DUTY AFSC: (PERCENT MEMBERS)				
32830	-	-	-	-
32850	1	*	-	-
32870	-	-	-	-
32831	7	14	-	-
32851	67	62	33	60
32871	25	24	67	40
32899	-	-	-	-
NO RESPONSE	-	-	-	-
PERCENT WHO SUPERVISE OTHERS:	34	38	100	40
AVERAGE NUMBER SUBORDINATES FOR EACH SUPERVISOR:	4.2	4.1	8.5	6.0
AVERAGE MONTHS IN PRESENT JOB:	31	30	23	39
AVERAGE MONTHS IN CAREER FIELD:	63	63	139	63
AVERAGE MONTHS ACTIVE MILITARY SERVICE:	70	70	145	70
PERCENT PERFORMING CROSS UTILIZATION TRAINING (CUT) TASKS:	43	15	50	100
MAJOR COMMAND: (PERCENT MEMBERS)				
AAC	2	2	-	-
AFLC	1	*	-	-
AFSC	10	1	17	-
MAC	22	34	33	20
PACAF		2	-	-
SAC	15	51	17	-
TAC	28	3	17	-
USAFE	8	3	16	80
NO RESPONSE	1	*	-	-

* INDICATES LESS THAN ONE PERCENT

TABLE A14

**JOB INTEREST AND RELATED DATA BY JOB TYPES WITHIN THE NAVIGATION SYSTEMS CLUSTER
(PERCENT MEMBERS RESPONDING)**

	<u>AIRCRAFT IDENTIFICATION SYSTEMS MAINTENANCE PERSONNEL</u>	<u>SEARCH AND WEATHER RADAR MAINTENANCE PERSONNEL</u>	<u>OPERATIONS MANAGERS</u>	<u>OVERSEAS LORAN MAINTENANCE PERSONNEL</u>
<u>I FIND MY JOB:</u>				
DULL	9	9	-	20
SO-SO	11	13	17	-
INTERESTING	81	78	83	80
NO RESPONSE	-	*	-	-
<u>MY JOB UTILIZES MY TALENTS:</u>				
NOT AT ALL TO VERY LITTLE	15	14	33	20
FAIRLY WELL TO PERFECTLY	85	86	67	80
NO RESPONSE	-	-	-	-
<u>MY JOB UTILIZES MY TRAINING:</u>				
NOT ALL OR VERY LITTLE	16	14	33	20
FAIRLY WELL TO PERFECTLY	82	85	67	80
NO RESPONSE	2	1	-	-
<u>THE SENSE OF ACCOMPLISHMENT GAINED FROM MY JOB:</u>				
DISSATISFIED	20	17	17	20
AMBIVALENT	7	12	-	-
SATISFIED	73	70	83	80
NO RESPONSE	-	*	-	-
<u>MY PLAN TO REENLIST IS:</u>				
NO, I WILL RETIRE WITH 20 YEARS SERVICE	5	5	-	-
NO OR PROBABLY NO	55	49	-	60
YES OR PROBABLY YES	39	45	100	40
NO RESPONSE	1	1	-	-

* INDICATES LESS THAN ONE PERCENT

TABLE A15

**BACKGROUND INFORMATION FOR JOB TYPES WITHIN THE COMPONENT REPAIR
SQUADRON (CRS) NAVIGATION SYSTEMS MAINTENANCE CLUSTER**

	<u>IFF/GENERAL AVIONIC MAINTENANCE PERSONNEL</u>	<u>RRA MAINTENANCE PERSONNEL</u>	<u>VOR/ILS MAINTENANCE PERSONNEL</u>	<u>TAC/USAFE COMPONENT REPAIR SQUADRON SUPERVISORS</u>
NUMBER IN GROUP:	12	6	8	8
AVERAGE NUMBER TASKS PERFORMED:	126	119	197	168
JOB DIFFICULTY INDEX:	13.6	14.6	16.9	15.8
AVERAGE PAY GRADE:	3.9	4.7	3.9	5.9
DUTY AFSC: (PERCENT MEMBERS)				
32830	-	-	-	-
32850	-	-	25	-
32870	-	-	13	-
32831	8	17	12	-
32851	83	67	50	25
32871	9	16	-	75
32899	-	-	-	-
NO RESPONSE	-	-	-	-
PERCENT WHO SUPERVISE OTHERS:	42	50	37	87
AVERAGE NUMBER SUBORDINATES FOR EACH SUPERVISOR:	3.0	1.6	2.7	6.0
AVERAGE MONTHS IN PRESENT JOB:	19	15	27	34
AVERAGE MONTHS IN CAREER FIELD:	43	47	52	148
AVERAGE MONTHS ACTIVE MILITARY SERVICE:	48	72	57	165
PERCENT PERFORMING CROSS UTILIZATION TRAINING (CUT) TASKS:	67	50	100	87
MAJOR COMMAND: (PERCENT MEMBERS)				
AAC	-	-	-	-
AFLC	-	-	-	-
AFSC	-	-	-	-
ATC	-	-	-	25
MAC	-	-	-	-
PACAF	17	-	-	-
SAC	8	-	-	-
TAC	17	67	63	38
USAFE	58	33	37	37
NO RESPONSE	-	-	-	-

TABLE A16

JOB INTEREST AND RELATED DATA BY JOB TYPES WITHIN THE COMPONENT REPAIR SQUADRON (CRS)
NAVIGATION SYSTEMS MAINTENANCE CLUSTER
(PERCENT MEMBERS RESPONDING)

	IFF/GENERAL AVIONIC MAINTENANCE PERSONNEL	RRA MAINTENANCE PERSONNEL	VOR/ILS MAINTENANCE PERSONNEL	TAC/USAFE COMPONENT REPAIR SQUADRON SUPERVISORS
<u>I FIND MY JOB:</u>				
DULL	25	-	13	25
SO-SO	17	-	12	-
INTERESTING	58	100	75	75
NO RESPONSE	-	-	-	-
<u>MY JOB UTILIZES MY TALENTS:</u>				
NOT AT ALL OR VERY LITTLE	42	-	25	25
FAIRLY WELL TO PERFECTLY	58	100	75	75
NO RESPONSE	-	-	-	-
<u>MY JOB UTILIZES MY TRAINING:</u>				
NOT AT ALL OR VERY LITTLE	33	-	50	25
FAIRLY WELL TO PERFECTLY	67	100	50	75
NO RESPONSE	-	-	-	-
<u>THE SENSE OF ACCOMPLISHMENT GAINED FROM MY JOB:</u>				
DISSATISFIED	42	17	-	25
AMBIVALENT	16	16	-	-
SATISFIED	42	67	100	75
NO RESPONSE	-	-	-	-
<u>MY PLAN TO REENLIST IS:</u>				
NO, I WILL RETIRE WITH 20 YEARS SERVICE	-	-	-	-
NO OR PROBABLY NO	42	83	50	13
YES OR PROBABLY YES	50	17	50	87
NO RESPONSE	8	-	-	-

TABLE A17

BACKGROUND INFORMATION FOR JOB TYPES WITHIN THE RECONNAISSANCE
RADAR MAINTENANCE CLUSTER

	AIRCRAFT GENERATION SQUADRON RECONNAISSANCE RADAR MAINTENANCE PERSONNEL	COMPONENT REPAIR SQUADRON RECONNAISSANCE RADAR MAINTENANCE PERSONNEL
NUMBER IN GROUP:	16	22
AVERAGE NUMBER TASKS PERFORMED:	93	120
JOB DIFFICULTY INDEX:	11.4	16.1
AVERAGE PAY GRADE:	4.3	4.0
DUTY AFSC: (PERCENT MEMBERS)		
32830	-	-
32850	-	-
32870	-	-
32831	19	9
32851	50	82
32871	31	5
32899	-	-
NO RESPONSE	-	4
PERCENT WHO SUPERVISE OTHERS:	25	45
AVERAGE NUMBER SUBORDINATES FOR EACH SUPERVISOR:	5.2	2.6
AVERAGE MONTHS IN PRESENT JOB:	24	20
AVERAGE MONTHS IN CAREER FIELD:	70	53
AVERAGE MONTHS ACTIVE MILITARY SERVICE:	76	61
PERCENT PERFORMING CROSS UTILIZATION TRAINING (CUT) TASKS:	75	45
MAJOR COMMAND: (PERCENT MEMBERS)		
AAC	-	-
AFLC	-	-
AFSC	-	5
ATC	-	-
MAC	6	5
PACAF	12	27
SAC	-	-
TAC	63	45
USAFE	19	18
NO RESPONSE	-	-

TABLE A18

JOB INTEREST AND RELATED DATA BY JOB TYPES WITHIN
THE RECONNAISSANCE RADAR MAINTENANCE CLUSTER
(PERCENT MEMBERS RESPONDING)

	AIRCRAFT GENERATION SQUADRON RECONNAISSANCE RADAR MAINTENANCE PERSONNEL	COMPONENT REPAIR SQUADRON RECONNAISSANCE RADAR MAINTENANCE PERSONNEL
<u>I FIND MY JOB:</u>		
DULL	19	14
SO-SO	37	13
INTERESTING	44	73
NO RESPONSE	-	-
<u>MY JOB UTILIZES MY TALENTS:</u>		
NOT AT ALL VERY LITTLE	50	18
FAIRLY WELL TO PERFECTLY	50	82
NO RESPONSE	-	-
<u>MY JOB UTILIZES MY TRAINING:</u>		
NOT AT ALL OR VERY LITTLE	69	36
FAIRLY WELL TO PERFECTLY	31	64
NO RESPONSE		
<u>THE SENSE OF ACCOMPLISHMENT GAINED FROM MY JOB:</u>		
DISSATISFIED	44	18
SO-SO	37	9
NO RESPONSE	19	73
<u>MY PLAN TO REENLIST IS:</u>		
NO, I WILL RETIRE WITH 20 YEARS SERVICE	13	-
NO OR PROBABLY NO	56	59
YES OR PROBABLY YES	31	41
NO RESPONSE	-	-

TABLE A19

BACKGROUND INFORMATION FOR JOB TYPES WITHIN THE INSPECTORS CLUSTER

	<u>INSPECTORS</u>	<u>QUALITY CONTROL INSPECTORS</u>	<u>SAC STANDARDIZATION/ EVALUATION INSPECTORS</u>
NUMBER IN GROUP:	7	11	7
AVERAGE NUMBER TASKS PERFORMED:	13	47	110
JOB DIFFICULTY INDEX:	8.1	10.0	13.5
AVERAGE PAY GRADE:	6.3	6.1	6.1
DUTY AFSC: (PERCENT MEMBERS)			
32830	-	-	-
32850	-	-	-
32870	57	27	-
32831	-	-	-
32851	-	-	14
32871	43	73	86
32899	-	-	-
NO RESPONSE	-	-	-
PERCENT WHO SUPERVISE OTHERS:	29	36	29
AVERAGE NUMBER SUBORDINATES FOR EACH SUPERVISOR:	2.5	2.5	5.0
AVERAGE MONTHS IN PRESENT JOB:	21	21	14
AVERAGE MONTHS IN CAREER FIELD:	189	168	145
AVERAGE MONTHS ACTIVE MILITARY SERVICE:	195	165	170
PERCENT PERFORMING CROSS UTILI- ZATION TRAINING (CUT) TASKS:	43	55	29
MAJOR COMMAND: (PERCENT MEMBERS)			
AAC	-	-	-
AFLC	-	-	-
AFSC	-	9	-
ATC	-	-	-
MAC	29	27	-
PACAF	-	-	-
SAC	14	37	100
TAC	43	9	-
USAFE	14	18	-
NO RESPONSE	-	-	-

TABLE A20

JOB INTEREST AND RELATED DATA BY JOB TYPES WITHIN THE INSPECTORS CLUSTER
(PERCENT MEMBERS RESPONDING)

	<u>INSPECTORS</u>	<u>QUALITY CONTROL INSPECTORS</u>	<u>SAC STANDARDIZATION/ EVALUATION INSPECTORS</u>
<u>I FIND MY JOB:</u>			
DULL	15	9	-
SO-SO	14	9	14
INTERESTING	71	82	86
NO RESPONSE	-	-	-
<u>MY JOB UTILIZES MY TALENTS:</u>			
NOT AT ALL OR VERY LITTLE	14	18	29
FAIRLY WELL TO PERFECTLY	86	82	71
NO RESPONSE	-	-	-
<u>MY JOB UTILIZES MY TRAINING:</u>			
NOT AT ALL OR VERY LITTLE	29	36	29
FAIRLY WELL TO PERFECTLY	71	55	71
NO RESPONSE	1	9	-
<u>THE SENSE OF ACCOMPLISHMENT GAINED FROM MY JOB:</u>			
DISSATISFIED	29	18	-
AMBIVALENT	14	9	-
SATISFIED	57	73	100
NO RESPONSE	-	-	-
<u>MY PLAN TO REENLIST IS:</u>			
NO, I WILL RETIRE WITH 20 YEARS SERVICE	43	36	14
NO OR PROBABLY NO	14	9	-
YES OR PROBABLY YES	43	46	86
NO RESPONSE	-	9	-

TABLE A21
BACKGROUND INFORMATION FOR JOB TYPES WITHIN THE MANAGEMENT CLUSTER

A23

	ADMINISTRATION		MICS/ COMMUNICATIONS		COMMUNI- CATIONS		MAINTENANCE		ADMINISTRATION		TEST		NAVIGATION		AMS FLIGHT		COMMUNICATIONS/ NAVIGATION		RESOURCE MANAGERS
	MAINTENANCE SUPERVISORS	ADMINISTRATORS	MAINTENANCE SHOP CHIEFS	MAINTENANCE SHOP CHIEFS	MAINTENANCE ADMINISTRATION SUPERVISORS	MAINTENANCE ADMINISTRATION SUPERVISORS	EQUIPMENT MAINTENANCE SUPERVISORS	SHOP CHIEFS	SHOP CHIEFS	SUPERVISORS	NAVIGATION MAINTENANCE SHOP CHIEFS	SUPERVISORS	SUPERVISORS	SYSTEMS NCOICs	SYSTEMS NCOICs				
NUMBER IN GROUP:																			
AVERAGE NUMBER TASKS PERFORMED:																			
JOB DIFFICULTY INDEX:																			
AVERAGE PAY GRADE:																			
DUTY AFSC: (PERCENT MEMBERS)																			
32830																			
32850																			
32870																			
32831																			
32851																			
32871																			
32899																			
NO RESPONSE																			
PERCENT WHO SUPERVISE OTHERS:																			
AVERAGE NUMBER SUBORDINATES FOR EACH SUPERVISOR:																			
AVERAGE MONTHS IN PRESENT JOB:																			
AVERAGE MONTHS IN CAREER FIELD:																			
AVERAGE MONTHS ACTIVE MILITARY SERVICE:																			
PERCENT PERFORMING CROSS UTILIZATION TRAINING (CUT) TASKS:																			

**JOUB INTEREST AND RELATED DATA BY JOB TYPES WITHIN THE MANAGEMENT CLUSTER
(PERCENT MEMBERS PERFORMING)**

[illegible]

TABLE A23

BACKGROUND INFORMATION FOR JOB TYPES WITHIN THE INSTRUCTOR CLUSTER

	<u>SENIOR INSTRUCTORS</u>	<u>JUNIOR INSTRUCTORS</u>
NUMBER IN GROUP:	6	14
AVERAGE NUMBER OF TASKS PERFORMED:	44	11
JOB DIFFICULTY INDEX:	11.3	8.7
AVERAGE PAY GRADE:	4.7	4.6
DUTY AFSC PREFIX: (PERCENT MEMBERS)		
"A" AIRCREW	-	-
"K" AIRCREW INSTRUCTOR	-	-
"T" TECHNICAL TRAINING INSTRUCTOR	100	100
DUTY AFSC: (PERCENT MEMBERS)		
32830	-	7
32850	17	36
32870	16	-
32831	-	-
32851	67	36
32871	-	21
32899	-	-
NO RESPONSE	-	-
PERCENT WHO SUPERVISE OTHERS:	-	-
AVERAGE NUMBER SUBORDINATES FOR EACH SUPERVISOR:	-	-
AVERAGE MONTHS IN PRESENT JOB:	36	15
AVERAGE MONTHS IN CAREER FIELD:	52	88
AVERAGE MONTHS ACTIVE MILITARY SERVICE:	86	110
PERCENT PERFORMING CORSS UTILIZATION TRAINING (CUT) TASKS:	17	14
MAJOR COMMAND: (PERCENT MEMBERS)		
AAC	-	-
AFLC	-	-
AFSC	-	-
ATC	100	100
MAC	-	-
PACAF	-	-
SAC	-	-
TAC	-	-
USAFE	-	-
NO RESPONSE	-	-

TABLE A24

JOB INTEREST AND RELATED DATA BY JOB TYPES WITHIN
THE INSTRUCTOR CLUSTER

	<u>SENIOR INSTRUCTORS</u>	<u>JUNIOR INSTRUCTORS</u>
<u>I FIND MY JOB:</u>		
DULL	-	14
SO-SO	17	22
INTERESTING	83	57
NO RESPONSE	-	7
<u>MY JOB UTILIZES MY TALENTS:</u>		
NOT AT ALL OR VERY LITTLE	-	21
NO RESPONSE	-	-
<u>MY JOB UTILIZES MY TRAINING:</u>		
NOT AT ALL OR VERY LITTLE	17	14
FAIRLY WELL TO PERFECTLY	83	86
NO RESPONSE	-	-
<u>THE SENSE OF ACCOMPLISHMENT GAINED FROM MY JOB:</u>		
DISSATISFIED	17	29
AMBIVALENT	16	21
SATISFIED	67	50
NO RESPONSE	-	-
<u>MY PLAN TO REENLIST IS:</u>		
NO, I WILL RETIRE WITH 20 YEARS SERVICE	-	14
NO OR PROBABLY NO	17	43
YES OR PROBABLY YES	83	43
NO RESPONSE	-	-

APPENDIX B

REPRESENTATIVE TASKS PERFORMED BY MEMBERS OF
CLUSTERS AND INDEPENDENT JOB TYPES

I. INFLIGHT COMMUNICATIONS MAINTENANCE CLUSTER
(GPO064)

<u>TASKS</u>	<u>PERCENT PERFORMING</u>
N427 ISOLATE MALFUNCTIONS IN HF SYSTEMS	85
H244 REMOVE OR REPLACE UHF RECEIVER-TRANSMITTERS	85
H240 ISOLATE MALFUNCTIONS IN UHF SYSTEMS	79
J318 ISOLATE MALFUNCTIONS IN VHF SYSTEMS	79
J323 REMOVE OR REPLACE VHF AM RECEIVER-TRANSMITTERS	79
P531 ISOLATE MALFUNCTIONS IN INTERPHONE SYSTEMS	76
H243 REMOVE OR REPLACE UHF CONTROL UNITS	76
L362 ISOLATE MALFUNCTIONS IN VHF FM SYSTEMS	74
R610 ISOLATE MALFUNCTIONS IN PUBLIC ADDRESS (PA) SYSTEMS	74
R611 OPERATIONALLY CHECK PA SYSTEMS	74
P532 OPERATIONALLY CHECK INTERPHONE SYSTEMS	71
N434 REMOVE OR REPLACE HF RECEIVER-TRANSMITTERS	71
P534 REMOVE OR REPLACE INTERPHONE CORDS	68
F191 PERFORM PREFLIGHT INSPECTIONS	65
N431 REMOVE OR REPLACE HF CONTROL UNITS	62
P536 REMOVE OR REPLACE INTERPHONE STATION CONTROL UNITS	62
N428 OPERATE ASSOCIATED SYSTEMS CHECKING HF SYSTEMS	59
N433 REMOVE OR REPLACE HF POWER SUPPLIES	53
J322 REMOVE OR REPLACE VHF AM CONTROL UNITS	53
P533 REMOVE OR REPLACE INTERPHONE CORD COMPONENTS	50
B31 DEVELOP OR MAINTAIN STATUS BORADS, GRAPHS, OR CHARTS	50
A25 SUBMIT RECOMMENDATIONS FOR CHANGES TO GOVERNING DIRECTIVES, STANDARDS, OR LOCAL OPERATING PROCEDURES	50
B54 ORIENT NEWLY ASSIGNED PERSONNEL	50
D104 DEMONSTRATE HOW TO LOCATE TECHNICAL INFORMATION	47
P535 REMOVE OR REPLACE INTERPHONE MONITOR CONTROL UNITS	44

II. COMMUNICATIONS MAINTENANCE CLUSTER
(GPO101)

TASKS	PERCENT PERFORMING
H240 ISOLATE MALFUNCTIONS IN UHF SYSTEMS	93
H244 REMOVE OR REPLACE UHF RECEIVER-TRANSMITTERS	93
G235 SOLDER AVIONIC SYSTEM WIRING	92
H243 REMOVE OR REPLACE UHF CONTROL UNITS	92
G236 TEST CONTINUITY OF COAXIAL CABLES	92
H242 PRESET FREQUENCIES IN UHF CONTROL UNITS	90
H239 ADJUST ULTRA HIGH FREQUENCY (UHF) RADIO SYSTEMS	90
G238 TRACE CIRCUITS OR SIGNALS USING WIRING DIAGRAMS OR SCHEMATICS	89
P532 OPERATIONALLY CHECK INTERPHONE SYSTEMS	88
G232 REMOVE OR REPLACE RADIO FREQUENCY (RF) COAXIAL CONNECTORS	88
P531 ISOLATE MALFUNCTIONS IN INTERPHONE SYSTEMS	88
P533 REMOVE OR REPLACE INTERPHONE CORD COMPONENTS	86
G233 SAFETY WIRE OR BOND SYSTEM COMPONENTS	86
P534 REMOVE OR REPLACE INTERPHONE CORDS	84
N427 ISOLATE MALFUNCTIONS IN HF SYSTEMS	84
H250 BENCH CHECK UHF RECEIVER-TRANSMITTERS	83
N434 REMOVE OR REPLACE HF RECEIVER-TRANSMITTERS	83
P536 REMOVE OR REPLACE INTERPHONE STATION CONTROL UNITS	83
H253 ISOLATE MALFUNCTIONS IN UHF RECEIVER-TRANSMITTERS	83
P539 ISOLATE MALFUNCTIONS IN INTERPHONE CORDS	82
N432 REMOVE OR REPLACE HF COUPLERS	82
H249 BENCH CHECK UHF CONTROL UNITS	81
H258 REMOVE OR REPLACE UHF RECEIVER-TRANSMITTER SUBASSEMBLIES	81
P535 REMOVE OR REPLACE INTERPHONE MONITOR CONTROL UNITS	80
E162 MAKE ENTRIES ON REPARABLE ITEM PROCESSING TAG FORMS (AFTO FORM 350)	80

AIRCRAFT GENERATION SQUADRON (AGS) COMMUNICATIONS MAINTENANCE CLUSTER
(GPO209)

TASKS	PERCENT PERFORMING
H244 REMOVE OR REPLACE UHF RECEIVER-TRANSMITTERS	100
H243 REMOVE OR REPLACE UHF CONTROL UNITS	97
G233 SAFETY WIRE OR BOND SYSTEM COMPONENTS	94
H242 PRESET FREQUENCIES IN UHF CONTROL UNITS	94
H240 ISOLATE MALFUNCTIONS IN UHF SYSTEMS	91
G232 REMOVE OR REPLACE RADIO FREQUENCY (RF) COAXIAL CONNECTORS	89
G238 TRACE CIRCUITS OR SIGNALS USING WIRING DIAGRAMS OR SCHEMATICS	86
G236 TEST CONTINUITY OF COAXIAL CABLES	86
G235 SOLDER AVIONIC SYSTEM WIRING	86
F187 OPERATE AEROSPACE GROUND EQUIPMENT (AGE), SUCH AS POWER UNITS, HEATERS, OR LIGHT CARTS	83
P531 ISOLATE MALFUNCTIONS IN INTERPHONE SYSTEMS	83
G229 REMOVE OR REPLACE AVIONIC SYSTEM WIRING OR CABLES	83
P534 REMOVE OR REPLACE INTERPHONE CORDS	80
H241 OPERATIONALLY CHECK UHF SYSTEM USING FLIGHTLINE TEST EQUIPMENT (FTE)	69
P536 REMOVE OR REPLACE INTERPHONE STATION CONTROL UNITS	66
H245 REMOVE OR REPLACE UHF TUNING INDICATORS	66
G228 REMOVE OR REPLACE AVIONIC SYSTEM RELAYS	66
G226 PERFORM TIME COMPLIANCE TECHNICAL ORDER (TCO) MODIFICATIONS ON AVIONIC SYSTEMS	63
G221 LOCATE MAINTENANCE INFORMATION IN TECHNICAL PUBLICATIONS OR AIR FORCE TECHNICAL ORDERS (TO)	60
E162 MAKE ENTRIES ON REPARABLE ITEM PROCESSING TAG FORMS (AFTO FORM 350)	60
G220 ISOLATE MALFUNCTIONS IN AVIONIC SYSTEMS WIRING OR CABLES	60
F208 WALK WINGS OR TAILS DURING AIRCRAFT TOWING OPERATIONS	60
E160 MAKE ENTRIES ON MAINTENANCE DATA COLLECTION RECORD FORMS (AFTO FORM 349)	57
G234 SET UP FLIGHTLINE MAINTENANCE STANDS	57
F186 LAUNCH OR RECOVER AIRCRAFT	57

IV. COMMUNICATIONS/NAVIGATION SYSTEMS MAINTENANCE CLUSTER
(GPO250)

TASKS	PERCENT PERFORMING
G233 SAFETY WIRE OR BOND SYSTEM COMPONENTS	98
G220 ISOLATE MALFUNCTIONS IN AVIONIC SYSTEMS WIRING OR CABLES	96
G235 SOLDER AVIONIC SYSTEM WIRING	96
G232 REMOVE OR REPLACE RADIO FREQUENCY (RF) COAXIAL CONNECTORS	95
G238 TRACE CIRCUITS OR SIGNALS USING WIRING DIAGRAMS OR SCHEMATICS	94
O470 REMOVE OR REPLACE IFF/SIF/AIMS RECEIVER-TRANSMITTERS	93
Q553 OPERATIONALLY CHECK TACAN SYSTEMS USING GROUND STATIONS	89
Q565 REMOVE OR REPLACE TACAN RECEIVER-TRANSMITTERS	89
I262 ISOLATE MALFUNCTIONS IN INSTRUMENT LANDING SYSTEMS (ILS)	89
E160 MAKE ENTRIES ON MAINTENANCE DATA COLLECTION RECORD FORMS (AFTO FORM 349)	88
I265 ISOLATE MALFUNCTIONS IN VISUAL OMNI RANGE (VOR) SYSTEMS	88
I263 ISOLATE MALFUNCTIONS IN LOCALIZER SYSTEMS	87
O471 REMOVE OR REPLACE IFF/SIF/AIMS SELF-TEST SETS	86
I264 ISOLATE MALFUNCTIONS IN MARKER BEACON SYSTEMS	86
I267 OPERATIONALLY CHECK GLIDESLOPES USING FTE	85
Q548 OPERATE ASSOCIATED SYSTEMS CHECKING TACAN SYSTEMS	83
I281 REMOVE OR REPLACE VOR LOCALIZER RECEIVERS	83
I283 REMOVE OR REPLACE VOR/ILS CONTROL UNITS	83
F187 OPERATE AEROSPACE GROUND EQUIPMENT (AGE), SUCH AS POWER UNITS, HEATERS, OR LIGHT CARTS	82
O462 OPERATIONALLY CHECK IFF/SIF/AIMS USING FTE	82
G229 REMOVE OR REPLACE AVIONIC SYSTEM WIRING OR CABLES	82
H244 REMOVE OR REPLACE UHF RECEIVER-TRANSMITTERS	80
P533 REMOVE OR REPLACE INTERPHONE CORD COMPONENTS	76
P531 ISOLATE MALFUNCTIONS IN INTERPHONE SYSTEMS	76
H240 ISOLATE MALFUNCTIONS IN UHF SYSTEMS	75

V. AIRCRAFT GENERATION SQUADRON (AGS) COMMUNICATIONS/NAVIGATION
SYSTEMS MAINTENANCE CLUSTER
(GPO218)

TASKS	PERCENT PERFORMING
G233 SAFETY WIRE OR BOND SYSTEM COMPONENTS	98
F187 OPERATE AEROSPACE GROUND EQUIPMENT (AGE), SUCH AS POWER UNITS, HEATERS, OR LIGHT CARTS	96
G232 REMOVE OR REPLACE RADIO FREQUENCY (RF) COAXIAL CONNECTORS	94
G235 SOLDER AVIONIC SYSTEM WIRING	94
G236 TEST CONTINUITY OF COAXIAL CABLES	93
Q565 REMOVE OR REPLACE TACAN RECEIVER-TRANSMITTERS	92
Q553 OPERATIONALLY CHECK TACAN SYSTEMS USING GROUND STATIONS	92
H244 REMOVE OR REPLACE UHF RECEIVER-TRANSMITTERS	92
Q547 ISOLATE MALFUNCTIONS IN TACAN SYSTEMS	91
O470 REMOVE OR REPLACE IFF/SIF/AIMS RECEIVER-TRANSMITTERS	91
G238 TRACE CIRCUITS OR SIGNALS USING WIRING DIAGRAMS OR SCHEMATICS	91
H243 REMOVE OR REPLACE UHF CONTROL UNITS	90
H240 ISOLATE MALFUNCTIONS IN UHF SYSTEMS	90
O460 ISOLATE MALFUNCTIONS IN IDENTIFICATION FRIEND OR FOE/ SELF IDENTIFICATION FEATURE (IFF/SIF)/AIMS	88
P532 OPERATIONALLY CHECK INTERPHONE SYSTEMS	87
P531 ISOLATE MALFUNCTIONS IN INTERPHONE SYSTEMS	87
G229 REMOVE OR REPLACE AVIONIC SYSTEM WIRING OR CABLES	86
Q556 REMOVE OR REPLACE TACAN ANTENNAS	86
G220 ISOLATE MALFUNCTIONS IN AVIONIC SYSTEMS WIRING OR CABLES	85
O465 REMOVE OR REPLACE IFF/SIF/AIMS ANTENNAS	84
Q549 OPERATIONALLY CHECK TACAN INDICATORS	84
G221 LOCATE MAINTENANCE INFORMATION IN TECHNICAL PUBLICATIONS OR AIR FORCE TECHNICAL ORDERS (TO)	83
E160 MAKE ENTRIES ON MAINTENANCE DATA COLLECTION RECORD FORMS (AFTO FORM 349)	81
O469 REMOVE OR REPLACE IFF/SIF/AIMS KIT COMPUTERS	81
G231 REMOVE OR REPLACE MULTIPLE WIRE PLUGS	81

VI. TRANSPORT AIRCRAFT FLIGHTLINE NAVIGATION SYSTEMS MAINTENANCE CLUSTER
(GPO217)

TASKS	PERCENT PERFORMING
G233 SAFETY WIRE OR BOND SYSTEM COMPONENTS	98
I263 ISOLATE MALFUNCTIONS IN LOCALIZER SYSTEMS	96
I265 ISOLATE MALFUNCTIONS IN VISUAL OMNI RANGE (VOR) SYSTEMS	95
O470 REMOVE OR REPLACE IFF/SIF/AIMS RECEIVER-TRANSMITTERS	95
Q565 REMOVE OR REPLACE TACAN RECEIVER-TRANSMITTERS	95
I261 ISOLATE MALFUNCTIONS IN GLIDESLOPE SYSTEMS	95
I262 ISOLATE MALFUNCTIONS IN INSTRUMENT LANDING SYSTEMS (ILS)	93
I281 REMOVE OR REPLACE VOR LOCALIZER RECEIVERS	92
Q553 OPERATIONALLY CHECK TACAN SYSTEMS USING GROUND STATIONS	91
G235 SOLDER AVIONIC SYSTEM WIRING	91
I273 REMOVE OR REPLACE GLIDESLOPE RECEIVERS	90
U740 OPERATIONALLY CHECK ADF SYSTEMS	89
G220 ISOLATE MALFUNCTIONS IN AVIONIC SYSTEMS WIRING OR CABLES	89
G236 TEST CONTINUITY OF COAXIAL CABLES	89
G234 SET UP FLIGHTLINE MAINTENANCE STANDS	88
W809 REMOVE OR REPLACE SW RECEIVER-TRANSMITTERS	87
I266 OPERATE ASSOCIATED SYSTEMS CHECKING VOR/ILS	87
I264 ISOLATE MALFUNCTIONS IN MARKER BEACON SYSTEMS	87
W800 REMOVE OR REPLACE SW ANTENNAS	86
G238 TRACE CIRCUITS OR SIGNALS USING WIRING DIAGRAMS OR SCHEMATICS	86
O460 ISOLATE MALFUNCTIONS IN IDENTIFICATION FRIEND OR FOE/SELF IDENTIFICATION FEATURE (IFF/SIF)/AIMS	86
W797 OPERATIONALLY CHECK SW SYSTEMS	85
E162 MAKE ENTRIES ON REPARABLE ITEM PROCESSING TAG FORMS (AFTO FORM 350)	85
W796 ISOLATE MALFUNCTIONS IN SW SYSTEMS	84
U748 REMOVE OR REPLACE ADF RECEIVERS	84

VII. NAVIGATION AIDS FLIGHTLINE SUPERVISORS INDEPENDENT JOB TYPE
(GP0366)

TASKS	PERCENT PERFORMING
B61 SUPERVISE AVIONIC NAVIGATION SYSTEMS SPECIALISTS (AFSC 32851)	100
B32 DIRECT FLIGHTLINE MAINTENANCE ACTIVITIES	100
B58 SUPERVISE APPRENTICE AVIONIC NAVIGATION SYSTEMS SPECIALISTS (AFSC 32831)	100
B29 COUNSEL PERSONNEL ON MILITARY RELATED PROBLEMS OR PERSONAL PROBLEMS	100
C86 INSPECT COMPLETED JOBS	100
C92 PREPARE APRS	100
E181 VERIFY NOT MISSION CAPABLE SUPPLY (NMCS) OR PMCS STATUS OF REQUISITIONED PARTS	100
G220 ISOLATE MALFUNCTIONS IN AVIONIC SYSTEMS WIRING OR CABLES	100
Q553 OPERATIONALLY CHECK TACAN SYSTEMS USING GROUND STATIONS	100
Q547 ISOLATE MALFUNCTIONS IN TACAN SYSTEMS	100
Q548 OPERATE ASSOCIATED SYSTEMS CHECKING TACAN SYSTEMS	100
Q549 OPERATIONALLY CHECK TACAN INDICATORS	100
0470 REMOVE OR REPLACE IFF/SIF/AIMS RECEIVER-TRANSMITTERS	100
Q545 ISOLATE MALFUNCTIONS IN TACAN INDICATOR SYSTEMS	100
Q565 REMOVE OR REPLACE TACAN RECEIVER-TRANSMITTERS	100
Q552 OPERATIONALLY CHECK TACAN SYSTEMS USING FTE	100
0469 REMOVE OR REPLACE IFF/SIF/AIMS KIT COMPUTERS	100
0466 REMOVE OR REPLACE IFF/SIF/AIMS CONTROL UNITS	100
I262 ISOLATE MALFUNCTIONS IN INSTRUMENT LANDING SYSTEMS (ILS)	100
I265 ISOLATE MALFUNCTIONS IN VISUAL OMNI RANGE (VOR) SYSTEMS	100
I267 OPERATIONALLY CHECK GLIDESLOPES USING FTE	100
I268 OPERATIONALLY CHECK LOCALIZERS USING FTE	100
I271 OPERATIONALLY CHECK VOR/ILS USING FTE	100
Q557 REMOVE OR REPLACE TACAN CONTROL UNITS	100
I281 REMOVE OR REPLACE VOR LOCALIZER RECEIVERS	100

VIII. NAVIGATION SYSTEMS MAINTENANCE CLUSTER
(GPO195)

TASKS	PERCENT PERFORMING
G235 SOLDER AVIONIC SYSTEM WIRING	97
I261 ISOLATE MALFUNCTIONS IN GLIDESLOPE SYSTEMS	97
G238 TRACE CIRCUITS OR SIGNALS USING WIRING DIAGRAMS OR SCHEMATICS	96
O470 REMOVE OR REPLACE IFF/SIF/AIMS RECEIVER-TRANSMITTERS	96
I262 ISOLATE MALFUNCTIONS IN INSTRUMENT LANDING SYSTEMS (ILS)	96
G220 ISOLATE MALFUNCTIONS IN AVIONIC SYSTEMS WIRING OR CABLES	96
G236 TEST CONTINUITY OF COAXIAL CABLES	96
I264 ISOLATE MALFUNCTIONS IN MARKER BEACON SYSTEMS	95
I265 ISOLATE MALFUNCTIONS IN VISUAL OMNI RANGE (VOR) SYSTEMS	95
G233 SAFETY WIRE OR BOND SYSTEM COMPONENTS	95
I263 ISOLATE MALFUNCTIONS IN LOCALIZER SYSTEMS	95
O466 REMOVE OR REPLACE IFF/SIF/AIMS CONTROL UNITS	94
I293 BENCH CHECK VOR LOCALIZER RECEIVERS	94
I302 ISOLATE MALFUNCTIONS IN VOR/LOCALIZER RECEIVERS	93
G216 INSPECT AVIONIC EQUIPMENT FOR CORROSION	93
O460 ISOLATE MALFUNCTIONS IN IDENTIFICATION FRIEND OR FOE/SELF IDENTIFICATION FEATURE (IFF/SIF)/AIMS	93
O471 REMOVE OR REPLACE IFF/SIF/AIMS SELF-TEST SETS	93
I266 OPERATE ASSOCIATED SYSTEMS CHECKING VOR/ILS	93
I291 BENCH CHECK GLIDESLOPE RECEIVERS	93
Q553 OPERATIONALLY CHECK TACAN SYSTEMS USING GROUND STATIONS	93
G212 DIAGNOSE MOCKUP MALFUNCTIONS	92
I288 ALIGN VOR LOCALIZER RECEIVERS	92
O463 OPERATIONALLY CHECK IFF/SIF/AIMS USING BITE OR SELF- TEST SETS	92
I273 REMOVE OR REPLACE GLIDESLOPE RECEIVERS	92
I286 ALIGN GLIDESLOPE RECEIVERS	92

IX. SEARCH AND WEATHER RADAR AND GENERAL AVIONIC MAINTENANCE
INDEPENDENT JOB TYPE
(GPO243)

TASKS	PERCENT PERFORMING
G221 LOCATE MAINTENANCE INFORMATION IN TECHNICAL PUBLICATIONS OR AIR FORCE TECHNICAL ORDERS (TO)	100
E160 MAKE ENTRIES ON MAINTENANCE DATA COLLECTION RECORD FORMS (AFTO FORM 349)	100
G218 INSPECT PARTS RECEIVED FROM SUPPLY OR MANUFACTURERS	100
E162 MAKE ENTRIES ON REPARABLE ITEM PROCESSING TAG FORMS (AFTO FORM 350)	100
W797 OPERATIONALLY CHECK SW SYSTEMS	100
G216 INSPECT AVIONIC EQUIPMENT FOR CORROSION	100
G211 CLEAN PARTS OR COMPONENTS	100
G223 PERFORM CORROSION CONTROL ON AVIONIC EQUIPMENT	100
G212 DIAGNOSE MOCKUP MALFUNCTIONS	100
G219 INSPECT WAVEGUIDES (OTHER THAN IN RENDEZVOUS RADAR BEACON SYSTEMS)	100
G220 ISOLATE MALFUNCTIONS IN AVIONIC SYSTEMS WIRING OR CABLES	100
W794 INSPECT SW WAVEGUIDES FOR CORROSION OR MOISTURE	100
G235 SOLDER AVIONIC SYSTEM WIRING	100
G234 SET UP FLIGHTLINE MAINTENANCE STANDS	100
E144 LOCATE PART OR STOCK NUMBERS IN TECHNICAL PUBLICATIONS	91
E173 RESEARCH OR IDENTIFY PARTS USING ILLUSTRATED PARTS BREAKDOWN (IPB)	91
W834 BENCH CHECK SW RECEIVER-TRANSMITTERS	91
W851 ISOLATE MALFUNCTIONS IN SW SYSTEM MOCKUPS	91
W796 ISOLATE MALFUNCTIONS IN SW SYSTEMS	91
E163 MAKE ENTRIES ON SUPPLY TURN-IN OR ISSUE FORMS, SUCH AS DD FORM 1577, AF FORM 2005, OR DD FORM 1150	91
E181 VERIFY NOT MISSION CAPABLE SUPPLY (NMCS) OR PMCS STATUS OF REQUISITIONED PARTS	91
G238 TRACE CIRCUITS OR SIGNALS USING WIRING DIAGRAMS OR SCHEMATICS	91
G214 DUST AVIONIC EQUIPMENT, AGE, OR TEST EQUIPMENT	91
G213 DIAGNOSE TEST EQUIPMENT MALFUNCTIONS	91
F207 TRANSPORT TEST EQUIPMENT OR UNITS TO OR FROM FLIGHTLINE	91

X. COMPONENT REPAIR SQUADRON (CRS) NAVIGATION SYSTEMS
MAINTENANCE CLUSTER
(GPO223)

TASKS	PERCENT PERFORMING
G221 LOCATE MAINTENANCE INFORMATION IN TECHNICAL PUBLICATIONS OR AIR FORCE TECHNICAL ORDERS (TO)	95
0492 BENCH CHECK IFF/SIF/AIMS RECEIVERS	95
0483 BENCH CHECK IFF/SIF/AIMS CODERS	95
0495 BENCH CHECK IFF/SIF/AIMS TRANSMITTERS	95
E162 MAKE ENTRIES ON REPARABLE ITEM PROCESSING TAG FORMS (AFTO FORM 350)	92
0485 BENCH CHECK IFF/SIF/AIMS DECODERS	92
0480 ALIGN IFF/SIF/AIMS TRANSMITTERS	92
0491 BENCH CHECK IFF/SIF/AIMS POWER SUPPLIES	89
0508 ISOLATE MALFUNCTIONS IN IFF/SIF/AIMS TRANSMITTERS	89
0478 ALIGN IFF/SIF/AIMS RECEIVERS	89
Q580 BENCH CHECK TACAN RECEIVER-TRANSMITTERS	89
E160 MAKE ENTRIES ON MAINTENANCE DATA COLLECTION RECORD FORMS (AFTO FORM 349)	86
0504 ISOLATE MALFUNCTIONS IN IFF/SIF/AIMS POWER SUPPLIES	86
0499 ISOLATE MALFUNCTIONS IN IFF/SIF/AIMS DECODERS	86
0497 ISOLATE MALFUNCTIONS IN IFF/SIF/AIMS CODERS	86
0473 ALIGN IFF/SIF/AIMS CODERS/DECODERS	86
G216 INSPECT AVIONIC EQUIPMENT FOR CORROSION	84
0501 ISOLATE MALFUNCTIONS IN IFF/SIF/AIMS IF AMPLIFIERS	84
0484 BENCH CHECK IFF/SIF/AIMS CONTROL UNITS	84
0498 ISOLATE MALFUNCTIONS IN IFF/SIF/AIMS CONTROL UNITS	84
E163 MAKE ENTRIES ON SUPPLY TURN-IN OR ISSUE FORMS, SUCH AS DD FORM 1577, AF FORM 2005, OR DD FORM 1150	81
0530 SET UP IFF/SIF/AIMS PECULIAR TEST EQUIPMENT	81
0487 BENCH CHECK IFF/SIF/AIMS IF AMPLIFIERS	81
0490 BENCH CHECK IFF/SIF/AIMS MODE 4 BOARDS	81
0475 ALIGN IFF/SIF/AIMS INTERMEDIATE FREQUENCY (IF) AMPLIFIERS	81

XI. RECONNAISSANCE RADAR MAINTENANCE CLUSTER
(GPO167)

TASKS	PERCENT PERFORMING
G235 SOLDER AVIONIC SYSTEM WIRING	95
Z955 ISOLATE MALFUNCTIONS IN FL/MM/TF SYSTEMS	89
Z962 REMOVE OR REPLACE FL/MM/TF AFT INDICATORS	87
G238 TRACE CIRCUITS OR SIGNALS USING WIRING DIAGRAMS OR SCHEMATICS	87
G236 TEST CONTINUITY OF COAXIAL CABLES	87
Z957 OPERATIONALLY CHECK FL/MM/TF AFT INDICATORS	84
Z956 OPERATE ASSOCIATED SYSTEMS CHECKING FL/MM/TF SYSTEMS	84
Z970 REMOVE OR REPLACE FL/MM/TF FORWARD INDICATORS	84
Z959 OPERATIONALLY CHECK FL/MM/TF MODES	82
Z958 OPERATIONALLY CHECK FL/MM/TF FORWARD INDICATORS	82
Z968 REMOVE OR REPLACE FL/MM/TF COMPUTERS	79
Z969 REMOVE OR REPLACE FL/MM/TF CONTROL BOXES	79
E160 MAKE ENTRIES ON MAINTENANCE DATA COLLECTION RECORD FORMS (AFTO FORM 349)	79
G233 SAFETY WIRE OR BOND SYSTEM COMPONENTS	79
Z964 REMOVE OR REPLACE FL/MM/TF ANTENNA RECEIVERS	76
E162 MAKE ENTRIES ON REPARABLE ITEM PROCESSING TAG FORMS (AFTO FORM 350)	76
G232 REMOVE OR REPLACE RADIO FREQUENCY (RF) COAXIAL CONNECTORS	76
Z960 OPERATIONALLY CHECK FL/MM/TF USING BITE	74
G220 ISOLATE MALFUNCTIONS IN AVIONIC SYSTEMS WIRING OR CABLES	74
Z954 BORESIGHT FL/MM/TF ANTENNAS	74
G231 REMOVE OR REPLACE MULTIPLE WIRE PLUGS	71
Z953 ADJUST FORWARD-LOOKING/MULTIMODE/TERRAIN-FOLLOWING (FL/MM/TF) RADAR RECEIVERS OR TRANSMITTERS	68
Z961 OPERATIONALLY CHECK FL/MM/TF USING FTE	68
G221 LOCATE MAINTENANCE INFORMATION IN TECHNICAL PUBLICATIONS OR AIR FORCE TECHNICAL ORDERS (TO)	68
G229 REMOVE OR REPLACE AVIONIC SYSTEM WIRING OR CABLES	68

XII. INSPECTORS CLUSTER
(GPO070)

TASKS	PERCENT PERFORMING
C86 INSPECT COMPLETED JOBS	97
C87 INSPECT MAINTENANCE ACTIVITIES	89
E140 INSPECT SYSTEM/EQUIPMENT STATUS RECORD FORMS (AFTO FORM 244)	81
B27 BRIEF SUPERVISORY PERSONNEL ON INSPECTION FINDINGS	81
C75 EVALUATE INDIVIDUAL COMPLIANCE WITH WORK STANDARDS	69
C88 INSPECT REPORTED DISCREPANCIES	69
B37 DIRECT QUALITY CONTROL PROGRAMS	67
C67 CONDUCT GROUND SAFETY INSPECTIONS	67
C77 EVALUATE INSPECTION REPORTS OR PROCEDURES	64
G216 INSPECT AVIONIC EQUIPMENT FOR CORROSION	64
B64 WRITE CORRESPONDENCE	61
C90 INVESTIGATE ACCIDENTS OR INCIDENTS	61
B42 EVALUATE SYSTEM INSPECTIONS	56
C73 EVALUATE COMPLIANCE WITH PERFORMANCE STANDARDS	53
G217 INSPECT DESICCANTS	53
C84 EVALUATE SUGGESTIONS	53
E139 INSPECT OPERATORS' INSPECTION GUIDE TO TROUBLE REPORT FORMS (AFTO FORM 374)	50
C82 EVALUATE SAFETY PROGRAMS	47
D104 DEMONSTRATE HOW TO LOCATE TECHNICAL INFORMATION	47
B30 DEVELOP OR IMPROVE WORK METHODS OR PROCEDURES	44
B31 DEVELOP OR MAINTAIN STATUS BOARDS, GRAPHS, OR CHARTS	44
G221 LOCATE MAINTENANCE INFORMATION IN TECHNICAL PUBLICATIONS OR AIR FORCE TECHNICAL ORDERS (TO)	39
E168 PREPARE OR REVIEW QUALITY DEFICIENCY REPORT (CATEGORY II) FORMS (SF FORM 368)	39
B39 DIRECT SYSTEM INSPECTIONS	39
B50 INTERPRET POLICIES, DIRECTIVES, OR PROCEDURES FOR SUBORDINATES	39

XIII. MANAGEMENT CLUSTER
(GPO069)

TASKS	PERCENT PERFORMING
B54 ORIENT NEWLY ASSIGNED PERSONNEL	85
B29 COUNSEL PERSONNEL ON MILITARY RELATED PROBLEMS OR PERSONAL PROBLEMS	84
C92 PREPARE APRS	82
A5 DETERMINE WORK PRIORITIES	81
B64 WRITE CORRESPONDENCE	81
B50 INTERPRET POLICIES, DIRECTIVES, OR PROCEDURES FOR SUBORDINATES	80
C86 INSPECT COMPLETED JOBS	80
B28 CONDUCT OR PARTICIPATE IN STAFF MEETINGS	78
A23 SCHEDULE LEAVES OR PASSES	77
C68 ENDORSE AIRMAN PERFORMANCE REPORTS (APR)	74
B30 DEVELOP OR IMPROVE WORK METHODS OR PROCEDURES	73
A4 DETERMINE REQUIREMENTS FOR SPACE, EQUIPMENT, OR SUPPLIES	73
B31 DEVELOP OR MAINTAIN STATUS BOARDS, GRAPHS, OR CHARTS	73
A17 PLAN OR SCHEDULE WORK ASSIGNMENTS	72
A24 SCHEDULE PERSONNEL FOR SCHOOL OR TEMPORARY DUTY (TDY) ASSIGNMENTS	72
A1 ASSIGN PERSONNEL TO DUTY POSITIONS	70
A13 ESTABLISH REQUIREMENTS FOR TOOLS OR EQUIPMENT	69
A2 ASSIGN SPONSORS FOR NEWLY ASSIGNED PERSONNEL	69
B56 SCHEDULE WORK ASSIGNMENTS	68
B48 INITIATE CORRECTIVE ACTIONS BASED ON INSPECTION DEFICIENCY REPORTS	67
A25 SUBMIT RECOMMENDATIONS FOR CHANGES TO GOVERNING DIRECTIVES STANDARDS, OR LOCAL OPERATING PROCEDURES	67
B27 BRIEF SUPERVISORY PERSONNEL ON INSPECTION FINDINGS	66
C88 INSPECT REPORTED DISCREPANCIES	64
A3 DETERMINE PERSONNEL REQUIREMENTS	63
B35 DIRECT MAINTENANCE OR UTILIZATION OF EQUIPMENT	62

XIV. MAINTENANCE SCHEDULING MONITORS INDEPENDENT JOB TYPE
(GPO236)

TASKS	PERCENT PERFORMING
E137 ESTABLISH STATUS OF REPARABLE ASSETS	100
E180 VERIFY DAILY SUPPLY DOCUMENT LISTINGS	100
E143 INVENTORY REPARABLE ASSETS	100
E156 MAINTAIN SUPPLY LOGS OF ORDERED PARTS	100
E163 MAKE ENTRIES ON SUPPLY TURN-IN OR ISSUE FORMS, SUCH AS DD FORM 1577, AF FORM 2005, OR DD FORM 1150	100
E162 MAKE ENTRIES ON REPARABLE ITEM PROCESSING TAG FORMS (AFTO FORM 350)	80
E144 LOCATE PART OR STOCK NUMBERS IN TECHNICAL PUBLICATIONS	80
A4 DETERMINE REQUIREMENTS FOR SPACE, EQUIPMENT, OR SUPPLIES	80
E181 VERIFY NOT MISSION CAPABLE SUPPLY (NMCS) OR PMCS STATUS OF REQUISITIONED PARTS	80
E173 RESEARCH OR IDENTIFY PARTS USING ILLUSTRATED PARTS BREAKDOWN (IPB)	80
B36 DIRECT PREPARATION OF REQUISITIONS FOR SUPPLIES OR EQUIPMENT	60
E149 MAINTAIN MAINTENANCE CORRESPONDENCE, RECORDS, OR REPORT FILES	60
B31 DEVELOP OR MAINTAIN STATUS BOARDS, GRAPHS, OR CHARTS	60
F184 INVENTORY CONSOLIDATED TOOL KITS (CTK)	60
A5 DETERMINE WORK PRIORITIES	60
A12 ESTABLISH PRIORITIES FOR RESTORING EQUIPMENT TO OPERATIONAL STATUS	60
E169 PREPARE REQUISITIONS FOR PUBLICATIONS, SUPPLIES, OR EQUIPMENT	60
E167 PREPARE OR MAKE ENTRIES ON SPECIALIST DISPATCH CONTROL LOG FORMS (AF FORM 2430)	60
E154 MAINTAIN SPECIALIST DISPATCH BOARDS	60
E171 RESEARCH OR DRAFT LETTERS OF JUSTIFICATION FOR INITIAL ISSUES	60
C92 PREPARE APRs	60
E160 MAKE ENTRIES ON MAINTENANCE DATA COLLECTION RECORD FORMS (AFTO FORM 349)	60
B64 WRITE CORRESPONDENCE	60
G218 INSPECT PARTS RECEIVED FROM SUPPLY OR MANUFACTURERS	40
D119 MAINTAIN TRAINING RECORDS, CHARTS, OR GRAPHS	40

XV. INSTRUCTORS CLUSTER
(GPO066)

TASKS	PERCENT PERFORMING
D122 PREPARE LESSON PLANS	97
D125 SCORE TESTS	97
D97 ADMINISTER TESTS	76
D101 CONDUCT RESIDENT COURSE CLASSROOM TRAINING	73
D104 DEMONSTRATE HOW TO LOCATE TECHNICAL INFORMATION	70
D130 WRITE TEST QUESTIONS	68
D103 COUNSEL TRAINEES ON TRAINING PROGRESS	57
D110 DEVELOP TRAINING AIDS	54
E135 CONDUCT WEEKLY/MONTHLY SAFETY LECTURES OR BRIEFINGS	49
B29 COUNSEL PERSONNEL ON MILITARY RELATED PROBLEMS OR PERSONAL PROBLEMS	49
D116 EVALUATE PROGRESS OF RESIDENT COURSE STUDENTS	46
D119 MAINTAIN TRAINING RECORDS, CHARTS, OR GRAPHS	43
G238 TRACE CIRCUITS OR SIGNALS USING WIRING DIAGRAMS OR SCHEMATICS	41
D124 PROCURE TRAINING AIDS, SPACE, OR EQUIPMENT	32
D117 EVALUATE TRAINING METHODS, TECHNIQUES, OR PROGRAMS	32
G236 TEST CONTINUITY OF COAXIAL CABLES	32
D118 MAINTAIN TRAINING EQUIPMENT	30
D107 DEVELOP RESIDENT COURSE OR CAREER DEVELOPMENT COURSE (CDC) CURRICULUM MATERIALS	30
E160 MAKE ENTRIES ON MAINTENANCE DATA COLLECTION RECORD FORMS (AFTO FORM 349)	30
G221 LOCATE MAINTENANCE INFORMATION IN TECHNICAL PUBLICATIONS OR AIR FORCE TECHNICAL ORDERS (TO)	27
D120 ORGANIZE OR IMPLEMENT TRAINING PROGRAMS	27
D112 DIRECT OR IMPLEMENT TRAINING PROGRAMS OTHER THAN OJT	24
D123 PREPARE TRAINING SCHEDULES	24
E170 PREPARE TECHNICAL ORDER SYSTEM PUBLICATION IMPROVEMENT REPORT AND REPLY FORMS (AFTO FORM 22)	24
E158 MAINTAIN TECHNICAL PUBLICATION FILES	22

XVI. JOB CONTROLLERS INDEPENDENT JOB TYPE
(GPO261)

TASKS	PERCENT PERFORMING
B32 DIRECT FLIGHTLINE MAINTENANCE ACTIVITIES	100
E132 ASSIGN JOB CONTROL NUMBERS	94
A5 DETERMINE WORK PRIORITIES	94
E154 MAINTAIN SPECIALIST DISPATCH BOARDS	89
B31 DEVELOP OR MAINTAIN STATUS BOARDS, GRAPHS, OR CHARTS	89
E148 MAINTAIN EQUIPMENT STATUS BOARDS	72
E136 COORDINATE FLIGHTLINE MAINTENANCE ACTIVITIES WITH WORKLOAD CONTROL SECTIONS	67
E160 MAKE ENTRIES ON MAINTENANCE DATA COLLECTION RECORD FORMS (AFTO FORM 349)	67
E181 VERIFY NOT MISSION CAPABLE SUPPLY (NMCS) OR PMCS STATUS OF REQUISITIONED PARTS	56
A12 ESTABLISH PRIORITIES FOR RESTORING EQUIPMENT TO OPERATIONAL STATUS	44
B35 DIRECT MAINTENANCE OR UTILIZATION OF EQUIPMENT	44
A17 PLAN OR SCHEDULE WORK ASSIGNMENTS	39
A26 SUBMIT WORK REQUESTS TO BASE SERVICE ORGANIZATIONS	39
E159 MAINTAIN WORKLOAD STATUS BOARDS	28
B33 DIRECT MAINTENANCE DEBRIEFING TEAMS	22
C71 EVALUATE ALERT OR EMERGENCY PROCEDURES	22
B56 SCHEDULE WORK ASSIGNMENTS	17
E180 VERIFY DAILY SUPPLY DOCUMENT LISTINGS	17
B54 ORIENT NEWLY ASSIGNED PERSONNEL	17
C92 PREPARE APRs	17
E176 REVIEW OR MAINTAIN ALERT RECALL OR MOBILITY ROSTERS	17
B64 WRITE CORRESPONDENCE	11
B27 BRIEF SUPERVISORY PERSONNEL ON INSPECTION FINDINGS	11
A16 PLAN OR PREPARE BRIEFINGS	11
E151 MAINTAIN OPERATIONAL CHARTS OR GRAPHS	11