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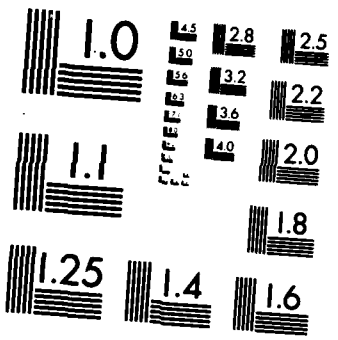

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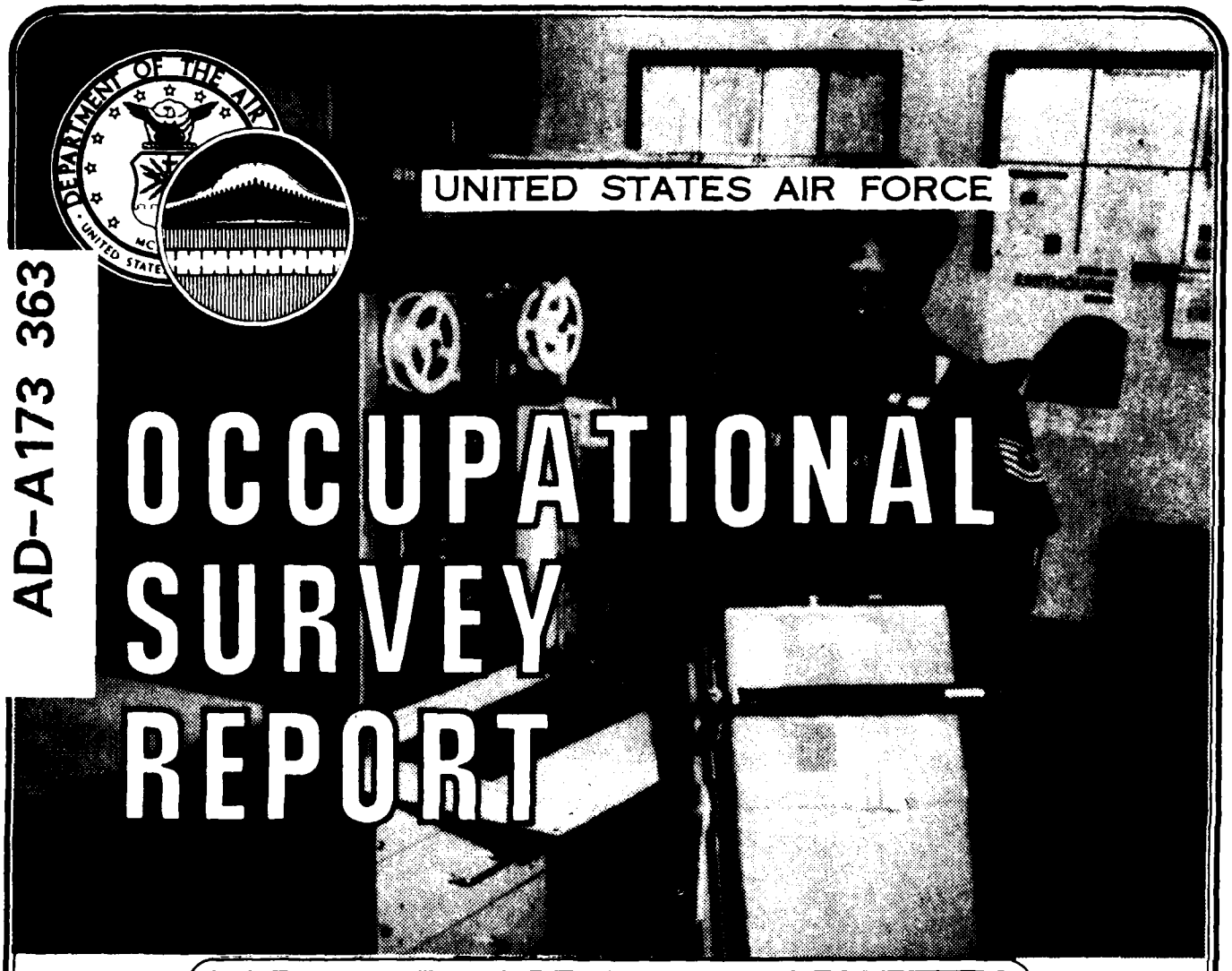

OCCUPATIONAL SURVEY REPORT

SPACE SYSTEMS EQUIPMENT MAINTENANCE
CAREER LADDER

AFSC 309X0

AFPT 90-309-544

SEPTEMBER 1986

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PREFACE

This report presents the results of a detailed occupational survey of the Space Systems Equipment Maintenance career ladder (AFSC 309X0). The project was undertaken at the request of the Intelligence-Space Training Division, DCS/Technical Training, Headquarters Air Training Command, Randolph Air Force Base, ~~Texas~~ TX. Priority was established by the Occupational Analysis Program Priorities Working Group (PWG) in accordance with AFR 35-2. Computer printouts from which this report was produced are available for use by operating and training officials. Keywords: Job Analysis, Skills, Jobs, Personnel development

The survey instrument was developed by Captain Frank Strickland, Inventory Development Specialist. Computer support for this project was provided by Mr Wayne Fruge, while administrative support was provided by Mr Richard Ramos. Mr Hank Dubois, Occupational Analyst, analyzed the survey and wrote the final report. The report has been reviewed and approved by Lieutenant Colonel Charles D. Gorman, Chief, Airman Career Ladders Analysis Branch, Occupational Analysis Division, USAF Occupational Measurement Center.

Copies of this report are distributed to Air Staff sections, major commands, and other interested training and management personnel. Additional copies may be obtained on request to the USAF Occupational Measurement Center, Attention: Chief, Occupational Analysis Division (OMY), Randolph AFB, Texas 78150-5000.

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

JOSEPH S. TARTELL
Chief, Occupational Analysis Division
USAF Occupational Measurement Center

SUMMARY OF RESULTS

1. Survey Coverage: Survey results are based on responses from 346 airmen in the 309X0 career field. This represents 75 percent of the assigned personnel at the time of the survey.

2. Specialty Structure: The study identified 13 major jobs made up of 84 percent of the survey sample. Eight of these jobs (60 percent of the total sample) involved maintenance of various systems maintained by 309X0 personnel. The remaining five jobs involve instruction, supervision, and management within the career ladder.

3. Career Ladder Progression: Personnel in AFSC 309X0 follow a normal career ladder progression, moving from technical equipment maintenance duties to supervisory duties with increasing skill level qualification.

4. AFR 39-1 Specialty Descriptions: Survey data generally support the broad overview of duties and responsibilities found in AFR 39-1 for each of the skill levels within the career ladder.

5. Job Satisfaction Analysis: Responses to job satisfaction questions indicate a generally lower level of satisfaction for AFSC 309X0 personnel compared to other mission equipment maintenance specialties--with several small maintenance specialty personnel perceiving their training to be utilized very little to not at all.

6. Training Analysis: The AFSC 309X0 Specialty Training Standard (STS) is supported by performance data for specialty jobs--while tasks not referenced and performed by specialty incumbents require review for possible inclusion in the STS. Percent members performing data indicate opportune tasks for inclusion in performance training in the basic resident course Plan of Instruction (POI).

7. Implications: While the AFSC 309X0 STS is generally supported by survey data, evidence indicates a need for a more performance-oriented basic resident course.

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OCCUPATIONAL SURVEY REPORT
SPACE SYSTEMS EQUIPMENT MAINTENANCE CAREER LADDER
(AFSC 309X0)

INTRODUCTION

This is an occupational survey report (OSR) of the Space Systems Equipment career ladder (AFSC 309X0) completed by the Occupational Analysis Division, USAF Occupational Measurement Center, in September 1986. The survey was conducted in response to a request from the career ladder Training Staff Officer, DCS/Technical Training, Headquarters Air Training Command, to assess current training. This OSR is the first published for the AFSC 309X0 career ladder.

Background

As mentioned in the current AFR 39-1 Specialty Descriptions, Space Systems Equipment Maintenance personnel are responsible for inspecting, maintaining, troubleshooting, and repairing space systems equipment. In addition, they perform management and supervisory roles.

The career ladder as it is at the time of this report is the result of the merger of two specialties in 1981--Space Systems Equipment (AFSC 308X0) and Surveillance Radar (AFSC 309X0). The factor driving the merger was an overseas assignment imbalance within the AFSC 308X0 career ladder. The resulting merger presented training difficulties with the requirement to teach maintenance across several systems using different technologies. Recent decisions involving possible contractor maintenance of certain space systems may alleviate some of the training difficulties, although the overseas assignment problem may return to the AFSC 309X0 career ladder.

SURVEY METHODOLOGY

Inventory Development

The data collection survey instrument for this occupational survey was USAF Job Inventory AFPT 90-309-544, dated June 1985. A preliminary task list was prepared after reviewing pertinent career ladder publications and directives, and tasks from previous job inventories of the AFSC 308X0 career ladder.

This preliminary task list was refined and validated through personal interviews with training and operational subject-matter specialists selected to cover the entire range of space systems equipment at the locations listed below--based on the recommendations of the functional managers of the primary major commands using AFSC 309X0 personnel resources:

Lowry Technical Training Center, Lowry AFB CO - location of training managers, and various equipment subject-matter specialists.

MacDill AFB FL - location of FSS-7 and MKIV maintenance.

Eglin AFB FL - FPS-85 maintenance location.

The Pentagon, Washington DC - Digital Facsimile System (DFS) location.

Loring AFB ME - Command Readout Station (CRS) location.

Fairchild AFB WA - CRS location.

Offutt AFB NE - Command and Control Center (CCC) location.

Beale AFB CA - FPS-115 maintenance location.

McClellan AFB CA - intermediate maintenance depot for MKIIA, MKIII, and MKIV equipment.

Peterson AFB CO - location of various equipment systems managers.

This process resulted in a final job inventory containing a list of 1,689 tasks grouped with 19 duty headings. The inventory also included a background section asking questions relating to job satisfaction, training completed, systems maintained or operated, job title, and type of activity to which assigned.

Survey Administration

From July 1985 to January 1986, Consolidated Base Personnel Offices (CBPO) at operational units worldwide administered the inventory to job incumbents holding AFSC 309X0. These job incumbents were selected from a computer-generated mailing list obtained from personnel data tapes maintained by the Air Force Human Resources Laboratory (AFHRL).

Each individual who completed the inventory first completed an identification and background section and then checked each task performed in their current job. After checking all tasks performed, each member then rated each of these tasks on a 9-point scale showing relative time spent on that task, as compared to all other tasks checked. The ratings ranged from one (very small amount of time spent) through five (about average time spent) to nine (very large amount time spent).

To determine relative time spent for each task checked by a respondent, all of an incumbent's ratings are assumed to account for 100 percent of his or her time spent on the job and are summed. Each task rating is then divided by the total task ratings and multiplied by 100. This procedure provides a basis for comparing tasks in terms of both percent members performing and average percent time spent.

Survey Sample

Personnel were selected to participate in this survey to ensure an accurate representation across major commands (MAJCOM) and paygrade groups. All eligible DAFS personnel were mailed survey booklets. Table 1 shows the percentage distribution by major command of assigned personnel in the career ladder as of July 1985. Also listed in this table is the percentage distribution, by MAJCOM, of respondents in the final survey sample. The 346 respondents included in the final sample represent 73 percent of the AFSC 309X0 career ladder personnel eligible for the survey. (Personnel projected for PCS, retirement, or discharge; those in hospital status; and those with less than 6 weeks on the job are not eligible for survey.)

It should be noted that subsequent to survey administration there was a reallocation of AFSC 309X0 resources between the major users--Air Force Communications Command and Space Command. Therefore, readers should be aware that data in this report pertaining to MAJCOM assignment may not reflect the current career ladder picture.

Task Factor Administration

In addition to completing the job inventory, selected senior AFSC 309X0 personnel (generally E-6 and E-7 technicians) were asked to complete a second booklet for either training emphasis (TE) or task difficulty (TD). The TE and TD booklets are processed separately from the job inventories. The rating information is used in several analyses discussed in detail within this report.

Task Difficulty. Each senior technician completing a task difficulty booklet is asked to rate all inventory tasks on a 9-point scale (from extremely low to extremely high) as to relative difficulty. Difficulty is defined as the length of time required by an average member to learn to do the task. Task difficulty data were independently collected from 51 experienced 7-skill level AFSC 309X0 personnel stationed worldwide, with all raters assessing the difficulty of inventory tasks. If raters were in complete agreement on task difficulty for the specialty, the interrater reliability would be 1.0. The AFSC 309X0 raters' interrater reliability was acceptable (.85), indicating general consensus on the ease or difficulty of different tasks within the career ladder. Task difficulty ratings were adjusted so tasks of average difficulty would have a 5.00 rating. The resulting data are essentially a rank ordering of tasks indicating the relative degree of difficulty for each task in the inventory.

Job Difficulty Index (JDI). After computing the AFSC 309X0 task difficulty index for each task item, a JDI was computed for the jobs identified in the survey analysis. The index provides a relative measure of which jobs, when compared to other jobs identified, are more or less difficult. An equation using the number of tasks performed and the average difficulty per unit time spent (ADPUTS) as variables is the basis for the JDI. The index ranges from 1.0 for the very easy jobs to 25.0 for very difficult jobs. The indices are adjusted so the average JDI is 13.00.

TABLE 1

COMMAND DISTRIBUTION OF SURVEY SAMPLE
(AFSC 309X0)

COMMAND	PERCENT OF ASSIGNED	PERCENT OF SAMPLE
AFCC	75	79
SPACE COMMAND	12	12
ATC	6	8
OTHERS	6	1

TOTAL ASSIGNED: 477
TOTAL ELIGIBLE: 441
TOTAL IN FINAL SAMPLE: 346
PERCENT OF ASSIGNED IN SAMPLE: 73%
PERCENT OF ELIGIBLE IN SAMPLE: 78%

NOTE: Manning figures as of July 1985

Training Emphasis. Experienced technicians completing training emphasis booklets were asked to rate tasks on a 10-point scale ranging from no training required (0) to extremely heavy training required (9). Training emphasis is a rating of which tasks require more emphasis 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 training method. Training emphasis data were independently collected from 43 experienced AFSC 309X0 7-skill level personnel stationed worldwide. As with task difficulty ratings, if all raters were in complete accord on what tasks were important for first-enlistment training, the interrater reliability would be 1.0. The raters' interrater reliability was very good (.93), indicating raters generally agreed on the tasks requiring some form of structured training to support first-enlistment jobs.

When used in conjunction with other information, such as percent members performing, task difficulty and training emphasis ratings can provide insight into training requirements. Such insights may suggest a need for lengthening or shortening portions of instruction supporting AFS entry-level jobs.

SPECIALTY JOBS

The structure of jobs within the Space Systems Equipment Maintenance career ladder was examined on the basis of similarity of tasks performed and the percent of time spent ratings provided by job incumbents, independent of specialty or other background factors.

For the purpose of organizing individual jobs into similar units of work, an automated job clustering program is used. This hierarchical grouping program is a basic part of the Comprehensive Occupational Data Analysis Program (CODAP) system for job analysis. Each individual job description in the sample is compared to every other job description in terms of tasks performed and the relative amount of time spent on each task in the job inventory. The automated system is designed to locate the two job descriptions with the most similar tasks and percent time ratings and combine them to form a composite job description. In successive stages, new members are added to initial groups or new groups are formed based on the similarity of tasks and percent of time ratings in each individual job description. This procedure is continued until all individuals and groups are combined to form a single composite representing the total sample. The resulting analysis of the variety of groups of jobs serves to identify: (1) the number of characteristics of the different jobs which exist within the career ladders; (2) the tasks which tend to be performed together by the same respondents; and (3) the breadth or narrowness of the jobs which exist within the Space Systems Equipment Maintenance career ladder.

The basic identifying group used in the hierarchical job structuring process is the Job Type. A job type is a group of individuals who perform many of the same tasks and spend similar amounts of time performing them.

When there is a substantial degree of similarity between different job types, they are grouped together and labeled as Clusters. In many career ladders, there are specialized job types that are too dissimilar to be grouped into any cluster. These unique groups are labeled Independent Job Types.

Based on the similarity of tasks performed and the amount of time spent performing each task, 2 clusters and 11 independent job types were identified in the examination of the AFSC 309X0 career ladder. These major jobs are illustrated in Figure 1 and are described on the following pages. The group (GRP) number shown beside each title is a reference to computer-printed information and the letter N refers to the number of personnel in the group:

I. TRANSTERM MAINTENANCE PERSONNEL (GRP050, N=78)

II. COMMAND AND CONTROL CENTER (CCC) MAINTENANCE SPECIALISTS (GRP149, N=8)

III. COMMAND READOUT STATION (CRS) MAINTENANCE SPECIALISTS (GRP079, N=10)

IV. DIGITAL FACSIMILE SYSTEM (DFS) MAINTENANCE SPECIALISTS (GRP080, N=10)

V. SATELLITE GROUND STATION (SGS) MAINTENANCE SPECIALISTS (GRP114, N=26)

VI. FSS-7 RADAR SYSTEMS MAINTENANCE SPECIALISTS (GRP086, N=11)

VII. FPS-85 SYSTEMS MAINTENANCE PERSONNEL (GRP012, N=39)

VIII. FPS-115 SYSTEMS MAINTENANCE SPECIALISTS (GRP073, N=24)

IX. QUALITY CONTROL INSPECTORS (GRP099, N=7)

X. JOB CONTROL SPECIALISTS (GRP068, N=21)

XI. WORKCENTER NCOICs (GRP054, N=33)

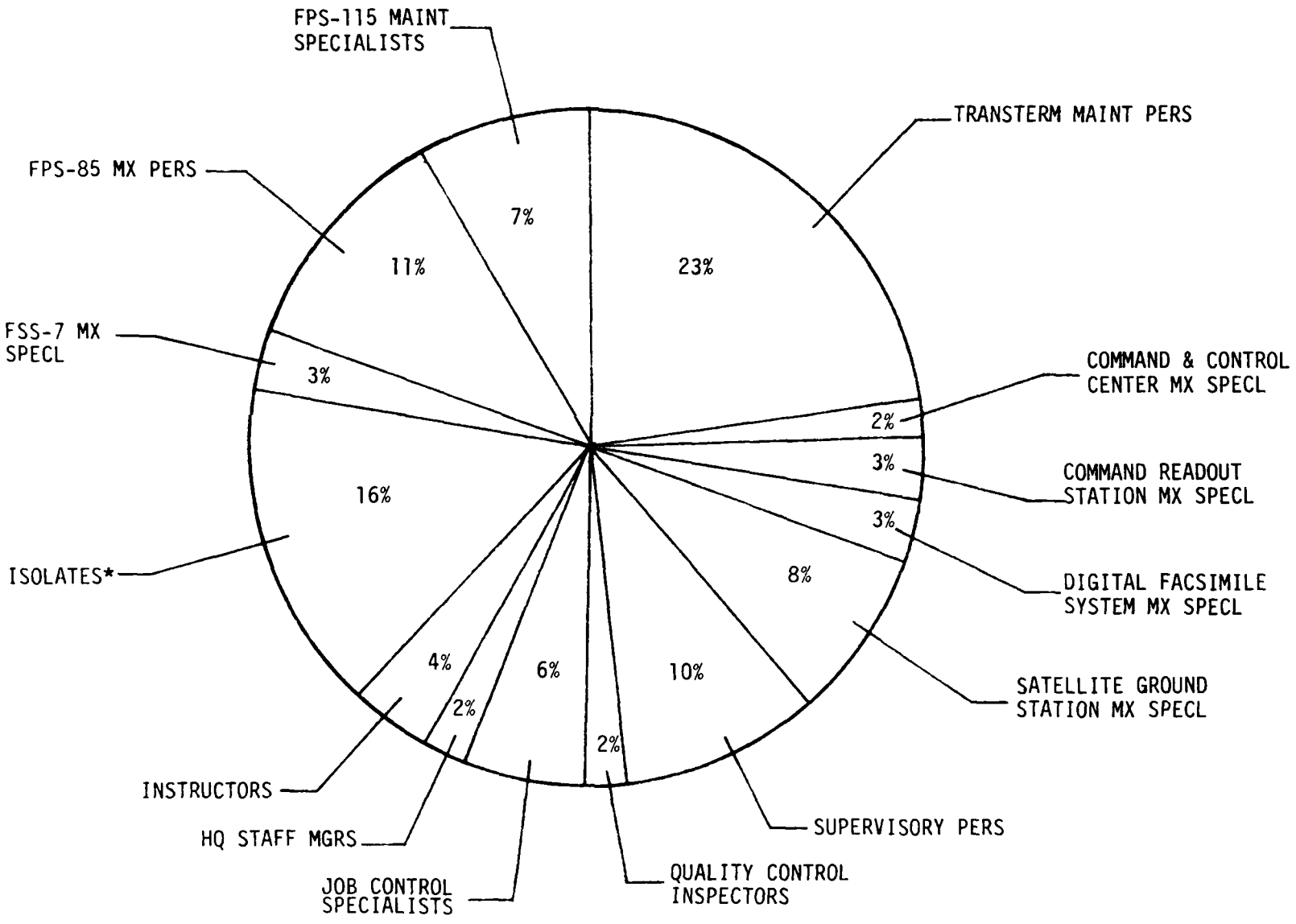
XII. HEADQUARTERS STAFF MANAGERS (GRP062, N=8)

XIII. INSTRUCTORS (GRP081, N=14)

The 309X0 survey respondents forming these clusters and jobs account for 84 percent of the survey sample. The remaining 16 percent, referred to as isolates, were performing tasks or series of tasks that did not group them with any of the above jobs.

FIGURE 1

309X0 CAREER LADDER STRUCTURE
(N=346)



*Personnel not grouped in any major job

Job Descriptions

The structure outlined above is not unlike the majority of systems maintenance jobs in that it is represented by maintainers, NCOICs, maintenance support, and management personnel. The differentiating factor among the eight maintenance groups (two clusters and six independent jobs) is the primary system maintained or supported. The remaining five jobs are differentiated by the amount of time spent performing supervisory and management, administrative, or training-related tasks.

Two tables at the end of this section provide additional information about the clusters and independent job types identified in this analysis. Table 2 provides the relative time spent on each duty by personnel in each of the major jobs. For example, the Transterm Maintenance personnel spent 18 percent of their job time performing general space systems equipment maintenance functions (Duty J), while Command and Control Center (CCC) maintenance specialists spent only 7 percent of their job time in the same duty. Table 3 provides selected background information, such as DAFSC distribution, average time in career field (TICF), and average number of tasks performed by each of the major jobs. For example, workcenter NCOICs perform an average of 105 tasks, average 112 months in the career field, and a majority (79 percent) have a DAFSC of 30970.

Also included in this report is an appendix concerning the Space Systems Equipment specialty jobs. Appendix A provides various background information for all the jobs identified in the career ladder structure analysis, including the jobs identified within the two clusters. This appendix also lists common tasks performed by members of each of the jobs identified.

Brief descriptions of each cluster and independent job type are presented below.

I. TRANSTERM MAINTENANCE PERSONNEL (GRP050). Twenty-three percent of the 309X0 personnel sampled perform jobs included in this cluster--the largest major job in the sample. All of these personnel spend over 76 percent of their job time on maintenance-related tasks and another 16 percent on operator functions. These incumbents are stationed overseas (76 percent) and are primarily responsible for maintaining Defense Meteorological Satellite Program (DMSP) mobile sites. More specifically, they maintain the transportable terminal system (TRANSTERM) Mark IIA, III, or IV--a self-contained, transportable, target vehicle tracking and data processing system. Tasks which differentiate these personnel include:

analyze block V/D test patterns
isolate block V/D film processing/handling unit malfunctions
isolate block V/D video circuit malfunctions
prepare chemicals for photographic development
install equipment cables or wiring

Thirty-nine percent of these personnel are in their first enlistment and, overall, the group averaged 83 months in the service. They perform an average of 143 tasks and have a job difficulty index (JDI) of slightly above the average (14.1).

There were two job types identified in this cluster. The first job, TRANSTERM Technicians (GRP088), performs a job most similar to that of the entire cluster. They are performing maintenance of deployed and operational systems. The second job, TRANSTERM Depot Maintenance Specialists (GRP129), includes personnel performing intermediate level depot maintenance on TRANSTERM systems at McClellan AFB CA.

II. COMMAND AND CONTROL CENTER (CCC) MAINTENANCE SPECIALISTS (GRP149). This independent job type constitutes 2 percent of the survey sample. They spend over 75 percent of their job time performing maintenance unique to the Satellite Operations Center (SOC) at Offutt AFB NE. The SOC functions as the "nerve center" for the control and monitoring of DMSP satellites. Differentiating tasks performed by these personnel include:

run Data General peripheral diagnostics
align Zebra disc drive assemblies
adjust Tektronix 4027 monitors
run Decom diagnostics

These eight respondents average 65 months in service with 50 percent of them in their first enlistment.

III. COMMAND READOUT STATION (CRS) MAINTENANCE SPECIALISTS (GRP079). This small group of respondents, like the last, maintain equipment involved in DMSP satellite communications. These personnel are assigned to either of two CONUS readout stations and perform the highest average number of tasks of any job in the total sample (267 tasks). Examples of these tasks follow:

adjust VR-3700B recorders/reproducers
remove or replace components of VR-3700B recorders/ reproducers
perform PMIs on Nova 800 CPUs
perform PMIs on antenna pedestal assemblies

These personnel average more months in the career ladder (58 months) and more time in service (110 months) than any other maintenance job identified.

IV. DIGITAL FACSIMILE SYSTEM (DFS) MAINTENANCE SPECIALISTS (GRP080). These 10 respondents spend over 50 percent of their job in maintenance of the DMSP Digital Facsimile System at either Langley AFB VA, or at the Pentagon. In addition, they spend 16 percent of their time in administrative or support functions. Tasks typically performed include:

perform DFS data receiver preoperational tests
remove or replace components of K06A500 processors
perform PMIs on K06A400 transport assemblies
maintain magnetic tape or disc libraries

Overall, these personnel perform an average of 100 tasks, fewer than any maintenance job in the sample, and likewise have the lowest JDI (11.0) of any maintenance job.

V. SATELLITE GROUND STATION (SGS) MAINTENANCE SPECIALISTS (GRP114). These 26 personnel account for 8 percent of the survey sample. Whereas the previously mentioned jobs supported DMSP, these survey respondents support the Defense Support Program (DSP), the mission of which is classified. It will suffice to say that the personnel in this job maintain systems associated with satellite ground stations where DSP satellite data are received or transmitted. Typical tasks performed by these respondents include:

adjust FR-3010 recorders/reproducers
perform PMIs on tape cleaners
perform off-line or on-line telemetry tests
isolate FR-3010 recorder/reproducer malfunctions

The majority (65 percent) of these personnel have a DAFSC of 30950. Overall, they perform an average of 208 tasks and have the second highest JDI of any job identified (18.2).

VI. FSS-7 RADAR SYSTEMS MAINTENANCE SPECIALISTS (GRP086). The 11 personnel in this group maintain systems associated with the FSS-7 surveillance radar site at MacDill AFB FL. This radar primarily uses older, vacuum tube technology which may be reflected in JDI of 20.4, the highest found in the survey. A sampling of tasks performed by these personnel include:

analyze and run on-line simulations
align search receivers (unit 46A6)
align analog receivers (unit 6)
isolate video processor (unit 6A5) malfunctions

It is appropriate to mention that this radar is tentatively planned for deletion from the Air Force inventory.

VII. FPS-85 SYSTEMS MAINTENANCE PERSONNEL (GRP012). The 39 personnel in this cluster account for 11 percent of the survey sample. The FPS-85 is a fixed phase-array radar, located at Eglin AFB FL, the primary mission of which is to detect, track, and determine launch and impact of sea-launched ballistic missiles (SLBM). At the time of this survey, the FPS-85 radar was being considered for contract maintenance. Tasks representative of those performed by cluster personnel include:

adjust T1028 transmitter modules
perform PMIs on T1028 transmitter modules
perform PMIs on HV power supplies
adjust AN/FPS-85 low voltage (LV) power supplies
align beam steering RF amplifier dividers/drivers

The three jobs identified in this cluster represent the FPS-85 maintenance structure and include FPS-85 Systems Maintenance Center Specialists, Signal Processors Specialists, and Shop Maintenance Specialists. Representative tasks performed by members of each of these jobs can be found in Appendix A.

Overall, the cluster personnel have an average TICF of 39 months with 77 percent of these incumbents in their first enlistment, representing the least experienced group of survey respondents.

VIII. FPS-115 SYSTEMS MAINTENANCE SPECIALISTS (GRP073). The 24 personnel in this job are responsible for maintenance of the radar subsystems of the AN/FPS-115 phased-array radar, a two-faced detection system designed for detection and attack warning of SLBMs entering its area of coverage. The FPS-115, like the FPS-85, may also become a contractor-maintained system. Differentiating tasks include:

isolate solid-state module (SSM) malfunctions
decode fault printouts
remove or replace components of SSMs
adjust subarray drivers

The characteristics of these job incumbents are somewhat similar to those of most other maintenance jobs identified. The predominant DAFSC is 30950; the average grade, as reflected in Table 3, is E-4; and the average TICF is approximately 4 years.

IX. QUALITY CONTROL INSPECTORS (GRP099). These 7 respondents refer to themselves as quality control inspectors or quality control supervisors and spend almost 55 percent of their job time performing quality control and inspecting and evaluating functions. Representative tasks performed include:

initiate or review AF Forms 2419 (Routing and Review of Quality Control Reports)
perform special inspections
implement quality control standards
perform self-inspections

These inspections personnel, averaging 219 months in the service and 98 months in the career ladder, are the second most experienced group in the survey sample.

X. JOB CONTROL SPECIALISTS (GRP068). The 21 personnel identified with this job spend 79 percent of their job time in maintenance/job control or administrative functions, performing an average of 40 tasks. Examples of these tasks include:

monitor system status
maintain daily job control status logs
coordinate with maintenance centers on maintenance activities
update equipment status displays

These personnel have a well defined job; however, the tasks they perform contribute to the lowest JDI (6.1) found in this analysis.

XI. WORKCENTER NCOICs (GRP054). These 33 respondents are the supervisors of the AFSC 309X0 career ladder. Spending a large majority of their time on supervisory-related tasks (80 percent), typical tasks for the respondents include:

prepare APRs
supervise Space Systems Equipment Technicians (AFSC 30970)
interpret policies, directives, or procedures for subordinates
establish performance standards for subordinates

These respondents represent the most experienced personnel in the sample, averaging 112 months in the career ladder.

XII. HEADQUARTERS STAFF MANAGERS (GRP062). These eight personnel are the career field managers identified in the survey sample. They refer to themselves as Systems Equipment Managers, Site Activation Managers, Headquarters Equipment Specialists, and Systems Acquisition Logistics Technicians. Tasks performed include:

participate in briefings, such as staff meetings, briefings, or conferences
coordinate with AFLC to resolve logistics/engineering support problems
develop statements of work (SOW)
validate or verify manufacturers technical data

Thirty-seven percent of these personnel have a DAFSC of 30990 and only 37 percent indicate they have a supervisory role.

XIII. INSTRUCTORS (GRP081). These 14 respondents are primarily responsible for conducting resident course classroom training for the 309X0 career ladder. These incumbents spend 88 percent of their job time on training tasks, such as:

prepare lesson plans
conduct resident or technical school classroom training
score tests
write test questions

These instructors are all assigned to Air Training Command with duty at Lowry AFB CO.

Comparison of Specialty Jobs

Two clusters and 11 independent job types were identified in the specialty jobs (career ladder structure) analysis. The clusters and six of the independent job types were directly involved with the major systems maintenance duties and tasks of the career ladder (60 percent of the survey sample). The five remaining independent job types were oriented toward supervisory, systems management, quality control, job control, and training activities.

Those jobs involving the maintenance duties of the career ladder clearly display the three major missions supported by Space Systems Equipment Maintenance personnel (DMSP, DSP, and SLBM radar surveillance). In addition, two distinct technologies are still evident in the specialty, i.e., ground satellite systems and phased-array radiation systems. These technologies basically reflect those of the old AFSCs 308X0 and 309X0, respectively. An analysis of time spent across jobs, performing general space systems equipment maintenance

TABLE 2

RELATIVE TIME SPENT ON DUTIES BY CAREER LADDER CLUSTERS AND INDEPENDENT JOB TYPES
(PERCENT TIME SPENT)

		TRANS-TERM MAINT PERS	CCC MAINT SPECL	CRS MAINT SPECL	DFS MAINT SPECL	SGS MAINT SPECL	FSS-7 MAINT SPECL	FPS-85 MAINT PERS	FPS-115 MAINT SPECL	QLTY CON INSP	JOB CON SPECL	WORK-CENTER NCOICs	HQ STAFF MGRS	INSTRS
A	ORGANIZING AND PLANNING	2	1	1	2	1	*	1	2	9	7	15	12	2
B	DIRECTING AND IMPLEMENTING	1	1	*	1	*	1	1	1	3	4	7	4	2
C	INSPECTING AND EVALUATING	4	2	2	5	2	2	4	4	(32)	2	23	17	4
D	TRAINING	4	2	5	3	2	1	4	5	8	5	15	3	(88)
E	PERFORMING QUALITY CONTROL (QC) FUNCTIONS	1	1	*	1	*	*	1	1	(22)	1	3	1	*
F	PERFORMING ADMINISTRATIVE AND SUPPORT FUNCTIONS	8	8	6	16	7	4	6	12	24	17	22	(58)	3
G	PERFORMING QUALITY ASSURANCE EVALUATOR (QAE) OR CONTRACT MONITOR FUNCTIONS	*	*	*	*	*	*	*	*	0	*	*	2	0
H	PERFORMING MAINTENANCE/JOB CONTROL OR SENSOR TECHNICIAN FUNCTIONS	3	2	3	5	1	4	3	6	1	(62)	9	3	0
I	PERFORMING OPERATOR FUNCTIONS	16	*	2	13	5	*	*	1	0	1	1	0	0
J	PERFORMING GENERAL SPACE SYSTEMS EQUIPMENT MAINTENANCE FUNCTIONS	(18)	(7)	(14)	(9)	(20)	(7)	(7)	(19)	0	0	1	0	0
K	PERFORMING INTERMEDIATE LEVEL MAINTENANCE	1	*	*	*	*	*	*	*	0	0	*	0	0
L	MAINT PAVEPAWS SYS (AN/FPS-115)	*	0	0	0	*	0	1	(47)	0	1	0	0	0
M	MAINTAIN SATELLITE GROUND STATION SYSTEMS	*	0	0	0	(61)	0	*	0	0	0	0	0	0
N	MAINT/OPER DIGITAL FACSIMILE SYS	*	0	0	(44)	0	0	0	0	0	0	0	0	0
O	MAINTAIN/OPERATE MKIIA, MKIII, & MKIV SYSTEMS	(43)	*	0	0	*	0	0	0	0	0	1	0	0
P	PERFORM TRANSTERM AND SUPPORT EQUIPMENT MOBILIZATION FUNCTIONS	*	0	0	0	0	0	0	0	0	0	0	0	0
Q	MAINTAIN AN/FPS-85 SYSTEMS	*	0	0	0	0	0	(73)	*	0	0	3	0	0
R	MAINTAIN COMMAND AND CONTROL CENTER (CCC) & COMMAND READOUT STATION (CRS) SYSTEMS	*	(75)	(65)	0	*	0	0	0	0	0	0	0	0
S	MAINTAIN AN/FSS-7 RADAR SYSTEMS	*	0	0	0	0	(79)	0	*	0	0	0	0	0

* Denotes less than .5 percent

TABLE 3

SELECTED BACKGROUND DATA FOR CAREER LADDER CLUSTERS AND INDEPENDENT JOB TYPES

	TRANS-TERM MAINT PERS	CCC MAINT SPECL	CRS MAINT SPECL	DFS MAINT SPECL	SGS MAINT SPECL	FSS-7 MAINT SPECL	FPS-85 MAINT PERS	FPS-115 MAINT SPECL	QLTY CON INSP	JOB CON SPECL	WORK-CENTER NCOICs	HQ STAFF MGRS	INSTRS
NUMBER IN GROUP	78	8	10	10	26	11	39	24	7	21	33	8	14
PERCENT OF TOTAL SAMPLE	23%	2%	3%	3%	8%	3%	11%	7%	2%	6%	10%	2%	4%
PERCENT IN CONUS	24%	100%	100%	100%	77%	100%	100%	100%	100%	91%	85%	100%	100%
DAFSC DISTRIBUTION (PERCENT)													
30930	24%	38%	20%	30%	19%	9%	21%	21%	-	5%	-	-	-
30950	47%	38%	40%	50%	65%	64%	67%	67%	14%	71%	3%	12%	50%
30970	28%	25%	40%	20%	15%	27%	12%	12%	71%	24%	79%	50%	50%
30990	-	-	-	-	-	-	-	-	14%	-	18%	37%	-
AVERAGE GRADE	E-4	E-4	E-5	E-4	E-4	E-4	E-4	E-4	E-7	E-5	E-7	E-7	E-5
AVERAGE MONTHS IN CAREER FIELD	52	46	58	42	50	54	39	52	98	58	112	96	66
AVERAGE MONTHS IN SERVICE	83	65	110	67	78	70	49	63	219	86	215	186	95
PERCENT IN FIRST ENLISTMENT	39%	50%	20%	50%	42%	55%	77%	54%	-	24%	-	-	14%
PERCENT SUPERVISING	36%	50%	60%	50%	42%	45%	38%	46%	43%	38%	94%	37%	-
AVERAGE NUMBER OF TASKS PERFORMED	143	165	267	100	208	214	114	115	66	40	105	48	17
JOB DIFFICULTY INDEX (JDI)													
AVERAGE JDI = 13.00	14.1	15.1	15.2	11.0	18.2	20.4	15.7	13.8	11.7	6.1	13.7	13.0	8.4
MAJCOM DISTRIBUTION (AT TIME OF SURVEY):													
AFCC	95%	-	-	100%	96%	100%	100%	100%	43%	95%	70%	88%	-
SP COMD	-	100%	100%	-	4%	-	-	-	57%	5%	15%	-	-
ATC	5%	-	-	-	-	-	-	-	-	-	15%	-	100%
OTHER	-	-	-	-	-	-	-	-	-	-	-	12%	-

functions (see Table 2/Duty J) indicates there may be a substantial number of pertinent common tasks to support the current classification structure. There are also numerous distinct tasks associated with each specialty job. This distinctiveness should be of special interest to both functional and training management personnel. Allowing or requiring personnel to move between maintenance specialty jobs early in their careers will broaden the experience factor of younger AFSC 309X0 airmen, possibly aiding them in promotion testing and the assumption of mid-level supervisory and management jobs. Training considerations may have some effect on flexibility of the assignment process. An additional management consideration may arise if the FPS-85 and/or FPS-115 systems become contractor maintained. The reduction of CONUS AFSC 309X0 authorizations could possibly effect the rotation of career ladder personnel overseas.

ANALYSIS OF DAFSC GROUPS

An analysis of DAFSC groups, in conjunction with the analysis of the career ladder structure, is an important part of each occupational survey. The DAFSC analysis identifies similarities and differences in task and duty performance at the various skill levels. This information may then be used to evaluate how well career ladder documents, such as AFR 39-1 Specialty Descriptions and the Specialty Training Standard (STS), reflect what career ladder personnel are actually doing in the field.

A comparison of the duty and task performance between AFSCs 30930 and 30950 indicated that, while there are some minor differences, the jobs they perform are essentially the same. Therefore, they will be discussed as a combined group in this report. Survey data, if desired, will also be available for each separate skill level.

The distribution of skill level groups across the specialty jobs is displayed in Table 4, while Table 5 displays the relative time spent on each duty across skill level groups. A generally typical pattern of progression is present, with personnel spending more of their relative time on duties involving supervision, management, inspection, and administration (Duties A, B, C, and F) as they move upward to the 9-skill level. Table 6 presents tasks representative of each skill level group as well as an indication of differences between groups. Specific skill level groups are discussed below.

Skill Level Descriptions

DAFSC 30930/50: The 214 airmen in the 3- and 5-skill level groups (representing 62 percent of the survey sample) perform an average of 114 tasks, with 185 of the 1,689 total survey tasks accounting for 50 percent of their job time. Performing a highly technical job, 70 percent of their relative duty time is spent on maintenance and operation of space systems equipment.

TABLE 4

DISTRIBUTION OF 309X0 DAFSC GROUPS ACROSS MAJOR JOBS
(PERCENT MEMBERS RESPONDING)

MAJOR JOBS	30930/50 (N=214)	30970 (N=121)	30990 (N=11)
I. TRANSTERM MAINTENANCE PERSONNEL (GRP050, N=78)	26	(18)	0
II. COMMAND & CONTROL CENTER (CCC) MAINTENANCE SPECIALISTS (GRP149, N=8)	3	2	0
III. COMMAND READOUT STATION (CRS) MAINTENANCE SPECIALISTS (GRP079, N=10)	3	3	0
IV. DIGITAL FACSIMILE SYSTEM (DFS) MAINTENANCE SPECIALISTS (GRP080, N=10)	4	2	0
V. SATELLITE GROUND STATION (SGS) MAINTENANCE SPECIALISTS (GRP114, N=26)	10	3	0
VI. FSS-7 RADAR SYSTEMS MAINTENANCE PERSONNEL (GRP086, N=11)	4	2	0
VII. FPS-85 SYSTEMS MAINTENANCE PERSONNEL (GRP012, N=39)	16	4	0
VIII. FPS-115 SYSTEMS MAINTENANCE SPECIALISTS (GRP073, N=24	10	2	0
IX. QUALITY CONTROL INSPECTORS (GRP099, N=7)	*	5	9
X. JOB CONTROL SPECIALISTS (GRP068, N=21)	8	4	0
XI. WORKCENTER NCOICs (GRP054, N=33)	*	(22)	(55)
XII. HEADQUARTERS STAFF MANAGERS (GRP062, N=8)	*	3	(27)
XIII. INSTRUCTORS (GRP081, N=14)	3	6	0
NOT GROUPED	12	23	9

* Denotes less than .5 percent

TABLE 5

PERCENT TIME SPENT ON DUTIES BY 309X0 DAFSC GROUPS

DUTIES	30930/50 (N=214)	30970 (N=121)	30990 (N=11)
A ORGANIZING AND PLANNING	2	10	17
B DIRECTING AND IMPLEMENTING	1	3	7
C INSPECTING AND EVALUATING	3	13	24
D TRAINING	6	15	4
E PERFORMING QUALITY CONTROL (QC) FUNCTIONS	1	3	5
F PERFORMING ADMINISTRATIVE AND SUPPORT FUNCTIONS	10	17	36
G PERFORMING QUALITY ASSURANCE EVALUATOR (QAE) OR CONTRACT MONITOR FUNCTIONS	*	1	2
H PERFORMING MAINTENANCE/JOB CONTROL OR SENSOR TECHNICIAN FUNCTIONS	8	8	5
I PERFORMING OPERATOR FUNCTIONS	7	3	*
J PERFORMING GENERAL SPACE SYSTEMS EQUIPMENT MAINTENANCE FUNCTIONS	13	5	0
K PERFORMING INTERMEDIATE LEVEL MAINTENANCE	1	*	0
L MAINTAIN PAVEPAWS SYSTEMS (AN/FPS-115)	5	1	0
M MAINTAIN SATELLITE GROUND STATION SYSTEMS	8	2	0
N MAINTAIN/OPERATE DIGITAL FACSIMILE SYSTEMS	2	1	0
O MAINTAIN/OPERATE MKIIA, MKIII, & MKIV SYSTEMS	13	7	0
P PERFORM TRANSTERM AND SUPPORT EQUIPMENT MOBILIZATION FUNCTIONS	*	*	0
Q MAINTAIN AN/FPS-85 SYSTEMS	13	3	0
R MAINTAIN COMMAND AND CONTROL CENTER (CCC) & COMMAND READOUT STATION (CRS) SYSTEMS	5	3	0
S MAINTAIN AN/FSS-7 RADAR SYSTEMS	3	2	0

* Denotes less than .5 percent

TABLE 6

DIFFERENTIATING TASKS
FOR DAFSC GROUPS
(PERCENT MEMBERS PERFORMING)

TASKS		DAFSC 30930/ 30950 (N=214)	DAFSC 30970 (N=121)	DAFSC 30990 (N=11)
J399	PERFORM PREVENTIVE MAINTENANCE INSPECTIONS (PMI) ON EQUIPMENT CABINETS	65	33	0
J398	PERFORM CORROSION CONTROL	62	30	0
F148	COMPLETE AFTO FORMS 350 (REPARABLE ITEM PROCESSING TAG)	60	46	9
J419	REMOVE OR REPLACE COMPONENTS OF EQUIPMENT CABINETS	59	28	0
J383	ISOLATE EQUIPMENT CABINET MALFUNCTIONS	58	32	0
J370	ADJUST SOLID-STATE POWER SUPPLIES	54	32	0
J408	PERFORM PMIS ON SOLID-STATE POWER SUPPLIES	51	27	0
J425	REMOVE OR REPLACE COMPONENTS OF SOLID-STATE POWER SUPPLIES	51	31	0
J390	ISOLATE SOLID-STATE POWER SUPPLY MALFUNCTIONS	48	30	0
F209	PREPARE DD FORMS 1574 (SERVICEABLE TAG-MATERIEL)	48	41	0
D92	DEMONSTRATE HOW TO LOCATE TECHNICAL INFORMATION	46	59	36
D91	COUNSEL TRAINEES ON TRAINING PROGRESS	31	56	9
C69	PERFORM SELF-INSPECTIONS	18	55	55
D109	MAINTAIN TRAINING RECORDS, CHARTS, OR GRAPHS	29	54	27
C79	SUPERVISE SPACE SYSTEMS EQUIPMENT MAINTENANCE SPECIALISTS (AFSC 30950)	20	54	18
C65	ORIENT NEWLY ASSIGNED PERSONNEL	32	54	36
A16	PARTICIPATE IN MEETINGS, SUCH AS STAFF MEETINGS, BRIEFINGS, OR CONFERENCES	22	68	100
C71	PREPARE APRs	25	57	91
C62	INTERPRET POLICIES, DIRECTIVES, OR PROCEDURES FOR SUBORDINATES	19	44	82
C81	SUPERVISE SPACE SYSTEMS EQUIPMENT MAINTENANCE TECHNICIANS (AFSC 30970)	3	27	73
F142	ASSIST IN DEVELOPMENT OF INITIAL OPERATIONAL TEST AND EVALUATION (IOT&E) PLANS	0	8	73
C54	EVALUATE SUGGESTIONS	5	20	73
B37	DRAFT LOCAL POLICY OR HIGHER HEADQUARTERS DIRECTIVES	2	22	73
A22	PREPARE BRIEFINGS	10	36	73

DAFSC 30970: Seven-skill level personnel representing 35 percent of the survey sample perform a job which is primarily supervisory or administrative in nature. With 60 percent reporting supervisory responsibilities, this group devotes 61 percent of their relative job time to supervision, management, inspecting, training, and administration functions. Group personnel perform an average of 110 tasks. Even though these 121 incumbents are clearly supervisory oriented, many are still involved in technical maintenance activities (see Table 4).

DAFSC 30990: The eleven 9-skill level personnel in the survey responded primarily to nontechnical tasks. Group members spend 84 percent of their relative duty time in activities involving organizing and planning, directing and implementing, inspecting and evaluating, and administration; and an additional 9 percent in training and quality control. They perform an average of 61 tasks, with 52 tasks accounting for 50 percent of their job time.

Summary

Career ladder progression is well defined, with 3-/5-skill level personnel spending the vast majority of their job time performing technical tasks. At the 7-skill level, supervision and administration are the dominant characteristics of the job, while the 9-skill level personnel are the primary managers in the career ladder.

ANALYSIS OF AFR 39-1 SPECIALTY DESCRIPTIONS

Survey data were compared to the AFR 39-1 Specialty Descriptions for Space Systems Equipment Maintenance Specialist, Technician, and Superintendent, all dated 15 September 1982.

The specialty descriptions for the supervisor and superintendent accurately reflect the combined supervisory and technical nature of the 7-skill level job and the staff and managerial nature of the 9-skill level job. The 3-/5-skill level description also appears complete and accurately portrays the range and technical nature of the job.

TRAINING ANALYSIS

Occupational survey data are one of the many sources of information which can be used to assist in the development of a training program relevant to the needs of personnel working in their first assignment within a career ladder. Factors which may be used in evaluating training include the overall description of the job being performed by first-enlistment personnel and their overall distribution across career ladder jobs, percentages of first-job (1-24 months TICF) or first-enlistment (1-48 months TICF) members performing

specific tasks or using certain equipment or procedures, as well as training emphasis and task difficulty ratings (previously explained in the SURVEY METHODOLOGY section). To assist specifically in the evaluation of the Specialty Training Standard (STS) and the Plan of Instruction (POI), technical school personnel from Lowry Technical Training Center, Lowry Air Force Base, Colorado, matched job inventory tasks to appropriate sections and subsections of the STS and POI for Course G3ABR30930. It was this task matching upon which comparison to those documents was based. A complete computer listing displaying the percent members performing tasks, training emphasis ratings for each task, task difficulty ratings for each task, along with STS and POI matchings, has been forwarded to the technical school for their use in further detailed reviews of the training documents. Summaries of the above-mentioned data and information are given below.

First-Enlistment Personnel

The 178 first-enlistment personnel (1-48 months TICF) in the AFSC 309X0 career ladder are performing tasks across all duties and are represented throughout the specialty job structure. The distribution of group members is displayed in Figure 2, reflecting a distribution nearly identical to that of the total sample across specialty jobs. The TRANSTERM, FPS-85, and SGS jobs account for just under 50 percent of the first-enlistment personnel. The highly technical nature of the first-term airmen's job is revealed by the fact that only 7 percent of their job time involves supervisory or managerial task performance, i.e., Duties A, B, and C (see Table 7). Tasks performed by the greatest percentages of first-term personnel are displayed in Table 8.

Training Emphasis

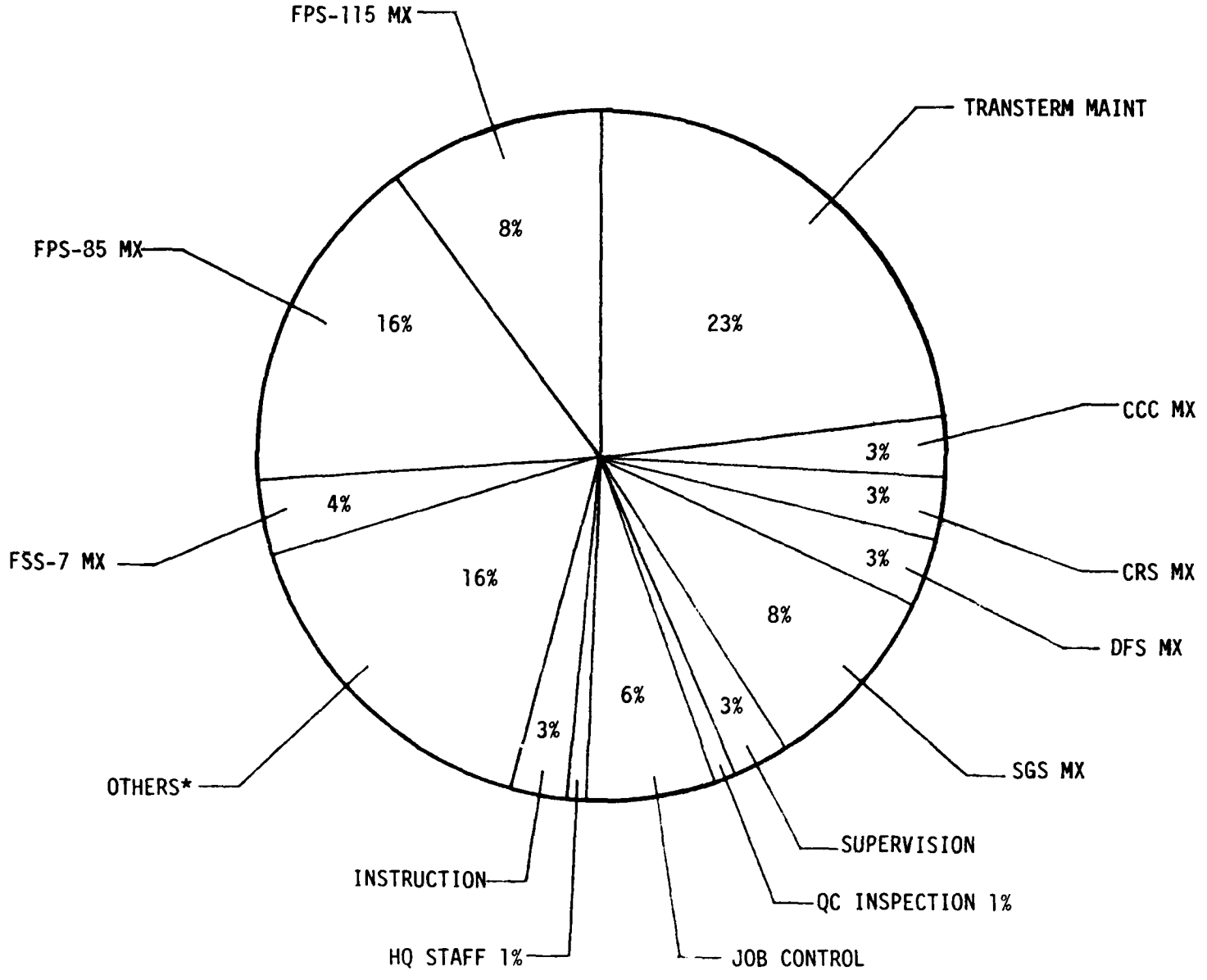
Training emphasis (TE) ratings are helpful in building a rank ordering of the tasks considered important for first-term airmen training based on the collective judgments of senior career ladder NCOs currently working at operational locations in the field (see discussion of TE raters in the SURVEY METHODOLOGY section). Table 9 lists the 20 highest rated tasks for the AFSC 309X0 career ladder. These few tasks are displayed only as examples to illustrate the various types of data (primary--percent members performing; supporting--training emphasis and task difficulty) which can be used to assist in the evaluation of training documents. While the tasks in Table 9 are the highest rated tasks according to TE ratings, there are many additional tasks which are also rated high in training emphasis. These tasks are furnished in descending order on a computer listing contained in the TRAINING EXTRACT package and should be reviewed in detail by training personnel.

Specialty Training Standard (STS)

A comprehensive review of STS 309X0, dated August 1983 (including changes 1 and 2), compared STS items to survey data. STS paragraphs containing general knowledge information or subject matter knowledge requirements were not evaluated. Since proficiency coding policy has been changed in the

FIGURE 2

DISTRIBUTION OF 309X0 FIRST TERM PERSONNEL ACROSS MAJOR JOBS
(1-40 MONTHS TICF)
(N=178)



* Personnel not grouped in any major job

TABLE 7

PERCENT TIME SPENT ON DUTIES
BY FIRST-ENLISTMENT PERSONNEL (1-48 MONTHS TICF)

DUTIES		PERCENT TIME SPENT
A	ORGANIZING AND PLANNING	2
B	DIRECTING AND IMPLEMENTING	1
C	INSPECTING AND EVALUATING	4
D	TRAINING	5
E	PERFORMING QUALITY CONTROL (QC) FUNCTIONS	1
F	PERFORMING ADMINISTRATIVE AND SUPPORT FUNCTIONS	12
G	PERFORMING QUALITY ASSURANCE EVALUATOR (QAE) OR CONTRACT MONITOR FUNCTIONS	*
H	PERFORMING MAINTENANCE/JOB CONTROL OR SENSOR TECHNICIAN FUNCTIONS	7
I	PERFORMING OPERATOR FUNCTIONS	7
J	PERFORMING GENERAL SPACE SYSTEMS EQUIPMENT MAINTENANCE FUNCTIONS	12
K	PERFORMING INTERMEDIATE LEVEL MAINTENANCE	1
L	MAINTAIN PAVEPAWS SYSTEMS (AN/FPS-115)	4
M	MAINTAIN SATELLITE GROUND STATION SYSTEMS	7
N	MAINTAIN/OPERATE DIGITAL FACSIMILE SYSTEMS	2
O	MAINTAIN/OPERATE MKIIA, MKIII, & MKIV SYSTEMS	11
P	PERFORM TRANSTERM AND SUPPORT EQUIPMENT MOBILIZATION FUNCTIONS	*
Q	MAINTAIN AN/FPS-85 SYSTEMS	15
R	MAINTAIN COMMAND AND CONTROL CENTER (CCC) & COMMAND READOUT STATION (CRS) SYSTEMS	5
S	MAINTAIN AN/FSS-7 RADAR SYSTEMS	2

* Denotes less than .5 percent

TABLE 8

REPRESENTATIVE TASKS PERFORMED BY 309X0
FIRST-ENLISTMENT PERSONNEL (1-48 MONTHS TICF)
(N=178)

TASKS		PERCENT PERFORMING
F148	COMPLETE AFTO FORMS 350 (REPARABLE ITEM PROCESSING TAG)	61
J399	PERFORM PREVENTIVE MAINTENANCE INSPECTIONS (PMI) ON EQUIPMENT CABINETS	61
J398	PERFORM CORROSION CONTROL	58
J419	REMOVE OR REPLACE COMPONENTS OF EQUIPMENT CABINETS	56
J383	ISOLATE EQUIPMENT CABINET MALFUNCTIONS	55
J370	ADJUST SOLID-STATE POWER SUPPLIES	50
J408	PERFORM PMIS ON SOLID-STATE POWER SUPPLIES	47
J425	REMOVE OR REPLACE COMPONENTS OF SOLID-STATE POWER SUPPLIES	47
J390	ISOLATE SOLID-STATE POWER SUPPLY MALFUNCTIONS	44
F209	PREPARE DD FORMS 1574 (SERVICEABLE TAG-MATERIEL)	43
D92	DEMONSTRATE HOW TO LOCATE TECHNICAL INFORMATION	42
H284	DETERMINE MAINTENANCE ACTIONS	41
D87	CONDUCT OJT	38
F206	PREPARE AFTO FORMS 22 (TECHNICAL ORDER SYSTEM PUBLICATION IMPROVEMENT REPORT AND REPLY)	37
H285	DETERMINE MAINTENANCE PRIORITIES	35
J372	ADJUST TIME CODE GENERATORS	34
F147	COMPLETE AFTO FORMS 349 OR 349-3 (MAINTENANCE DATA COLLECTION RECORD/AUTOMATED)	34
F203	PREPARE AF FORMS 2005 (ISSUE/TURN IN REQUEST)	34
J382	ISOLATE DIGITAL-TO-ANALOG OR ANALOG-TO-DIGITAL CONVERTER MALFUNCTIONS	34
C63	INVENTORY EQUIPMENT, TOOLS, OR SUPPLIES	33
I359	POSITION ANTENNAS FOR TRACKING	33
F213	PREPARE EQUIPMENT FOR PMEL PROCESSING	32
C65	ORIENT NEWLY ASSIGNED PERSONNEL	32
J373	ADJUST WWV RECEIVERS	32
F226	RESEARCH MICROFICHE FILES	31
J418	REMOVE OR REPLACE COMPONENTS OF DIGITAL-TO-ANALOG OR ANALOG-TO-DIGITAL CONVERTERS	31
F174	ESCORT CIVILIAN REPRESENTATIVES	30
F211	PREPARE DD FORMS 1577-2 (UNSERVICEABLE (REPARABLE) TAG MATERIEL)	30
J365	ADJUST DIGITAL-TO-ANALOG OR ANALOG-TO-DIGITAL CONVERTERS	30
I355	PERFORM SPACECRAFT AUTO TRACKING PROCEDURES	30
D109	MAINTAIN TRAINING RECORDS, CHARTS, OR GRAPHS	29
J385	ISOLATE LNA MALFUNCTIONS	29
F162	DETERMINE CORRECTIVE ACTIONS FOR MAINTENANCE PROBLEMS	29
H296	ISSUE JOB CONTROL NUMBERS	29
J374	ADJUST 1100AR RECEIVERS	29

TABLE 9

TASKS RATED HIGHEST IN TRAINING EMPHASIS

TASKS		PERCENT MEMBERS PERFORMING 1ST JOB (N=78)	1ST ENL (N=178)	TNG EMP*	TASK DIFF**
J396	ISOLATE 1100AR RECEIVER MALFUNCTIONS	22	24	5.81	6.30
J374	ADJUST 1100AR RECEIVERS	28	29	5.37	5.69
J390	ISOLATE SOLID-STATE POWER SUPPLY MALFUNCTIONS	39	44	5.35	5.70
J370	ADJUST SOLID-STATE POWER SUPPLIES	49	50	5.21	4.22
J383	ISOLATE EQUIPMENT CABINET MALFUNCTIONS	58	55	5.09	5.46
0820	ISOLATE M-14L OR M-14G RECORDER/REPRODUCER MALFUNCTIONS	20	23	4.88	5.61
J385	ISOLATE LNA MALFUNCTIONS	19	29	4.84	5.50
0779	ALIGN M-14L OR M-14G RECORDERS/REPRODUCERS	21	23	4.79	5.28
J379	ALIGN 1100AR RECEIVERS	19	23	4.77	6.73
J425	REMOVE OR REPLACE COMPONENTS OF SOLID-STATE POWER SUPPLIES	44	47	4.63	4.51
0804	ISOLATE BLOCK V/D SWEEP CIRCUIT MALFUNCTIONS	18	18	4.61	6.06
J382	ISOLATE DIGITAL-TO-ANALOG OR ANALOG-TO-DIGITAL CONVERTER MALFUNCTIONS	24	34	4.58	6.12
J408	PERFORM PMIS ON SOLID-STATE POWER SUPPLIES	51	47	4.58	3.55
0795	ISOLATE BLOCK V/D FILM PROCESSING/HANDLING UNIT MALFUNCTIONS	22	21	4.54	5.48
0806	ISOLATE BLOCK V/D VIDEO CIRCUIT MALFUNCTIONS	18	18	4.39	6.29
0802	ISOLATE BLOCK V/D SIGNAL PROCESSOR 1C MALFUNCTIONS	18	19	4.37	5.87
0803	ISOLATE BLOCK V/D SIGNAL PROCESSOR 2C MALFUNCTIONS	18	19	4.37	5.73
I359	POSITION ANTENNAS FOR TRACKING	35	33	4.33	3.34
0785	ANALYZE BLOCK V/D TEST PATTERNS	18	17	4.30	5.75
I355	PERFORM SPACECRAFT AUTO TRACKING PROCEDURES	32	30	4.26	4.02

* Mean TE rating is .73 and Standard Deviation is 1.02 (High TE=1.75)
** Task Difficulty rating of 5.00 is average

January 1985 ATC supplement to AFR 8-13, no analysis of the codings in the 1983 STS was made. Training personnel will be expected to rework these codes as a matter of course in the next STS rewrite.

In evaluating how well the survey data supported STS paragraphs or subparagraphs, all applicable paragraphs of the STS were first reviewed to determine if they were supported by total sample of AFSC 309X0 target groups, i.e., first enlistment, 5-skill level, and 7-skill level groups. Those paragraphs not supported by these total sample groups were then reviewed to determine if they were supported by a specific systems maintenance group identified in the SPECIALTY JOBS section of this report.

Because of the diversity of the career ladder, several STS paragraphs did not first appear to be supported by total sample survey data. When reviewing performance data for equipment maintenance jobs, however, retention of all STS elements is supported.

A second area of analysis involved examining tasks not matched to any paragraph in the STS. Again, two documents were reviewed. First, the STS matched with survey data for total sample, first-enlistment, 5-skill level, and 7-skill level groups; then, the STS matched with percent members performing data for the eight systems maintenance jobs. The review of the data for total sample target groups identified 41 tasks where performance was greater than 20 percent. Twenty of these unreferenced tasks involved supervision, management, or training duties, while another 12 tasks pertained to maintenance or job control duties involving coordinating activities common across most maintenance specialties. Data supports the inclusion of supervisory, training, and job control elements to the next revision of the STS.

The analysis of tasks not referenced to the STS across specific space systems equipment jobs included only the technical tasks (Duties I through S). This review identified 135 tasks where percent members performing was greater than 20 percent for at least one equipment group. Only 20 of these 135 tasks had 2 or more equipment groups reflecting 20 percent or greater members performing--another indication of the diversity of the career ladder. Tables 10 through 17 include examples of tasks not referenced for each of the systems maintenance specialty jobs. Training personnel should review the entire list of not referenced tasks across equipment jobs to ensure the next STS revision includes adequate coverage for all specialty maintained equipment.

Plan of Instruction (POI)

Based on previously mentioned assistance from technical school subject-matter specialists in matching inventory tasks to the G3ABR30930-001 POI, dated 3 September 1985, a computer product was generated displaying the results of the matching process. Information furnished for consideration includes percent members performing data for first-job (1-24 months TICF), first-enlistment (1-48 months TICF), and the Satellite Ground Station, TRANSTERM, FPS-115, and FPS-85 specialty jobs, along with training emphasis (TE) and task difficulty (TD) ratings.

TABLE 10

EXAMPLES OF TASKS NOT REFERENCED TO STS
PERFORMED BY SATELLITE GROUND STATION SPECIALISTS (N=26)
(20 PERCENT PERFORMING)

TASKS		PERCENT MEMBERS PERFORMING
J416	PERFORM RADIO FREQUENCY (RF) LINK PERFORMANCE CHECK PROCEDURES	89
J371	ADJUST STRIP CHART RECORDERS	77
M634	PERFORM PMIs ON HP-2114 COMMAND INTERFACE ADAPTERS	77
J401	PERFORM PMIs ON DIGITAL-TO-ANALOG OR ANALOG-TO-DIGITAL CONVERTERS	73
M529	ADJUST HP-478A/491C MICROWAVE AMPLIFIERS	

TABLE 11

EXAMPLES OF TASKS NOT REFERENCED TO STS
PERFORMED BY TRANSTERM MAINTENANCE PERSONNEL (N=78)
(20 PERCENT PERFORMING)

TASKS		PERCENT MEMBERS PERFORMING
0846	PERFORM PMIs ON BLOCK V/D MAINTENANCE TEST KITS	72
0848	PERFORM PMIs ON BLOCK V/D PLANNER ARRAY TEST SETS	68
J401	PERFORM PMIs ON DIGITAL-TO-ANALOG OR ANALOG-TO-DIGITAL CONVERTERS	58
I338	DETERMINE VALID TIME OF SATELLITE IMAGERY	36
K444	INSTALL EQUIPMENT CABLES OR WIRING	28

TABLE 12

EXAMPLES OF TASKS NOT REFERENCED TO STS
PERFORMED BY DIGITAL FACSIMILE SYSTEM SPECIALISTS (N=10)
(20 PERCENT PERFORMING)

TASKS		PERCENT MEMBERS PERFORMING
N720	PERFORM DFS DATA RECEIVER PREOPERATIONAL TESTS	100
N728	PERFORM PMIs ON K06A100 AC POWER CONTROL PANELS	100
N708	ISOLATE AQUA M-6D WATER DISTILLER MALFUNCTIONS	80
I338	DETERMINE VALID TIME OF SATELLITE MALFUNCTIONS	70
K446	INSTALL RECORDER/REPRODUCER SYSTEMS	20

TABLE 13

EXAMPLES OF TASKS NOT REFERENCED TO STS
PERFORMED BY COMMAND READOUT STATION SPECIALISTS (N=10)
(20 PERCENT PERFORMING)

TASKS		PERCENT MEMBERS PERFORMING
R1477	RUN DATA GENERAL COMPUTER DIAGNOSTICS	100
R1354	PERFORM PMIs ON S-BAND DATA SIMULATORS	100
R1400	REMOVE OR REPLACE COMPONENTS OF BORESIGHT TOWER ASSEMBLIES	90
J407	PERFORM PMIs ON RADERME PRESSURIZERS	90
R1154	ADJUST TEKTRONIX 4027 MONITORS	50

TABLE 14

EXAMPLES OF TASKS NOT REFERENCED TO STS
PERFORMED BY COMMAND & CONTROL CENTER SPECIALISTS (N=8)
(20 PERCENT PERFORMING)

TASKS		PERCENT MEMBERS PERFORMING
R1136	ADJUST DATA GENERAL MV-8000 COMPUTERS	100
R1477	RUN DATA GENERAL COMPUTER DIAGNOSTICS	100
R1479	RUN DECOM DIAGNOSTICS	100
J37	ADJUST STRIP CHART RECORDERS	75
R1177	ALIGN DATA GENERAL S-230 COMPUTERS	75

TABLE 15

EXAMPLES OF TASKS NOT REFERENCED TO STS
PERFORMED BY FPS-115 SYSTEMS SPECIALISTS (N=24)
(20 PERCENT PERFORMING)

TASKS		PERCENT MEMBERS PERFORMING
L468	ALIGN AGD FAULT MONITORS	100
L515	RUN AN/FPS-115 RADAR SYSTEM DIAGNOSTIC TESTS	96
L497	PERFORM DMTS WARM START PROCEDURES	96
J371	ADJUST STRIP CHART RECORDERS	75
L501	PERFORM PMIs ON RF DISTRIBUTION AMPLIFIERS	75

TABLE 16

EXAMPLES OF TASKS NOT REFERENCED TO STS
PERFORMED BY FPS-85 SYSTEMS SPECIALISTS (N=39)
(20 PERCENT PERFORMING)

TASKS		PERCENT MEMBERS PERFORMING
Q947	ADJUST MASTER OSCILLATOR AMPLIFIERS	72
Q1063	PERFORM PMIs ON RECEIVER ARRAY DISTRIBUTION GROUPS	67
Q951	ADJUST MODULATOR CONTROL CONSOLES	64
Q950	ADJUST MODULATOR AMPLIFIER GROUPS	56
Q977	ALIGN MAINTENANCE REFERENCE EQUIPMENT	36

TABLE 17

EXAMPLES OF TASKS NOT REFERENCED TO STS
PERFORMED BY FSS-7 RADAR SYSTEMS SPECIALISTS (N=11)
(20 PERCENT PERFORMING)

TASKS		PERCENT MEMBERS PERFORMING
S1644	PERFORM VACUUMING AND COOL DOWN PROCEDURES ON CRYOGENICS SUBSYSTEMS	100
S1494	ADJUST HEAT EXCHANGER SYSTEMS (UNIT 59)	91
S1601	PERFORM PMIs ON BARNSTEAD PURIFIERS	73
S1560	ISOLATE DISPLAY TAPE PERFORMANCE MONITOR (UNIT 15) MALFUNCTIONS	55
J371	ADJUST STRIP CHART RECORDERS	64

Because Course G3ABR30930 consists almost entirely of principles or knowledge instruction, only 36 of the 1,689 inventory tasks could be matched to the POI. In addition, those performance objectives of the POI that had tasks matched to them may not accurately reflect performance training received. This condition exists due to the fact this entry-level course does not own any career ladder systems, subsystems, or simulators. Performance training is dependent on the availability of operational equipment in the vicinity of the training center, with certain limitations on student involvement based on operational priorities. While those tasks matched to the POI are not supported by performance data for total sample first-enlistment respondents, they are supported by data for SGS and TRANSTERM maintenance specialty jobs. Survey data, because they are of a task-performance nature, cannot be used to show support or lack of support of knowledge items in the POI. Data can be used to show a need for performance training--and which tasks are appropriate for resident course training should equipment resources be available. Therefore, training personnel and functional managers should review the entire list of tasks not referenced to the POI, to determine if existing training programs (resident course training or on-the-job training) are adequately meeting the needs of the career ladder.

ELECTRONICS PRINCIPLES INVENTORY (EPI)

An additional source of information for AFSC 309X0 training developers is the EPI. The EPI is a 1,366 item, knowledge-based inventory which identifies the range of electronics principles personnel must understand to perform any electronics-oriented job. The difference between OSR data and EPI data relates to the type of inventory items used and the type of data collected for those items. Occupational survey reports use a performance-based job inventory with specific task statements developed to provide a precise picture of the kinds of functions personnel in a specific AFS actually perform at a specific point in time. The data collected for these task statements include percent members performing, relative time spent, task difficulty, and training emphasis. The Electronics Principles Inventory, on the other hand, uses a knowledge-based inventory with questions developed to provide an objective measurement of electronics knowledge required to perform an electronics-oriented job. Training managers can use EPI data in conjunction with OSR data to determine precisely what specialists do and what electronics principles they employ on the job.

The EPI was administered to 5- and 7-skill level personnel in those specialties for which electronics training is provided at Lowry AFB. A report summarizing the results of this survey was published in April 1984. Copies are available upon request to the USAF Occupational Measurement Center, Attention: Chief, Occupational Analysis Branch (OMY), Randolph AFB, Texas 78150-5000.

The journeyman job (5-skill level) is the most appropriate target for making training decisions. Five-skill level personnel have been on the job a sufficient amount of time to know what electronics principles are used. Also, unlike most 7-skill level personnel, they are still in technical jobs rather than supervisory positions.

In the EPI survey, the 130 5-skill level Space Systems Equipment Maintenance personnel were identified as "very high users" of electronic principles. That is, they responded "yes" to using over 700 of the principles in the inventory, indicating a need for extensive training in electronics principles. In accordance with ATC Regulation 52-22, electronics principles used by at least 50 percent or more of 5-skill level personnel should be considered for inclusion in a basic residence course. Principles used by at least 30 percent, but less than 50 percent, may be considered for inclusion in formal training, although not necessarily in a basic residence course. Table 18 lists examples of items to which 50 percent or more of these AFSC 30950 personnel responded "yes". For a more detailed explanation of subject areas, see the Lowry EPI report mentioned above.

JOB SATISFACTION ANALYSIS

An examination of the job satisfaction indicators of various experience groups will provide some understanding of factors which may affect the job performance of airmen in the AFSC 309X0 career ladder. Job satisfaction data are shown in Table 19, together with those of a comparative sample of mission equipment maintenance career ladders surveyed in 1985, to give a relative measure of how the job satisfaction of AFSC 309X0 personnel compares with that of other similar specialties in the Air Force. In addition, an examination of these indicators by specialty job shows how overall job satisfaction may be influenced by the job performed. Data for specialty jobs are found in Table 20.

Four attitude questions covering job interest, perceived utilization of talents, perceived utilization of training, and reenlistment intentions provide indications of job satisfaction. Note, in Table 19, that the positive responses for AFSC 309X0 personnel are generally lower than those of the comparative sample, the exceptions being job interest and perceived utilization of talents for first and second enlistment groups. Managers should note the data reflecting significantly lower perceived utilization of training and lower reenlistment intent for AFSC 309X0 personnel compared to the comparative sample.

Job satisfaction data, in Table 20, for specialty jobs indicates Job Control Specialists are the least satisfied of any major job identified. In addition, perceived utilization of training is very low for three maintenance jobs--Command and Control Systems, Digital Facsimile Systems, and FSS-7 Radar Specialists--although these jobs account for only 8 percent of the total survey sample. The remaining specialty jobs showed fairly high percentages responding positively to job interest and perceptions of utilization of talents and training.

TABLE 18

EXAMPLES OF EPI REPORT DATA
PRINCIPLES USED BY 30950 PERSONNEL
(50 PERCENT OR MORE RESPONDING)

TITLE	PERCENT USING (N=130)
MATHEMATICS (A1)	
A 1 A1-1 IN YOUR PRESENT JOB, DO YOU USE INSTRUMENTS, SUCH AS METERS OR OSCILLOSCOPES, IN WHICH IT IS NECESSARY TO AMPLIFY OR ATTENUATE VOLTAGE, RESISTANCE, ETC., BY POWERS OF 10	89
DIRECT CURRENT (A2)	
A 12 A2-1 DO YOU USE (PERHAPS IN TECHNICAL ORDERS) THE TERM VOLTAGE OR VOLT (V)?	60
A 14 A2-3 DO YOU USE (PERHAPS IN TECHNICAL ORDERS OR ELSEWHERE) THE TERM OHM?	93
A 17 A2-6 DO YOU USE (PERHAPS IN TECHNICAL ORDERS OR ELSEWHERE) THE TERM AMPERE?	92
A 22 A2-11 DO YOU USE (PERHAPS IN TECHNICAL ORDERS OR ELSEWHERE) THE TERM CURRENT?	94
METERS/MULTIMETERS (B1)	
B 60 B1-1 DO YOU USE METERS OR MULTIMETERS IN YOUR PRESENT JOB TO MEASURE RESISTANCE?	88
B 61 B1-2 DO YOU USE METERS OR MULTIMETERS IN YOUR PRESENT JOB TO MEASURE VOLTAGE?	92
B 62 B1-3 DO YOU USE METERS OR MULTIMETERS IN YOUR PRESENT JOB TO MEASURE CURRENT?	85
B 64 B1-5 DO YOU USE METERS OR MULTIMETERS IN YOUR PRESENT JOB TO MEASURE FREQUENCY?	78
B 65 B1-6 DO YOU USE METERS OR MULTIMETERS IN YOUR PRESENT JOB TO MEASURE TEMPERATURE?	69
ALTERNATING CURRENT (AC) (B2)	
B 72 B2-5 DO YOU USE OR REFER TO THE ALTERNATING CURRENT (AC) TERM FREQUENCY IN YOUR PRESENT JOB?	92

TABLE 18 (CONTINUED)

EXAMPLES OF EPI REPORT DATA
PRINCIPLES USED BY 30950 PERSONNEL
(50 PERCENT OR MORE RESPONDING)

TITLE		PERCENT USING (N=130)
SOLDERING OR SOLDERLESS CONNECTIONS (E2)		
E 263	E2-1 IN YOUR PRESENT JOB, DO YOU CONNECT ELECTRONIC CIRCUITS USING SOLDERLESS CONNECTIONS OR SOLDERING TECHNIQUES? IF NO, GO TO ITEM E3-1; IF YES, CONTINUE.	86
E 264	E2-2 DO YOU SOLDER CONNECTIONS?	88
E 265	E2-3 DO YOU DESOLDER CONNECTIONS?	88
RELAYS (E3)		
E 277	E3-1 DO YOU WORK WITH RELAYS ON YOUR PRESENT JOB? IF NO, GO TO ITEM F1-1; IF YES, CONTINUE.	87
E 281	E3-5 DO YOU TROUBLESHOOT RELAYS?	83
E 283	E3-7 DO YOU REMOVE OR REPLACE RELAYS?	87
POWER SUPPLIES (H2)		
H 467	H2-1 IN YOUR PRESENT JOB, DO YOU WORK WITH POWER SUPPLIES? IF NO, GO TO ITEM H3-1; IF YES, CONTINUE.	87
MOTORS AND GENERATORS (M3)		
M 778	M3-1 IN YOUR PRESENT JOB, DO YOU PERFORM ANY TASKS DEALING WITH ALTERNATING CURRENT OR DIRECT CURRENT MOTORS, GENERATORS (SERVO), OR ALTERNATORS? IF NO, GO TO ITEM N1-1; IF YES, CONTINUE.	65
M 782	M3-5 DO YOU REMOVE OR REPLACE COMPLETE MOTORS?	61
METER MOVEMENTS (N1)		
N 809	N1-1 DO YOU WORK WITH METERS IN YOUR PRESENT JOB? IF NO, GO TO ITEM N2-1; IF YES, CONTINUE.	87
N 813	N1-5 DO YOU READ METER SCALES?	86
N 816	N1-8 DO YOU ZERO OHMMETERS?	83

TABLE 19

COMPARISON OF JOB SATISFACTION INDICATORS BY TAFMS GROUPS
(PERCENT MEMBERS RESPONDING)*

	1-48 MONTHS TAFMS		49-96 MONTHS TAFMS		97+ MONTHS TAFMS	
	309X0 (N=129)	COMPARATIVE SAMPLE** (N=2,321)	309X0 (N=64)	COMPARATIVE SAMPLE (N=1,118)	309X0 (N=153)	COMPARATIVE SAMPLE (N=1,593)
EXPRESSED JOB INTEREST:						
INTERESTING	73	61	67	68	(64)	74
SO-SO	14	22	16	19	20	14
DULL	12	16	16	12	15	11
PERCEIVED UTILIZATION OF TALENTS:						
FAIRLY WELL TO PERFECTLY	81	72	81	78	75	80
LITTLE OR NOT AT ALL	18	28	19	22	24	19
PERCEIVED UTILIZATION OF TRAINING:						
FAIRLY WELL TO PERFECTLY	(67)	84	(67)	82	(70)	80
LITTLE OR NOT AT ALL	32	16	33	18	30	20
REENLISTMENT INTENTIONS:						
YES, OR PROBABLY YES	(50)	57	(50)	73	(56)	74
NO, OR PROBABLY NO	50	40	50	25	20	10
WILL PROBABLY RETIRE	--	--	--	1	22	15

* Columns may not add to 100 percent due to nonresponse or rounding
** Comparative sample of Mission Equipment Maintenance career ladders surveyed in (Includes AFSCs 303X2, 411X1, 423X3, 427X4, and 463X0)

TABLE 20

JOB SATISFACTION INFORMATION FOR CAREER LADDER CLUSTERS AND INDEPENDENT JOB TYPES (PERCENT MEMBERS RESPONDING)

	TRANS-TERM MAINT PERS (N=78)	CCC MAINT SPECL (N=8)	CRS MAINT SPECL (N=10)	DFS MAINT SPECL (N=26)	SGS MAINT SPECL (N=26)	FSS-7 MAINT SPECL (N=11)	FPS-85 MAINT PERS (N=39)	FPS-115 MAINT SPECL (N=24)	QLTY CON INSP (N=7)	JOB CON SPECL (N=21)	WORK-CENTER NCOICs (N=33)	HQ STAFF MGRS (N=8)	INSTRS (N=14)
HOW DO FIND YOUR JOB:													
INTERESTING	71	88	80	60	81	64	62	62	71	(43)	73	63	86
SO-SO	15	13	20	10	15	27	26	21	--	14	18	37	7
DULL	13	--	--	30	4	9	12	17	29	43	3	--	--
HOW WELL DOES YOUR JOB UTILIZE YOUR TALENTS:													
FAIRLY WELL TO PERFECTLY	82	100	100	60	89	64	77	79	100	(57)	100	88	86
VERY LITTLE OR NOT AT ALL	17	--	--	30	11	36	23	21	--	43	--	12	14
HOW WELL DOES YOUR JOB UTILIZE YOUR TRAINING:													
FAIRLY WELL TO PERFECTLY	76	(38)	90	(30)	92	(36)	64	67	71	(38)	85	63	93
VERY LITTLE OR NOT AT ALL	23	63	10	60	8	64	36	33	29	62	15	37	7
DO YOU PLAN TO REENLIST													
YES, OR PROBABLY YES	62	(38)	80	70	46	(28)	41	46	(14)	48	52	62	86
NO, OR PROBABLY NO	35	63	10	30	46	72	54	54	57	52	6	25	14
NO, WILL PROBABLY RETIRE	4	--	10	--	8	--	5	--	29	--	42	13	--

* Columns may not add to 100 percent due to no response or rounding

ANALYSIS OF CONUS VERSUS OVERSEAS GROUPS

Comparisons were made of the tasks performed and background data for the 116 DAFSC 30950 personnel assigned to CONUS bases versus the 38 DAFSC airmen in the sample assigned to overseas locations. The scope of the job performed by overseas personnel is slightly larger (an average of 138 tasks performed versus 122 for CONUS airmen). Variations in tasks performed relate to the mission and deployment condition of the systems being maintained. Comparison of general background data reveals little difference in characteristics for the two groups. Job satisfaction indicators of job interest and perceived utilization of talents and training were also very similar.

IMPLICATIONS

This survey was requested by training personnel to obtain task data for use in evaluation of current training programs. Review of the Specialty Training Standard (STS) indicated that, while total survey sample target groups did not provide strong support (20 percent members performing) for the STS, performance data for the specialty jobs indeed supported the STS. In fact, an evaluation of the tasks not referenced to the STS and performed by over 20 percent of the various specialty job members should be made for possible inclusion in the next revision to the STS.

The analysis of the POI of the ABR course revealed the course to be almost exclusively principles or knowledge oriented. The limited performance training given results from the lack of training equipment and the limited availability of operational equipment for student training, although many tasks are performed by sufficient percentages of first-term airmen to justify a more performance-oriented course. These findings correlate with those of the December 1985 Lowry Technical Training Center Training Evaluation Report for the ABR course, in which both graduates and supervisors of graduates indicated a need for more hands-on training on equipment.

APPENDIX A

SELECTED TASKS AND BACKGROUND INFORMATION FOR SPECIALTY JOBS

TABLE A1

GROUP ID NUMBER AND TITLE: TRANSTERM MAINTENANCE PERSONNEL (GRP050)
GROUP SIZE: 78 PERCENT OF SAMPLE: 23%
LOCATION: CONUS (24%), OVERSEAS (76%) AVERAGE GRADE: E-4
DAFSC DISTRIBUTION: 30930 (24%), 30950 (47%), 30970 (28%)
AVERAGE NUMBER OF TASKS PERFORMED: 143 JOB DIFFICULTY INDEX: 14.1
AVERAGE TIME IN CAREER FIELD: 52 MONTHS
AVERAGE TIME IN SERVICE: 83 MONTHS PERCENT SUPERVISING: 36%
PERCENT MEMBERS IN FIRST ENLISTMENT: 39%

THE FOLLOWING ARE IN DESCENDING ORDER BY PERCENT MEMBERS PERFORMING:

GROUP	DIFFERENTIATING TASKS	PERCENT MEMBERS PERFORMING
0889	REMOVE OR REPLACE COMPONENTS OF BLOCK V/D FILM PROCESSING/ HANDLING UNITS	96
0795	ISOLATE BLOCK V/D FILM PROCESSING/HANDLING UNIT MALFUNCTIONS	95
I336	DEGAUSS AND LOAD TAPE ON RECORDERS FOR SATELLITE PASSES	94
0779	ALIGN M-14L OR M-14C RECORDERS/REPRODUCERS	92
I359	POSITION ANTENNAS FOR TRACKING	91
J417	PREPARE CHEMICALS FOR PHOTOGRAPHIC DEVELOPMENT	91
I357	PERFORM TAPE PLAYBACK PROCEDURES	91
0820	ISOLATE M-14L OR M-14G RECORDER/REPRODUCER MALFUNCTIONS	90
0905	REMOVE OR REPLACE COMPONENTS OF M-14L OR M-14G RECORDERS/ REPRODUCERS	90
0802	ISOLATE BLOCK V/D SIGNAL PROCESSOR 1C MALFUNCTIONS	90
0803	ISOLATE BLOCK V/D SIGNAL PROCESSOR 2C MALFUNCTIONS	90
0806	ISOLATE BLOCK V/D VIDEO CIRCUIT MALFUNCTIONS	87
0804	ISOLATE BLOCK V/D SWEEP CIRCUIT MALFUNCTIONS	87
0801	ISOLATE BLOCK V/D SCAN TRACE GENERATOR MALFUNCTIONS	87
0893	REMOVE OR REPLACE COMPONENTS OF BLOCK V/D SIGNAL PROCESSORS 2C	87
0892	REMOVE OR REPLACE COMPONENTS OF BLOCK V/D SIGNAL PROCESSORS 1C	87
I362	TRACK HIGH MAXIMUM ELEVATION RUNS	86
0797	ISOLATE BLOCK V/D HIGH VOLTAGE (HV) POWER SUPPLY MALFUNCTIONS	86
I334	COMPUTE LOOK ANGLES, TIMES, AND LONGITUDES	83
J398	PERFORM CORROSION CONTROL	83
0890	REMOVE OR REPLACE COMPONENTS OF BLOCK V/D HV POWER SUPPLIES	83
0891	REMOVE OR REPLACE COMPONENTS OF BLOCK V/D SCAN TRACE GENERATORS	83
0785	ANALYZE BLOCK V/D TEST PATTERNS	82
0842	PERFORM PMIS ON BLOCK V/D FILM PROCESSING/HANDLING UNITS	82

TABLE A2

GROUP ID NUMBER AND TITLE: TRANSTERM TECHNICIANS (GRP088)
GROUP SIZE: 48 PERCENT OF CLUSTER: 62%
LOCATION: CONUS (8%), OVERSEAS (92%) AVERAGE GRADE: E-4
DAFSC DISTRIBUTION: 30930 (23%), 30950 (52%), 30970 (25%)
AVERAGE NUMBER OF TASKS PERFORMED: 136 JOB DIFFICULTY INDEX: 14.2
AVERAGE TIME IN CAREER FIELD: 54 MONTHS
AVERAGE TIME IN SERVICE: 83 MONTHS PERCENT SUPERVISING: 40%
PERCENT MEMBERS IN FIRST ENLISTMENT: 38%

THE FOLLOWING ARE IN DESCENDING ORDER BY PERCENT MEMBERS PERFORMING:

GROUP	DIFFERENTIATING TASKS	PERCENT MEMBERS PERFORMING
0795	ISOLATE BLOCK V/D FILM PROCESSING/HANDLING UNIT MALFUNCTIONS	100
0889	REMOVE OR REPLACE COMPONENTS OF BLOCK V/D FILM PROCESSING/ HANDLING UNITS	100
0892	REMOVE OR REPLACE COMPONENTS OF BLOCK V/D SIGNAL PROCESSORS 1C	100
0779	ALIGN M-14L OR M14-G RECORDERS/REPRODUCERS	98
0852	PERFORM PMIS ON BLOCK V/D SWEEP CIRCUITS	98
0850	PERFORM PMIS ON BLOCK V/D SIGNAL PROCESSORS 2C	98
0851	PERFORM PMIS ON BLOCK V/D SIGNAL PROCESSORS 1C	98
0802	ISOLATE BLOCK V/D SIGNAL PROCESSOR 1C MALFUNCTIONS	98
0803	ISOLATE BLOCK V/D SIGNAL PROCESSOR 2C MALFUNCTIONS	98
0893	REMOVE OR REPLACE COMPONENTS OF BLOCK V/D SIGNAL PROCESSORS 2C	98
0842	PERFORM PMIS ON BLOCK V/D FILM PROCESSING/HANDLING UNITS	96
0806	ISOLATE BLOCK V/D VIDEO CIRCUIT MALFUNCTIONS	96
0869	PERFORM PMIS ON M-14L OR M-14G RECORDERS/REPRODUCERS	96
0854	PERFORM PMIS ON BLOCK V/D VIDEO CIRCUITS	96
0804	ISOLATE BLOCK V/D SWEEP CIRCUIT MALFUNCTIONS	96
0853	PERFORM PMIS ON BLOCK V/D TEST PATTERN GENERATORS	96
0843	PERFORM PMIS ON BLOCK V/D FOCUS CIRCUITS	96
0905	REMOVE OR REPLACE COMPONENTS OF M-14L OR M-14G RECORDERS/ REPRODUCERS	96
0849	PERFORM PMIS ON BLOCK V/D SCAN TRACE GENERATORS	96
0801	ISOLATE BLOCK V/D SCAN TRACE GENERATOR MALFUNCTIONS	96
0820	ISOLATE M-14L OR M-14G RECORDER/REPRODUCER MALFUNCTIONS	94
0847	PERFORM PMIS ON BLOCK V/D OPTICAL EQUIPMENT	94
0797	ISOLATE BLOCK V/D HIGH VOLTAGE (HV) POWER SUPPLY MALFUNCTIONS	94
0846	PERFORM PMIS ON BLOCK V/D MAINTENANCE TEST KITS	94
0891	REMOVE OR REPLACE COMPONENTS OF BLOCK V/D SCAN TRACE GENERATORS	94

TABLE A3

GROUP ID NUMBER AND TITLE: TRANSTERM DEPOT MAINTENANCE SPECIALISTS (GRP129)
GROUP SIZE: 12 PERCENT OF CLUSTER: 13%
LOCATION: CONUS (100%) AVERAGE GRADE: E-5
DAFSC DISTRIBUTION: 30950 (58%), 30970 (42%)
AVERAGE NUMBER OF TASKS PERFORMED: 216 JOB DIFFICULTY INDEX: 18.0
AVERAGE TIME IN CAREER FIELD: 52 MONTHS
AVERAGE TIME IN SERVICE: 89 MONTHS PERCENT SUPERVISING: 25%
PERCENT MEMBERS IN FIRST ENLISTMENT: 33%

THE FOLLOWING ARE IN DESCENDING ORDER BY PERCENT MEMBERS PERFORMING:

GROUP	DIFFERENTIATING TASKS	PERCENT MEMBERS PERFORMING
J390	ISOLATE SOLID-STATE POWER SUPPLY MALFUNCTIONS	100
J379	ALIGN 1100AR RECEIVERS	100
J425	REMOVE OR REPLACE COMPONENTS OF SOLID-STATE POWER SUPPLIES	100
0779	ALIGN M-14L OR M14-G RECORDERS/REPRODUCERS	100
J374	ADJUST 1100AR RECEIVERS	100
0820	ISOLATE M-14L OR M-14G RECORDER/REPRODUCER MALFUNCTIONS	100
J419	REMOVE OR REPLACE COMPONENTS OF EQUIPMENT CABINETS	100
0759	ADJUST M-14L RECORDERS/REPRODUCERS	100
J431	REMOVE OR REPLACE COMPONENTS OF 1100AR RECEIVERS	100
I357	PERFORM TAPE PLAYBACK PROCEDURES	100
F202	PREPARE AF FORMS 1530 (PUNCH CARD TRANSCRIPT)	100
J381	FABRICATE INTERCONNECT CABLE ASSEMBLIES	100
0747	ADJUST ANTENNA DIGITAL POSITIONERS	100
0751	ADJUST ANTENNA TRACKING SYSTEMS	100
0748	ADJUST ANTENNA DRIVE SUBASSEMBLIES	100
F206	PREPARE AFTO FORMS 22 (TECHNICAL ORDER SYSTEM PUBLICATION IMPROVEMENT REPORT AND REPLY)	100
0746	ADJUST ANTENNA CONTROL UNITS	100
0750	ADJUST ANTENNA J BOXES	100
J372	ADJUST TIME CODE GENERATORS	100
J373	ADJUST WWV RECEIVERS	100
0753	ADJUST DISPLAY INTERFACES	100
J383	ISOLATE EQUIPMENT CABINET MALFUNCTIONS	92
J396	ISOLATE 1100AR RECEIVER MALVUNCTIONS	92
0905	REMOVE OR REPLACE COMPONENTS OF M-14L OR M-14G RECORDERS/REPRODUCERS	92
0795	ISOLATE BLOCK V/D FILM PROCESSING/HANDLING UNIT MALFUNCTIONS	92
I359	POSITION ANTENNAS FOR TRACKING	92
0802	ISOLATE BLOCK V/D SIGNAL PROCESSOR 1C MALFUNCTIONS	92
0803	ISOLATE BLOCK V/D SIGNAL PROCESSOR 2C MALFUNCTIONS	98
0756	ADJUST HARD COPY DISPLAYS	92

TABLE A4

GROUP ID NUMBER AND TITLE: COMMAND AND CONTROL CENTER (CCC) MAINTENANCE SPECIALISTS (GRP143)
GROUP SIZE: 8 PERCENT OF SAMPLE: 2%
LOCATION: CONUS (100%) AVERAGE GRADE: E-4
DAFSC DISTRIBUTION: 30930 (38%), 30950 (38%), 30970 (25%)
AVERAGE NUMBER OF TASKS PERFORMED: 165 JOB DIFFICULTY INDEX: 15.1
AVERAGE TIME IN CAREER FIELD: 46 MONTHS
AVERAGE TIME IN SERVICE: 65 MONTHS PERCENT SUPERVISING: 50%
PERCENT MEMBERS IN FIRST ENLISTMENT: 50%

THE FOLLOWING ARE IN DESCENDING ORDER BY PERCENT MEMBERS PERFORMING:

GROUP	DIFFERENTIATING TASKS	PERCENT MEMBERS PERFORMING
R1478	RUN DATA GENERAL PERIPHERAL DIAGNOSTICS	100
R1199	ALIGN ZEBRA DISC DRIVE ASSEMBLIES	100
R1228	ISOLATE DATA GENERAL MV-8000 COMPUTER MALFUNCTIONS	100
R1479	RUN DECOM DIAGNOSTICS	100
R1477	RUN DATA GENERAL COMPUTER DIAGNOSTICS	100
R1469	REMOVE OR REPLACE COMPONENTS OF ZEBRA DISC DRIVE ASSEMBLIES	100
R1285	ISOLATE ZEBRA DISC DRIVE ASSEMBLY MALFUNCTIONS	100
R1269	ISOLATE TEKTRONIX 4027 MONITOR MALFUNCTIONS	100
R1378	PERFORM PMIS ON ZEBRA DISC DRIVE ASSEMBLIES	100
R1454	REMOVE OR REPLACE COMPONENTS OF TEKTRONIX 4027 MONITORS	100
R1136	ADJUST DATA GENERAL MV-8000 COMPUTERS	100
R1154	ADJUST TEKTRONIX 4027 MONITORS	100
R1194	ALIGN TEKTRONIX 4027 MONITORS	100
R1174	ALIGN DATA GENERAL MAGNETIC TAPE UNITS	100
R1471	REMOVE OR REPLACE COMPONENTS OF 2260 LINE PRINTERS	100
R1362	PERFORM PMIS ON TEKTRONIX 4027 MONITORS	100
R1230	ISOLATE DATA GENERAL S-230 COMPUTER MALFUNCTIONS	100
R1135	ADJUST DATA GENERAL MAGNETIC TAPE UNITS	100
R1170	ALIGN AXIOM EX 1650 HARD COPY UNITS	100
R1226	ISOLATE DATA GENERAL MAGNETIC TAPE UNIT MALFUNCTIONS	100
R1303	PERFORM PMIS ON AXIOM EM 1650 HARD COPY UNITS	100
R1232	ISOLATE DATA GENERAL 4307 HIGH DENSITY MAGNETIC TAPE UNIT MALFUNCTIONS	100
R1129	ADJUST AXIOM EX 1650 HARD COPY UNITS	100
R1284	ISOLATE ZEBRA ADAPTER UNIT MALFUNCTIONS	100
R1138	ADJUST DATA GENERAL S-230 COMPUTERS	100
R1398	REMOVE OR REPLACE COMPONENTS OF AXIOM EX 1650 HARD COPY UNITS	100
R1213	ISOLATE AXIOM EX 1650 HARD COPY UNIT MALFUNCTIONS	100
R1140	ADJUST DATA GENERAL 4307 HIGH DENSITY MAGNETIC TAPE UNITS	100
J419	REMOVE OR REPLACE COMPONENTS OF EQUIPMENT CABINETS	100

TABLE A5

GROUP ID NUMBER AND TITLE: COMMAND READOUT STATION (CRS) MAINTENANCE SPECIALISTS (GRP079)
GROUP SIZE: 10 PERCENT OF SAMPLE: 3%
LOCATION: CONUS (100%) AVERAGE GRADE: E-5
DAFSC DISTRIBUTION: 30930 (20%), 30950 (40%), 30970 (40%)
AVERAGE NUMBER OF TASKS PERFORMED: 267 JOB DIFFICULTY INDEX: 15.2
AVERAGE TIME IN CAREER FIELD: 58 MONTHS
AVERAGE TIME IN SERVICE: 110 MONTHS PERCENT SUPERVISING: 60%
PERCENT MEMBERS IN FIRST ENLISTMENT: 20%

THE FOLLOWING ARE IN DESCENDING ORDER BY PERCENT MEMBERS PERFORMING:

GROUP	DIFFERENTIATING TASKS	PERCENT MEMBERS PERFORMING
R1161	ADJUST VR-3700B RECORDERS/REPRODUCERS	100
R1466	REMOVE OR REPLACE COMPONENTS OF VR-3700B RECORDERS/ REPRODUCERS	100
R1198	ALIGN VR-3700B RECORDERS/REPRODUCERS	100
R1374	PERFORM PMIS ON VR-3700B RECORDERS/REPRODUCERS	100
R1282	ISOLATE VR-3700B RECORDER/REPRODUCER MALFUNCTIONS	100
J399	PERFORM PREVENTIVE MAINTENANCE INSPECTIONS (PMI) ON EQUIPMENT CABINETS	100
R1477	RUN DATA GENERAL COMPUTER DIAGNOSTICS	100
R1478	RUN DATA GENERAL PERIPHERAL DIAGNOSTICS	100
R1380	PERFORM PMIS ON 2260 LINE PRINTERS	100
R1298	PERFORM PMIS ON ANTENNA PEDESTAL ASSEMBLIES	100
J398	PERFORM CORROSION CONTROL	100
R1347	PERFORM PMIS ON NOVA 800 CPUS	100
R1440	REMOVE OR REPLACE COMPONENTS OF NOVA 800 CPUS	100
R1328	PERFORM PMIS ON DEMODULATOR BIT SYNCHRONIZERS	100
R1301	PERFORM PMIS ON ANTENNA TRACKING SYSTEMS	100
R1300	PERFORM PMIS ON ANTENNA SERVO ELECTRONICS DRAWERS	100
J419	REMOVE OR REPLACE COMPONENTS OF EQUIPMENT CABINETS	100
R1354	PERFORM PMIS ON 5-BAND DATA SIMULATORS	100
R1299	PERFORM PMIS ON ANTENNA SERVO CONTROLS	100
R1143	ADJUST DEMODULATOR/BIT SYNCHRONIZERS	100
R1297	PERFORM PMIS ON ANTENNA INTERFACE UNITS	100
R1350	PERFORM PMIS ON PHOENIX DISC DRIVES	100
R1315	PERFORM PMIS ON CRS MODULATORS/EXCITERS	100
J410	PERFORM PMIS ON TAPE CLEANERS	100
R1295	PERFORM PMIS ON ANALOG PATCH PANELS	100
R1382	PERFORM PMIS ON 410/410A RECEIVERS	100
R1316	PERFORM PMIS ON CRS UPLINK COMMAND CONTROL UNITS	100
J411	PERFORM PMIS ON TAPE DEGAUSSERS	100
R1294	PERFORM PMIS ON ANALOG DISPLAY UNITS	100

TABLE A6

GROUP ID NUMBER AND TITLE: DIGITAL FACSIMILE SYSTEM (DFS) MAINTENANCE SPECIALISTS (GRP080)
GROUP SIZE: 10 PERCENT OF SAMPLE: 3%
LOCATION: CONUS (100%) AVERAGE GRADE: E-4
DAFSC DISTRIBUTION: 30930 (30%), 30950 (50%), 30970 (20%)
AVERAGE NUMBER OF TASKS PERFORMED: 100 JOB DIFFICULTY INDEX: 11.1
AVERAGE TIME IN CAREER FIELD: 42 MONTHS
AVERAGE TIME IN SERVICE: 67 MONTHS PERCENT SUPERVISING: 50%
PERCENT MEMBERS IN FIRST ENLISTMENT: 50%

THE FOLLOWING ARE IN DESCENDING ORDER BY PERCENT MEMBERS PERFORMING:

GROUP	DIFFERENTIATING TASKS	PERCENT MEMBERS PERFORMING
N720	PERFORM DFS DATA RECEIVER PREOPERATIONAL TESTS	100
N719	PERFORM DFS DATA RECEIVER POSTOPERATING PROCEDURES	100
N745	REMOVE OR REPLACE COMPONENTS OF K06A500 PROCEDURES	100
N718	ISOLATE K06A500 PROCESSOR MALFUNCTIONS	100
N732	PERFORM PMIS ON K06A500 PROCESSORS	100
N744	REMOVE OR REPLACE COMPONENTS OF K06A400 TRANSPORT ASSEMBLIES	100
N731	PERFORM PMIS ON K06A400 TRANSPORT ASSEMBLIES	100
N701	ADJUST K06A500 PROCESSORS	100
N700	ADJUST K06A400 TRANSPORT ASSEMBLIES	100
N717	ISOLATE K06A400 TRANSPORT ASSEMBLY MALFUNCTIONS	100
N695	ADJUST APEX PR 500 RECORDERS/REPRODUCERS	100
N706	ALIGN K06A500 PROCESSORS	100
N713	ISOLATE K02A300 DATA DECODER/FORMATTER MALFUNCTIONS	100
N702	ALIGN APEX PR 500 RECORDERS/REPRODUCERS	100
N709	ISOLATE K01A100 COMMUNICATION CONTROL MALFUNCTIONS	100
N723	PERFORM PMIS ON K01A100 COMMUNICATION CONTROLS	100
N726	PERFORM PMIS ON K02A200 DC UNITS	100
N728	PERFORM PMIS ON K06A100 AC POWER CONTROL PANELS	100
N740	REMOVE OR REPLACE COMPONENTS OF K02A300 DATA DECODERS/FORMATTERS	100
N698	ADJUST K06A200 DISPLAY CONTROLS	100
N727	PERFORM PMIS ON K02A300 DATA DECODERS/FORMATTERS	100
N738	REMOVE OR REPLACE COMPONENTS OF K01A300 COMMUNICATION SELECTION BUFFERS	100
N742	REMOVE OR REPLACE COMPONENTS OF K06A200 DISPLAY CONTROLS	100
N739	REMOVE OR REPLACE COMPONENTS OF K02A200 DC UNITS	100
N741	REMOVE OR REPLACE COMPONENTS OF K06A100 AC POWER CONTROL PANELS	100
N736	REMOVE OR REPLACE COMPONENTS OF K01A100 COMMUNICATIONS CONTROLS	100

TABLE A7

GROUP ID NUMBER AND TITLE: SATELLITE GROUND STATION MAINTENANCE PERSONNEL (GRP114)

GROUP SIZE: 14 PERCENT OF SAMPLE: 8%
LOCATION: CONUS (77%), OVERSEAS (23%) AVERAGE GRADE: E-4
DAFSC DISTRIBUTION: 30930 (19%), 30950 (65%), 30970 (15%)
AVERAGE NUMBER OF TASKS PERFORMED: 208 JOB DIFFICULTY INDEX: 18.2
AVERAGE TIME IN CAREER FIELD: 50 MONTHS
AVERAGE TIME IN SERVICE: 78 MONTHS PERCENT SUPERVISING: 42%
PERCENT MEMBERS IN FIRST ENLISTMENT: 42%

THE FOLLOWING ARE IN DESCENDING ORDER BY PERCENT MEMBERS PERFORMING:

GROUP	DIFFERENTIATING TASKS	PERCENT MEMBERS PERFORMING
J399	PERFORM PREVENTIVE MAINTENANCE INSPECTIONS (PMI) ON EQUIPMENT CABINETS	100
J410	PERFORM PMIS ON TAPE CLEANERS	100
M624	PERFORM OFF-LINE OR ON-LINE TELEMETRY TESTS	100
M353	ADJUST GROUND RECEIVER AND ANALOG RANGING EQUIPMENT (GRARE) ANGLE TRACKING RECEIVERS	100
M632	PERFORM PMIS ON GRARE RANGING RECEIVERS	100
M631	PERFORM PMIS ON GRARE ANGLE TRACKING RECEIVERS	100
M633	PERFORM PMIS ON GRARE REFERENCE RECEIVERS	100
M524	ADJUST GRARE RANGING RECEIVERS	100
M525	ADJUST GRARE REFERENCE RECEIVERS	100
J404	PERFORM PMIS ON PCM BIT SYNCHRONIZERS	100
J427	REMOVE OR REPLACE COMPONENTS OF TAPE CLEANERS	100
M655	PERFORM PMIS ON SRS CONSOLES	96
M638	PERFORM PMIS ON LINK DEMODULATORS	96
J394	ISOLATE TIME CODE GENERATOR MALFUNCTIONS	96
J372	ADJUST TIME CODE GENERATORS	96
J370	ADJUST SOLID-STATE POWER SUPPLIES	96
M549	ADJUST TEST TRANSPONDER TRANSMITTERS	96
M548	ADJUST TEST TRANSPONDER RECEIVERS	96
M614	ISOLATE SRS CONSOLE MALFUNCTIONS	96
J392	ISOLATE TAPE CLEANER MALFUNCTIONS	96
M522	ADJUST FR-3010 RECORDERS/REPRODUCERS	92
M590	ISOLATE FR-3010 RECORDER/REPRODUCER MALFUNCTIONS	92
M630	PERFORM PMIS ON FR-3010 RECORDERS/REPRODUCERS	92
M558	ALIGN FR-3010 RECORDERS/REPRODUCERS	92
J383	ISOLATE EQUIPMENT CABINET MALFUNCTIONS	92
J408	PERFORM PMIS ON SOLID-STATE POWER SUPPLIES	92
J419	REMOVE OR REPLACE COMPONENTS OF EQUIPMENT CABINETS	92
M657	PERFORM PMIS ON TEST TRANSPONDER TRANSMITTERS	92
M627	PERFORM PMIS ON COMMAND SYSTEM UPLINK POWER AMPLIFIERS	92

TABLE A8

GROUP ID NUMBER AND TITLE: FSS-7 RADAR SYSTEMS MAINTENANCE SPECIALISTS (GRP086)
GROUP SIZE: 11 PERCENT OF SAMPLE: 3%
LOCATION: CONUS (100%) AVERAGE GRADE: E-4
DAFSC DISTRIBUTION: 30930 (9%), 30950 (64%), 30970 (27%)
AVERAGE NUMBER OF TASKS PERFORMED: 214 JOB DIFFICULTY INDEX: 20.4
AVERAGE TIME IN CAREER FIELD: 54 MONTHS
AVERAGE TIME IN SERVICE: 70 MONTHS PERCENT SUPERVISING: 45%
PERCENT MEMBERS IN FIRST ENLISTMENT: 55%

THE FOLLOWING ARE IN DESCENDING ORDER BY PERCENT MEMBERS PERFORMING:

GROUP	DIFFERENTIATING TASKS	PERCENT MEMBERS PERFORMING
S1545	ANALYZE AND RUN ON-LINE SIMULATIONS	100
S1532	ALIGN SEARCH RECEIVERS (UNIT 46A6)	100
S1596	PERFORM PMIS ON ANTENNA HYDRAULIC SYSTEMS (UNITS 46 AND 47)	100
S1480	ADJUST ANALOG RECEIVERS (UNIT 6)	100
S1525	ALIGN LOG AND LOG ANVIL AMPLIFIERS (UNITS 6A1, 6A2, AND 6A3)	100
S1505	ADJUST SEARCH RECEIVERS (UNIT 46A6)	100
S1516	ALIGN ANALOG RECEIVERS (UNIT 4)	100
S1508	ADJUST TRACK RECEIVERS (UNIT 13A2)	100
S1543	ANALYZE AND RUN DIAGNOSTIC MONITOR TEST SYSTEM (DMIS) DIAGNOSTICS	100
S1613	PERFORM PMIS ON HYDRAULIC SYSTEMS (UNITS 46 AND 47)	100
S1619	PERFORM PMIS ON LOG AND LOG ANVIL AMPLIFIERS (UNITS 6A1, 6A2, AND 6A3)	100
S1546	ANALYZE AND RUN VIDEO PROCESSOR DIAGNOSTICS	100
S1589	ISOLATE VIDEO PROCESSOR (UNIT 6A5) MALFUNCTIONS	100
S1503	ADJUST POWER AMPLIFIERS (UNIT 36)	100
S1644	PERFORM VACUUMING AND COOL DOWN PROCEDURES ON CRYOGENICS SUBSYSTEMS	100
S1482	ADJUST ANGLE TRACKING (UNIT 13A) AND SUBDISHES (UNIT 46)	100
S1594	PERFORM PMIS ON ANGLE TRACKERS (UNIT 13A2) AND SUBDISHES (UNIT 46)	100
S1547	ISOLATE ANALOG RECEIVER (UNIT 6) MALFUNCTIONS	100
S1512	ADJUST VIDEO PROCESSORS (UNIT 6A5)	100
S1655	REMOVE OR REPLACE COMPONENTS OF CRYOGENICS SUBSYSTEMS (UNIT 46)	100
S1645	REMOVE OR REPLACE COMPONENTS OF ANALOG RECEIVERS (UNIT 6)	100
S1489	ADJUST BEAM SPLITTERS (UNIT 6A4)	100
S1511	ADJUST TWT DRIVERS (UNIT 35)	100
S1486	ADJUST ANTENNA SERVO LOOPS	100

TABLE A9

GROUP ID NUMBER AND TITLE: FPS-85 SYSTEMS MAINTENANCE PERSONNEL (GRP012)
GROUP SIZE: 39 PERCENT OF SAMPLE: 11%
LOCATION: CONUS (100%) AVERAGE GRADE: E-4
DAFSC DISTRIBUTION: 30930 (21%), 30950 (67%), 30970 (12%)
AVERAGE NUMBER OF TASKS PERFORMED: 114 JOB DIFFICULTY INDEX: 15.7
AVERAGE TIME IN CAREER FIELD: 39 MONTHS
AVERAGE TIME IN SERVICE: 49 MONTHS PERCENT SUPERVISING: 38%
PERCENT MEMBERS IN FIRST ENLISTMENT: 77%

THE FOLLOWING ARE IN DESCENDING ORDER BY PERCENT MEMBERS PERFORMING:

GROUP	DIFFERENTIATING TASKS	PERCENT MEMBERS PERFORMING
Q945	ADJUST HV POWER SUPPLIES	85
Q937	ADJUST AN/FPS-85 LOW VOLTAGE (LV) POWER SUPPLIES	82
Q971	ADJUST T1028 TRANSMITTER MODULES	79
Q1006	ISOLATE COAXIAL SWITCH MALFUNCTIONS	79
Q1048	PERFORM PMIS ON HV POWER SUPPLIES	77
Q1042	PERFORM PMIS ON AN/FPS-85 LV POWER SUPPLIES	74
F148	COMPLETE AFTO FORMS 350 (REPARABLE ITEM PROCESSING TAG)	72
Q1047	PERFORM PMIS ON HV CONTROL GROUPS	72
Q1080	PERFORM PMIS ON TRANSMITTER ARRAYS	72
Q1066	PERFORM PMIS ON RECEIVER BEAM STEERING CALIBRATION GROUPS	72
Q947	ADJUST MASTER OSCILLATOR AMPLIFIERS	72
Q1078	PERFORM PMIS ON TRANSMITTER ARRAY CALIBRATION GROUPS	72
Q1081	PERFORM PMIS ON TRANSMITTER BEAM STEERING CALIBRATION GROUPS	72
Q949	ADJUST MASTER OSCILLATOR INTERMEDIATE POWER AMPLIFIERS	72
Q1079	PERFORM PMIS ON TRANSMITTER ARRAY STATUS DISPLAYS	72
Q1092	REMOVE OR REPLACE COMPONENTS OF HV POWER SUPPLIES	72
Q1121	REMOVE OR REPLACE COMPONENTS OF TRANSMITTER ARRAYS	69
Q1065	PERFORM PMIS ON RECEIVER ARRAYS	69
Q1109	REMOVE OR REPLACE COMPONENTS OF RECEIVER ARRAYS	69
J398	PERFORM CORROSION CONTROL	69
Q944	ADJUST HIGH VOLTAGE (HV) CONTROL GROUPS	69
Q1054	PERFORM PMIS ON MASTER OSCILLATOR INTERMEDIATE POWER AMPLIFIERS	69
Q970	ADJUST TRANSMITTER BEAM STEERING POWER SUPPLIES	69
J399	PERFORM PREVENTIVE MAINTENANCE INSPECTIONS (PMI) ON EQUIPMENT CABINETS	67
Q959	ADJUST R1413 RECEIVERS	67
Q1056	PERFORM PMIS ON MODULATOR CONTROL CONSOLES	67
Q1062	PERFORM PMIS ON RECEIVER ARRAY CALIBRATION GROUPS	67
Q1010	ISOLATE HV POWER SUPPLY MALFUNCTIONS	67
Q1063	PERFORM PMIS ON RECEIVER ARRAY DISTRIBUTION GROUPS	67

TABLE A10

GROUP ID NUMBER AND TITLE: FPS-85 SYSTEMS MAINTENANCE CENTER SPECIALISTS (GRP092)
GROUP SIZE: 28 PERCENT OF CLUSTER: 72%
LOCATION: CONUS (100%) AVERAGE GRADE: E-4
DAFSC DISTRIBUTION: 30930 (28%), 30950 (54%), 30970 (18%)
AVERAGE NUMBER OF TASKS PERFORMED: 129 JOB DIFFICULTY INDEX: 16.0
AVERAGE TIME IN CAREER FIELD: 41 MONTHS
AVERAGE TIME IN SERVICE: 54 MONTHS PERCENT SUPERVISING: 39%
PERCENT MEMBERS IN FIRST ENLISTMENT: 71%

THE FOLLOWING ARE IN DESCENDING ORDER BY PERCENT MEMBERS PERFORMING:

GROUP	DIFFERENTIATING TASKS	PERCENT MEMBERS PERFORMING
Q971	ADJUST T1028 TRANSMITTER MODULES	100
Q1048	PERFORM PMIS ON HV POWER SUPPLIES	100
Q1047	PERFORM PMIS ON HV CONTROL GROUPS	100
Q1080	PERFORM PMIS ON TRANSMITTER ARRAYS	100
Q1078	PERFORM PMIS ON TRANSMITTER ARRAY CALIBRATION GROUPS	100
0945	ADJUST HV POWER SUPPLIES	100
Q1079	PERFORM PMIS ON TRANSMITTER ARRAY STATUS DISPLAYS	100
0937	ADJUST AN/FPS-85 LOW VOLTAGE (LV) POWER SUPPLIES	100
Q1121	REMOVE OR REPLACE COMPONENTS OF TRANSMITTER ARRAYS	96
Q1065	PERFORM PMIS ON RECEIVER ARRAYS	96
Q1066	PERFORM PMIS ON RECEIVER BEAM STEERING CALIBRATION GROUPS	96
Q1109	REMOVE OR REPLACE COMPONENTS OF RECEIVER ARRAYS	96
Q1081	PERFORM PMIS ON TRANSMITTER BEAM STEERING CALIBRATION GROUPS	96
0944	ADJUST HIGH VOLTAGE (HV) CONTROL GROUPS	96
Q1054	PERFORM PMIS ON MASTER OSCILLATOR INTERMEDIATE POWER AMPLIFIERS	96
Q1042	PERFORM PMIS ON AN/FPS-85 LV POWER SUPPLIES	96
0949	ADJUST MASTER OSCILLATOR INTERMEDIATE POWER AMPLIFIERS	96
Q1092	REMOVE OR REPLACE COMPONENTS OF HV POWER SUPPLIES	96
0970	ADJUST TRANSMITTER BEAM STEERING POWER SUPPLIES	96
Q1006	ISOLATE COAXIAL SWITCH MALFUNCTIONS	93
Q1056	PERFORM PMIS ON MODULATOR CONTROL CONSOLES	93
Q1062	PERFORM PMIS ON RECEIVER ARRAY CALIBRATION GROUPS	93
Q1063	PERFORM PMIS ON RECEIVER ARRAY DISTRIBUTION GROUPS	93
Q1091	REMOVE OR REPLACE COMPONENTS OF HV CONTROL GROUPS	93
Q1064	PERFORM PMIS ON RECEIVER ARRAY STATUS DISPLAYS	93
Q1024	ISOLATE RECEIVER ARRAY STATUS DISPLAY MALFUNCTIONS	93
Q1049	PERFORM PMIS ON HV TRANSFER CABINETS	93
Q1037	ISOLATE TRANSMITTER ARRAY STATUS DISPLAY MALFUNCTIONS	93

TABLE A11

GROUP ID NUMBER AND TITLE: FPS-85 SIGNAL PROCESSOR SPECIALISTS (GRP111)
GROUP SIZE: 8 PERCENT OF CLUSTER: 20%
LOCATION: CONUS (100%) AVERAGE GRADE: E-3/E-4
DAFSC DISTRIBUTION: 30950 (100%)
AVERAGE NUMBER OF TASKS PERFORMED: 80 JOB DIFFICULTY INDEX: 16.7
AVERAGE TIME IN CAREER FIELD: 33 MONTHS
AVERAGE TIME IN SERVICE: 38 MONTHS PERCENT SUPERVISING: 37%
PERCENT MEMBERS IN FIRST ENLISTMENT: 87%

THE FOLLOWING ARE IN DESCENDING ORDER BY PERCENT MEMBERS PERFORMING:

GROUP	DIFFERENTIATING TASKS	PERCENT MEMBERS PERFORMING
Q1034	ISOLATE TRACK PROCESSOR MALFUNCTIONS	100
Q1028	ISOLATE SEARCH PROCESSOR MALFUNCTIONS	100
0960	ADJUST SEARCH PROCESSORS	100
Q1119	REMOVE OR REPLACE COMPONENTS OF TRACK PROCESSORS	100
0966	ADJUST TRACK PROCESSORS	100
0962	ADJUST SIGNAL FREQUENCY GENERATOR SYSTEMS	100
Q1113	REMOVE OR REPLACE COMPONENTS OF SEARCH PROCESSORS	100
Q1114	REMOVE OR REPLACE COMPONENTS OF SIGNAL FREQUENCY GENERATOR SYSTEMS	100
Q1032	ISOLATE SYSTEM FREQUENCY GENERATOR MALFUNCTIONS	100
0963	ADJUST SIGNAL SIMULATORS	100
Q1029	ISOLATE SIGNAL SIMULATOR MALFUNCTIONS	100
Q1071	PERFORM PMIS ON SIGNAL FREQUENCY GENERATOR SYSTEMS	100
0988	ALIGN SEARCH PROCESSORS	100
Q1058	PERFORM PMIS ON PA SYSTEMS	100
0946	ADJUST LOCAL OSCILLATORS	100
Q1044	PERFORM PMIS ON BEAM STEERING RF SOURCE AMPLIFIERS	100
0941	ADJUST BEAM STEERING RF SOURCE AMPLIFIERS	100
Q1077	PERFORM PMIS ON TRACK PROCESSORS	100
Q1050	PERFORM PMIS ON LOCAL OSCILLATORS	100
Q1019	ISOLATE PA SYSTEM MALFUNCTIONS	100
Q1002	ISOLATE BEAM PROCESSOR MALFUNCTIONS	100
0952	ADJUST PUBLIC ADDRESS (PA) SYSTEMS	100
Q1075	PERFORM PMIS ON STEERING WORD COMPILERS	100
Q1012	ISOLATE LOCAL OSCILLATOR MALFUNCTIONS	100
0972	ALIGN BEAM PROCESSORS	100
0976	ALIGN LOCAL OSCILLATORS	100
Q1073	PERFORM PMIS ON SIGNAL SIMULATORS	100
0990	ALIGN SIGNAL SIMULATORS	100
Q1115	REMOVE OR REPLACE COMPONENTS OF SIGNAL SIMULATORS	100
Q1102	REMOVE OR REPLACE COMPONENTS OF PA SYSTEMS	100
0964	ADJUST STEERING WORD COMPILERS	100

TABLE A12

GROUP ID NUMBER AND TITLE: FPS-85 SHOP MAINTENANCE SPECIALISTS (GRP035)
GROUP SIZE: 3 PERCENT OF CLUSTER: 8%
LOCATION: CONUS (100%) AVERAGE GRADE: E-3
DAFSC DISTRIBUTION: 30950 (100%)
AVERAGE NUMBER OF TASKS PERFORMED: 62 JOB DIFFICULTY INDEX: 10.4
AVERAGE TIME IN CAREER FIELD: 32 MONTHS
AVERAGE TIME IN SERVICE: 32 MONTHS PERCENT SUPERVISING: 33%
PERCENT MEMBERS IN FIRST ENLISTMENT: 67%

THE FOLLOWING ARE IN DESCENDING ORDER BY PERCENT MEMBERS PERFORMING:

GROUP	DIFFERENTIATING TASKS	PERCENT MEMBERS PERFORMING
0971	ADJUST T1028 TRANSMITTER MODULES	100
0997	ALIGN T1028 TRANSMITTERS	100
Q1040	ISOLATE T1028 TRANSMITTER MODULE MALFUNCTIONS	100
Q1006	ISOLATE COAXIAL SWITCH MALFUNCTIONS	100
Q947	ADJUST MASTER OSCILLATOR AMPLIFIERS	100
Q939	ADJUST BEAM STEERING DIVIDER/DRIVER RADIO FREQUENCY (RF) AMPLIFIERS	100
Q1089	REMOVE OR REPLACE COMPONENTS OF COAXIAL SWITCHES	100
Q942	ADJUST COAXIAL SWITCHES	100
Q1083	PERFORM PMIS ON T1028 TRANSMITTER MODULES	67
Q1125	REMOVE OR REPLACE COMPONENTS OF T1028 TRANSMITTER MODULES	67
Q1096	REMOVE OR REPLACE COMPONENTS OF MASTER OSCILLATOR AMPLIFIERS	67
F213	PREPARE EQUIPMENT FOR PMEL PROCESSING	67
Q973	ALIGN BEAM STEERING RF AMPLIFIER DIVIDERS/DRIVERS	67
D92	DEMONSTRATE HOW TO LOCATE TECHNICAL INFORMATION	67
Q1003	ISOLATE BEAM STEERING DIVIDER/DRIVE RF AMPLIFIER MALFUNCTIONS	67
C78	SUPERVISE SPACE SYSTEMS EQUIPMENT MAINTENANCE APPRENTICES (AFSC 30930)	67
F226	RESEARCH MICROFICHE FILES	67
F153	COORDINATE DUE IN FROM MAINTENANCE (DIFM) ITEMS WITH SUPPLY REPAIR CYCLES	67
Q1045	PERFORM PMIS ON COAXIAL SWITCHES	67
Q1048	PERFORM PMIS ON HV POWER SUPPLIES	67
Q1086	REMOVE OR REPLACE COMPONENTS OF BEAM STEERING DIVIDERS/ DRIVERS RF AMPLIFIERS	67
A16	PARTICIPATE IN MEETINGS, SUCH AS STAFF MEETINGS, BRIEFINGS, OR CONFERENCES	67
0978	ALIGN MASTER OSCILLATOR AMPLIFIERS	67
A10	DEVELOP WORK METHODS OR PROCEDURES	67
F227	RESEARCH TECHNICAL PUBLICATIONS	67

TABLE A13

GROUP ID NUMBER AND TITLE: FPS-115 SYSTEMS MAINTENANCE SPECIALISTS (GRP073)
GROUP SIZE: 24 PERCENT OF SAMPLE: 7%
LOCATION: CONUS (100%) AVERAGE GRADE: E-4
DAFSC DISTRIBUTION: 30930 (21%), 30950 (67%), 30970 (12%)
AVERAGE NUMBER OF TASKS PERFORMED: 115 JOB DIFFICULTY INDEX: 13.8
AVERAGE TIME IN CAREER FIELD: 52 MONTHS
AVERAGE TIME IN SERVICE: 63 MONTHS PERCENT SUPERVISING: 46%
PERCENT MEMBERS IN FIRST ENLISTMENT: 54%

THE FOLLOWING ARE IN DESCENDING ORDER BY PERCENT MEMBERS PERFORMING:

GROUP	DIFFERENTIATING TASKS	PERCENT MEMBERS PERFORMING
L492	ISOLATE SSM MODULE MALFUNCTIONS	100
L484	DECODE FAULT PRINTOUTS	100
L465	ADJUST SOLID-STATE MODULES (SSM)	100
L505	PERFORM PMIS ON 32V POWER SUPPLIES	100
L496	PERFORM BENCH CHECKS OF AN/FPS-115	100
L463	ADJUST EXCITER OUTPUT LEVELS	100
L468	ALIGN AGO FAULT MONITORS	100
L466	ADJUST SUBARRAY DRIVERS	100
L462	ADJUST ARRAY GROUP DRIVER (AGO) AMPLIFIER CHANNELS	100
L472	ALIGN GENERAL PURPOSE SIGNAL PROCESSOR (GPSP) POWER SUPPLIES	100
L512	REMOVE OR REPLACE COMPONENTS OF SSM MODULES	96
L479	ANALYZE AN/FPS-115 RADAR SYSTEM OPERABILITY ASSESSMENT TESTS	96
L515	RUN AN/FPS-115 RADAR SYSTEM DIAGNOSTICS TESTS	96
L516	RUN AN/FPS-115 RADAR SYSTEM OPERABILITY ASSESSMENT TESTS	96
L467	ADJUST 32V POWER SUPPLIES	96
L500	PERFORM PMIS ON ARRAY FACES AND FLOW SWITCHES	96
L495	MANUALLY LOAD GPSPS	96
L471	ALIGN DATA CLOCKS	96
L497	PERFORM DMTS WARM START PROCEDURES	96
L498	PERFORM PREVENTIVE MAINTENANCE INSPECTIONS (PMI) ON AGD POWER SUPPLIES	96
F147	COMPLETE AFTO FORMS 349 OR 349-3 (MAINTENANCE DATA COLLECTION RECORD/AUTOMATED)	92
L478	ANALYZE AN/FPS-115 RADAR SYSTEM DIAGNOSTIC TESTS	92
L482	CALIBRATE RECEIVER-TRANSMITTER TEST SETS (RTTS) USING CALCULATORS	92
L476	ALIGN SSM MODULES	92
L503	PERFORM PMIS ON SSM MODULES	92
L474	ALIGN RECEIVER EXCITER (REX) POWER SUPPLIES	92
F148	COMPLETE AFTO FORMS 350 (REPARABLE ITEM PROCESSING TAG)	88

TABLE A14

GROUP ID NUMBER AND TITLE: QUALITY CONTROL INSPECTORS (GRP099)
GROUP SIZE: 7 PERCENT OF SAMPLE: 2%
LOCATION: CONUS (100%) AVERAGE GRADE: E-7
DAFSC DISTRIBUTION: 30950 (14%), 30970 (71%), 30990 (14%)
AVERAGE NUMBER OF TASKS PERFORMED: 66 JOB DIFFICULTY INDEX: 11.7
AVERAGE TIME IN CAREER FIELD: 98 MONTHS
AVERAGE TIME IN SERVICE: 219 MONTHS PERCENT SUPERVISING: 43%
PERCENT MEMBERS IN FIRST ENLISTMENT: 0%

THE FOLLOWING ARE IN DESCENDING ORDER BY PERCENT MEMBERS PERFORMING:

GROUP	DIFFERENTIATING TASKS	PERCENT MEMBERS PERFORMING
E126	INITIATE OR REVIEW AF FORMS 2419 (ROUTING AND REVIEW OF QUALITY CONTROL REPORTS)	100
E130	MAINTAIN TECHNICAL ORDER (TO) LIBRARIES	100
E132	PERFORM SPECIAL INSPECTIONS	100
E133	PERFORM TECHNICAL INSPECTIONS	100
C57	IMPLEMENT QUALITY CONTROL STANDARDS	100
C69	PERFORM SELF-INSPECTIONS	100
E125	INITIATE OR COMPLETE AF FORMS 2415 (QUALITY CONTROL CHECKSHEET	100
C49	EVALUATE MATERIEL DEFICIENCY REPORTS (MDR) AND QUALITY DEFICIENCY REPORTS (QDR)	100
C42	EVALUATE CORROSION CONTROL PROGRAMS	100
E127	INITIATE OR REVIEW AF FORMS 2420 (QUALITY CONTROL INSPECTION SUMMARY)	86
C45	EVALUATE INSPECTION REPORTS OR PROCEDURES	86
C75	PREPARE REPLIES TO INSPECTION REPORTS	86
C55	EVALUATE TECHNICAL ORDER IMPROVEMENT REPORTS	86
C53	EVALUATE SELF-INSPECTION PROGRAMS	86
E131	PERFORM ACTIVITY INSPECTIONS	86
F229	REVIEW AFTO FORMS 22 (TECHNICAL ORDER SYSTEM PUBLICATION IMPROVEMENT REPORT AND REPLY)	86
F214	PREPARE INSPECTION CHECKLISTS	86
C50	EVALUATE PERFORMANCE OF NEWLY INSTALLED EQUIPMENT	86
C51	EVALUATE PROCEDURES FOR STORAGE, INVENTORY, OR INSPECTION OF PROPERTY ITEMS	86
E119	COORDINATE WITH MAINTENANCE WORK CENTERS ON TREND ANALYSIS	86
C66	PERFORM DEFICIENCY REPORTING	86
E118	COORDINATE WITH HIGHER HEADQUARTERS ON DEFICIENCY REPORTS	86
A16	PARTICIPATE IN MEETINGS, SUCH AS STAFF MEETINGS, BRIEFINGS, OR CONFERENCES	71
C59	IMPLEMENT SELF-INSPECTION PROGRAMS	71
A6	DEVELOP INSPECTION SCHEDULES	71

TABLE A15

GROUP ID NUMBER AND TITLE: JOB CONTROL SPECIALISTS (GRP068)
GROUP SIZE: 21 PERCENT OF SAMPLE: 6%
LOCATION: CONUS (91%), OVERSEAS (9%) AVERAGE GRADE: E-5
DAFSC DISTRIBUTION: 30930 (5%), 30950 (71%), 30970 (24%)
AVERAGE NUMBER OF TASKS PERFORMED: 40 JOB DIFFICULTY INDEX: 6.1
AVERAGE TIME IN CAREER FIELD: 58 MONTHS
AVERAGE TIME IN SERVICE: 86 MONTHS PERCENT SUPERVISING: 38%
PERCENT MEMBERS IN FIRST ENLISTMENT: 24%

THE FOLLOWING ARE IN DESCENDING ORDER BY PERCENT MEMBERS PERFORMING:

GROUP	DIFFERENTIATING TASKS	PERCENT MEMBERS PERFORMING
H301	MAINTAIN DAILY JOB CONTROL STATUS LOGS	95
H282	COORDINATE WITH MAINTENANCE CENTERS ON MAINTENANCE ACTIVITIES	95
H323	UPDATE EQUIPMENT STATUS REPORTS (ESR)	95
H303	MONITOR SYSTEM STATUS	90
H285	DETERMINE MAINTENANCE PRIORITIES	90
H281	COORDINATE WITH HIGHER AUTHORITY ON EQUIPMENT STATUS	86
H299	MAINTAIN AF FORMS 264 (MMICS JOB/STATUS DOCUMENT)	81
H296	ISSUE JOB CONTROL NUMBERS	81
H278	COORDINATE EQUIPMENT SHUTDOWN OR POWER UP TIMES	81
H292	INFORM COMMANDER ON EQUIPMENT STATUS	81
H322	UPDATE EQUIPMENT STATUS DISPLAYS	76
H286	DETERMINE SITE STATUS	76
H270	ADVISE FUNCTIONAL MANAGERS ON EQUIPMENT OUTAGES	76
H279	COORDINATE WITH CHIEF OF MAINTENANCE ON MAINTENANCE ACTIVITIES	76
H284	DETERMINE MAINTENANCE ACTIONS	71
H325	VERIFY SUPPLY PRIORITY REQUESTS	71
F204	PREPARE AF FORMS 264 (MMICS JOB/STATUS DOCUMENT)	67
H283	COORDINATE WITH OPERATIONAL AGENCIES ON EQUIPMENT OUTAGES	67
F212	PREPARE DD FORMS 173 (JOINT MESSAGEFORM)	67
H319	REVIEW 7100 SERIES REPORTS	67
A16	PARTICIPATE IN MEETINGS, SUCH AS STAFF MEETINGS, BRIEFINGS, OR CONFERENCES	67
A22	PREPARE BRIEFINGS	62
H300	MAINTAIN COMMANDER STATUS BOARDS	62
H302	MAINTAIN DEVIATIONS ON MONTHLY MAINTENANCE PLANS	62
H272	ANNOTATE TELEPHONE TROUBLE LOG FORMS	62
F151	CONTROL REAL TIME EQUIPMENT OPERATIONS OR MAINTENANCE	57
H324	UPDATE JOB CONTROL DOCUMENTS (JCD)	57
H280	COORDINATE WITH EXTERNAL AGENCIES ON MAINTENANCE ACTIVITIES	57

TABLE A16

GROUP ID NUMBER AND TITLE: SUPERVISORY PERSONNEL (GRP054)
GROUP SIZE: 33 PERCENT OF SAMPLE: 10%
LOCATION: CONUS (85%), OVERSEAS (15%) AVERAGE GRADE: E-7
DAFSC DISTRIBUTION: 30950 (3%), 30970 (79%), 30990 (18%)
AVERAGE NUMBER OF TASKS PERFORMED: 105 JOB DIFFICULTY INDEX: 13.7
AVERAGE TIME IN CAREER FIELD: 112 MONTHS
AVERAGE TIME IN SERVICE: 215 MONTHS PERCENT SUPERVISING: 94%
PERCENT MEMBERS IN FIRST ENLISTMENT: 0%

THE FOLLOWING ARE IN DESCENDING ORDER BY PERCENT MEMBERS PERFORMING:

GROUP	DIFFERENTIATING TASKS	PERCENT MEMBERS PERFORMING
C71	PREPARE APRs	100
B31	COUNSEL PERSONNEL ON PERSONAL OR MILITARY-RELATED PROBLEMS	100
A16	PARTICIPATE IN MEETINGS, SUCH AS STAFF MEETINGS, BRIEFINGS, OR CONFERENCES	97
A26	SCHEDULE TEMPORARY DUTY, LEAVES, OR PASSES	97
C62	INTERPRET POLICIES, DIRECTIVES, OR PROCEDURES FOR SUBORDINATES	94
C74	PREPARE RECOMMENDATIONS FOR AWARDS OR DECORATIONS	94
A1	ASSIGN PERSONNEL TO DUTY POSITIONS	91
A2	ASSIGN SPONSORS FOR NEWLY ASSIGNED PERSONNEL	91
A20	PLAN WORK ASSIGNMENTS	88
A4	DETERMINE REQUIREMENTS FOR SPACE, EQUIPMENT, OR SUPPLIES	88
C81	SUPERVISE SPACE SYSTEMS EQUIPMENT MAINTENANCE TECHNICIANS (AFSC 30970)	85
C61	INDORSE AIRMAN PERFORMANCE REPORTS (APR)	85
C75	PREPARE REPLIES TO INSPECTION REPORTS	85
C69	PERFORM SELF-INSPECTIONS	85
C65	ORIENT NEWLY ASSIGNED PERSONNEL	85
A13	ESTABLISH ORGANIZATIONAL POLICIES, OFFICE INSTRUCTIONS (OI), OR STANDING OPERATING PROCEDURES (SOP)	82
F187	INITIATE MILITARY PERSONNEL ACTION FORMS, SUCH AS AF FORMS 2095/2096	82
D109	MAINTAIN TRAINING RECORDS, CHARTS, OR GRAPHS	79
A23	PREPARE JOB DESCRIPTIONS	79
C79	SUPERVISE SPACE SYSTEMS EQUIPMENT MAINTENANCE SPECIALISTS (AFSC 30950)	76
B27	ANALYZE WORKLOAD REQUIREMENTS	76
D94	DETERMINE OJT REQUIREMENTS	76
A14	ESTABLISH PERFORMANCE STANDARDS FOR SUBORDINATES	76
B34	DIRECT MAINTENANCE OF FACILITIES OR WORK AREAS	76
A10	DEVELOP WORK METHODS OR PROCEDURES	76

TABLE A17

GROUP ID NUMBER AND TITLE: HQ STAFF MANAGERS (GRP062)
GROUP SIZE: 8 PERCENT OF SAMPLE: 2%
LOCATION: CONUS (100%) AVERAGE GRADE: E-7
DAFSC DISTRIBUTION: 30950 (12%), 30970 (50%), 30990 (37%)
AVERAGE NUMBER OF TASKS PERFORMED:48 JOB DIFFICULTY INDEX: 13.0
AVERAGE TIME IN CAREER FIELD: 96 MONTHS
AVERAGE TIME IN SERVICE: 186 MONTHS PERCENT SUPERVISING: 37%
PERCENT MEMBERS IN FIRST ENLISTMENT: 0%

THE FOLLOWING ARE IN DESCENDING ORDER BY PERCENT MEMBERS PERFORMING:

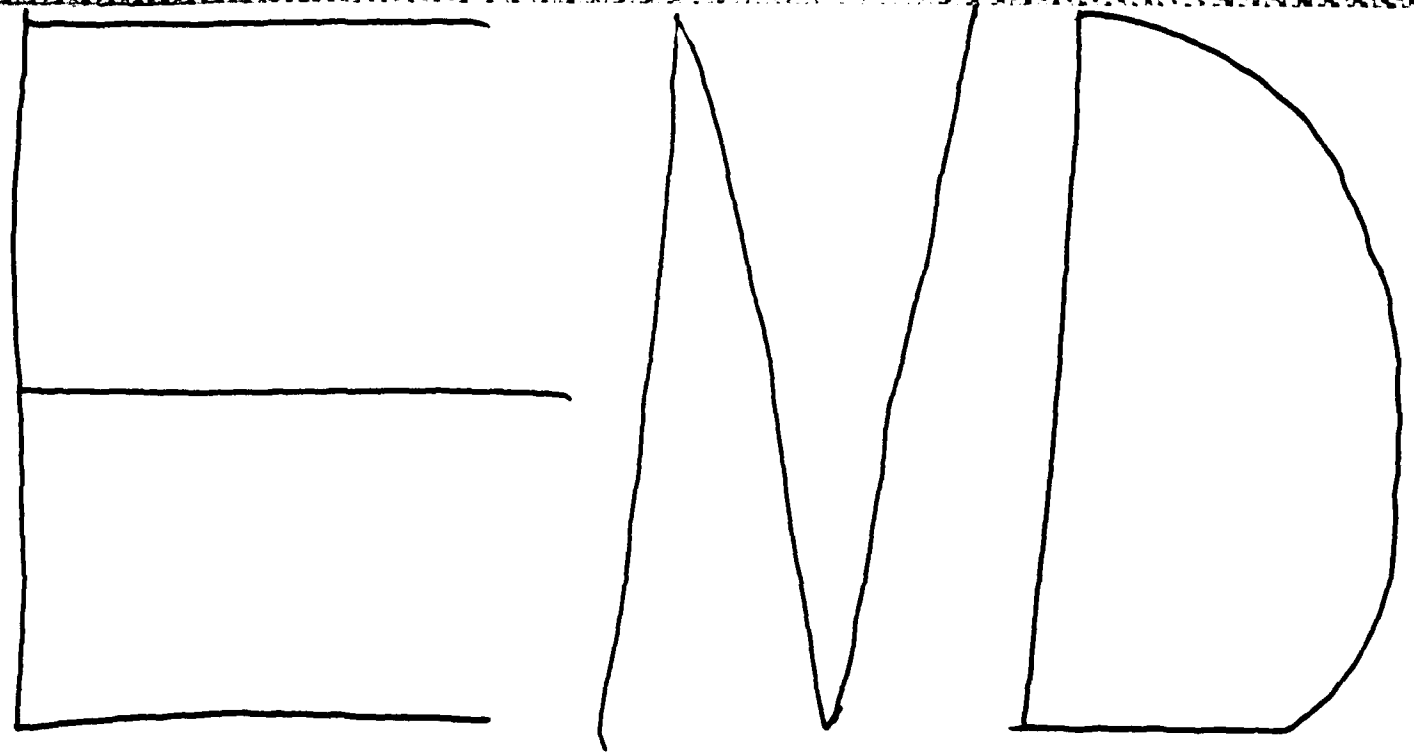
GROUP	DIFFERENTIATING TASKS	PERCENT MEMBERS PERFORMING
A16	PARTICIPATE IN MEETINGS, SUCH AS STAFF MEETINGS, BRIEFINGS, OR CONFERENCES	100
F159	COORDINATE WITH AFLC TO RESOLVE LOGISTICS/ENGINEERING SUPPORT PROBLEMS	100
A22	PREPARE BRIEFINGS	100
F235	REVIEW CONTRACTOR PROPOSALS ON SPARES AND SUPPORT EQUIPMENT	88
A17	PLAN BRIEFINGS	88
F244	REVIEW SUPPORT EQUIPMENT RECOMMENDATIONS DATA	88
C55	EVALUATE TECHNICAL ORDER IMPROVEMENT REPORTS	88
F144	ASSIST IN DEVELOPMENT OF SYSTEMS/EQUIPMENT SPECIFICATIONS	88
F179	EVALUATE AND PROCESS ENGINEERING CHANGE PROPOSALS (ECP)	88
F183	EVALUATE REQUESTS FOR MODIFICATION PROPOSALS	88
F168	DEVELOP STATEMENTS OF WORK (SOW)	75
C82	VALIDATE OR VERIFY MANUFACTURERS TECHNICAL DATA	75
F245	REVIEW TECHNICAL ORDERS PRIOR TO PUBLICATION	75
C41	EVALUATE CONTRACTOR INSTALLED EQUIPMENT	75
F164	DEVELOP CONTRACT STANDARDS	63
F152	COORDINATE ALL DEPOT-LEVEL SUPPORTS	63
C54	EVALUATE SUGGESTIONS	63
F166	DEVELOP MAINTENANCE MANNING REQUIREMENTS FOR NEW SYSTEMS/ EQUIPMENT	63
F182	EVALUATE FACILITY DESIGN OF NEW SYSTEMS/EQUIPMENT	63
C40	EVALUATE CONTRACTOR IN-PROGRESS INSTALLATIONS	63
C50	EVALUATE PERFORMANCE OF NEWLY INSTALLED EQUIPMENT	63
F143	ASSIST IN DEVELOPMENT OF IOT&E TEST PROCEDURES FOR NEW SYSTEMS/EQUIPMENT	63
F237	REVIEW DEMONSTRATION, TEST AND EVALUATION (DT&E) PLANS AND PROCEDURES	63
F142	ASSIST IN DEVELOPMENT OF INITIAL OPERATIONAL TEST AND EVALUATION (IOT&E) PLANS	63

TABLE A18

GROUP ID NUMBER AND TITLE: INSTRUCTORS (GRP081)
GROUP SIZE: 14 PERCENT OF SAMPLE: 4%
LOCATION: CONUS (100%) AVERAGE GRADE: E-5
DAFSC DISTRIBUTION: 30950 (50%), 30970 (50%)
AVERAGE NUMBER OF TASKS PERFORMED: 17 JOB DIFFICULTY INDEX: 8.4
AVERAGE TIME IN CAREER FIELD: 66 MONTHS
AVERAGE TIME IN SERVICE: 95 MONTHS PERCENT SUPERVISING: 0%
PERCENT MEMBERS IN FIRST ENLISTMENT: 14%

THE FOLLOWING ARE IN DESCENDING ORDER BY PERCENT MEMBERS PERFORMING:

GROUP DIFFERENTIATING TASKS		PERCENT MEMBERS PERFORMING
D112	PREPARE LESSON PLANS	100
D115	SCORE TESTS	100
D88	CONDUCT RESIDENT OR TECHNICAL SCHOOL COURSE CLASSROOM TRAINING	93
D83	ADMINISTER TESTS	93
D92	DEMONSTRATE HOW TO LOCATE TECHNICAL INFORMATION	93
D117	WRITE TEST QUESTIONS	86
D91	COUNSEL TRAINEES ON TRAINING PROGRESS	86
D105	EVALUATE PROGRESS OF RESIDENT OR TECHNICAL SCHOOL COURSE STUDENTS	79
D107	EVALUATE TRAINING PROGRESS OF STUDENTS	79
D109	MAINTAIN TRAINING RECORDS, CHARTS, OR GRAPHS	71
D99	DEVELOP TRAINING AIDS	64
D98	DEVELOP RESIDENT OR TECHNICAL SCHOOL COURSE CURRICULUM MATERIALS	57
D114	PROCURE TRAINING AIDS, SPACE, OR EQUIPMENT	43
B31	COUNSEL PERSONNEL ON PERSONAL OR MILITARY-RELATED PROBLEMS	43
D106	EVALUATE TRAINING METHODS OR TECHNIQUES	36
D89	CONDUCT SAFETY OR SECURITY TRAINING	36
A16	PARTICIPATE IN MEETINGS, SUCH AS STAFF MEETINGS, BRIEFINGS, OR CONFERENCES	36
F227	RESEARCH TECHNICAL PUBLICATIONS	29
D95	DETERMINE RESIDENT OR TECHNICAL SCHOOL COURSE TRAINING REQUIREMENTS	29
D101	DIRECT OR IMPLEMENT TRAINING PROGRAMS, OTHER THAN OJT	21
D110	PARTICIPATE IN USAF GRADUATE EVALUATION PROGRAM	21
C69	PERFORM SELF-INSPECTIONS	21
D108	MAINTAIN STUDY REFERENCE FILES	14
F174	ESCORT CIVILIAN REPRESENTATIVES	14
D116	SELECT INDIVIDUALS FOR SPECIALIZED TRAINING	14
C58	IMPLEMENT SAFETY OR SECURITY PROGRAMS	14
D102	ESTABLISH STUDY REFERENCE FILES	14



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