

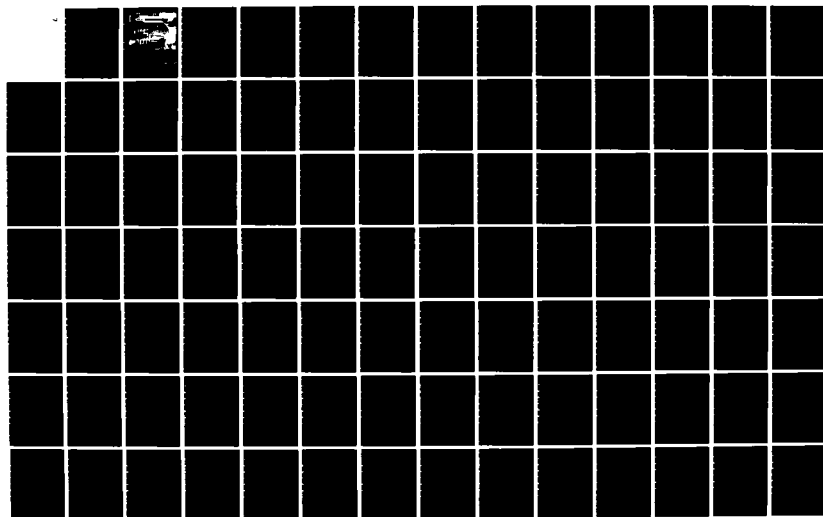
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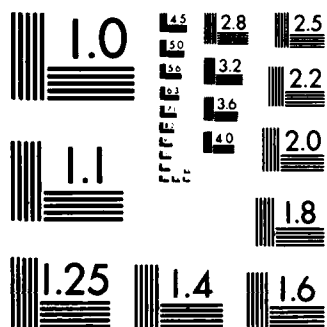
ELECTRONIC COMPUTER AND SWITCHING SYSTEMS CAREER LADDER 1/2
AFSC 305X4(U) AIR FORCE OCCUPATIONAL MEASUREMENT CENTER
RANDOLPH AFB TX JUN 84

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UNITED STATES AIR FORCE

AD-A142 545

OCCUPATIONAL SURVEY REPORT

ELECTRONIC COMPUTER AND SWITCHING SYSTEMS
CAREER LADDER

AFSC 305X4

AFPT 90-305-488

JUNE 1984

JUN 27 1984

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OCCUPATIONAL ANALYSIS PROGRAM
USAF OCCUPATIONAL MEASUREMENT CENTER
AIR TRAINING COMMAND
RANDOLPH AFB, TEXAS 78150

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HQ USAFE/DPATC	1		1
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3480 TCHTG/TTRX (GOODFELLOW AFB TX)	2	1	
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PREFACE

This report presents the results of a detailed Air Force Occupational Survey of the Electronic Computer and Switching Systems career ladder (AFSC 305X4). The project was undertaken at the request of Keesler Technical Training Center (KTTC), and was directed by USAF Program Technical Training, Volume Two, dated June 1982. Authority for conducting occupational surveys is contained in AFR 35-2. Computer printouts from which this report was produced are available for use by operating and training officials.

The survey instrument was developed by Captain Gary K. Patterson, Inventory Development Specialist. Sergeant Ray Tackett provided computer support for the project. Mr Hank Dubois, Occupational Survey Analyst, analyzed the data and wrote the final report. This report has been reviewed and approved by Lieutenant Colonel Jimmy L. Mitchell, Chief, Airman Career Ladders Analysis Section, Occupational Analysis Branch, USAF Occupational Measurement Center, Randolph AFB, Texas 78150.

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

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SUMMARY OF RESULTS

1. Survey Coverage: Job inventory booklets were administered to Electronic Computer and Switching Systems (AFS 305X4) personnel worldwide. Survey results are based on the responses of 1,923 incumbents (60 percent of the assigned personnel). All commands were well represented, with AFCC and TAC making up 79 percent of the sample.
2. Specialty Jobs: The study identified 3 clusters, covering 21 job types, and 13 independent job types grouped into 3 general functional areas: (1) Electronic Computer and Switching Systems (ECSS) Maintenance; (2) Management Staff; and (3) Training. Within the ECSS functional area, job groupings revolved around systems, subsystems, or peripheral equipment. Job groupings generally are consistent with the existing shredout structure.
3. Career Ladder Progression: The 3- and 5-skill level jobs were oriented highly toward technical maintenance and repair functions. Seven-skill level members, while still performing some maintenance tasks, spent the majority of their time (56 percent) in supervisory or administrative-type functions. DAFSC 30594 personnel were the higher level supervisors and managers in the field, performing very little time (less than 9 percent) on technical tasks.
4. AFR 39-1 Specialty Descriptions: Current descriptions were found complete and portrayed the jobs of the incumbents in general terms. All types of jobs in the career field are covered by some portion of the specialty description.
5. Experience Group Differences: As time in service increased, there was a corresponding increase in the performance of duties involving management, supervision, and administration. Job satisfaction indicators for first-enlistment 305X4 incumbents were slightly to somewhat higher than those for first-enlistment incumbents in other mission equipment maintenance career fields.
6. Training Analysis. The 305X4 STS was generally supported by survey data and appears to be an effective outline of tasks performed within the career field. Analysis of the eight basic course POIs revealed only a very few course blocks requiring review by subject-matter and training specialists due to low percent performing or training emphasis ratings. There were several tasks not matched to all POIs with a high percent of course graduates performing and high training emphasis ratings. The computer printouts of tasks not referenced to each of the POIs should be reviewed for possible course inclusion.
7. Implications: Despite the addition of shreds to the 3-skill level of the 305X4 career ladder and the merger of the 362X2 career field, the pattern of jobs has remained fairly stable for these personnel since last surveyed. The present classification system accurately describes the job structure identified in the study. Job satisfaction responses across the entire survey sample compare favorably to members of similar AFSs recently surveyed. While training documents are generally supported by survey data, a review of tasks high in first-term training emphasis and performance not presently identified in POIs is necessary.

OCCUPATIONAL SURVEY REPORT
ELECTRONIC COMPUTER AND SWITCHING SYSTEMS CAREER LADDER
(AFSC 305X4)

INTRODUCTION

This is an occupational survey report (OSR) of the Electronic Computer and Switching Systems career ladder (AFSCs 30534E/F/G/H/J/K/P/Q/R, 30554, 30574, and 30594) recently completed by the Occupational Analysis Branch, USAF Occupational Measurement Center. The survey was conducted in response to a request from Keesler Technical Training Center (KTTC) to evaluate training programs that had been revised due to changes in AFR 39-1 in October 1980. That change merged the Electronic Switching Systems Repair (AFS 362X2) career ladder with the Electronic Computer Systems (AFS 305X4) career ladder. The results of the last survey of the 362X2 career ladder were published in August 1975. Survey results for the 305X4 career ladder were last published in December 1977. Both ladders were subjects of Electronic Principles OSRs published in September 1977.

Background

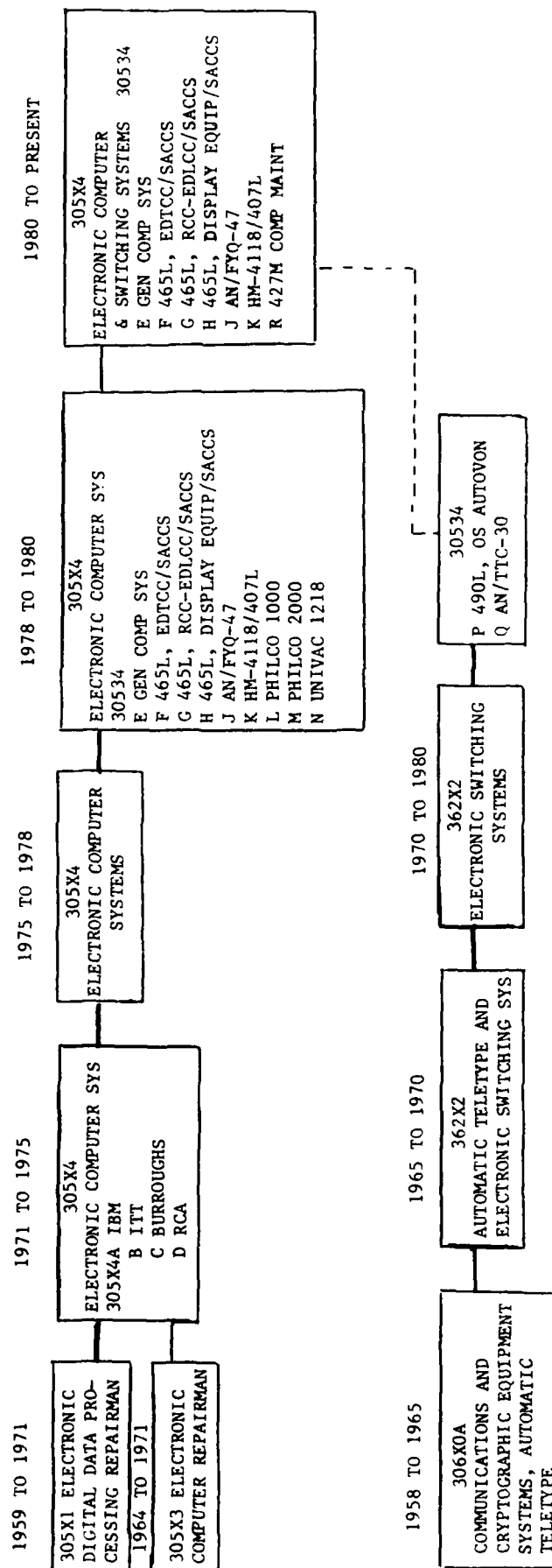
The 305X4 career ladder was created in 1971 from the 305X1 Electronic Digital Processing Systems Repairman and the 305X3 Electronic Computer Repairman specialties. Originally, the career ladder title was Electronic Computer Systems. Although this title remained with the career ladder until the 1980 merger with 362X2 Electronic Switching Systems ladder, there were several classification changes involving the addition or deletion of shredouts identifying equipment manufacturers and/or specific equipment. The 362X2 career ladder, which was deleted at the time of the 1980 merger with 305X4, was created in 1965 from the 306X0A Communications and Cryptographic Equipment Systems, Automatic Teletype specialty. Figure 1 depicts the evolution of the 305X4 career ladder through the date of this report. It should be noted the specialty shredouts in this report relate only to 3-skill level. This ladder is under the Chief Enlisted Manager (CEM) Code 30100, Communications-Electronics Systems Manager, which is not part of this report.

As described in AFR 39-1 Specialty Descriptions, personnel in the 305X4 career ladder are responsible for inspecting, installing, troubleshooting, repairing, overhauling, and modifying high-speed, general-purpose and special electronic computer and switching systems, including transmission, processing, and display equipment. Primary entry into the career ladder is from Basic Military Training School (BMTS), then through one of eight Category A resident training courses. There is no resident training for the "J" shred, as the Federal Aviation Administration (FAA) is taking over maintenance of the AN/FYQ-47, an air data processor. The course location and course length for each shred is as follows:

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<u>SHRED</u>	<u>SYSTEM</u>	<u>LOCATION</u>	<u>LENGTH</u>
E	GEN COMPUTER SYSTEM	KEESLER TTC MS	153 DAYS
F	465L, EDTCC, SACCS	KEESLER TTC MS	144 DAYS
G	465L, RCC-EDLCC/SACCS	KEESLER TTC MS	118 DAYS
H	465L, DISPLAY EQUIP/SAACS	KEESLER TTC MS	116 DAYS
K	HM-4118/407L	KEESLER TTCMS	173 DAYS
P	490L OVERSEAS AUTOVON	SHEPPARD TTC TX	155 DAYS
Q	AN/TTC-30 ELECT SWITCHING SYS	SHEPPARD TTC TX	134 DAYS
R	427M COMP MAINT	PETERSON AFB CO (FTD)	95 DAYS

FIGURE 1
ELECTRONIC COMPUTER AND SWITCHING SYSTEMS CLASSIFICATION CHANGES



SURVEY METHODOLOGY

Inventory Development

The data collection instrument for this occupational survey was USAF Job Inventory AFPT 90-305-488, dated April 1982. A tentative task list was prepared after reviewing pertinent career ladder publications and directives, tasks from previous survey instruments for both AFSC 305X4 and AFSC 362X2, and data from the last OSR for those career ladders. The task list was then evaluated in the field through personal interviews with 47 subject-matter specialists from 9 bases. The resulting job inventory contained a comprehensive listing of 843 tasks grouped under 25 duty headings and a background section containing such information as grade, duty title, major command, time in service, job satisfaction, and electronic computer or switching systems approved.

Survey Administration

From August 1982 through January 1983, Consolidated Base Personnel Offices (CBPO) in operational units worldwide administered the inventory to job incumbents holding DAFS 305X4. 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 305X4 personnel were mailed survey booklets. Table 1 shows the percentage distribution, by major command, of assigned personnel in the career ladder as of September 1981. Also listed in this table is the percentage distribution, by MAJCOM, of respondents in the final survey sample. The 1,923 respondents included in the final sample represent 74 percent of the 305X4 career ladder personnel eligible for the survey.

Table 2 reflects the paygrade group distribution, while Table 3 lists the sample distribution by TAFMS groups. As reflected in these tables, the survey sample provides a very good representation of the career ladder population.

TABLE 1
COMMAND REPRESENTATION OF SURVEY SAMPLE

<u>COMMAND</u>	<u>PERCENT OF ASSIGNED</u>	<u>PERCENT OF SAMPLE</u>
AFCC	56	58
TAC	22	21
ATC	9	6
ESC	5	4
USAFE	5	4
SAC	1	3
PACAF	1	1
OTHER	<u>1</u>	<u>3</u>
TOTALS	100	100

Total 305X4 Personnel Assigned - 3,212

Total 305X4 Personnel Eligible - 2,614

Total 305X4 Personnel Sampled - 1,923

Percent of Assigned 305X4 Personnel Sampled - 59%

Percent of Eligible 305X4 Personnel Sampled - 74%

NOTE: Manning figures as of September 1982

TABLE 2
PAYGRADE DISTRIBUTION OF SURVEY SAMPLE

<u>PAYGRADE</u>	<u>PERCENT OF ASSIGNED</u>	<u>PERCENT OF SAMPLE</u>
AIRMAN	20	23
E-4	28	26
E-5	26	24
E-6	14	15
E-7	10	10
E-8	<u>2</u>	<u>2</u>
TOTALS	100	100

NOTE: CEM Code 30100 personnel were not surveyed;
therefore, E-9 data are not presented.

TABLE 3
TAFMS DISTRIBUTION OF SURVEY SAMPLE

	<u>MONTHS TOTAL ACTIVE FEDERAL MILITARY SERVICE (TAFMS)</u>					
	<u>1-48</u>	<u>49-96</u>	<u>97-144</u>	<u>145-192</u>	<u>193-240</u>	<u>241+</u>
PERCENT OF ASSIGNED	31%	30%	12%	10%	12%	5%
PERCENT OF SAMPLE	38%	23%	12%	11%	13%	3%
NUMBER IN SAMPLE	738	445	231	212	250	47

NOTE: Manning figures as of September 1982

Task Factor Administration

In addition to completing the job inventory, selected senior 305X4 personnel were also tasked to complete a second booklet for either task difficulty (TD) or training emphasis (TE). The TD and TE booklets are processed separately from the job inventories. The rating information is used in several analyses discussed in this report. Table 4 reflects the MAJCOM representation for the TD and TE raters.

Task Difficulty. Each person completing a task difficulty booklet was asked to rate all inventory tasks on a 9-point scale (from extremely low to extremely high) as to relative difficulty of each task. Difficulty is defined as the length of time required by an average incumbent to learn to do the task. Task difficulty data were independently collected from 99 experienced 7- or 9-skill level 305X4 personnel stationed worldwide. The interrater reliability (as assessed through components of variance of standard group means) was .96, which reflects a high agreement among the raters. Ratings were adjusted so tasks of average difficulty would have a 5.0 rating and a standard deviation of 1.0. The resulting data are essentially a rank ordering of tasks, indicating the degree of difficulty for each task in the inventory.

Job Difficulty Index (JDI). After determining the task difficulty index for each task item, a Job Difficulty Index (JDI) was computed for the job groups identified in the survey analysis. The JDI provides a relative measure of which jobs, in comparison to other jobs, 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. Thus, the more time a group spends on difficult tasks and the more tasks they perform, the higher the JDI. The index ranges from 1.0 for very easy jobs to 25.0 for very difficult jobs. The measurements are adjusted so the average JDI is 13.0.

Training Emphasis. Individuals completing training emphasis booklets were asked to rate tasks on a 10-point scale from no training required to extremely heavy training required. Training emphasis is a rating of which tasks require 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 209 experienced 7- and 9-skill level 305X4 personnel stationed worldwide. These raters were also asked to indicate the computer or switching systems they maintained or supported. A review of those responses indicates the rater's system experience is very similar to that of the entire survey sample. For example, 17 percent of the raters indicated association with the Overseas AUTOVON (P-shred) versus 18 percent of the total 305X4 sample, indicating excellent balance between the raters and the total sample. Several sets of training emphasis data were analyzed. These included training emphasis data as rated by all the raters combined (209 members) and for groups of raters developed from 3-level shred specific equipment they maintained or supported. While the interrater reliability of the overall group (as assessed through components of variance of standard group means) was

.98, indicating a very high degree of agreement, a task-by-task review of ratings across equipment experience groups indicated there are differences in training policies among the groups. Therefore, the TRAINING ANALYSIS section of this report utilizes training emphasis ratings developed on rater equipment experience.

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

TABLE 4
COMMAND REPRESENTATION OF 305X4 TASK DIFFICULTY
AND TRAINING EMPHASIS RATERS

<u>COMMAND</u>	<u>PERCENT OF 7-LEVELS ASSIGNED</u>	<u>PERCENT OF TASK DIFFICULTY RATERS</u>	<u>PERCENT OF TRAINING EMPHASIS RATERS</u>
AFCC	48	21	57
TAC	23	19	24
ATC	10	27	2
USAFE	7	6	5
ESC	4	15	4
AFSC	3	2	2
SAC	2	4	2
PACAF	1	-	1
OTHER	<u>2</u>	<u>6</u>	<u>3</u>
TOTALS	100	100	100

SPECIALTY JOBS
(Career Ladder Structure)

A key aspect of the USAF Occupational Analysis program is to examine the structure of the career ladders--what people are actually doing in the field, rather than how official career field documents say they are organized. This analysis of actual jobs performed is made possible by the use of the Comprehensive Occupational Data Analysis Program (CODAP) and is based on incumbent task responses. Each person in the survey performs a set of tasks called their position. A group of positions where many similar tasks are performed and incumbents spend similar amounts of time performing them is called a Job Type. Job types having a substantial degree of similarity are grouped and called a Cluster. Specialized job types too dissimilar to fit within a cluster are labeled Independent Job Types. This job information is used to examine the accuracy and completeness of career ladder documents (AFR 39-1 Specialty Descriptions and Specialty Training Standards) and to formulate an understanding of current utilization patterns.

Based on task similarity and relative percent time spent, the best division of jobs performed in the 305X4 career ladder is illustrated in Figure 2. These clusters, job types, and independent job types are listed below. The group (GRP) number shown beside each title is a reference to computer printed information. The letter N refers to the number of personnel in the group.

ELECTRONIC COMPUTER AND SWITCHING SYSTEMS (ECSS)
MAINTENANCE FUNCTIONAL AREA

- I. ECSS SHIFT SUPERVISORS (GRP242, N=86)
- II. ELECTRONIC COMPUTER SYSTEMS MAINTENANCE PERSONNEL CLUSTER (GRP259, N=493)
 - A. Tactical Interpretation Systems Repair Specialists (GRP576, N=25)
 - B. Intermediate Computer Maintenance Specialists (GRP748, N=89)
 - C. Mainframe Processor-Disc Systems Specialists (GRP725, N=104)
 - D. Tactical Air Control Systems Repair Specialists (GRP746, N=26)
 - E. Air Defense Systems Repair Specialists (GRP649, N=53)
 - F. Airborne Warning and Control System (AWACS) Repair Specialists (GRP464, N=55)
 - G. 427M-Cheyenne Mountain Complex Technicians (GRP511, N=28)
 - H. Ground Development and Digital TV Systems Specialists (GRP523, N=6)

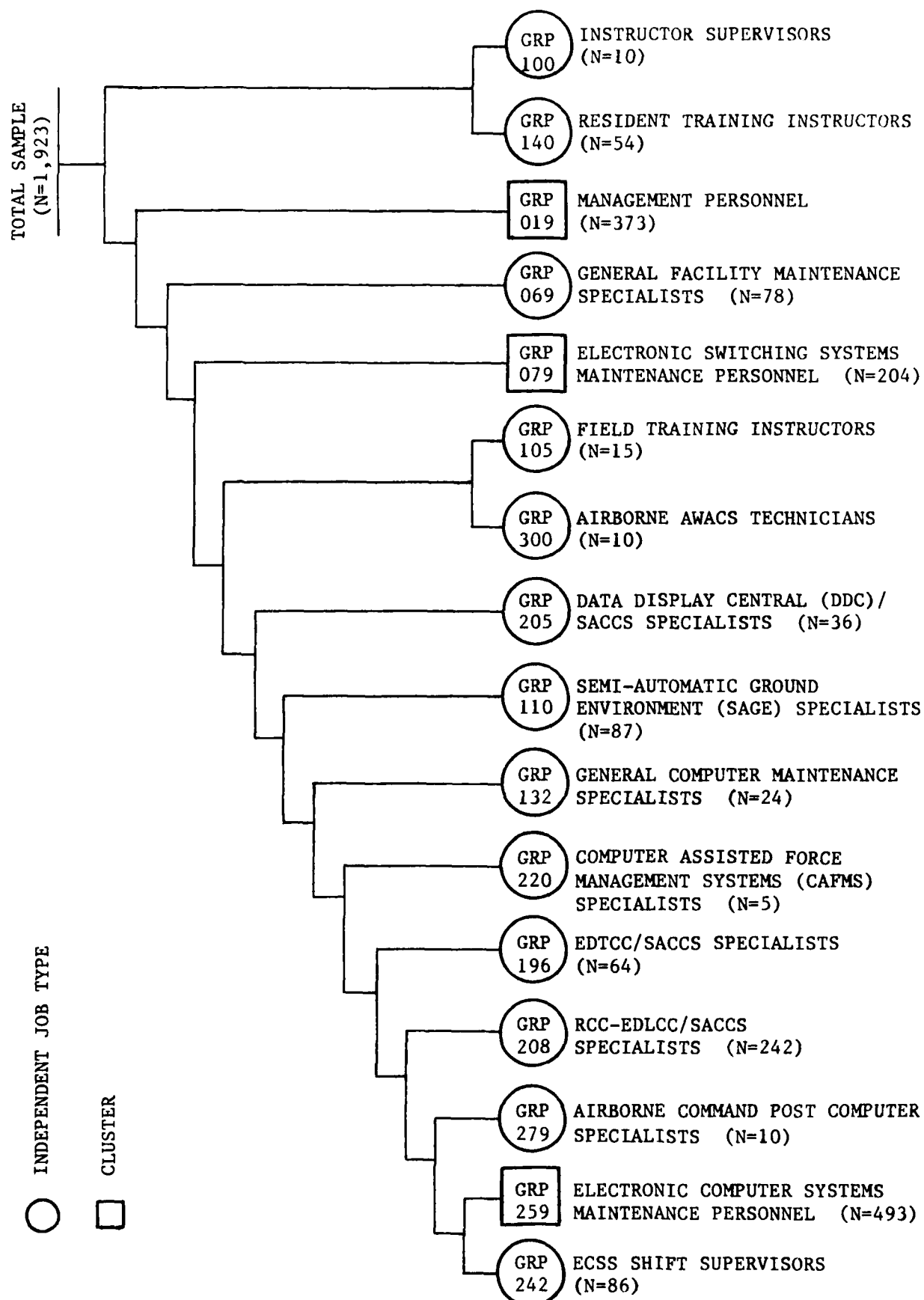
- I. Card Punch/Card Reader Equipment Repairmen (GRP347, N=10)
- J. Computer Operator-Maintainers (GRP366, N=22)
- K. Tape Punch/Tape Reader Equipment Repairmen (GRP285, N=28)
- III. AIRBORNE COMMAND POST COMPUTER SPECIALISTS (GRP279, N=10)
- IV. REMOTE COMMUNICATION CENTRAL (RCC)-ELECTRONIC DATA LOCAL COMMUNICATION CENTRAL (EDLCC)/SACCS SPECIALISTS (GRP208, N=242)
- V. ELECTRONIC DATA TRANSMISSION CONTROL CENTER (EDTCC)/SACCS SPECIALISTS (GRP196, N=64)
- VI. COMPUTER ASSISTED FORCE MANAGEMENT SYSTEM (CAFMS) SPECIALISTS (GRP220, N=5)
- VII. GENERAL COMPUTER MAINTENANCE SPECIALISTS (GRP132, N=24)
- VIII. SEMI-AUTOMATIC GROUND ENVIRONMENT (SAGE) SPECIALISTS (GRP110, N=87)
- IX. DATA DISPLAY CENTRAL (DDC)/SACCS SPECIALISTS (GRP205, N=36)
- X. AIRBORNE AWACS TECHNICIANS (GRP300, N=10)
- XI. FIELD TRAINING INSTRUCTORS (GRP105, N=15)
- XII. ELECTRONIC SWITCHING SYSTEMS MAINTENANCE CLUSTER (GRP079, N=204)
 - A. Overseas AUTOVON Switch Repair Specialists (GRP104, N=103)
 - B. Tactical Control Switch Repairmen (GRP125, N=101)
- XIII. GENERAL FACILITY MAINTENANCE SPECIALISTS (GRP069, N=78)

MANAGEMENT STAFF FUNCTIONAL AREA

- XIV. MANAGEMENT PERSONNEL CLUSTER (GRP019, N=373)
 - A. Quality Control Inspectors (GRP090, N=44)
 - B. Maintenance Workcenter NCOICs (GRP324, N=125)
 - C. Maintenance Controllers (GRP297, N=20)
 - D. Program Managers (GRP111, N=25)
 - E. Headquarters Administrative Staff Personnel (GRP96, N=34)
 - F. Supply Monitors (GRP33, N=13)
 - G. Job Controllers (GRP193, N=30)
 - H. Systems Controllers (GRP56, N=19)

FIGURE 2

305X4 CAREER LADDER STRUCTURE



TRAINING FUNCTIONAL AREA

XV. RESIDENT TRAINING INSTRUCTORS (GRP140, N=54)

XVI. INSTRUCTOR SUPERVISORS (GRP100, N=10)

Ninety-three percent of the respondents in the sample perform jobs generally equivalent to the 3 clusters and 13 independent job types listed above. The remaining 7 percent were performing tasks or series of tasks that did not group with any of the defined job types. Some of the job titles given by respondents which were representative of these personnel included Inspector Trainee, Switching Systems Engineer, Test Equipment Calibration, Repairman, and IBM PCAM Repairman.

Group Descriptions

The following paragraphs contain brief job descriptions of the clusters and independent job types identified through the career ladder structure analysis. Selected background and job satisfaction data are provided for these groups in Tables 5 and 6. Representative tasks for all clusters (as well as job types within clusters) and independent job types are contained in Appendix A.

ELECTRONIC COMPUTER AND SWITCHING (ECSS) MAINTENANCE FUNCTIONAL AREA

I. ELECTRONIC COMPUTER AND SWITCHING SYSTEMS SHIFT SUPERVISORS (GRP242, N=86). The experienced personnel (incumbents average 143 months TAFMS) in this group perform a combination of routine maintenance and supervisory functions. These respondents identified themselves as shift, shop, or crew chiefs or NCOICs and had an average grade of between E-5 and E-6. Representative tasks for this independent job type are:

- determine work priorities
- interpret policies, directives, or procedures for subordinates
- counsel personnel on personal or military-related matters
- conduct OJT
- research manuals for part numbers
- remove or replace electronic circuit cards or printed circuit boards
- prepare airman performance reports

This group performs an average of 258 tasks and has the highest job difficulty (Job Difficulty Index = 19.6) of any cluster or independent job type. This reflects the very broad scope of their job, which adds supervisory responsibilities to a full range of technical tasks. Their technical tasks are the same as the following cluster. Sixty-one percent of these respondents hold the 7-skill level DAFSC. Eighty-four percent report supervising an average of three personnel. Eighty percent of the respondents perceived their jobs as interesting; 88 percent reported their talents were well utilized, with 84 percent believing their training was well utilized. Sixty-two percent indicated positive reenlistment intentions.

II. ELECTRONIC COMPUTER SYSTEMS MAINTENANCE PERSONNEL CLUSTER (GRP259, N=493). The members making up the Electronic Computer Systems Maintenance Personnel Cluster comprise 26 percent of the total survey sample. These personnel are primarily involved with maintaining various different electronic computer systems and related equipment. Seventy-three percent of the 3-skill level personnel in the cluster have a duty AFSC of 30534E (General Computer Systems), reflecting the broad inventory of systems maintained by these personnel (see Tables 8A and 8B). Tasks performed by these respondents averaged 176 tasks or 21 percent of the 843 tasks in the survey booklet. Examples of these tasks include:

- replace minor electrical hardware
- remove or replace filters
- isolate malfunctions to printers
- clean read/write heads
- solder or desolder electronic equipment using soldering irons
- interpret program printouts for fault isolation
- interpret block diagrams for fault isolation
- isolate malfunctions to power supplies
- perform mechanical alignment of printers
- interpret results of memory diagnostic programs

The majority of these personnel (58 percent) were 5-skill level airmen, with 67 percent of the cluster in their second or subsequent enlistment, averaging 86 months TAFMS. Command distribution of this group reflected that the majority of these members were assigned to either AFCC (52 percent) or TAC (28 percent). The average grade of these incumbents was between E-4 and E-5, with 44 percent of the group supervising an average of 2.4 personnel.

Job satisfaction responses for this group indicate 79 percent of this journeyman cluster found their jobs interesting and 57 percent indicated favorable reenlistment intentions. Eighty-six percent of these members perceived their talents were being fairly well to perfectly utilized and 83 percent reported the same perception of their training utilization.

Within this rather large cluster, there were 11 subgroups or job types identified. These job types are briefly discussed below and in Appendix A. The differentiating feature of these job types is, that, in addition to performing a full range of maintenance on electronic computer systems, they

perform tasks which indicate a degree of equipment specialization, such as working on keyboards, memory units, modems, or display units. To some degree, this specialization is attributable to major command or mission orientation of the incumbents. Table 8A reflects the various systems maintained by members of this cluster.

A. Tactical Interpretation Systems Repair Specialists (GRP576, N=25). The personnel in this group represent a number of commands: TAC (28 percent), ESC (20 percent), PACAF (20 percent), USAFE (16 percent), and ATC (12 percent). Seventy-two percent of these respondents maintain either AN/TYQ-11 or WS-428A, or both. Fifty-six percent of the personnel are assigned overseas, with 72 percent of the group belonging to tactical reconnaissance squadrons.

B. Intermediate Computer Maintenance Specialists (GRP748, N=89). As in the previous group, several commands are represented by these personnel: AFCC (33 percent), ESC (26 percent), TAC (24 percent), and USAFE (11 percent). Forty-four percent of these members maintain equipment not covered by the inventory. However, from 18 to 25 percent maintain a variety of tactical control computer systems, such as AN/TSQ-91, AN/TYC-10, and HM-4118/407L. This job is the broadest of those in the cluster, with members performing an average of 245 tasks and a 21.5 JDI. They perform tasks across all computer maintenance duty areas with a significant number (12 percent) performing depot type maintenance.

C. Mainframe Processor-Disc Systems Specialists (GRP725, N=104). Ninety-one percent of these members are assigned to AFCC, with 41 percent of the group overseas. Systems maintained by this group include SAC Satellite Tracking, Overseas AUTODIN, 472M (NORAD), and Streamliner communications.

D. Tactical Air Control Systems Repair Specialists (GRP746, N=26). Every member of this group performs maintenance on one or more of the following systems: AN/TSQ-91, AN/TYC-10, HM-4118/407L. This group represents the K-shred (HM-4118/407L) personnel of the career ladder. Tasks unique to this group involve the maintenance of modems. These members are assigned to one of three commands: TAC (58 percent), USAFE (31 percent), or AFCC (11 percent). Thirty-five percent are assigned overseas.

E. Air Defense Systems Repair Specialists (GRP649, N=53). The majority of these respondents are assigned to TAC air defense squadrons (60 percent) with another 34 percent assigned to AFCC in support of the Air Defense Weapons Center. The systems maintained are AN/FYQ-7 (SAGE) and radar course directing equipment. Differentiating tasks for this group are those pertaining to the maintenance of magnetic drum units.

F. Airborne Warning and Control Systems (AWACS) Repair Specialists (GRP464, N=55). Ninety-eight percent of this group are assigned to TAC component repair or AWACS squadrons. Their job is in-shop maintenance of E-3A AWACS equipment.

G. 427M-Cheyenne Mountain Complex Technicians (GRP511, N=28). Seventy-five percent of the 3-skill level personnel in this group possess a duty AFSC of 30534R (427M Computer Maintenance), with 17 of the 28 members having completed R-shred training. Tasks unique to this group involve maintenance of mini- or micro-processors as opposed to main frame processors. This group includes three respondents who maintain photo interpretation equipment, while spending relatively the same amount of time on the same tasks performed by the 427M technicians.

H. Ground Development and Digital TV Systems Specialists (GRP523, N=6). While performing tasks across all technical duty areas, this group spends 12 percent of its time on maintenance of display equipment, such as liquid crystal light valves and plasma display equipment. The members of this group are assigned to AFCC and maintain both the AN/GYQ-18 and AN/UYK-47, systems unique to SAC.

I. Card Punch/Card Reader Equipment Repairmen (GRP347, N=10). Personnel from this group are predominantly from AFCC (80 percent) and are assigned to nine locations. Fourteen percent of their time is spent on maintenance of card punch or card reader equipment, which is more than any other job type in the cluster.

J. Computer Operator-Maintainers (GRP366, N=22). These personnel are assigned to one of three commands: AFCC (86 percent), ESC (9 percent), and AFLC (5 percent). Sixty percent of these respondents indicate they operate and maintain Defense Dissemination System (DDS) equipment. This group averages 9 years service, with 59 percent of the group indicating intent to reenlist. Job interest, however, is very low, with 41 percent reporting their job to be dull. Forty-six percent feel talents are being used little or not all, and a majority (59 percent) have the same perception of their training utilization.

K. Tape Punch/Tape Reader Equipment Repairmen (GRP285, N=28). The majority of this group are assigned to either AFCC (68 percent) or SAC (18 percent). This group spends 16 percent of their time performing maintenance on tape punch and tape reader equipment. Seventy-five percent reported this maintenance was in support of systems not listed in the background section of the survey. This group felt their talents were being well utilized; however, 32 percent reported their jobs to be less than interesting. Thirty-two percent also perceived their training to be of little or no use at all. Fifty percent of these respondents indicated they would not reenlist.

III. AIRBORNE COMMAND POST COMPUTER SPECIALISTS (GRP279, N=10). The members of this group are all assigned to SAC, with 50 percent performing duties requiring aerial flight. They have an average grade of 5.1 and average 103 months TAFMS. These personnel maintain the Post Attack Command Control System (PACCS) and the AN/UYK-47 Ground Development System (see Table 8A). Some representative tasks from the average of 188 tasks performed by this group are:

- remove or replace airborne command post LRUs
- load programs using magnetic tapes
- bench check cartridge or cassette magnetic tape units
- remove or replace integrated circuit components
- isolate malfunctions to plasma display equipment
- align cartridge or cassette magnetic tape units

This group has a job difficulty index (JDI) of 18.7 (the adjusted average for the entire sample is 13.0), which suggests this is a rather difficult job. Ninety percent of this group found their job interesting and perceived their talents to be used fairly well to perfectly. Thirty percent, however, perceived their training to be used little or not at all. Sixty percent of the members indicated favorable reenlistment intentions, while 20 percent reported they would retire during or at the end of their current enlistment.

IV. REMOTE COMMUNICATION CENTRAL (RCC) - ELECTRONIC DATA LOCAL COMMUNICATION CENTRAL (EDLCC)/SACCS SPECIALISTS (GRP208, N=242). This group is the largest independent job type of the study (13 percent of the total sample). The majority (93 percent) of the members are 3- and 5-skill level personnel with an average grade slightly below E-4 (3.8). Ninety-one percent of the 3-skill level personnel have a DAFSC suffix of G (465L, RCC-EDLCC/SACCS). They perform an average of 125 tasks and have a JDI of 14.2, which reflects a slightly above average job difficulty. Their average time in the career field is 33 months, while 66 percent of the group are in their first enlistment. Ninety-two percent of the members are assigned to AFCC; however, all of these are assigned to SAC bases or bases with SAC tenants. Table 8A reflects that 89 percent maintain the remote control centrals (RCC) for the SAC basic 465L command control systems. Tasks they perform include:

- align format message composers (FMC)
- perform preventive maintenance inspections on FMCs
- perform self-test procedures on drawer testers
- isolate malfunctions to FMCs
- replace minor electrical hardware
- remove or replace discrete circuit components
- remove or replace modems

Reenlistment intentions (46 percent favorable) for this somewhat young group are slightly higher than those of all first-enlistment personnel in the career ladder (42 percent). Table 6 reflects expressed job interest and perceived utilization of talents and training are about average considering the experience level of this group.

V. ELECTRONIC DATA TRANSMISSION CONTROL CENTER (EDTCC)/SACCS SPECIALISTS (GRP196, N=64). This group, like the previous independent job type, has a mission of SAC support. Seventy-seven percent of

these members maintain the electronic data transmission control center (EDTCC) equipment of the 465L command control system, representing the F-shred job. Typical tasks include:

- load programs using cards
- isolate malfunctions within modems to component
- align reel-to-reel magnetic tape units
- remove or replace integrated circuit components
- perform PMIs on reel-to-reel magnetic tape units

The majority of these personnel possess a DAFSC of 30554 (47 percent) or 30534F (41 percent). As their skill levels reflect, this is a somewhat junior group, averaging 29 months time in the career field (TICF) and 42 months TAFMS. Their average grade is 3.5. The scope of their job is less than the previous group of SAC support personnel, averaging only 92 tasks and a JDI of 12.4, which is about average for the career field as a whole.

As seen in Table 6, perceived utilization of talents and training is somewhat high for this group (only the FTD Instructors exceeding them in both areas).

VI. COMPUTER ASSISTED FORCE MANAGEMENT SYSTEM (CAFMS) SPECIALISTS (GRP220, N=5). This small group of TAC personnel are assigned to tactical air control center squadrons. Typical tasks for this group include:

- operate keyboards other than for airborne systems
- fabricate or modify cable installations
- coordinate computer system functional requirements with users
- load programs using floppy discs
- remove or replace modems

Four of these five respondents are in their second or subsequent enlistment and have an average grade slightly less than E-5. They perform an average of 155 tasks with a 17.9 JDI, which reflects an above average difficulty for this job.

Job satisfaction indicators are very high for this group, with the exception of perceived utilization of training. Forty percent (two members) responded their training was used little or not at all (see Table 6).

VII. GENERAL COMPUTER SYSTEMS MAINTENANCE SPECIALISTS (GRP132, N=24). The members of this group perform a relatively small number of tasks (76) with a corresponding 9.8 JDI. The tasks are related to general or routine maintenance, such as:

- clean or treat filters
- perform general cleaning of electronic computer or switching systems equipment
- clean read/write heads
- replace minor electrical hardware
- remove or replace filters

Eighty-eight percent of the group possess a DAFSC at the 3- or 5-skill level. The average time in the career ladder for these incumbents is 41 months and their average grade is 3.9.

Job satisfaction indicators for these members are somewhat lower than most groups reported. Their job interest (75 percent interesting) and favorable reenlistment intent (58 percent) are as good or better than that reported for all first enlistment personnel in the career ladder.

VIII. SEMI-AUTOMATIC GROUND ENVIRONMENT (SAGE) SPECIALISTS (GRP110, N=87). Seventy-nine percent of these respondents are assigned to TAC with another 17 percent assigned to AFCC. They have an average of 36 months in the career field, with 58 percent in their first enlistment. Forty-four percent have a DAFSC of 30534E and 46 percent possess the 5-skill level. With a JDI of 11.5, they are performing an average of 84 tasks. Included in these are:

- load programs using cards
- align cathode ray tube (CRT) display equipment
- align consoles
- perform operational checks of CRT display equipment
- isolate malfunctions to CRT display equipment
- load programs using magnetic drums

Ninety percent of the group members felt their talents were utilized effectively, 84 percent perceived proper use of their training, and 82 percent reported their jobs interesting. Favorable reenlistment intentions were reported by 49 percent of all the members of this group.

IX. DATA DISPLAY CENTRAL (DDC)/SACCS SPECIALISTS (GRP205, N=36). Ninety-seven percent of this group maintain data display equipment associated with the SAC 465L command control system representative of the H-shred (see Table 8C). Seventy-five percent of these personnel are in their first enlistment. They perform an average of 84 tasks with an 11.1 JDI. Typical tasks include:

- align fluid distribution systems
- perform PMIs on fluid distribution systems
- align projection display equipment

operate display equipment other than for airborne systems
isolate malfunctions within fluid distribution systems
align CRT display equipment

The experience level of this group is the lowest reported in the survey sample. They average 23 months in the career field and 38 months time in service, with an average grade between E-3 and E-4. The majority of these members are assigned to AFCC (92 percent), with 6 percent assigned to SAC.

This group, across all job satisfaction indicators, expresses the least satisfaction with their job than any other group in the survey (see Table 6). Only 47 percent feel their job is interesting. The same number perceive their training to be of little or no use. Sixty-two percent of these personnel have been in their present job for 24 months or less. Overall, the group spends 50 percent of their time on 43 tasks. This job is somewhat narrow in that of these tasks, 42 percent are related to display equipment maintenance and 35 percent related to routine minor maintenance.

X. AIRBORNE AWACS TECHNICIANS (GRP300, N=10). These 10 members are all assigned to positions requiring aerial flight on Airborne Warning and Control System aircraft (E-3A). Sixty percent were found to be at overseas locations. Typical tasks include:

operate AWACS data processing systems
preflight AWACS communication and data processing equipment
perform aircraft preflight inspections
detect faults within AWACS interface equipment
perform operational checks of AWACS built-in test equipment
load and operate CPUs with operational programs

This highly experienced group (70 percent are 7-skill level personnel) have an average grade of slightly over E-6 and average 150 months in the career field. They have an above average difficulty job (JDI = 14.9) and perform an average of 103 tasks.

Although 70 percent of this group find their job interesting and their reenlistment intentions are high (80 percent), 40 percent (4 members) feel their talents and training are used only a little or not at all. This highly experienced group of technicians spends a considerable amount of time on operating, preflighting, performing operational checks, and detecting system faults. They are not deeply involved in either organizational or intermediate maintenance tasks--those tasks for which they have received extensive training.

XI. INTERMEDIATE AND FTD INSTRUCTORS (GRP105, N=15). As indicated by their job title, these ATC instructors train personnel in intermediate, advanced, or unique systems maintenance. Differentiating tasks for this group include:

- conduct classroom training other than for OJT
- write test questions
- prepare lesson plans
- load and operate CPUs with diagnostic programs
- load programs using keyboards
- evaluate resident course student progress

The majority (73 percent) of these personnel have a DAFSC of T30574. Their average grade is E-6 and they have an average of 129 months TICF. This group performs an average of 98 tasks with a JDI of 15.2, which is much higher than that of the basic course instructors to be discussed later.

Job satisfaction responses for this group are very favorable, with 67 percent indicating they plan to reenlist and 13 percent planning to retire.

XII. ELECTRONIC SWITCHING SYSTEMS MAINTENANCE PERSONNEL CLUSTER (GRP79, N=204). This cluster represents those technical jobs formerly the responsibility of the 362X2 career ladder, which merged with the 305X4 ladder in 1980. This cluster constitutes 11 percent of the total sample. With 61 percent of these members in their first enlistment, the member's experience level is somewhat lower (averaging 35 months in the career field and 58 months in the service) than that of the Computer Systems Maintenance Cluster (GRP259). The cluster is composed of two job types, one responsible for 490L Overseas AUTOVON and related systems maintenance, the other for maintenance of various transportable telephone center systems.

A. Overseas AUTOVON Switch Repair Specialists (GRP104, N=103). The majority of these members are assigned to AFCC (85 percent) worldwide, with another 8 percent to PACAF. Eighty percent of the total group are assigned overseas, with CONUS personnel assigned to special activities. These incumbents perform an average of 100 tasks; typical tasks include:

- perform PMIs on AUTOVON subsystems
- interpret program printouts for fault isolation
- adjust line or trunk circuits
- detect faults within trunk scanner circuits
- check battery cell voltage
- load programs using keyboards

Thirty-six percent of this group possess a DAFSC of 30534P (490L, OS AUTOVON) and 51 percent have a DAFSC of 30554, while the average grade is 3.8.

Eighty-three percent find their job interesting and 52 percent indicate they plan to reenlist. Eighty-nine percent find their talents and training fairly well to perfectly utilized.

B. Tactical Control Switch Repairmen (GRP125, N=101). Ninety-five percent of these respondents are assigned to one of three commands: TAC (46 percent), AFCC (33 percent), and USAFE (16 percent). Twenty-eight percent of the group are assigned overseas. This group performs an average of 130 tasks. Examples of these tasks are:

- perform operational checks of TA-341/TT telephones
- remove or replace TA-341/TT telephones
- detect faults within register circuits
- remove or replace batteries
- perform PMIs on mobile electronic switching equipment
- replace minor electrical hardware

Fifty percent of these personnel have a 5-skill level DAFSC, while 36 percent have a DAFSC of 30534Q. The AN/TTC-30 Electronic Switching System, Q-shred equipment, is maintained by over 83 percent of the entire group.

Job satisfaction responses reflect 68 percent find their job interesting and 50 percent indicate favorable reenlistment intent. Perceived utilization of talents and training were rated as fairly well to perfectly utilized by 83 percent and 82 percent, respectively.

XIII. GENERAL FACILITY MAINTENANCE SPECIALISTS (GRP69, N=78). Forty-seven percent of this group have a DAFSC at the 3-skill level. They average 32 months in the career field. These members spend 54 percent of their time performing routine maintenance and another 14 percent performing administrative and support functions. The group has a very limited job scope, performing an average of 40 tasks (a 5.2 JDI, the lowest difficulty index of any job reported). Typical tasks include:

- interpret logic or schematic diagrams for fault isolation
- solder or desolder electronic equipment using soldering irons
- perform general cleaning of ECSS equipment
- replace minor electrical hardware
- research manuals for parts numbers
- make entries on AFTO Forms 349 (Maintenance Data Collection Record)

Forty-nine percent of the incumbents indicated they spent most of their time in a training atmosphere. Both perceived utilization of talents and training were rated fairly well to perfectly utilized by 80 percent or more of the group, while 51 percent had positive reenlistment intentions.

MANAGEMENT STAFF FUNCTIONAL AREA

XIV. MANAGEMENT PERSONNEL CLUSTER (GRP19, N=373). This cluster accounts for 19 percent of the total survey sample and includes 8 separate job types. Fifty-nine percent of the group hold the 7-skill level DAFSC, with 13 percent reporting performance at the 9-skill level. Averaging over 9 years in the career field and over 14 years total service, this group has an average grade of E-6. Representative tasks of the average 65 tasks performed by this group include:

- draft or write correspondence
- participate in meetings, such as staff meetings, briefings, conferences, or workshops
- interpret policies, directives, or procedures for subordinates
- evaluate compliance with performance standards
- determine work priorities
- review equipment records
- coordinate job requirements with other sections
- orient newly assigned personnel

Seventy-one percent of the respondents reported their jobs were interesting and 49 percent indicated positive reenlistment intentions, while 31 percent of this more experienced group indicated they would retire at the end of their enlistment. Perceived utilization of talents was high at 73 percent, but only 55 percent reported their training to be fairly well to perfectly utilized. The eight job types are briefly discussed below, while representative tasks are listed in Appendix A.

A. Quality Control Inspectors (GRP90, N=44). Sixty-four percent of these airmen possess a DAFSC at the 7- or 9-skill level and the average grade for the job is E-6. Their average time in the career field is over 10 years, with an average of 14 years military service. Ninety-six percent of these members are distributed among AFCC (57 percent), TAC (27 percent), ESC (7 percent), and SAC (5 percent). Inspections, evaluations, and initiating or reviewing forms and reports are typical of types of activities of the incumbents.

B. Maintenance Workcenter NCOICs (GRP324, N=125). This is the largest job type in Management Staff Personnel cluster. This group of 7-skill level (74 percent) and 9-skill level (17 percent) personnel engage in supervising and managing either computer or switching systems equipment repair or support functions. Only 10 percent of their time is directed to maintenance type duties. Their average grade is slightly below E-7, with an average TICF of 10 years and TAFMS of 17 years. Ninety-four percent of the respondents supervise an average of 5.4 personnel. The difficulty of this job is the highest within the cluster; however, at 12.6, it is slightly below the average of 13.0 for the entire sample.

C. Maintenance Controllers (GRP297, N=20). The members of this group are involved in planning, scheduling, and controlling maintenance workloads. Eighty-five percent of these personnel supervise an average of three airmen. Also, 85 percent are found in AFCC. They perform an average of 72 tasks. Typical tasks are:

- advise personnel on equipment status,
- issue job control numbers
- dispatch maintenance personnel
- coordinate job requirements with other sections

D. Program Managers (GRP111, N=25). Thirty-six percent of this group possesses a DAFSC at the 9-skill level, while the remainder are 7-skill level personnel. They perform such tasks as determine personnel or equipment requirements, plan equipment or facility maintenance requirements, and evaluate compliance with performance standards. They are assigned to a number of major command headquarters, intermediate headquarters, and special activities. They call themselves such things as data systems logistics manager, NCOIC of programs and mobility, assistant programs manager, and communication-electronics systems manager. This is the senior group within the Management Staff Personnel cluster, having an average grade slightly above E-7 and averaging 150 months in the career field and 222 months in the service.

E. Headquarters Administrative Staff Personnel (GRP96, N=34). This small group is somewhat similar to the previous group. They are senior personnel spending much of their time reviewing and writing correspondence, compiling information, and participating in meetings. They spend much less time in the evaluation function than do the Program Managers.

F. Supply Monitors (GRP33, N=13). Members of this group perform tasks involving surveillance of the supply activities which support maintained systems. Over 60 percent of their time is spent performing administrative and supply functions. Typical tasks include:

- maintain supply control logs
- research documents for parts information
- maintain benchstock parts or equipment levels
- verify monitor reports

G. Job Controllers (GRP193, N=30). This group performs an average of 20 tasks, which are all related to job control. They have an average grade between E-4 and E-5 and 73 percent possess a DAFSC of 30554. Typical tasks include:

- initiate or review job control documents or master station logs
- dispatch maintenance personnel
- maintain status boards, graphs, or charts

H. Systems Controllers (GRP56, N=19). Most members of this group support either the 465L, SAC command control system, or the 427M, NORAD system. The group consists of 3-, 5-, and 7-skill level personnel having an average grade between E-4 and E-5. The group performs an average of only 17 tasks, while 50 percent of their job is spent on just 8 tasks. Twenty-six percent of their time is spent on operating or monitoring computer systems or related equipment, with 41 percent spent on records maintenance and other administrative and support functions.

TRAINING PERSONNEL FUNCTIONAL AREA

XV. RESIDENT TRAINING INSTRUCTORS (GRP140, N=54). All but two members of this group are assigned to ATC. Ninety-one percent of the group possess a DAFSC at the 5- or 7-skill level. Their average grade is about E-5 and average time in the career field is 94 months. They perform an average of 28 tasks. Primary tasks performed are:

- conduct classroom training
- prepare lesson plans
- administer tests
- score tests
- demonstrate how to locate technical information
- counsel trainees on training progress

Ninety-one percent of the instructors perceived their talents and training to be fairly well to perfectly utilized. Seventy-eight percent indicated they found their jobs interesting and 70 percent planned to reenlist, while 13 percent indicated retirement intentions.

XVI. INSTRUCTOR SUPERVISORS (GRP100, N=10). These members, assigned to technical training centers, supervise an average grade of E-6 and all have a 7-skill level DAFSC. They have 112 months in the career field and 188 months in the service. They perform an average of 40 tasks. These supervisors spend a large amount of time in instruction-related activities; however, it is much less than that spent by the previous group. Differentiating tasks include:

- assign course instructors
- write test questions
- evaluate instructor performance
- prepare training schedules
- evaluate training methods or techniques

Ninety percent of this group found their jobs interesting. Eighty percent found their talents and training effectively utilized. Fifty percent indicated intent to reenlist, while 40 percent plan retirement.

Comparison of Specialty Jobs

In addition to identifying the functions of each job, it is useful to contrast the jobs in terms of background characteristics and job attitudes. Table 5 presents background data, such as average grade, DAFSC, average time in career field and service, and average number of tasks performed. Table 6 reflects data pertaining to job satisfaction indicators, including expressed job interest, perceived utilization of talents and training, and reenlistment intentions.

In most of the groups identified, members indicate a high amount of job interest, with 15 of the 16 groups showing over 70 percent of their members found their jobs interesting. The job of the group where less than 70 percent of the incumbents reported positive job interest--Data Display Central/SACCS Specialists--has one of the lowest Job Difficulty Indexes (11.1) in the maintenance functional area and is somewhat limited in scope. This group performs an average 84 tasks compared to an average of 136 for the 13 groups that comprise the maintenance functional area. Table 7 reflects the high degree of specialization in this group, with 28 percent of their time dedicated to display equipment. Although this group represents less than 2 percent of the total sample, and less than 3 percent of the maintenance functional area, managers should note that this group has a significantly lower job interest than the other two SACCS groups.

Perceived utilization of talents and use of their training generally are very high, with only six groups having less than 70 percent responding positively in either indicator. Three of the groups had less than 70 percent positive responses for both use of their talents and use of training--the Data Display group (discussed above), the General Computer Systems Maintenance group, and the Airborne AWACS Technicians group. The 33 percent negative responses from the General Computer Systems Maintenance group may reflect the low job difficulty and scope of their job (a JDI of 5.2 and an average of 40 tasks performed by group members). The Airborne AWACS group (N=10) is a very specialized group of senior personnel (an average TAFMS of 176 months) with a very narrow job. The airborne nature of this job requires a considerable amount of time devoted to preflighting systems and "riding along" waiting for systems malfunctions as opposed to the shop maintenance performed by most of the other groups discussed.

Reenlistment intent varied from a high of 80 percent positive responses for two groups--Airborne AWACS and Computer Assisted Force Management Systems (CAFMS) groups--to a low of 42 percent for the SACCS Data Display group. Managers should note that all three of the SACCS groups (18 percent of the total sample) had less than 50 percent members indicating positive reenlistment intentions.

Survey respondents are encouraged to provide write-in comments in the job inventory booklets, and when there are serious problems in a career field, they usually will take the opportunity to discuss their perceptions. Only 35 airmen, less than 2 percent of the respondents, used the write-in

option to convey some type of information (e.g., additional systems maintained, other courses completed, or job titles used). No comments were provided to elaborate the relatively low job satisfaction expressed by any of the groups discussed above.

In summary, the career ladder structure suggests the present career ladder classification structure is working well. Equipment-oriented groups, including equipment formerly maintained by 362X2 personnel, are formed in consonance with the present classification structure, with 3-skill level shred personnel matched to the appropriate job groups. Job satisfaction responses indicate that individuals and training generally are well matched to the job characteristics of the career ladder. Those groups at the low end of the job satisfaction range perform limited or specialized jobs.

TABLE 5
SELECTED BACKGROUND DATA FOR CAREER LADDER CLUSTERS AND INDEPENDENT JOB TYPES

	ECSS SHIFT SUPERVISORS	ELECTRONIC COMPUTER SYSTEMS MAINTENANCE		AIRBORNE COMMAND POST SPECIALISTS	RCC-EDLCC/ SACCS SPECIALISTS		EDTCC/ SACCS SPECIALISTS	CAFMS SPECIALISTS	GENERAL COMPUTER SYSTEMS MAINTENANCE SAGE SPECIALISTS	
		PERSONNEL								
NUMBER IN GROUP	86	493		10	242		64	5	24	87
PERCENT OF TOTAL SAMPLE	4%	26%		.5%	13%		3%	.3%	1%	5%
PERCENT IN CONUS	55%	71%		100%	94%		97%	100%	83%	97%
AVERAGE NUMBER TASKS PERFORMED	258	176		188	125		92	155	76	84
DAFSC DISTRIBUTION:										
30534	0%	16%		0%	40%		50%	20%	25%	44%
30554	38%	58%		80%	53%		47%	60%	63%	46%
30574	61%	26%		20%	7%		3%	20%	12%	10%
30594	1%	0%		0%	0%		0%	0%	0%	0%
AVERAGE GRADE										
AVERAGE MONTHS IN CAREER FIELD	5.5	4.6		5.1	3.8		3.5	4.8	3.9	4.0
AVERAGE MONTHS IN SERVICE	93	61		83	33		29	46	41	36
	143	86		103	49		42	87	64	59
PERCENT IN FIRST ENLISTMENT										
PERCENT SUPERVISING	7%	33%		20%	66%		77%	20%	63%	58%
JOB DIFFICULTY INDEX	84%	44%		60%	36%		22%	40%	25%	30%
	19.6	18.1		18.7	14.2		12.4	17.9	9.8	11.5

TABLE 5 (CONTINUED)
SELECTED BACKGROUND DATA FOR CAREER LADDER CLUSTERS AND INDEPENDENT JOB TYPES

	DATA DISPLAY		AIRBORNE		FIELD		ELECTRONIC		GENERAL		MANAGEMENT		RESIDENT		INSTRUCTOR	
	SPECIALISTS	TECHNICIANS	AWACS	INSTRUCTORS	SWITCHING	SYSTEMS	MAINTENANCE	PERSONNEL	SPECIALISTS	STAFF	PERSONNEL	TRAINING	INSTRUCTORS	SUPERVISORS		
NUMBER IN GROUP	36	10	15	15	204	111	78	373	54	10	54	10	54	10	54	10
PERCENT OF TOTAL SAMPLE	2%	.5%	.8%	.8%	11%	46%	4%	19%	3%	.5%	19%	3%	3%	.5%	19%	3%
PERCENT IN CONUS	97%	40%	100%	100%	46%	115	83%	80%	98%	80%	80%	98%	80%	80%	80%	80%
AVERAGE NUMBER TASKS PERFORMED	84	103	98	98	115	115	40	65	28	65	65	28	28	40	40	40
DAFSC DISTRIBUTION:																
30534	42%	0%	0%	0%	38%	47%	47%	3%	7%	0%	3%	7%	0%	0%	0%	0%
30554	53%	10%	27%	27%	50%	46%	46%	25%	54%	0%	25%	54%	0%	0%	0%	0%
30574	5%	70%	73%	73%	12%	7%	7%	59%	37%	100%	59%	37%	100%	100%	100%	100%
30594	0%	20%	0%	0%	0%	0%	0%	13%	2%	0%	13%	2%	0%	0%	0%	0%
AVERAGE GRADE																
AVERAGE MONTHS IN CAREER FIELD	3.6	6.3	6.0	6.0	3.9	3.8	3.8	6.1	5.2	6.3	6.1	5.2	5.2	6.3	6.3	6.3
AVERAGE MONTHS IN SERVICE	23	150	129	129	35	32	32	112	94	112	112	94	112	112	112	112
	38	176	166	166	58	55	55	174	119	174	174	119	119	188	188	188
PERCENT IN FIRST ENLISTMENT																
PERCENT SUPERVISING	75%	0%	0%	0%	61%	59%	59%	8%	15%	0%	8%	15%	15%	0%	0%	0%
JOB DIFFICULTY INDEX	33%	50%	40%	40%	32%	18%	18%	58%	11%	70%	58%	11%	11%	70%	70%	70%
	11.1	14.9	15.2	15.2	12.6	5.2	5.2	8.9	8.5	8.3	8.9	8.5	8.5	8.3	8.3	8.3

TABLE 6
COMPARISONS OF JOB SATISFACTION INDICATORS BY CAREER LADDER CLUSTERS AND INDEPENDENT JOB TYPES
(PERCENT MEMBERS RESPONDING)*

	ELECTRONIC		AIRBORNE		RCC-EDLCC/		EDTCC/		CAFMS		GENERAL	
	COMPUTER SYSTEMS MAINTENANCE PERSONNEL (N=493)	COMMAND POST SPECIALISTS (N=10)	SACCS SPECIALISTS (N=242)	SACCS SPECIALISTS (N=64)	SACCS SPECIALISTS (N=5)	MAINTENANCE SPECIALISTS (N=24)	COMPUTER SYSTEMS MAINTENANCE SPECIALISTS (N=87)					
ECSS SHIFT SUPERVISORS (N=86)												
<u>EXPRESSED JOB INTEREST:</u>												
DULL	4	9	0	13	8	0	8	6				
SO-SO	13	11	0	10	13	0	8	10				
INTERESTING	80	79	90	75	73	100	75	82				
<u>PERCEIVED UTILIZATION OF TALENTS:</u>												
LITTLE OR NOT AT ALL	11	14	10	18	8	0	33	10				
FAIRLY WELL TO PERFECTLY	88	86	90	81	92	100	67	90				
<u>PERCEIVED UTILIZATION OF TRAINING:</u>												
LITTLE OR NOT AT ALL	15	17	30	12	5	40	33	16				
FAIRLY WELL TO PERFECTLY	84	83	60	86	95	60	67	84				
<u>REENLISTMENT INTENTIONS:</u>												
NO, OR PROBABLY NO	22	37	20	51	53	20	38	48				
YES, OR PROBABLY YES	62	57	60	46	45	80	58	50				
RETIRE	15	5	20	1	2	0	4	1				
ELIGIBLE TO REENLIST	97	96	100	97	94	100	96	98				
ELIGIBLE TO RETIRE	23	7	20	3	3	20	17	2				

* Columns may not add to 100 percent due to nonresponse or rounding

TABLE 6 (CONTINUED)

COMPARISONS OF JOB SATISFACTION INDICATORS BY CAREER LADDER CLUSTERS AND INDEPENDENT JOB TYPES
(PERCENT MEMBERS RESPONDING)*

	DATA DISPLAY CENTRAL/ SACCS SPECIALISTS (N=36)	AIRBORNE AWACS TECHNICIANS (N=10)	FIELD TRAINING INSTRUCTORS (N=15)	ELECTRONIC SWITCHING SYSTEMS MAINTENANCE PERSONNEL (N=204)	GENERAL FACILITY MAINTENANCE SPECIALISTS (N=78)	MANAGEMENT STAFF PERSONNEL (N=373)	RESIDENT TRAINING INSTRUCTORS (N=54)	INSTRUCTOR SUPERVISORS (N=10)
EXPRESSED JOB INTEREST:								
DULL	31	0	0	9	10	12	4	0
SO-SO	22	30	7	13	15	14	11	10
INTERESTING	(47)	70	93	75	73	71	78	90
PERCEIVED UTILIZATION OF TALENTS:								
LITTLE OR NOT AT ALL	31	40	0	13	19	27	7	20
FAIRLY WELL TO PERFECTLY	(69)	(60)	100	86	81	73	91	80
PERCEIVED UTILIZATION OF TRAINING:								
LITTLE OR NOT AT ALL	47	40	0	12	18	45	6	20
FAIRLY WELL TO PERFECTLY	(53)	(60)	100	88	82	(55)	91	80
REENLISTMENT INTENTIONS:								
NO, OR PROBABLY NO	56	0	20	47	47	19	17	10
YES, OR PROBABLY YES	(42)	80	67	51	51	49	70	50
RETIRE	0	20	13	2	1	31	13	40
ELIGIBLE TO REENLIST	97	90	93	95	94	91	96	80
ELIGIBLE TO RETIRE	0	40	33	3	6	48	17	60

* Columns may not add to 100 percent due to nonresponse or rounding

TABLE 7
RELATIVE TIME SPENT ON DUTIES BY CAREER LADDER CLUSTERS AND INDEPENDENT JOB TYPES
(PERCENT TIME SPENT)

DUTIES	ECSS SHIFT SUPERVISORS (N=86)	ELECTRONIC COMPUTER SYSTEMS MAINTENANCE PERSONNEL (N=493)	AIRBORNE COMMAND POST SPECIALISTS (N=10)	RCC-EDLCC/ SACCS SPECIALISTS (N=242)	EDTCC/ SACCS SPECIALISTS (N=64)	CAFMS SPECIALISTS (N=5)	GENERAL COMPUTER SYSTEMS MAINTENANCE SPECIALISTS (N=24)	SAGE SPECIALISTS (N=87)
A ORGANIZING AND PLANNING	5	1	3	1	*	4	*	1
B DIRECTING AND IMPLEMENTING	6	2	4	2	1	3	1	2
C INSPECTING AND EVALUATING	7	2	4	2	1	1	*	1
D TRAINING	6	2	3	2	2	2	1	2
E MAKING ENTRIES ON FORMS OR RECORDS AND PERFORMING ADMINISTRATIVE AND SUPPORT FUNCTIONS	14	7	9	11	7	6	10	7
F PERFORMING ROUTINE, REPAIR FACILITY, OR SYSTEM UNIQUE MAINTENANCE	16	19	19	26	34	23	27	27
G MONITORING, OPERATING, AND PROGRAMMING ELECTRONIC COMPUTER AND SWITCHIN SYSTEMS	4	4	2	3	4	12	5	3
H MAINTAINING CENTRAL PROCESSING UNITS (CPU)	4	8	7	2	8	7	10	6
I MAINTAINING FIXED SWITCHING CENTER EQUIPMENT	3	*	0	*	*	0	*	*
J MAINTAINING MOBILE SWITCHING CENTER EQUIPMENT	*	*	*	*	*	1	0	*
K MAINTAINING MEMORY ASSEMBLIES	3	5	2	3	4	2	4	3
L MAINTAINING INPUT/OUTPUT (I/O) ASSEMBLIES, SUCH AS BUFFERS, CONTROLLERS, OR INTERFACES	2	4	4	4	3	1	2	2
M MAINTAINING MAINTENANCE OR OPERATOR PANELS OR CONSOLES INCLUDING BUILT-IN TEST EQUIPMENT	2	4	3	3	3	*	3	9
N MAINTAINING MAGNETIC TAPE UNITS	4	6	8	8	10	0	3	6
O MAINTAINING MAGNETIC DRUM UNITS	*	1	0	0	1	*	0	4
P MAINTAINING MAGNETIC DISC SYSTEMS	2	3	5	*	*	4	4	*
Q MAINTAINING CARD PUNCH AND CARD READER EQUIPMENT	*	3	0	0	2	0	*	5

TABLE 7 (CONTINUED)
RELATIVE TIME SPENT ON DUTIES BY CAREER LADDER CLUSTERS AND INDEPENDENT JOB TYPES
(PERCENT TIME SPENT)

DUTIES	ECSS SHIFT SUPERVISORS (N=86)	ELECTRONIC COMPUTER SYSTEMS MAINTENANCE PERSONNEL (N=493)	AIRBORNE COMMAND POST SPECIALISTS (N=10)	RCC-EDLCC/ SACCS SPECIALISTS (N=242)	EDTCC/ SACCS SPECIALISTS (N=64)	CAFMS SPECIALISTS (N=5)	GENERAL COMPUTER SYSTEMS MAINTENANCE SPECIALISTS (N=24)	SAGE SPECIALISTS (N=87)
R MAINTAINING TAPE PUNCH AND TAPE READER EQUIPMENT	1	3	*	*	*	0	2	*
S MAINTAINING KEYBOARDS AND PRINTERS	5	10	8	13	1	11	12	5
T MAINTAINING DISPLAY EQUIPMENT	3	4	5	3	*	3	6	11
U MAINTAINING MODEMS	2	1	1	7	11	6	*	*
V MAINTAINING POWER SUPPLIES AND POWER DISTRIBUTION SYSTEMS	6	6	6	9	8	1	5	4
W MAINTAINING PLOTTERS, SUCH AS XY PLOTTERS	*	*	0	*	0	0	*	*
X INSTALLING, MODIFYING, RECONFIGURING, AND MANAGING ELECTRONIC COMPUTER AND SWITCHING SYSTEMS INCLUDING MOBILE EQUIPMENT	2	1	2	*	*	12	*	*
Y MAINTAINING, MONITORING, AND OPERATING AIRBORNE SYSTEMS UNIQUE EQUIPMENT	*	*	3	0	0	0	0	*

* Denotes less than .5 percent

TABLE 7 (CONTINUED)
RELATIVE TIME SPENT ON DUTIES BY CAREER LADDER CLUSTERS AND INDEPENDENT JOB TYPES
(PERCENT TIME SPENT)

DUTIES	DATA DISPLAY CENTRAL/SACCS SPECIALISTS (N=36)		AIRBORNE AWACS TECHNICIANS (N=10)	FIELD TRAINING INSTRUCTORS (N=15)	ELECTRONIC SWITCHING SYSTEMS MAINTENANCE PERSONNEL (N=204)		GENERAL FACILITY MAINTENANCE SPECIALISTS (N=78)	MANAGEMENT STAFF PERSONNEL (N=373)	RESIDENT TRAINING INSTRUCTORS (N=54)	INSTRUCTOR SUPERVISORS (N=10)
A ORGANIZING AND PLANNING	2		3	3	2		1	15	3	13
B DIRECTING AND IMPLEMENTING	3		3	3	2		1	16	3	12
C INSPECTING AND EVALUATING	2		3	2	2		1	19	2	13
D TRAINING	3		8	20	3		2	9	55	41
E MAKING ENTRIES ON FORMS OR RECORDS AND PERFORMING ADMINISTRATIVE AND SUPPORT FUNCTIONS	9		6	6	10		14	29	8	11
F PERFORMING ROUTINE, REPAIR FACILITY, OR SYSTEM UNIQUE MAINTENANCE	23		18	16	27		54	4	16	4
G MONITORING, OPERATING, AND PROGRAMMING ELECTRONIC COMPUTER AND SWITCHING SYSTEMS	3		7	7	3		2	3	4	4
H MAINTAINING CENTRAL PROCESSING UNITS (CPU)	1		8	10	1		2	1	2	0
I MAINTAINING FIXED SWITCHING CENTER EQUIPMENT	0		0	0	12		*	*	0	0
J MAINTAINING MOBILE SWITCHING CENTER EQUIPMENT	*		*	*	20		1	*	0	0
K MAINTAINING MEMORY ASSEMBLIES	*		3	8	1		2	*	1	0
L MAINTAINING INPUT/OUTPUT (I/O) ASSEMBLIES, SUCH AS BUFFERS, CONTROLLERS, OR INTERFACES	1		4	4	*		2	*	1	0
M MAINTAINING MAINTENANCE OR OPERATOR PANELS OR CONSOLES INCLUDING BUILT-IN TEST EQUIPMENT	6		3	3	3		2	*	*	0
N MAINTAINING MAGNETIC TAPE UNITS	*		5	3	1		4	*	1	*
O MAINTAINING MAGNETIC DRUM UNITS	0		5	0	*		*	*	0	0
P MAINTAINING MAGNETIC DISC SYSTEMS	0		0	*	*		*	*	*	0
Q MAINTAINING CARD PUNCH AND CARD READER EQUIPMENT	*		0	*	*		1	*	0	0

TABLE 7 (CONTINUED)
RELATIVE TIME SPENT ON DUTIES BY CAREER LADDER CLUSTERS AND INDEPENDENT JOB TYPES
(PERCENT TIME SPENT)

DUTIES	DATA DISPLAY CENTRAL/ SACCS SPECIALISTS (N=36)	AIRBORNE AWACS TECHNICIANS (N=10)	FIELD TRAINING INSTRUCTORS (N=15)	ELECTRONIC SWITCHING SYSTEMS MAINTENANCE PERSONNEL (N=204)	GENERAL FACILITY MAINTENANCE SPECIALISTS (N=78)	MANAGEMENT STAFF PERSONNEL (N=373)	RESIDENT TRAINING INSTRUCTORS (N=54)	INSTRUCTOR SUPERVISORS (N=10)
R MAINTAINING TAPE PUNCH AND TAPE READER EQUIPMENT	0	0	2	*	*	*	*	0
S MAINTAINING KEYBOARDS AND PRINTERS	6	6	6	*	4	1	1	*
T MAINTAINING DISPLAY EQUIPMENT	28	3	2	*	1	*	1	*
U MAINTAINING MODEMS	0	0	1	*	1	*	1	0
V MAINTAINING POWER SUPPLIES AND POWER DISTRIBUTION SYSTEMS	13	4	3	8	5	*	*	0
W MAINTAINING PLOTTERS, SUCH AS XY PLOTTERS	*	0	1	*	*	*	0	0
X INSTALLING, MODIFYING, RECONFIGURING, AND MANAGING ELECTRONIC COMPUTER AND SWITCHING SYSTEMS INCLUDING MOBILE EQUIPMENT	*	1	*	4	1	1	*	0
Y MAINTAINING, MONITORING, AND OPERATING AIRBORNE SYSTEMS UNIQUE EQUIPMENT	0	1	0	0	0	*	*	0

* Denotes less than .5 percent

TABLE 8A
COMPARISON OF SYSTEMS MAINTAINED BY CAREER LADDER CLUSTERS AND INDEPENDENT JOB TYPES
(PERCENT MEMBERS RESPONDING)

SYSTEMS MAINTAINED		ECSS SHIFT SUPERVISORS (N=86)	ELECTRONIC COMPUTER SYSTEMS MAINTENANCE PERSONNEL (N=493)	AIRBORNE COMMAND POST SPECIALISTS (N=10)	RCC-EDLCC/ SACCS SPECIALISTS (N=242)	EDTCC/ SACCS SPECIALISTS (N=64)	CAFMS SPECIALISTS (N=5)	GENERAL COMPUTER SYSTEMS MAINTENANCE SPECIALISTS (N=24)	SAGE SPECIALISTS (N=87)						
<u>AUTOVON AND AUTODIN SYSTEMS</u>															
490L, OVERSEAS AUTOVON											0	0	0		
RAMM, RAPID ACCESS MAINTENANCE MONITOR											0	0	0		
TDCS, TRAFFIC DATA COLLECTION SYSTEM											0	0	0		
CONUS AUTODIN											0	*	0	0	0
OVERSEAS AUTODIN											3	10	0	4	0
<u>AIR DEFENSE AND WARNING SYSTEMS</u>															
427M, NORAD											7	0	0	38	0
AN/FYQ-7, SAGE											7	0	0	0	0
AN/UYK-1, SATDI											0	0	0	0	0
AN/FYQ-47, SAGE AIR DATA PROCESSOR											*	0	0	0	0
AN/GYQ-18, DIGITAL TV ELEMENT											1	0	8	17	0
<u>SAC SYSTEMS</u>															
465L, RCC-EDLCC/SACCS											22	1	0	4	0
465L, EDTCC/SACCS											5	1	0	0	0
465L, DISPLAY EQUIPMENT/SACCS											1	0	0	0	0
IBM-360, SAC SATELLITE TRACKING SYSTEM											0	11	0	4	1

* Denotes less than 1 percent

TABLE 8B

COMPARISON OF SYSTEMS MAINTAINED BY CAREER LADDER CLUSTERS AND INDEPENDENT JOB TYPES
(PERCENT MEMBERS RESPONDING)

SYSTEMS MAINTAINED	ECSS		ELECTRONIC		AIRBORNE		RCC-EDLCC/		EDTCC/		CAFMS		GENERAL	
	SHIFT	SUPERVISORS	SYSTEMS	MAINTENANCE	COMMAND	POST	SACCS	SPECIALISTS	SACCS	SPECIALISTS	SPECIALISTS	SPECIALISTS	COMPUTER	SYSTEMS
	(N=86)	(N=86)	(N=493)	(N=493)	(N=10)	(N=10)	(N=242)	(N=64)	(N=64)	(N=5)	(N=5)	(N=5)	(N=24)	(N=87)
<u>AIRBORNE SYSTEMS AND EQUIPMENT</u>														
E-3A, AWACS SYSTEM	4		11		0		0		0	0	0	0	0	0
PACCS, POST ATTACK COMMAND CONTROL SYSTEM	0		0		70		0		0	0	0	0	0	0
AN/Uyk-47, GROUND DEVELOPMENT SYSTEM	1		1		50		0		3	0	0	4	0	0
<u>TACTICAL OR MOBILE SYSTEMS</u>														
AN/FTC-28/29, FIXED TELEPHONE CENTRAL	0		0		0		0		0	0	0	0	0	0
AN/TSQ-91, COMMAND CONTROL SYSTEM	4		7		0		*		0	0	0	0	0	0
AN/TCC-22, TELEPHONE CENTRAL	0		0		0		0		0	0	0	0	0	0
AN/FTC-30, ELECTRONIC TELEPHONE CENTRAL														
OFFICE	1		3		0		0		0	0	0	0	0	0
AN/FTC-32, MANUAL SWITCH	0		0		0		0		0	0	0	0	0	0
AN/FTC-39, AUTOMATIC CIRCUIT SWITCH	0		0		0		0		0	0	0	4	0	0
AN/TYC-10, MESSAGE PROCESSING CENTER	4		6		0		0		0	0	0	0	0	0
AN/TYQ-11, TACTICAL IMAGERY INTERPRETATION	0		3		0		0		0	0	0	0	0	0
AN/TYQ-14, DISPLAY CONTROL STORAGE AND														
RETRIEVAL SYSTEM	4		1		0		0		0	0	0	0	0	0
RM-4118/407L, TACTICAL AIR CONTROL SYSTEM	6		8		0		*		0	0	0	0	0	2
WS-428A, TACTICAL INFORMATION PROCESSING														
AND INTERPRETATION (TIPI)	1		7		0		0		0	0	0	4	0	0
OTHER SYSTEMS	14		37		30		5		9	80	21	0	14	1
NO SPECIFIC SYSTEM	2		1		0		0		3	20	0	0	0	0

* Denotes less than 1 percent

TABLE 8C
COMPARISON OF SYSTEMS MAINTAINED BY CAREER LADDER CLUSTERS AND INDEPENDENT JOB TYPES
(PERCENT MEMBERS RESPONDING)

	DATA DISPLAY CENTRAL/ SACCS SPECIALISTS (N=36)	AIRBORNE AWACS TECHNICIANS (N=10)	FIELD TRAINING INSTRUCTORS (N=15)	ELECTRONIC SWITCHING SYSTEMS MAINTENANCE PERSONNEL (N=204)	GENERAL FACILITY MAINTENANCE SPECIALISTS (N=78)	MANAGEMENT STAFF PERSONNEL (N=373)	RESIDENT TRAINING INSTRUCTORS (N=54)	INSTRUCTOR SUPERVISORS (N=10)
<u>SYSTEMS MAINTAINED</u>								
<u>AUTOVON AND AUTODIN SYSTEMS</u>								
490L, OVERSEAS AUTOVON	0	0	0	50	4	6	6	10
RAMM, RAPID ACCESS MAINTENANCE MONITOR	0	0	0	24	1	4	2	10
TDCS, TRAFFIC DATA COLLECTION SYSTEM	0	0	0	26	1	4	4	10
CONUS AUTODIN	0	0	0	0	0	*	0	0
OVERSEAS AUTODIN	0	0	0	0	5	2	2	0
<u>AIR DEFENSE AND WARNING SYSTEMS</u>								
427H, NORAD	0	0	13	0	3	6	2	20
AN/FYQ-7, SAGE	3	0	0	0	12	6	0	10
AN/UYK-1, SATDI	0	0	0	0	0	*	0	0
AN/FYQ-47, SAGE AIR DATA PROCESSOR	0	0	0	0	4	2	0	10
AN/GYQ-18, DIGITAL TV ELEMENT	0	0	0	0	1	4	0	0
<u>SAC SYSTEMS</u>								
465L, RCC-EDLCC/SACCS	3	0	7	0	39	16	11	0
465L, EDTCC/SACCS	0	0	0	0	3	8	4	0
465L, DISPLAY EQUIPMENT/SACCS	97	0	0	0	6	7	4	0
IRM-360, SAC SATELLITE TRACKING SYSTEM	0	0	0	0	1	3	2	10

* Denotes less than 1 percent

TABLE 8D

COMPARISON OF SYSTEMS MAINTAINED BY CAREER LADDER CLUSTERS AND INDEPENDENT JOB TYPES
(PERCENT MEMBERS RESPONDING)

SYSTEMS MAINTAINED	DATA DISPLAY		AIRBORNE AVACS TECHNICIANS (N=10)	FIELD TRAINING INSTRUCTORS (N=15)	ELECTRONIC SWITCHING SYSTEMS MAINTENANCE PERSONNEL (N=204)		GENERAL FACILITY MAINTENANCE SPECIALISTS (N=78)	MANAGEMENT STAFF PERSONNEL (N=373)	RESIDENT TRAINING INSTRUCTORS (N=54)	INSTRUCTOR SUPERVISORS (N=10)
	CENTRAL/ SACCS SPECIALISTS (N=36)									
<u>AIRBORNE SYSTEMS AND EQUIPMENT</u>										
E-3A, AWACS SYSTEM	0		100	7	0		0	4	2	0
PACCS, POST ATTACK COMMAND CONTROL SYSTEM	0		0	0	0		0	0	*	0
AN/UJK-47, GROUND DEVELOPMENT SYSTEM	0		0	0	0		0	0	1	0
<u>TACTICAL OR MOBILE SYSTEMS</u>										
AN/FTC-28/29, FIXED TELEPHONE CENTRAL	0		0	0	0		0	0	1	0
AN/TSQ-91, COMMAND CONTROL SYSTEM	0		0	0	11		1	3	0	0
AN/TCC-22, TELEPHONE CENTRAL	0		0	0	9		3	1	0	0
AN/TTC-30, ELECTRONIC TELEPHONE CENTRAL OFFICE	0		0	0	42		3	4	11	0
AN/TTC-32, MANUAL SWITCH	0		0	0	10		0	1	0	0
AN/TTC-39, AUTOMATIC CIRCUIT SWITCH	0		0	0	1		0	1	0	0
AN/TYC-10, MESSAGE PROCESSING CENTER	0		0	0	3		0	2	0	0
AN/TYQ-11, TACTICAL IMAGERY INTERPRETATION	0		0	0	0		0	1	0	0
AN/TYQ-14, DISPLAY CONTROL STORAGE AND RETRIEVAL SYSTEM	0		0	0	0		0	0	0	0
HM-4118/407L, TACTICAL AIR CONTROL SYSTEM	0		0	0	0		0	2	0	0
WS-428A, TACTICAL INFORMATION PROCESSING AND INTERPRETATION (TIPI)	0		0	13	4		0	5	11	0
OTHER SYSTEMS	0		0	0	0		1	3	2	0
NO SPECIFIC SYSTEM	0		0	47	6		10	17	22	10
	0		0	7	1		8	21	20	30

* Denotes less than 1 percent

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 analysis. The DAFSC analysis identifies differences in tasks performed at the various skill levels. This information is also 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 duty and task performance between 3-skill level (30534) personnel, regardless of shred, and 5-skill level (30554) personnel indicates the jobs they perform are essentially the same. This is consistent with their common AFR 39-1 Specialty Descriptions; therefore, they are discussed as one group (30534/30554) in the skill level descriptions that follow. Tables are provided, however, to reflect the distribution of 3-skill level shreds across career ladder clusters and independent job types (Table 9), and relative time spent on duties by shred groups (Table 10). Table 9 reveals that, for the most part, personnel are being used as intended by their DAFSC. These 3-skill level personnel are clustered within the technical job types relative to the equipment identified by their DAFSC shred. For example, Table 9 reflects 88 of 118 (75 percent) of the DAFSC 30534G respondents are found in the RCC-EDLCC/SACCS Specialists job type; and 86 percent of the 30534P respondents grouped in the AUTOVON Switch Repair job. Table 10 identifies differences in time spent on duties across DAFSC shred groups, with the most noticeable differences highlighted.

Skill-Level Descriptions

DAFSC 30534/30554. The 1,313 3-/5-skill level personnel (68 percent of the survey sample) perform an average of 113 tasks. At this skill level, approximately 95 percent of the personnel spend 25 percent of their time on general repair facility tasks (see Table 12) common to various systems and equipment, with another 12 percent of their time devoted to forms, records, and administrative support functions. Twenty-eight percent of this group are found in the Electronic Computer Systems Maintenance Personnel cluster (see Table 11). Representative tasks performed by group members may be found in Table 13. Supervisory-type duties (inventory duties A, B, C, and D) account for 10 percent of their relative time, with 28 percent of the group acting as supervisors. Fifty-six percent of the group are in their first enlistment, with 30 percent in their second. Expressed job interest and perceived utilization of talents and training are very high. Favorable reenlistment intent was expressed from 51 percent of the skill-level groups.

DAFSC 30574. The 7-skill level group is composed of 558 airmen (29 percent of the survey sample). They perform an average of 122 tasks. These personnel spend just over 40 percent of their time in supervisory functions, with 68 percent acting as supervisors. Even so, performing computer or switching systems maintenance still constitutes 44 percent of their time spent on the job. Sixteen percent of their time is spent in administrative-type duties.

Representative tasks are presented in Table 14. Ninety percent of the 7-skill level personnel are in their third or subsequent enlistment. Indicators for job interest and utilization of talents and training are all high.

Representative differences between the 30534/30554 and 30574 DAFSC groups are presented in Table 15. Again, it is clear that while the 7-skill level airmen still perform maintenance duties, they have a much greater management, supervision, and training responsibility in their career ladder than the 3-/5-skill level group.

DAFSC 30594. This group of 52, comprises less than 3 percent of the survey sample and performs an average of 73 tasks with 41 of those tasks accounting for 50 percent of their job time. The primary duties for which these personnel are responsible are Inspecting and Evaluating (26 percent of their relative time); Directing and Implementing (21 percent); Organizing and Planning (19 percent); and administrative-type functions (17 percent). Table 16 reflects representative tasks performed by this group. Eighty-three percent of these senior airmen are supervisors, with 50 percent supervising four or more people.

Summary

Career ladder progression is well defined, with personnel at the 3- and 5-skill level spending the vast majority of their time performing technical tasks. In comparison, at the 7-skill level, management, supervisory, and administrative-type functions increase to over half of the job time. Finally, the 9-skill level reflects a job that is manager oriented with as little as 10 percent of the job involving technical duties.

TABLE 9

DISTRIBUTION OF DAFSC 30534 SHRED PERSONNEL ACROSS CAREER LADDER JOBS

		DAFSC 30534 SHREDS							
JOB GROUPS	E (N=138)	F (N=38)	G (N=118)	H (N=24)	K (N=12)	P (N=43)	Q (N=46)	R (N=16)	
II.A. TACTICAL INTERPRETATION SYSTEM REPAIR SPECIALISTS	5	0	0	0	0	0	0	0	
II.B. INTERMEDIATE COMPUTER MAINT SPECIALISTS	9	1	2	0	4	0	0	0	
II.C. MAINFRAME PROCESSOR & DISC SYS SPECIALISTS	6	0	0	0	0	0	0	0	
II.D. TACTICAL AIR CONTROL SYS REPAIR SPECIALISTS	1	0	1	0	6	0	0	0	
II.E. AIR DEFENSE SYSTEM REPAIR SPECIALISTS	8	0	0	0	0	0	0	0	
II.F. AWACS REPAIR SPECIALISTS	9	0	0	0	0	0	0	0	
II.G. 427M-CHEYENNE MOUNTAIN COMPLEX TECHNICIANS	0	0	0	0	0	0	0	6	
II.H. GROUND DEVELOPMENT & DIGITAL TV SYSTEM SPECIALISTS	2	0	0	0	0	0	0	0	
II.I. CARD PUNCH/READER EQUIPMENT REPAIRMEN	1	0	1	0	0	0	0	0	
II.K. TAPE PUNCH/READER EQUIPMENT REPAIRMEN	5	0	0	0	0	0	0	0	
IV. RCC-EDLCC/SACCS SPECIALISTS	6	2	88	1	0	0	0	0	
V. EDTCC/SACCS SPECIALISTS	6	26	0	0	0	0	0	0	
VI. CAFMS SPECIALISTS	0	0	0	0	0	0	1	0	
VII. GENERAL COMPUTER MAINTENANCE SPECIALISTS	2	0	0	0	0	0	0	4	
VIII. SAGE SPECIALISTS	38	0	0	0	0	0	0	0	
IX. DATA DISPLAY CENTRAL/SACCS	1	0	0	14	0	0	0	0	
XII.A. AUTOVON SWITCH REPAIR SPECIALISTS	1	0	0	0	0	37	3	0	
XII.B. TACTICAL CONTROL SWITCH REPAIRMEN	1	0	0	0	0	0	36	0	
XIII. GENERAL FACILITY MAINTENANCE SPECIALISTS	10	2	17	4	1	0	2	0	
XIV.B. MAINTENANCE WORKCENTER NCOIC	0	0	2	1	0	0	0	0	
XIV.E. SUPPLY MONITORS	1	0	0	0	0	0	0	0	
XIV.H. SYSTEMS CONTROLLERS	2	2	2	2	0	0	0	0	
XV. RESIDENT INSTRUCTORS	2	0	1	0	0	0	1	0	

TABLE 10

RELATIVE PERCENT TIME SPENT ON DUTIES BY DAFSC 30534 SHRED GROUPS

DUTIES	DAFSC 30534 SHREDS									
	E (N=138)	F (N=38)	G (N=118)	H (N=24)	K (N=12)	P (N=43)	Q (N=46)	R (N=16)		
A ORGANIZING AND PLANNING	*	1	1	1	1	*	2	*		
B DIRECTING AND IMPLEMENTING	1	*	1	2	3	*	2	*		
C INSPECTING AND EVALUATING	1	1	1	1	1	1	1	*		
D TRAINING	3	1	1	2	2	1	2	*		
E MAKING ENTRIES ON FORMS OR RECORDS AND PERFORMING ADMINISTRATIVE AND SUPPORT FUNCTIONS	8	12	12	15	10	7	9	8		
F PERFORMING ROUTINE, REPAIR FACILITY, OR SYSTEM UNIQUE MAINTENANCE	(29)	(32)	(31)	(30)	(29)	(37)	(28)	(29)		
G MONITORING, OPERATING, AND PROGRAMMING ELECTRONIC COMPUTER AND SWITCHING SYSTEMS	4	4	3	5	5	4	3	3		
H MAINTAINING CENTRAL PROCESSING UNITS (CPU)	7	5	2	*	6	1	1	(9)		
I MAINTAINING FIXED SWITCHING CENTER EQUIPMENT	*	*	*	0	0	(22)	4	*		
J MAINTAINING MOBILE SWITCHING CENTER EQUIPMENT	*	1	*	*	*	5	(33)	*		
K MAINTAINING MEMORY ASSEMBLIES	4	3	3	0	5	2	1	6		
L MAINTAINING INPUT/OUTPUT (I/O) ASSEMBLIES, SUCH AS BUFFERS, CONTROLLERS, OR INTERFACES	2	3	4	1	4	1	*	3		
M MAINTAINING MAINTENANCE OR OPERATOR PANELS OR CONSOLES INCLUDING BUILT-IN TEST EQUIPMENT	5	3	3	4	4	4	2	6		
N MAINTAINING MAGNETIC TAPE UNITS	6	(10)	8	*	6	1	*	1		
O MAINTAINING MAGNETIC DRUM UNITS	2	1	0	0	0	*	*	0		
P MAINTAINING MAGNETIC DISC SYSTEMS	2	0	*	0	0	1	*	1		

* Denotes less than .5 percent

NOTE: Columns may not equal 100 percent due to rounding

TABLE 10 (CONTINUED)

RELATIVE PERCENT TIME SPENT ON DUTIES BY DAFSC 30534 SHRED GROUPS

DUTIES	DAFSC 30534 SHREDS							
	E (N=138)	F (N=38)	G (N=118)	H (N=24)	K (N=12)	P (N=43)	Q (N=46)	R (N=16)
Q MAINTAINING CARD PUNCH AND CARD READER EQUIPMENT	4	1	*	*	1	*	*	1
R MAINTAINING TAPE PUNCH AND TAPE READER EQUIPMENT	2	*	1	0	3	*	*	1
S MAINTAINING KEYBOARDS AND PRINTERS	6	1	1	5	7	1	*	9
T MAINTAINING DISPLAY EQUIPMENT	7	*	3	23	4	*	*	10
U MAINTAINING MODEMS	1	13	6	*	4	*	*	*
V MAINTAINING POWER SUPPLIES AND POWER DISTRIBUTION SYSTEMS	5	8	8	10	6	10	6	9
W MAINTAINING PLOTTERS, SUCH AS XY PLOTTERS	*	0	*	0	0	0	0	2
X INSTALLING, MODIFYING, RECONFIGURING, AND MANAGING ELECTRONIC COMPUTER AND SWITCHING SYSTEMS INCLUDING MOBILE EQUIPMENT	1	*	*	*	2	2	5	*
Y MAINTAINING, MONITORING, AND OPERATING AIRBORNE SYSTEMS UNIQUE EQUIPMENT	*	0	0	0	0	0	0	0

* Denotes less than .5 percent

NOTE: Columns may not equal 100 percent due to rounding

TABLE 11

DISTRIBUTION OF DAFSC SKILL LEVEL GROUP MEMBERS ACROSS CAREER LADDER
CLUSTERS AND INDEPENDENT JOB TYPES
(PERCENT MEMBERS RESPONDING)

JOB GROUPS	DAFSC 30534/54 (N=1,313)	DAFSC 30574 (N=558)	DAFSC 30594 (N=52)
I. ECSS SHIFT SUPERVISORS (N=86)	3	9	1
II. ELECTRONIC COMPUTER SYSTEMS MAINTENANCE PERSONNEL CLUSTER (N=493)	(28)*	(23)*	0
III. AIRBORNE COMMAND POST SPECIALISTS (N=10)	*	*	0
IV. RCC-EDLCC/SACCS SPECIALISTS (N=242)	(17)	3	0
V. EDTCC/SACCS SPECIALISTS (N=64)	5	*	0
VI. CAFMS SPECIALISTS (N=5)	*	*	0
VII. GENERAL COMPUTER MAINTENANCE SPECIALISTS (N=24)	2	1	0
VIII. SAGE SPECIALISTS (N=87)	6	2	0
IX. DATA DISPLAY CENTRAL/SACCS SPECIALISTS (N=36)	3	*	0
X. AIRBORNE AWACS TECHNICIANS (N=10)	*	1	4
XI. FIELD TRAINING INSTRUCTORS (N=15)	*	2	0
XII. ELECTRONIC SWITCHING SYSTEMS MAINTENANCE PERSONNEL (N=204)	(14)	4	0
XIII. GENERAL FACILITY MAINTENANCE SPECIALISTS (N=78)	6	1	0
XIV. MANAGEMENT STAFF PERSONNEL CLUSTER (N=373)	8	(39)	(93)
XV. RESIDENT TRAINING INSTRUCTORS (N=54)	3	4	2
XVI. INSTRUCTOR SUPERVISORS (N=10)	0	2	0
PERCENT NOT GROUPED	5	9	0
TOTAL	100	100	100

* Denotes less than 1 percent

TABLE 12

RELATIVE PERCENT TIME SPENT ON DUTIES BY DAFSC SKILL LEVEL GROUPS

DUTIES	DAFSC 30534/54 (N=1,313)	DAFSC 30574 (N=558)	DAFSC 30594 (N=52)
A ORGANIZING AND PLANNING	2	9	19
B DIRECTING AND IMPLEMENTING	2	10	21
C INSPECTING AND EVALUATING	3	11	26
D TRAINING	4	10	8
E MAKING ENTRIES ON FORMS OR RECORDS AND PERFORMING ADMINISTRATIVE AND SUPPORT FUNCTIONS	12	16	17
F PERFORMING ROUTINE, REPAIR FACILITY, OR SYSTEM UNIQUE MAINTENANCE	25	12	2
G MONITORING, OPERATING, AND PROGRAMMING ELECTRONIC COMPUTER AND SWITCHING SYSTEMS	3	3	2
H MAINTAINING CENTRAL PROCESSING UNITS (CPU)	4	3	1
I MAINTAINING FIXED SWITCHING CENTER EQUIPMENT	2	1	*
J MAINTAINING MOBILE SWITCHING CENTER EQUIPMENT	3	1	0
K MAINTAINING MEMORY ASSEMBLIES	3	2	*
L MAINTAINING INPUT/OUTPUT (I/O) ASSEMBLIES, SUCH AS BUFFERS, CONTROLLERS, OR INTERFACES	3	2	*
M MAINTAINING MAINTENANCE OR OPERATOR PANELS OR CONSOLES INCLUDING BUILT-IN TEST EQUIPMENT	3	2	*
N MAINTAINING MAGNETIC TAPE UNITS	5	3	*
O MAINTAINING MAGNETIC DRUM UNITS	1	1	*
P MAINTAINING MAGNETIC DISC SYSTEMS	1	1	*
Q MAINTAINING CARD PUNCH AND CARD READER EQUIPMENT	1	1	*
R MAINTAINING TAPE PUNCH AND TAPE READER EQUIPMENT	1	1	0
S MAINTAINING KEYBOARDS AND PRINTERS	6	4	*
T MAINTAINING DISPLAY EQUIPMENT	4	2	*
U MAINTAINING MODEMS	2	1	*
V MAINTAINING POWER SUPPLIES AND POWER DISTRIBUTION SYSTEMS	6	3	*
W MAINTAINING PLOTTERS, SUCH AS XY PLOTTERS	*	*	0
X INSTALLING, MODIFYING, RECONFIGURING, AND MANAGING ELEC- TRONIC COMPUTER AND SWITCHING SYSTEMS INCLUDING MOBILE EQUIPMENT	1	1	1
Y MAINTAINING, MONITORING, AND OPERATING AIRBORNE SYSTEMS UNIQUE EQUIPMENT	*	*	*

* Denotes less than .5 percent

NOTE: Columns may not equal 100 percent due to rounding

TABLE 13

REPRESENTATIVE TASKS PERFORMED BY 30534/30554 PERSONNEL

TASKS	PERCENT MEMBERS PERFORMING (N=1,313)
F287 REPLACE MINOR ELECTRICAL HARDWARE, SUCH AS LAMPS, SWITCHES, FUSES, OR CONNECTORS	81
F293 SOLDER OR DESOLDER ELECTRONIC EQUIPMENT USING SOLDERING IRONS	80
F279 REMOVE OR REPLACE ELECTRONIC CIRCUIT CARDS OR PRINTED CIRCUIT BOARDS	77
F262 PERFORM GENERAL CLEANING OF ELECTRONIC COMPUTER OR SWITCHING SYSTEMS EQUIPMENT	77
F228 INTERPRET LOGIC OR SCHEMATIC DIAGRAMS FOR FAULT ISOLATION	75
F232 INTERPRET VISUAL FAULT INDICATORS FOR FAULT ISOLATION	73
E180 MAKE ENTRIES ON AFTO FORMS 350 (REPARABLE ITEM PROCESSING TAG)	72
F288 REPLACE NONELECTRICAL HARDWARE, SUCH AS SCREWS, NUTS, EJECTORS, OR COVERS	71
F278 REMOVE OR REPLACE DISCRETE CIRCUIT COMPONENTS, SUCH AS TRANSISTORS, DIODES, OR RESISTORS	70
F281 REMOVE OR REPLACE FILTERS	69
F229 INTERPRET ON-LINE STATUS PANEL INDICATIONS FOR FAULT ISOLATION	69
F227 INTERPRET BLOCK DIAGRAMS FOR FAULT ISOLATION	68
E179 MAKE ENTRIES ON AFTO FORMS 349 (MAINTENANCE DATA COLLECTION RECORD)	66
F250 LOCATE UNITS, MODULES, ROWS, COLUMNS, COMPONENTS, PINS, AMPHENOLS, OR TEST POINTS USING ALPHA/NUMERIC DESIGNATORS	65
F280 REMOVE OR REPLACE ELECTRONIC EQUIPMENT PINS, CONNECTORS, OR PLUGS	64
F222 CLEAN OR TREAT FILTERS	61
F223 CLEAN READ/WRITE HEADS	60
V747 REMOVE OR REPLACE POWER SUPPLIES	60
V734 ISOLATE MALFUNCTIONS TO POWER SUPPLIES	60
F231 INTERPRET PROGRAM PRINTOUTS FOR FAULT ISOLATION	59
V741 PERFORM PREVENTIVE MAINTENANCE INSPECTIONS (PMI) ON POWER SUPPLIES	58
E200 RESEARCH MANUALS FOR PARTS NUMBERS	58
V740 PERFORM OPERATIONAL CHECKS OF POWER SUPPLIES	57
V730 DETECT FAULTS WITHIN POWER SUPPLIES USING FAULT INDICATORS, STATUS PANELS, OR TEST EQUIPMENT	52
S652 ISOLATE MALFUNCTIONS TO PRINTERS	52
F270 PERFORM VISUAL INSPECTIONS OF CABLES, CABLE TROUGHS, OR CONNECTOR AIR DUCTS	52
S662 PERFORM OPERATIONAL CHECKS OF PRINTERS	52
S664 PERFORM PMIs ON PRINTERS	50
V726 ALIGN POWER SUPPLY UNITS, SUCH AS RECTIFIERS, INVERTERS, CONVERTERS, OR REGULATORS	50
F233 INTERPRET WIRING DIAGRAMS FOR INTER OR INTRA UNIT DATA FLOW	49

TABLE 14

REPRESENTATIVE TASKS PERFORMED BY 30574 PERSONNEL

TASKS	PERCENT MEMBERS PERFORMING (N=558)
A18 PARTICIPATE IN MEETINGS, SUCH AS STAFF MEETINGS, BRIEFINGS, CONFERENCES, OR WORKSHOPS	67
A7 DETERMINE WORK PRIORITIES	64
B50 ORIENT NEWLY ASSIGNED PERSONNEL	62
D107 DEMONSTRATE HOW TO LOCATE TECHNICAL INFORMATION	61
C89 PREPARE AIRMAN PERFORMANCE REPORTS (APR)	61
D106 COUNSEL TRAINEES ON TRAINING PROGRESS	61
B48 INTERPRET POLICIES, DIRECTIVES, OR PROCEDURES FOR SUBORDINATES	57
B34 COUNSEL PERSONNEL ON PERSONAL OR MILITARY-RELATED MATTERS	56
E133 ESCORT VISITORS THROUGH FACILITIES	56
A3 COORDINATE JOB REQUIREMENTS WITH OTHER SECTIONS	55
F228 INTERPRET LOGIC OR SCHEMATIC DIAGRAMS FOR FAULT ISOLATION	54
E180 MAKE ENTRIES ON AFTO FORMS 350 (REPARABLE ITEM PROCESSING TAG)	54
E200 RESEARCH MANUALS FOR PARTS NUMBERS	53
B41 DRAFT OR WRITE CORRESPONDENCE	52
F232 INTERPRET VISUAL FAULT INDICATORS FOR FAULT ISOLATION	52
F279 REMOVE OR REPLACE ELECTRONIC CIRCUIT CARDS OR PRINTED CIRCUIT BOARDS	51
B55 SUPERVISE ELECTRONIC COMPUTER AND SWITCHING SYSTEMS SPECIALISTS (AFSC 30554)	51
A24 PLAN WORK ASSIGNMENTS	51
D104 CONDUCT OJT	51
F250 LOCATE UNITS, MODULES, ROWS, COLUMNS, COMPONENTS, PINS, EMPHENOLS, OR TEST POINTS USING ALPHA/NUMERIC DESIGNATORS	50
F287 REPLACE MINOR ELECTRICAL HARDWARE, SUCH AS LAMPS, SWITCHES, FUSES, OR CONNECTORS	50
F227 INTERPRET BLOCK DIAGRAMS FOR FAULT ISOLATION	49
C93 REVIEW CORRESPONDENCE	49
F293 SOLDER OR DESOLDER ELECTRONIC EQUIPMENT USING SOLDERING IRONS	49
E187 MAKE ENTRIES ON DD FORMS 1574 (SERVICEABLE TAG-MATERIEL)	49
F229 INTERPRET ON-LINE STATUS PANEL INDICATIONS FOR FAULT ISOLATION	48
A6 DETERMINE SUPPLY REQUIREMENTS	46
E179 MAKE ENTRIES ON AFTO FORMS 349 (MAINTENANCE DATA COLLECTION RECORD)	46
C92 REVIEW AFTO FORMS 350 (REPAIRABLE ITEM PROCESSING TAG)	46
F231 INTERPRET PROGRAM PRINTOUTS FOR FAULT ISOLATION	46

TABLE 15

REPRESENTATIVE TASK DIFFERENCES BETWEEN 30534/30554 AND 30574 PERSONNEL
(PERCENT MEMBERS PERFORMING)

TASKS	DAFSC 30534/54 (N=1,313)	DAFSC 30574 (N=558)	DIFF
F262 PERFORM GENERAL CLEANING OF ELECTRONIC COMPUTER OR SWITCHING SYSTEMS EQUIPMENT	77	43	+34
F293 SOLDER OR DESOLDER ELECTRONIC EQUIPMENT USING SOLDERING IRONS	80	49	+31
F287 REPLACE MINOR ELECTRICAL HARDWARE, SUCH AS LAMPS, SWITCHES, FUSES, OR CONNECTORS	80	49	+31
F278 REMOVE OR REPLACE DISCRETE CIRCUIT COMPONENTS, SUCH AS TRANSISTORS, DIODES, OR RESISTORS	70	41	+29
F222 CLEAN OR TREAT FILTERS	61	34	+27
F281 REMOVE OR REPLACE FILTERS	69	43	+26
F288 REPLACE NONELECTRICAL HARDWARE, SUCH AS SCREWS, NUTS, EJECTORS, OR COVERS	71	45	+26
F279 REMOVE OR REPLACE ELECTRONIC CIRCUIT CARDS OR PRINTED CIRCUIT BOARDS	77	51	+26
F228 INTERPRET LOGIC OR SCHEMATIC DIAGRAMS FOR FAULT ISOLATION	75	53	+22
F232 INTERPRET VISUAL FAULT INDICATORS FOR FAULT ISOLATION	74	52	+22
F223 CLEAN READ/WRITE HEADS	60	39	+21
F229 INTERPRET ON-LINE STATUS PANEL INDICATIONS FOR FAULT ISOLATION	69	48	+21
F280 REMOVE OR REPLACE ELECTRONIC EQUIPMENT PINS, CONNECTORS, OR PLUGS	63	43	+20
A1 ASSIGN PERSONNEL TO DUTY POSITIONS	37	79	-42
B41 DRAFT OR WRITE CORRESPONDENCE	52	94	-42
B40 DRAFT INPUTS TO HIGHER HEADQUARTERS DIRECTIVES	20	60	-40
C70 EVALUATE JOB DESCRIPTIONS	22	58	-36
B30 COMPILE INFORMATION FOR REPORTS OR STAFF STUDIES	30	65	-35
C83 INDORSE AIRMAN PERFORMANCE REPORTS	37	67	-30
B48 INTERPRET POLICIES, DIRECTIVES, OR PROCEDURES FOR SUBORDINATES	57	87	-30
C63 DRAFT REPLIES TO INSPECTION REPORTS	34	63	-29
A19 PLAN BRIEFINGS	22	50	-28
A20 PLAN EQUIPMENT OR FACILITY MAINTENANCE REQUIREMENTS	23	50	-27
B45 IMPLEMENT SELF-INSPECTION PROGRAMS	35	58	-23
C66 EVALUATE COMPLIANCE WITH PERFORMANCE STANDARDS	40	62	-22
A3 COORDINATE JOB REQUIREMENTS WITH OTHER SECTIONS	55	75	-22

TABLE 16

REPRESENTATIVE TASKS PERFORMED BY 30594 PERSONNEL

TASKS	PERCENT MEMBERS PERFORMING (N=52)
B41 DRAFT OR WRITE CORRESPONDENCE	94
A18 PARTICIPATE IN MEETINGS, SUCH AS STAFF MEETINGS, BRIEFINGS, CONFERENCES, OR WORKSHOPS	94
C93 REVIEW CORRESPONDENCE	88
B48 INTERPRET POLICIES, DIRECTIVES, OR PROCEDURES FOR SUBORDINATES	87
A1 ASSIGN PERSONNEL TO DUTY POSITIONS	79
A3 COORDINATE JOB REQUIREMENTS WITH OTHER SECTIONS	75
C89 PREPARE AIRMAN PERFORMANCE REPORTS (APR)	73
B34 COUNSEL PERSONNEL ON PERSONAL OR MILITARY-RELATED MATTERS	71
C69 EVALUATE INDIVIDUALS FOR RECOGNITION	71
C90 PREPARE RECOMMENDATIONS FOR AWARDS	71
A29 SCHEDULE TEMPORARY DUTY, LEAVES, OR PASSES	71
B50 ORIENT NEWLY ASSIGNED PERSONNEL	69
E133 ESCORT VISITORS THROUGH FACILITIES	69
C83 INDORSE AIRMAN PERFORMANCE REPORTS (APR)	67
A5 DETERMINE PERSONNEL REQUIREMENTS	67
A7 DETERMINE WORK PRIORITIES	67
B30 COMPILE INFORMATION FOR REPORTS OR STAFF STUDIES	65
A2 ASSIGN SPONSORS FOR NEWLY ASSIGNED PERSONNEL	65
C63 DRAFT REPLIES TO INSPECTION REPORTS	63
A16 ESTABLISH PERFORMANCE STANDARDS FOR SUBORDINATES	63
C66 EVALUATE COMPLIANCE WITH PERFORMANCE STANDARDS	62
A15 ESTABLISH ORGANIZATIONAL POLICIES, OFFICE INSTRUCTIONS (OI), OR STANDING OPERATING PROCEDURES (SOP)	62
B47 INITIATE PERSONNEL ACTION REQUESTS	62
A27 PREPARE JOB DESCRIPTIONS	62
E128 ADVISE COMMAND STAFF AGENCIES ON CURRENT OPERATIONAL STATUS OF EQUIPMENT OR SYSTEMS	60
B40 DRAFT INPUTS TO HIGHER HEADQUARTERS DIRECTIVES	60
B54 SUPERVISE ELECTRONIC COMPUTER AND SWITCHING SYSTEMS TECHNICIANS (AFSC 30574)	60
A4 DETERMINE EQUIPMENT REQUIREMENTS	60
B45 IMPLEMENT SELF-INSPECTION PROGRAMS	58
C70 EVALUATE JOB DESCRIPTIONS	58

ANALYSIS OF AFR 39-1 SPECIALTY DESCRIPTIONS

The foregoing 3-/5-, 7-, and 9-skill level survey data were compared to the AFR 39-1 Specialty Descriptions for the Electronic Computer and Switching Systems Specialist (AFSCs 30514/30534/30554), the Electronic Computer and Switching Systems Technician (AFSC 30574), and the Electronic Computer and Switching Systems Superintendent (AFSC 30594), dated 1 January 1982. These descriptions are intended to give a broad overview of the duties and tasks performed by each skill level of the career ladder.

The 3-/5-skill level descriptions appear complete and accurately reflect the broad range of duties and responsibilities of these personnel. Likewise the 7- and 9-skill level descriptions appear complete and accurate, with the 7-skill level description reflecting not only the supervisory responsibilities, but the systems maintenance duties as well, which is supported by the survey data.

ANALYSIS OF TAFMS GROUPS

In this study, as in most others, an analysis of total active federal military service (TAFMS) groups is undertaken to provide a description of how the jobs and the perception of those jobs within a career ladder change over time. As is typical in most career ladders, as time in service and experience increase, there is a corresponding increase in performance of duties involving supervisory, managerial, and training tasks (see Table 17). Conversely, as time spent in supervisory and administrative duties increases, relative time on tasks in the technical area generally declines.

The 1-48 months group spends 16 percent of its time on supervisory and administrative duties. The 49-96 months group, often referred to as the second-enlistment group, spends 29 percent of their time on similar tasks and the remainder of the respondents, the career airmen, spend 55 percent of their time in these nontechnical duties. These shifts in areas of responsibility parallel the changes discussed in earlier comments on DAFSC progression. It is obvious, however, that career field incumbents are technically oriented. Aside from the significant change reflected in Duty F (see Table 17), most technical duties reflect only minor shifting in percent time spent. This results from the averaging of duties across the large number of diverse jobs discussed in the SPECIALTY JOBS section.

First-Enlistment Personnel

The 1-48 months TAFMS group, first-enlistment, is the most relevant for examining ABR training programs; therefore, this group is highlighted to provide a foundation for examination of career field training and utilization. Figure 3 shows the distribution of 1-48 months TAFMS personnel across the job groups discussed earlier in the report. Of the 738 first-enlistment personnel in the study (38 percent of the total sample), 22 percent were working in the broad Electronic Computer Systems Maintenance cluster, 33 percent were in the three SACCS-related jobs, and 17 percent in the Switching Systems cluster. Only a small percent are found in the management or instructor jobs, 4 percent and 1 percent, respectively.

Table 18 displays all tasks performed by 50 percent or more of the first-enlistment personnel. Most tasks involve routine maintenance, maintenance records activity, or tasks related to power supplies. In addition to tasks performed, training personnel are interested in special or test equipment used by first-enlistment personnel. Table 19 lists test equipment used by more than 10 percent of these personnel. Responses from first-termers indicate that oscilloscopes, multimeters, and digital voltmeters are inherent to jobs performed by that group.

Job Satisfaction Data

Table 20 presents data reflecting the job interest, perceived utilization of talents and training, and reenlistment intentions of selected 305X4 TAFMS groups. Comparisons were also made between the 305X4 TAFMS groups and comparative samples of all other Mission Equipment Maintenance career ladders surveyed in 1982.

Comparison of the groups indicates that job satisfaction indicators for 305X4 first-term airmen are slightly to somewhat higher than those of the comparative sample first-term group. Comparisons of 305X4 first-term personnel with the other 305X4 TAFMS groups show a decrease in all indicators, except reenlistment intent for the second-enlistment group (49-96 months TAFMS), while the career airmen group (97+ months) has essentially the same job interest and perception of utilization of talents with a much lower perception of training utilization. Expressed job interest in the 305X4 groups is 4 to 7 percent higher than that in all the comparative sample groups.

FIGURE 3

DISTRIBUTION OF 305X4 FIRST-ENLISTMENT PERSONNEL ACROSS CAREER LADDER JOBS
(PERCENT MEMBERS RESPONDING)
(N=738)

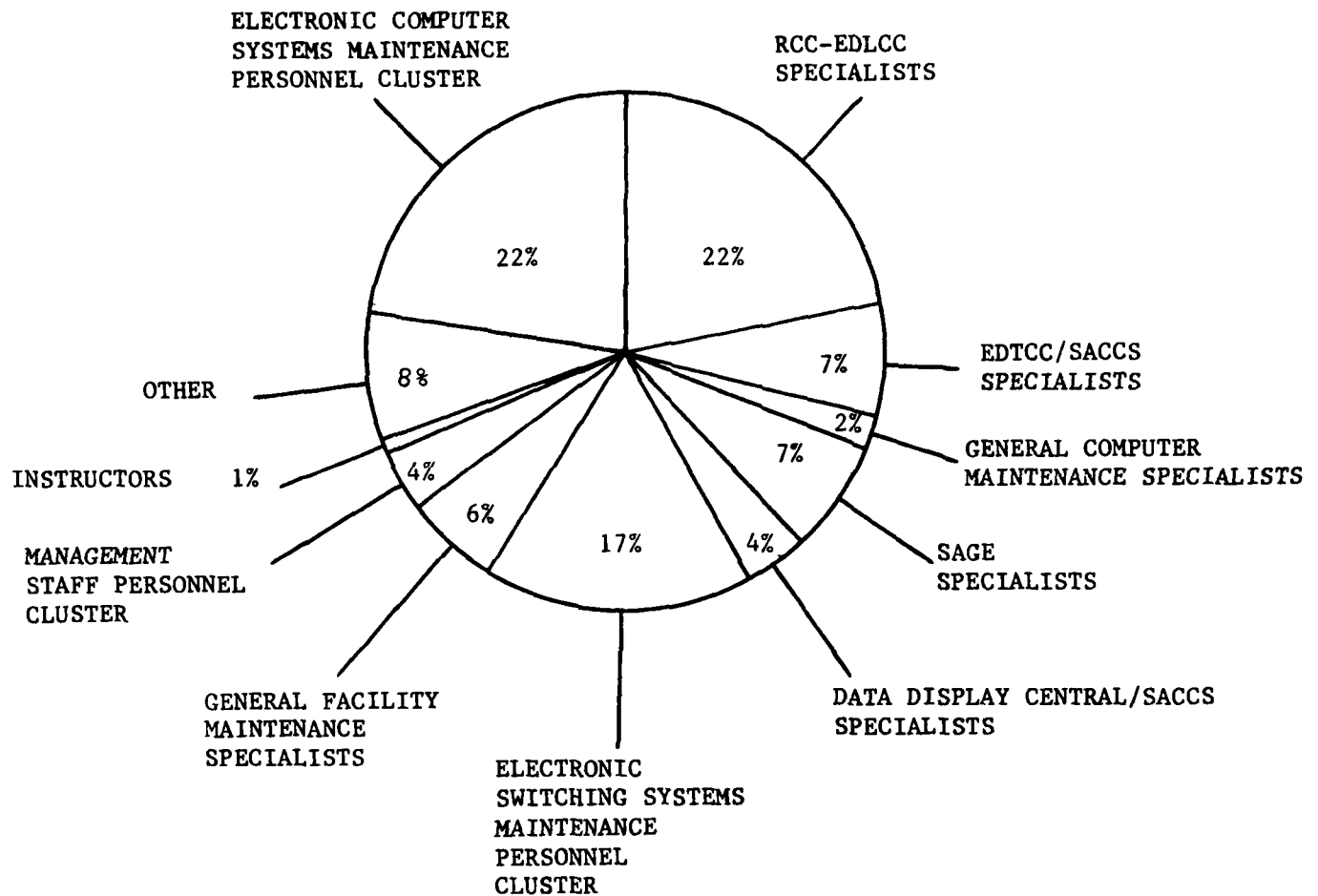


TABLE 17

RELATIVE PERCENT TIME SPENT ON DUTIES BY TAFMS GROUPS

DUTIES	TAFMS (MONTHS)		
	1-48 (N=738)	49-96 (N=445)	97+ (N=738)
A ORGANIZING AND PLANNING	1	3	9
B DIRECTING AND IMPLEMENTING	1	4	10
C INSPECTING AND EVALUATING	1	4	11
D TRAINING	2	6	9
E MAKING ENTRIES ON FORMS OR RECORDS AND PERFORMING ADMINISTRATIVE AND SUPPORT FUNCTIONS	11	12	16
F PERFORMING ROUTINE, REPAIR FACILITY, OR SYSTEM UNIQUE MAINTENANCE	28	22	13
G MONITORING, OPERATING, AND PROGRAMMING ELECTRONIC COMPUTER AND SWITCHING SYSTEMS	4	4	3
H MAINTAINING CENTRAL PROCESSING UNITS (CPU)	4	5	4
I MAINTAINING FIXED SWITCHING CENTER EQUIPMENT	3	2	1
J MAINTAINING MOBILE SWITCHING CENTER EQUIPMENT	4	2	1
K MAINTAINING MEMORY ASSEMBLIES	3	3	2
L MAINTAINING INPUT/OUTPUT (I/O) ASSEMBLIES, SUCH AS BUFFERS, CONTROLLERS, OR INTERFACES	3	3	2
M MAINTAINING MAINTENANCE OR OPERATOR PANELS OR CONSOLES INCLUDING BUILT-IN TEST EQUIPMENT	4	3	2
N MAINTAINING MAGNETIC TAPE UNITS	5	4	3
O MAINTAINING MAGNETIC DRUM UNITS	0	1	0
P MAINTAINING MAGNETIC DISC SYSTEMS	1	1	1
Q MAINTAINING CARD PUNCH AND CARD READER EQUIPMENT	1	2	1
R MAINTAINING TAPE PUNCH AND TAPE READER EQUIPMENT	1	1	1
S MAINTAINING KEYBOARDS AND PRINTERS	7	6	4
T MAINTAINING DISPLAY EQUIPMENT	5	3	2
U MAINTAINING MODEMS	3	2	1
V MAINTAINING POWER SUPPLIES AND POWER DISTRIBUTION SYSTEMS	7	5	3
W MAINTAINING PLOTTERS, SUCH AS XY PLOTTERS	*	*	*
X INSTALLING, MODIFYING, RECONFIGURING, AND MANAGING ELECTRONIC COMPUTER AND SWITCHING SYSTEMS INCLUDING MOBILE EQUIPMENT	1	1	1
Y MAINTAINING, MONITORING, AND OPERATING AIRBORNE SYSTEMS UNIQUE EQUIPMENT	*	*	*

* Denotes less than 1 percent

NOTE: Columns may not equal 100 percent due to rounding

TABLE 18

TASKS PERFORMED BY 50 PERCENT OR MORE FIRST-ENLISTMENT PERSONNEL
(1-48 MONTHS TAFMS)

TASKS	PERCENT MEMBERS PERFORMING (N=738)
F293 SOLDER OR DESOLDER ELECTRONIC EQUIPMENT USING SOLDERING IRONS	85
F287 REPLACE MINOR ELECTRICAL HARDWARE, SUCH AS LAMPS, SWITCHES, FUSES, OR CONNECTORS	84
F262 PERFORM GENERAL CLEANING OF ELECTRONIC COMPUTER OR SWITCHING SYSTEMS EQUIPMENT	80
F279 REMOVE OR REPLACE ELECTRONIC CIRCUIT CARDS OR PRINTED CIRCUIT BOARDS	80
F228 INTERPRET LOGIC OR SCHEMATIC DIAGRAMS FOR FAULT ISOLATION	78
F232 INTERPRET VISUAL FAULT INDICATORS FOR FAULT ISOLATION	76
F278 REMOVE OR REPLACE DISCRETE CIRCUIT COMPONENTS, SUCH AS TRANSISTORS, DIODES, OR RESISTORS	76
E180 MAKE ENTRIES ON AFTO FORMS 350 (REPARABLE ITEM PROCESSING TAG)	75
F288 REPLACE NONELECTRICAL HARDWARE, SUCH AS SCREWS, NUTS, EJECTORS, OR COVERS	73
F281 REMOVE OR REPLACE FILTERS	71
E179 MAKE ENTRIES ON AFTO FORMS 349 (MAINTENANCE DATA COLLECTION RECORD)	70
F229 INTERPRET ON-LINE STATUS PANEL INDICATIONS FOR FAULT ISOLATION	70
F227 INTERPRET BLOCK DIAGRAMS FOR FAULT ISOLATION	68
F280 REMOVE OR REPLACE ELECTRONIC EQUIPMENT PINS, CONNECTORS, OR PLUGS	67
F250 LOCATE UNITS, MODULES, ROWS, COLUMNS, COMPONENTS, PINS, AMPHENOLS, OR TEST POINTS USING ALPHA/NUMERIC DESIGNATORS	66
F222 CLEAN OR TREAT FILTERS	63
V747 REMOVE OR REPLACE POWER SUPPLIES	62
F223 CLEAN READ/WRITE HEADS	61
V734 ISOLATE MALFUNCTIONS TO POWER SUPPLIES	60
V741 PERFORM PREVENTIVE MAINTENANCE INSPECTIONS (PMI) ON POWER SUPPLIES	60
F231 INTERPRET PROGRAM PRINTOUTS FOR FAULT ISOLATION	58
V740 PERFORM OPERATIONAL CHECKS OF POWER SUPPLIES	57
E200 RESEARCH MANUALS FOR PARTS NUMBERS	57
F270 PERFORM VISUAL INSPECTIONS OF CABLES, CABLE TROUGHS, OR CONNECTOR AIR DUCTS	56
V730 DETECT FAULTS WITHIN POWER SUPPLIES USING FAULT INDICATORS, STATUS PANELS, OR TEST EQUIPMENT	53
V726 ALIGN POWER SUPPLY UNITS, SUCH AS RECTIFIERS, INVERTERS, CONVERTERS, OR REGULATORS	51
F271 PERFORM VISUAL INSPECTIONS OF NONELECTRICAL HARDWARE	50
S652 ISOLATE MALFUNCTIONS TO PRINTERS	50
V732 DETECT FAULTS WITHIN POWER SUPPLIES USING VISUAL FAULT INDICATORS	50

TABLE 19

TEST EQUIPMENT USED BY MORE THAN 10 PERCENT OF
305X4 FIRST-ENLISTMENT PERSONNEL
(1-48 MONTHS TAFMS)

TEST EQUIPMENT USED	PERCENT MEMBERS RESPONDING (N=738)
OSCILLOSCOPES	95
MULTIMETERS	93
DIGITAL VOLTMETERS OR MULTIMETERS	89
FREQUENCY COUNTERS	67
DIFFERENTIAL VOLTMETERS	64
SIGNAL GENERATORS	60
POWER SUPPLY TESTERS	52
CURRENT TESTERS	51
ELECTRONIC COUNTERS	49
REGULATED POWER SUPPLY UNITS	43
HIGH VOLTAGE PROBES	38
CURRENT PROBES OR GUNS	38
VACUUM TUBE VOLTMETERS (VTVM)	29
MEG-OHM METERS	29
LOGIC PROBES	28
FUNCTION GENERATORS	27
SOLID-STATE DEVICE TESTERS	26
WIRE LINE SIMULATORS	24
SIGNALING TEST SETS	21
IMPEDANCE MATCHING DEVICES	19
CAPACITANCE TESTERS	17
LOGIC ANALYZERS	17
PRESSURE OR VACUUM TESTERS	13
TUBE TESTERS	13

TABLE 20

COMPARISON OF JOB SATISFACTION INDICATORS BY 305X4 TAFMS GROUPS
(PERCENT MEMBERS RESPONDING)*

	1-48 MONTHS TAFMS		49-96 MONTHS TAFMS		97+ MONTHS TAFMS	
	305X4 (N=738)	COMPARATIVE SAMPLE (N=1,600)	305X4 (N=445)	COMPARATIVE SAMPLE (N=859)	305X4 (N=738)	COMPARATIVE SAMPLE (N=1,435)
<u>EXPRESSED JOB INTEREST</u>						
DULL	9	13	14	12	8	10
SO-SO	12	16	12	18	12	15
INTERESTING	76	69	72	67	77	73
<u>PERCEIVED UTILIZATION OF TALENTS</u>						
LITTLE OR NOT AT ALL	15	23	21	21	18	18
FAIRLY WELL TO PERFECTLY	83	77	79	79	81	82
<u>PERCEIVED UTILIZATION OF TRAINING</u>						
LITTLE OR NOT AT ALL	18	21	25	23	26	24
FAIRLY WELL TO PERFECTLY	82	79	75	77	73	75
<u>REENLISTMENT INTENTIONS</u>						
NO, OR PROBABLY NO	57	59	46	44	9	14
YES, OR PROBABLY YES	42	40	54	54	64	66
PLAN TO RETIRE	-	-	-	-	26	18

* Columns may not add up to 100 percent due to nonresponses and rounding

** Comparative sample included all Mission Equipment Maintenance career ladders surveyed in 1982
(AFSCs include 304X1, 306X0, 306X1, 306X2, 445X0 F/G)

TRAINING ANALYSIS

Occupational survey data are used to assist in the development of a training program relevant to the needs of personnel working in their first enlistment or job within a career ladder. Factors which may be used in evaluating training are the percent of first-job or first-enlistment members performing tasks, along with training emphasis and task difficulty ratings (previously explained in the SURVEY METHODOLOGY section). These factors were used in evaluating eight specialty training standards (STS) and plans of instruction (POI) for basic resident courses for the 305X4 career ladder. Technical school personnel from three training centers matched inventory tasks to the STS and POI for which they were responsible. An analysis was not done on 30534J documents, as no ABR course was active at the time of the survey. It should be noted that comments and tables presented in this section pertaining questionable elements (or lack of elements) in the training documents are intended to highlight what appear to be possible problem areas.

Training Emphasis and Task Difficulty Data

Training emphasis and task difficulty data can be used to provide information on training needs as perceived by experienced technicians within the specialty. Comparisons can then be made between this information and present training programs to determine if course adjustments are needed.

As discussed in the SURVEY METHODOLOGY section, training emphasis data was collected by equipment experience which is most useful in the analysis of the eight equipment-oriented STSs and POIs. Table 21 illustrates examples of the different rating policies across shred specific equipment, comparing training emphasis (TE) ratings between groups and an overall rating without regard to equipment experience of the raters. It is the equipment-specific TE ratings that will be used in the analysis of training documents.

Ninety-nine senior career personnel provided ratings for task difficulty (TD) information. There was an insufficient number of raters to break this data out by equipment experience, so TD data is general in nature and not shredout specific. These ratings are standardized so average task difficulty is 5.00, with a standard deviation of 1.00. Therefore, in the following analysis of training documents, all tasks rated 6.00 or higher are generally thought to be difficult tasks within the 305X4 career field.

TABLE 21

EXAMPLES OF TASKS ILLUSTRATING RANGE OF TRAINING EMPHASIS (TE)
RATING POLICIES ACROSS 305X4 EQUIPMENT SHREDS

TASKS	TRAINING EMPHASIS RATINGS									
	ALL*	E	F	G	H	K	P	Q	R	
P587 ISOLATE MALFUNCTIONS TO DISC PACK SYSTEMS	3.19	4.02	1.75	1.39	2.33	3.50	3.67	2.14	4.80	
F241 LOAD PROGRAMS USING DISC PACKS	3.07	3.47	.00	.83	.00	1.50	3.42	1.57	3.80	
U715 BENCH CHECK MODEMS	2.29	1.62	7.25	5.72	6.67	3.00	1.17	.00	2.40	
F260 PERFORM DRAWER TESTER OPERATION TO IDENTIFY FAULTY CARD UNDER TEST	2.43	1.62	5.00	6.00	6.67	1.25	1.83	2.14	1.80	
N532 ALIGN FORMAT MESSAGE COMPOSERS (FMC)	1.93	1.72	5.00	5.72	6.67	.00	.00	.00	.00	
G317 OPERATE DIGITAL DATA MODEMS	1.95	1.80	5.25	4.44	4.67	1.50	1.83	.00	2.00	
T681 DETECT FAULTS WITHIN PROJECTION DISPLAY EQUIPMENT	.95	1.80	3.00	1.06	4.00	.00	.00	.00	1.60	
L496 ALIGN BUFFERS, CONTROLLERS, OR INTERFACES	2.94	3.20	3.25	2.78	4.33	4.50	1.33	2.00	3.40	
K461 ALIGN CORE MEMORY ASSEMBLIES	2.29	2.93	3.25	1.53	4.33	7.00	1.17	2.43	2.00	
K488 REMOVE OR REPLACE CORE MEMORY ASSEMBLIES	2.58	3.50	3.00	1.72	4.00	4.25	1.92	1.86	2.00	
H343 ALIGN MAIN FRAME PROCESSORS	2.53	3.25	1.75	.97	2.33	5.75	1.58	1.57	3.20	
R624 DETECT FAULTS WITHIN TAPE PUNCH EQUIPMENT	1.74	2.12	.00	1.44	.00	4.50	.00	1.29	2.00	
G313 INTERPRET COMPUTER CODES	2.66	3.18	1.50	1.56	2.00	3.75	4.58	3.43	2.60	
F240 LOAD PROGRAMS USING CARTRIDGE DISCS	2.49	2.62	.00	.83	.00	1.50	5.83	2.29	4.40	
I375 DETECT FAULTS WITHIN SWITCH COMPARATOR CIRCUITS	1.07	.85	.00	.33	.00	.00	6.67	5.14	.00	
I385 ISOLATE MALFUNCTIONS WITHIN TRUNK SCANNER CIRCUITS	1.04	.73	.00	.19	.00	.00	6.25	4.86	.00	
X765 CROSS-CONNECT INTERMEDIATE AND MAIN FRAMES	1.31	.92	.00	.89	.00	.00	5.17	4.00	2.00	
J422 ISOLATE MALFUNCTIONS WITHIN REGISTER CIRCUITS	1.01	1.03	.00	.19	.00	.00	3.42	7.29	.00	
J409 DETECT FAULTS WITHIN SCANNER CIRCUITS	.88	.83	.00	.33	.00	.00	3.08	7.14	.00	
X791 PREPARE MOBILE COMMUNICATIONS EQUIPMENT FOR DEPLOYMENT	.81	.83	.00	.19	.00	2.75	2.00	4.43	.00	
T721 WRITE BASIC PROGRAM ROUTINES TO CHECK SPECIFIC CRT CIRCUITS	1.46	1.65	1.25	.72	1.67	2.25	.25	.43	3.60	
F273 PROGRAM CHIPS USING PROM PROGRAMMERS	1.18	1.58	.00	.31	.00	.00	1.33	.00	3.40	

* Reflects TE rating computed from all raters without regard to equipment experience

NOTE: Boxed TE ratings identify tasks considered high in TE for first-enlistment personnel

TRAINING DOCUMENTS

Since occupational survey data are gathered from career field incumbents, managers can use it to determine if STSs and POIs meet user needs. It is essential that these training documents reflect actual or desired utilization patterns because of the impact on preparing incumbents to perform their jobs.

To facilitate the use of percent members performing, training emphasis, and task difficulty data, computerized listings pairing these factors for each task to the respective STS items(s) or POI block(s) were developed. These computer matchings, called FACPRNTs (FCPT), have been provided to appropriate managers in a TRAINING EXTRACT report presenting a combination of STS and POI FACPRNTs by shredout, containing information for various Time In Career Field (TICF) and DAFSC groups which managers can use to assess training needs and determine how to more effectively use training resources. A summary of the above information is described in this section.

As mentioned earlier, TE ratings used in the following analysis are those specific to the equipment covered by the training documents under discussion. Likewise, the percent graduates performing groups are personnel graduated from the specific shred being discussed with 1-30 and 1-48 months TICF. The 1-30 months TICF group represents those graduates in their first-job and the 1-48 months TICF group provides a slightly larger population for first-enlistment than would be found using 1-48 months TAFMS. NOTE: Task difficulty ratings are not equipment-specific, therefore, discretion should be used when this task factor is used in training decisions.

General Computer Systems Training Documents

STS 305X4E. A comprehensive review of this STS compared STS items to survey data and revealed good coverage of the functions performed by survey respondents. Table 22 lists examples of tasks performed by over 10 percent of first-job and first-enlistment personnel that were not linked to specific STS references. The 305X3E TRAINING EXTRACT will reflect that the vast majority of tasks not matched to the STS relate to supervisory functions or are performed by less than 10 percent of the respondents.

POI 30534E. An analysis of data associated with tasks matched to POI 30534E, dated 20 October 1980, showed that POI blocks and objectives were well supported. Table 23 lists examples of tasks performed by over 30 percent of the first-job and first-enlistment personnel not linked to specific POI items. These examples all rated above average in recommended training emphasis with task difficulty ratings from just below average to above average. These tasks and related tasks in the "tasks not referenced" POI portion of the training extract should be examined for possible inclusion in the POI.

TABLE 22

EXAMPLES OF TASKS NOT REFERENCED IN STS 305X4E PERFORMED BY MORE
THAN 10 PERCENT OF 30534E COURSE GRADUATES

TASKS	TRAINING EMPHASIS*	TASK DIFFICULTY**	PERCENT MEMBERS PERFORMING	
			1-30 TICF	1-48 TICF
H358 LOAD AND OPERATE CPUs WITH OPERATIONAL PROGRAMS	5.15	4.45	39	41
S667 REMOVE OR REPLACE KEYBOARD SUBASSEMBLIES	3.95	4.35	26	28
V742 PERFORM PMIs OR POWER DISTRIBUTION SYSTEMS	3.70	4.01	25	26
M513 BENCH CHECK MAINTENANCE OR OPERATOR PANELS OR CONSOLES	3.68	5.30	14	15
V739 PERFORM OPERATIONAL CHECKS OF POWER DISTRIBUTION SYSTEMS	3.62	4.43	27	28
G310 DISCRIMINATE BETWEEN HARDWARE AND SOFTWARE FAILURE SOURCES	3.20	7.01	29	31

* Training emphasis average = 1.96 with SD = 1.40; High TE = 3.36 and above

** Task difficulty average = 5.00 with SD = 1.00; High TD = 6.00 and above

TABLE 23

EXAMPLES OF TASKS NOT REFERENCED IN POI 3ABR30534E PERFORMED BY MORE
THAN 30 PERCENT OF 30534E COURSE GRADUATES

TASKS	TRAINING EMPHASIS*	TASK DIFFICULTY**	PERCENT MEMBERS PERFORMING	
			1-30 TICF	1-48 TICF
K470 INTERPRET RESULTS OF MEMORY DIAGNOSTIC PROGRAMS	6.00	5.90	48	49
H358 LOAD AND OPERATE CPUS WITH OPERATIONAL PROGRAMS	4.02	4.45	39	41
K466 DETECT FAULTS WITHIN CORE MEMORY ASSEMBLIES	4.95	6.14	42	43
S649 DETECT FAULTS WITHIN PRINTERS USING DIAGNOSTIC PROGRAMS	4.43	4.69	54	55
H345 DETECT FAULTS WITHIN MAIN FRAME PROCESSORS USING FAULT INDICATORS OR STATUS PANELS	4.09	5.69	41	42
S647 DETECT FAULTS WITHIN KEYBOARDS USING DIAGNOSTIC PROGRAMS	3.90	4.85	35	37
K471 ISOLATE MALFUNCTIONS TO CORE MEMORY ASSEMBLIES	3.78	5.92	42	43
S660 PERFORM MECHANICAL ALIGNMENTS OF PRINTERS	4.34	6.00	45	47
V728 DETECT FAULTS WITHIN POWER DISTRIBUTION SYSTEMS USING FAULT INDICATORS, STATUS PANELS, OR TEST EQUIPMENT	4.37	4.75	37	39
V730 DETECT FAULTS WITHIN POWER SUPPLIES USING FAULT INDICATORS, STATUS PANELS, OR TEST EQUIPMENT	4.32	4.76	43	45
M519 ISOLATE MALFUNCTIONS WITHIN MAINTENANCE OR OPERATOR PANELS OR CONSOLES TO CARD OR SUBASSEMBLY	3.76	5.86	41	43
V747 REMOVE OR REPLACE POWER SUPPLIES	3.86	4.19	53	55
P584 DETECT FAULTS WITHIN DISC PACK SYSTEMS USING DIAGNOSTIC PROGRAMS	3.34	5.41	30	30
V727 BENCH CHECK POWER SUPPLIES	4.43	5.68	30	30
T702 REMOVE OR REPLACE CRT DISPLAY EQUIPMENT	3.10	4.89	37	41
S669 REMOVE OR REPLACE PRINTER SUBASSEMBLIES	3.46	4.61	41	41
T703 REMOVE OR REPLACE CRT DISPLAY EQUIPMENT SUBASSEMBLIES	3.07	4.81	45	48

* High training emphasis = 3.36 and above

** High task difficulty = 5.00 and above

465L, EDTCC/SACCS Training Documents

STS 305X4F. An analysis of tasks matched to the 30534F STS revealed a thorough match was accomplished by training center personnel. Generally, STS items were well supported for retention in future STS revisions. Only 18 tasks rated average or higher in training emphasis were not matched to any STS item. Examples of those unmatched tasks performed by more than 10 percent of the 30534F respondents are listed in Table 24.

POI 30534F. The occupational survey data basically was supportive of course objectives requiring task performance of students. Only in the units relating to programming (Blocks XII2 through XII4) were the percent members performing tasks related to performance measured objectives (XII2A, XII2B, XII3A, and XII3B) below 30 percent. There were 68 tasks not matched to the POI performed by 30 percent or more of the first-enlistment personnel, with 47 of those tasks having a TE rating of 3.58 or higher. Several of these tasks are covered in the electronics principles blocks of the POI which are not included in this analysis. Table 25 reflects examples of tasks not referenced to the POI and performed by more than 30 percent of the first-enlistment personnel. In reviewing the tasks not matched of the training extract computer printout, training personnel need to determine if the course, in particular the areas of memory, tape units, and modems, requires modification.

TABLE 24

EXAMPLES OF TASKS NOT REFERENCED IN STS 305X4F PERFORMED BY MORE
THAN 10 PERCENT OF 30534F COURSE GRADUATES

TASKS	TRAINING EMPHASIS*	TASK DIFFICULTY**	PERCENT MEMBERS PERFORMING	
			1-30 TICF	1-48 TICF
N541 DETECT FAULTS WITHIN FMCs USING OPERATIONAL OR MAINTENANCE CONSOLES	5.00	6.16	10	11
V739 PERFORM OPERATIONAL CHECKS OF POWER DISTRIBUTION SYSTEMS	5.00	4.43	28	28
V742 PERFORM PMIs ON POWER DISTRIBUTION SYSTEMS	5.00	4.01	25	25
H358 LOAD AND OPERATE CPUs WITH OPERATIONAL PROGRAMS	3.25	4.45	16	15
M513 BENCH CHECK MAINTENANCE OR OPERATOR PANELS OR CONSOLES	3.00	5.30	12	11
G310 DISCRIMINATE BETWEEN HARDWARE AND SOFTWARE FAILURE SOURCES	1.50	7.01	29	30

* High TE rating = 3.58 or higher

** High TD rating = 6.00 or higher

TABLE 25

EXAMPLES OF TASKS NOT REFERENCED IN POI 30534F PERFORMED BY MORE
THAN 30 PERCENT OF 30534F COURSE GRADUATES

TASKS	TRAINING EMPHASIS*	TASK DIFFICULTY**	PERCENT MEMBERS PERFORMING	
			1-30 TICF	1-48 TICF
U719 ISOLATE MALFUNCTIONS TO MODEMS	7.00	4.91	64	62
F233 INTERPRET WIRING DIAGRAMS FOR INTER-INTRA UNIT DATA FLOW	6.75	5.77	48	49
N533 ALIGN REEL TO REEL MAGNETIC TAPE UNITS	5.50	5.97	57	54
N536 BENCH CHECK REEL TO REEL MAGNETIC TAPE UNITS	5.50	5.74	35	32
N542 DETECT FAULTS WITHIN REEL TO REEL MAGNETIC TAPE UNITS USING DIAGNOSTIC PROGRAMS	5.50	5.42	58	54
N544 DETECT FAULTS WITHIN REEL TO REEL MAGNETIC TAPE UNITS USING OPERATIONAL OR MAINTENANCE CONSOLES	5.50	5.51	54	50
U714 ALIGN TONE GENERATORS	5.50	5.60	48	45
U724 REMOVE OR REPLACE MODEM SUBASSEMBLIES	5.50	4.13	58	55
U725 REMOVE OR REPLACE MODEMS	5.50	3.64	42	42
K482 PERFORM OPERATIONAL CHECKS OF MEMORY ASSEMBLIES USING MAINTENANCE PANELS	5.25	5.20	35	34
K485 PERFORM PMIs ON CORE MEMORY ASSEMBLIES	5.25	4.43	32	30
H346 DETECT FAULTS WITHIN MAINFRAME PROCESSORS USING OPERATIONAL OR MAINTENANCE CONSOLES	4.75	5.79	41	38
F231 INTERPRET PROGRAM PRINTOUTS FOR FAULT ISOLATION	3.75	6.02	62	62

* High TE rating = 3.58 or higher

** High TD rating = 6.00 or higher

465L, RCC-EDLCC/SACCS Training Documents

STS 305X4G. For the most part, data associated with tasks matched to the 305X4G STS supported the STS as written. In certain instances though, very small percentages of first-job or first-enlistment G-shred personnel, and a relatively small number of 5- and 7-skill level personnel, performed tasks matched to particular STS subparagraphs (see Table 26). The subparagraphs linked to tasks with low percent members performing should be reviewed to determine whether changes in the STS are warranted. In addition, Table 27 lists examples of technical tasks performed by more than 10 percent of the G-shred respondents and rated average or above average on training emphasis, that were not referenced to any STS paragraph.

POI 30534G. An analysis of task data matched to the G-shred POI revealed that all objectives were supported by that data. In contrast, some 30534G tasks not referenced to the POI deserve consideration for possible inclusion. For example, tasks shown in Table 28 were performed by substantial percentages of G-shred respondents and have significant training emphasis or task difficulty ratings. Again, the computerized training extract will reflect several unreferenced tasks having high percent members performing and high TE that are covered in the electronics principle blocks of the POI. Those tasks, however, account for only a small percentage of the 69 unmatched tasks performed by more than 30 percent of the first-enlistment group.

TABLE 26

EXAMPLES OF TASKS MATCHED TO STS 305X4G PERFORMED BY FEW 30534G COURSE GRADUATES

STS PARAGRAPH	TASKS	TRAINING EMPHASIS*	TASK DIFFICULTY**	PERCENT MEMBERS PERFORMING	
				1-30 TICF	1-48 TICF
12a(4)	0574 PERFORM OPERATIONAL CHECKS OF MAGNETIC DRUM UNITS	1.00	4.38	0	.6
	0576 PERFORM PMIs ON MAGNETIC DRUM UNITS	.72	4.24	0	.6
12a(17)	W757 PERFORM PMIs ON PLOTTERS	.36	4.27	0	0
12d(4)	0567 ALIGN MAGNETIC DRUM UNITS	.69	6.56	0	.6
12d(17)	W749 ALIGN PLOTTERS	.39	5.39	0	0

* High TE rating = 3.01 or higher

** High TD rating = 6.00 or higher

TABLE 27

EXAMPLES OF TASKS NOT REFERENCED IN STS 305X4G PERFORMED BY MORE
THAN 10 PERCENT OF 30534G COURSE GRADUATES

TASKS	TRAINING EMPHASIS*	TASK DIFFICULTY**	PERCENT MEMBERS PERFORMING	
			1-30 TICF	1-48 TICF
N541 DETECT FAULTS WITHIN FMCs USING OPERATIONAL OR MAINTENANCE CONSOLES	5.06	6.16	43	42
V739 PERFORM OPERATIONAL CHECKS OF POWER DISTRIBUTION SYSTEMS	3.67	4.43	19	20
F271 PERFORM VISUAL INSPECTIONS OF NONELECTRICAL HARDWARE	3.31	2.87	60	59
F270 PERFORM VISUAL INSPECTIONS OF CABLES, CABLE TROUGHS, OR CONNECTOR AIR DUCTS	3.11	3.12	59	60
V742 PERFORM PMIs ON POWER DISTRIBUTION SYSTEMS	2.69	4.01	17	17
F251 MAINTAIN ELECTRONIC TYPEWRITER EQUIPMENT	2.39	6.24	18	18
F220 CHECK QUALITY OF GROUNDING SYSTEMS	2.31	4.26	17	18
M512 BENCH CHECK BUILT-IN TEST EQUIPMENT	2.19	5.31	16	15
G310 DISCRIMINATE BETWEEN HARDWARE AND SOFTWARE FAILURE SOURCES	1.94	7.01	13	13
M513 BENCH CHECK MAINTENANCE OR OPERATOR PANELS OR CONSOLES	1.94	5.30	17	18

* High TE rating = 3.01 or higher

** High TD rating = 6.00 or higher

TABLE 28

EXAMPLES OF TASKS NOT REFERENCED IN POI 3ABR30534G PERFORMED BY MORE
THAN 30 PERCENT OF 30534G COURSE GRADUATES

TASKS	TRAINING EMPHASIS*	TASK DIFFICULTY**	PERCENT MEMBERS PERFORMING	
			1-30 TICF	1-48 TICF
V727 BENCH CHECK POWER SUPPLIES	6.06	5.68	60	59
N540 DETECT FAULTS WITHIN FMCs USING INDICATORS OR STATUS PANELS	5.28	5.86	54	52
N541 DETECT FAULTS WITHIN FMCs USING OPERATIONAL OR MAINTENANCE CONCOLES	5.06	6.16	43	42
U714 ALIGN TONE GENERATORS	4.78	5.60	35	36
S659 PERFORM MECHANICAL ALIGNMENTS OF KEYBOARDS	4.50	6.03	30	31
S657 PERFORM ELECTRICAL ALIGNMENTS OF KEYBOARDS	4.44	5.49	42	43
S649 DETECT FAULTS WITHIN PRINTERS USING DIAGNOSTIC ROUTINES	4.19	4.69	38	39
T678 DETECT FAULTS WITHIN CRT DISPLAY EQUIPMENT	3.19	5.27	39	40
T677 BENCH CHECK CRT DISPLAY EQUIPMENT	2.94	5.33	36	37
S647 DETECT FAULTS WITHIN KEYBOARDS USING DIAGNOSTIC ROUTINES	2.86	4.85	31	32
K466 DETECT FAULTS WITHIN CORE MEMORY ASSEMBLIES	2.64	6.14	42	44
K475 ISOLATE MALFUNCTIONS WITHIN CORE MEMORY ASSEMBLIES TO CARD OR SUBASSEMBLY	2.47	6.23	40	43
K471 ISOLATE MALFUNCTIONS TO CORE MEMORY ASSEMBLIES	2.36	5.92	40	42
K476 ISOLATE MALFUNCTIONS WITHIN CORE MEMORY ASSEMBLIES TO COMPONENTS	2.17	6.73	41	42
K488 REMOVE OR REPLACE CORE MEMORY ASSEMBLIES	1.72	4.92	34	36

* High TE rating = 3.01 or higher

** High TD rating = 6.00 or higher

465L, Display Equipment/SACCS Training Documents

STS 305X4H. The analysis of data matched with the H-shred STS revealed the STS was well supported, with the exception of those subparagraphs related to plotters and magnetic drum units. Those subparagraphs should be considered for possible deletion due to low percent members performing. There were 11 technical tasks not referenced to the STS performed by more than 10 percent of the first-enlistment H-shred personnel. Table 29 lists those tasks rated above average in training emphasis.

POI 30534H. Survey data matched to the H-shred POI was basically supportive of course objectives. Block XIII, Data Distribution Group, may require some review by training personnel. Only a single task, "Perform operational checks of buffers, controllers, or interfaces", was matched to several objectives in Block XIII. While this task has a high TE of 4.33, it has a less than average TD (4.86) and is performed by only 15 percent of the first-job or first-enlistment personnel. Training personnel should also review the computer printout of tasks not referenced to determine if existing areas should be expanded or new areas added to the basic course. Table 30 lists some examples of the 63 unmatched tasks performed by 30 percent or more of the first-enlistment H-shred respondents.

TABLE 29

EXAMPLES OF TASKS NOT REFERENCED IN STS 305X4H PERFORMED BY MORE
THAN 10 PERCENT OF 30534H COURSE GRADUATES

TASKS	TRAINING EMPHASIS*	TASK DIFFICULTY**	PERCENT MEMBERS PERFORMING	
			1-30 TICF	1-48 TICF
V739 PERFORM OPERATIONAL CHECKS OF POWER DISTRIBUTION SYSTEMS	4.33	4.43	20	20
V742 PERFORM PMIs ON POWER DISTRIBUTION SYSTEMS	4.33	4.01	23	22
M513 BENCH CHECK MAINTENANCE OR OPERATOR PANELS OR CONSOLES	4.00	5.30	40	39
M512 BENCH CHECK BUILT-IN TEST EQUIPMENT	4.00	5.31	15	15
T708 REMOVE OR REPLACE PROCESSING MATERIALS, SUCH AS FILM, CHEMICALS, OR OILS	4.00	4.62	65	66
T694 MIX PROCESSING CHEMICALS FOR PROJECTION DISPLAY EQUIPMENT	2.33	4.68	25	27

* High TE rating = 3.55 or higher

** High TD rating = 6.00 or higher

TABLE 30

EXAMPLES OF TASKS NOT REFERENCED IN POI 30534H PERFORMED BY MORE
THAN 30 PERCENT OF 30534H COURSE GRADUATES

TASKS	TRAINING EMPHASIS*	TASK DIFFICULTY**	PERCENT MEMBERS PERFORMING	
			1-30 TICF	1-48 TICF
V726 ALIGN SOURCE SUPPLY UNITS	7.00	5.50	50	49
V727 BENCH CHECK POWER SUPPLIES	7.00	5.68	45	44
F233 INTERPRET WIRING DIAGRAMS FOR INTER OR INTRO UNIT DATA FLOW	6.67	5.77	38	39
S662 PERFORM OPERATIONAL CHECKS OF PRINTERS	6.33	4.30	40	42
S658 PERFORM ELECTRICAL ALIGNMENTS OF PRINTERS	6.00	5.55	35	34
S660 PERFORM MECHANICAL ALIGNMENTS OF PRINTERS	6.00	6.00	40	42
S652 ISOLATE MALFUNCTIONS TO PRINTERS	5.67	4.77	40	39
T672 ALIGN CRT DISPLAY EQUIPMENT	4.33	5.83	48	46
T673 ALIGN FLUID DISTRIBUTION SYSTEMS	4.33	5.16	60	61
T682 ISOLATE MALFUNCTIONS TO CRT DISPLAY EQUIPMENT	4.00	5.28	45	44
T685 ISOLATE MALFUNCTIONS WITHIN CRT DISPLAY EQUIPMENT TO CARD OR SUBASSEMBLY	4.00	5.85	40	39
T686 ISOLATE MALFUNCTIONS WITHIN CRT DISPLAY EQUIPMENT TO COMPONENT	4.00	6.24	38	37
T687 ISOLATE MALFUNCTIONS WITHIN FLUID DISTRIBUTION SYSTEMS	4.00	5.33	60	61
T698 PERFORM PMIs ON FLUID DISTRIBUTION SYSTEMS	4.00	4.27	60	61
F231 INTERPRET PROGRAM PRINTOUTS FOR FAULT ISOLATION	2.67	6.02	43	44

* High TE rating = 3.55 or higher

** High TD rating = 6.00 or higher

HM-4118/407L Training Documents

STS 305X4K. Overall, data corresponding to tasks matched to the 305X4K STS supported that document, as written. Subparagraphs pertaining to magnetic drum units and plotters, however, contain tasks performed by few first-job or first-enlistment personnel. Training personnel should examine those subparagraphs and the corresponding matched tasks in the computer printout to determine if STS changes are warranted. Also, tasks not referenced should be examined because, although they were not referenced to the STS by training center personnel, as many as 50 of these tasks were performed by over 10 percent of the first-enlistment group. Examples of these tasks can be found in Table 31.

Unique to K-shred personnel appears to be those tasks relating to deployment of mobile equipment, including preparation for deployment and installation or removal. Consideration of the addition of a subparagraph to the STS on such activities may be warranted.

POI 30534K. Table 32 shows that K-shred personnel receive training on some tasks performed by very small percentages or none of the first-job course graduates. Those tasks should be evaluated to determine if continued training is justified. Table 33 contains only a sampling of the 110 tasks not referenced to the POI performed by more than 30 percent of the respondents. Ninety-six of those 110 tasks were rated above average in training emphasis, with 58 high in TE (3.56 and above). Areas appearing to require review are keyboards and printers, modems, power supplies and distribution systems, and tape punch and reader equipment.

TABLE 31

EXAMPLES OF TASKS NOT REFERENCED IN STS 305X4K PERFORMED BY MORE
THAN 10 PERCENT OF 30534K COURSE GRADUATES

TASKS	TRAINING EMPHASIS*	TASK DIFFICULTY**	PERCENT MEMBERS PERFORMING	
			1-30 TICF	1-48 TICF
G310 DISCRIMINATE BETWEEN HARDWARE AND SOFTWARE FAILURE SOURCES	5.75	7.01	39	39
X774 INSPECT INSTALLATION MOUNTINGS, POSITIONING OF EQUIPMENT, OR CONNECTIONS	4.00	4.67	21	22
X791 PREPARE MOBILE COMMUNICATIONS EQUIPMENT FOR DEPLOYMENT	2.75	5.64	21	17
X792 PREPARE MOBILE COMMUNICATIONS EQUIPMENT FOR OPERATION AT DEPLOYED LOCATIONS	2.75	5.58	21	17
X793 PREPARE MOBILE ELECTRONIC COMPUTER EQUIPMENT FOR DEPLOYMENT	2.75	5.56	37	30
X794 PREPARE MOBILE ELECTRONIC COMPUTER EQUIPMENT FOR OPERATION AT DEPLOYED LOCATIONS	2.75	5.54	26	22
F251 MAINTAIN ELECTRONIC TYPEWRITER EQUIPMENT	2.25	6.24	42	52
V739 PERFORM OPERATIONAL CHECKS OF POWER DISTRIBUTION SYSTEMS	2.00	4.43	47	48
V742 PERFORM PHIs ON POWER DISTRIBUTION SYSTEMS	1.75	4.01	42	48
X763 CONFIGURE ELECTRONIC COMPUTER OR SWITCHING SYSTEMS EQUIPMENT OR ACCESSORIES FOR DEPLOYMENT	1.50	6.10	26	22

* High TE rating = 3.56 or higher

** High TD rating = 6.00 or higher

TABLE 32

EXAMPLES OF TASKS MATCHED TO POI 30534K PERFORMED BY
FEW 30534K COURSE GRADUATES

POI BLOCK	TASKS	TRAINING EMPHASIS*	TASK DIFFICULTY**	PERCENT MEMBERS PERFORMING	
				1-30 TICF	1-48 TICF
XII12A	J405 DETECT FAULTS WITHIN MATRIX CIRCUITS	.00	5.22	0	0
	J420 ISOLATE MALFUNCTIONS WITHIN MATRIX CIRCUITS	.00	5.76	0	0
	J438 PERFORM OPERATIONAL CHECKS OF MATRIX CIRCUITS	.00	4.37	0	0
XII14A	H355 ISOLATE MALFUNCTIONS WITHIN MINI OR MICRO PROCESSORS TO CARD OR SUBASSEMBLY	3.50	6.11	16	17
	H360 PERFORM OPERATIONAL CHECKS OF MINI OR MICRO PROCESSORS USING MAINTENANCE OF CONTROL PANELS	3.50	5.07	16	17
XIX5C	T692 ISOLATE MALFUNCTIONS WITHIN PROJECTION DISPLAY EQUIPMENT TO CARD OR SUBASSEMBLY	.00	5.78	16	13
	T684 ISOLATE MALFUNCTIONS TO PROJECTION DISPLAY EQUIPMENT	.00	5.21	5	4
	T693 ISOLATE MALFUNCTIONS WITHIN PROJECTION DISPLAY EQUIPMENT TO COMPONENTS	.00	6.36	16	13

* High TE rating = 3.56 or higher

** High TD rating = 6.00 or higher

TABLE 33

EXAMPLES OF TASKS NOT REFERENCED IN POI 30534K PERFORMED BY MORE
THAN 30 PERCENT OF 30534K COURSE GRADUATES

TASKS	TRAINING EMPHASIS*	TASK DIFFICULTY**	PERCENT MEMBERS PERFORMING	
			1-30 TICF	1-48 TICF
K461 ALIGN CORE MEMORY ASSEMBLIES	7.00	6.29	47	57
U721 ISOLATE MALFUNCTIONS WITHIN MODEMS TO COMPONENT	6.25	5.93	47	52
S649 DETECT FAULTS WITHIN PRINTERS USING DIAGNOSTIC PROGRAMS	6.00	4.69	53	57
N553 ISOLATE MALFUNCTIONS WITHIN REEL TO REEL MAGNETIC TAPE UNITS TO COMPONENT	5.50	6.59	53	57
S656 ISOLATE MALFUNCTIONS WITHIN PRINTERS TO COMPONENT	5.50	5.86	53	57
H346 DETECT FAULTS WITHIN MAINFRAME PROCESSORS USING OPERATIONAL OR MAINTENANCE CONSOLES	5.25	5.79	53	61
S658 PERFORM ELECTRICAL ALIGNMENT OF PRINTERS	5.25	5.55	47	52
U713 ALIGN MODEMS	5.00	5.99	47	57
R629 ISOLATE MALFUNCTIONS WITHIN TAPE PUNCH EQUIPMENT TO COMPONENT	4.50	5.92	42	48
V733 ISOLATE MALFUNCTIONS TO POWER DISTRIBUTION SYSTEMS	4.25	5.07	47	57
R633 PERFORM ELECTRICAL ALIGNMENTS OF TAPE READER EQUIPMENT	4.00	5.38	53	57
T686 ISOLATE MALFUNCTIONS WITHIN CRT DISPLAY EQUIPMENT TO COMPONENT	4.00	6.24	68	70
R634 PERFORM MECHANICAL ALIGNMENTS OF TAPE PUNCH EQUIPMENT	3.75	6.12	42	52
M520 ISOLATE MALFUNCTIONS WITHIN MAINTENANCE OR OPERATOR PANELS OR CONSOLES TO COMPONENT	3.50	6.44	42	39
V735 ISOLATE MALFUNCTIONS WITHIN POWER SUPPLIES TO COMPONENT IN OFF-EQUIPMENT CONFIGURATION	3.00	6.48	47	48

* High TE rating = 3.56 or higher

** High TD rating = 6.00 or higher

490L Overseas AUTOVON Training Documents

STS 305X4P. Training personnel are encouraged to review both the STS matching section and the tasks not referenced section of the computer printouts accompanying this report as they prepare future revisions to the STS. Analysis indicates that first-enlistment P-shred personnel are performing some tasks related to magnetic disc systems that were not matched to the STS. Analysis also indicates as many as 29 tasks relating to either fixed or mobile switching center equipment, performed by significant percentages of P-shred personnel, are not matched to the STS. There appears to be some justification for creating STS subparagraphs relating to switching equipment circuits. Table 34 lists several of those tasks not referenced and performed by more than 10 percent of the P-shred respondents.

POI 30534P. Table 35 lists examples of the 71 tasks not matched to the 30534P POI and performed by more than 30 percent of the first-job or first-enlistment P-shred personnel. Training personnel should review the entire tasks not referenced section of the computer printout to determine if those high performance tasks, other than electronic or computer principles type tasks, justify course objectives. Some of the performance measured objectives not having matched tasks appear to be matchable, such as CO XVIII/VIII1B with task I393 or CO XIX/IX4B with F239, F245, and F246.

TABLE 34

EXAMPLES OF TASKS NOT REFERENCED IN STS 305X4P PERFORMED BY MORE
THAN 10 PERCENT OF 30534P COURSE GRADUATES

TASKS	TRAINING EMPHASIS*	TASK DIFFICULTY**	PERCENT MEMBERS PERFORMING	
			1-30 TICF	1-48 TICF
I387 PERFORM OPERATIONAL CHECKS OF CALL PROCESSING CIRCUITS	6.58	4.87	65	67
I393 PERFORM OPERATIONAL CHECKS OF SWITCH MARKER/MATRIX CIRCUITS	6.50	4.93	80	82
F282 REMOVE OR REPLACE INTEGRATED CIRCUIT COMPONENTS (CHIPS)	6.25	5.33	35	36
I392 PERFORM OPERATIONAL CHECKS OF RAMM INTERFACE CIRCUITS	6.08	4.93	31	31
F258 PERFORM CARD TESTER OPERATION TO IDENTIFY FAULTY COMPONENTS	4.83	5.12	67	69
I389 PERFORM OPERATIONAL CHECKS OF DSA MARKER CIRCUITS	4.17	4.62	15	18
S664 PERFORM PMIs ON PRINTERS	3.83	4.20	17	18
F219 CHECK OPERATION OF CIRCUIT CARDS USING TEST BEDS OR TEST FIXTURES	3.67	5.28	44	44
J422 ISOLATE MALFUNCTIONS WITHIN REGISTER CIRCUITS	3.42	5.83	23	22
J404 DETECT FAULTS WITHIN MARKER CIRCUITS	3.25	5.41	27	26
J417 ISOLATE MALFUNCTIONS WITHIN LINE CIRCUITS	3.17	5.44	21	20
P596 PERFORM PMIs ON FLOPPY DISC SYSTEMS	3.08	4.29	15	16
J399 ALIGN TRUNK CIRCUITS	2.92	5.05	14	13
J408 DETECT FAULTS WITHIN REGISTER CIRCUITS	2.92	5.60	23	22
P603 REMOVE OR REPLACE SEALED DISC SYSTEM SUBASSEMBLIES	1.00	5.41	10	9

* High TE rating = 3.82 or higher

** High TD rating = 6.00 or higher

TABLE 35

EXAMPLES OF TASKS NOT REFERENCED IN POI 30534P PERFORMED BY MORE
THAN 30 PERCENT OF 30534P COURSE GRADUATES

TASKS	TRAINING EMPHASIS*	TASK DIFFICULTY**	PERCENT MEMBERS PERFORMING	
			1-30 TICF	1-48 TICF
I386 PERFORM EMERGENCY RECOVERY PROCEDURES	7.67	5.99	85	86
I395 PERFORM PMIs ON AUTOVON SUBSYSTEMS	6.83	4.49	92	93
I375 DETECT FAULTS WITHIN SWITCH COMPARATOR CIRCUITS	6.67	5.83	83	84
I369 ADJUST LINE OR TRUNK CIRCUITS	6.58	6.17	83	84
I374 DETECT FAULTS WITHIN RAPID ACCESS MAINTENANCE MONITOR (RAMM) INTERFACE CIRCUITS	6.25	5.39	50	51
I382 ISOLATE MALFUNCTIONS WITHIN RAMM INTERFACE CIRCUITS	6.08	5.82	35	35
F246 LOAD PROGRAMS USING PANELS OR CONSOLES	6.00	4.42	40	44
F240 LOAD PROGRAMS USING CARTRIDGE DISC	5.83	3.48	54	53
F227 INTERPRET BLOCK DIAGRAMS FOR FAULT ISOLATION	5.50	5.18	48	49
X765 CROSS-CONNECT INTERMEDIATE AND MAIN FRAMES	5.17	4.80	44	47
V734 ISOLATE MALFUNCTIONS TO POWER SUPPLIES	5.00	4.90	60	60
F258 PERFORM CARD TEST OPERATION TO IDENTIFY FAULTY COMPONENTS	4.83	5.12	67	69
I371 DETECT FAULTS WITHIN DIAL SERVICE ASSISTANCE (DSA) MARKER CIRCUITS	4.08	5.19	29	31
K485 PERFORM PMIs ON CORE MEMORY ASSEMBLIES	3.92	4.43	37	36
K470 INTERPRET RESULTS OF MEMORY DIAGNOSTIC PROGRAMS	3.83	5.90	31	29

* High TE rating = 3.82 or higher

** High TD rating = 6.00 or higher

AN/TTC-30 Electronic Switching Systems Training Documents

STS 305X4Q. Generally, the STS items applicable to the Q-shred are well supported. Percent members performing data matched with paragraphs related to maintenance programming (para 10) was rather low, but first-enlistment training emphasis ratings were high for those tasks. The matching between the STS and job inventory was quite thorough, with only 49 tasks performed by more than 10 percent of the first-job and first-enlistment groups not referenced, and only 19 of those tasks rated high in training emphasis. Table 36 lists examples across the entire range of 49 unmatched tasks.

As recommended in the K-shred STS analysis, data for the Q-shred also supports the inclusion in the STS of tasks related to preparation of equipment for deployment and the installation or removal of mobile equipment.

POI 30534Q. Analysis of the POI for the Q-shred course revealed the occupational survey data was supportive of course objectives. A large portion of the 47 tasks not referenced to the POI and performed by more than 30 percent of the respondents would be matched to the prerequisite electronic and computer principles instruction which is not a part of this analysis. There are, however, several equipment or circuit-unique tasks with both high first-term training emphasis and high percent members performing that should be reviewed for possible inclusion in the ABR course. Table 37 contains examples of those tasks not referenced to the POI.

TABLE 36

EXAMPLES OF TASKS NOT REFERENCED IN STS 305X4Q PERFORMED BY MORE
THAN 10 PERCENT OF 30534Q COURSE GRADUATES

TASKS	TRAINING EMPHASIS*	TASK DIFFICULTY**	PERCENT MEMBERS PERFORMING	
			1-30 TICF	1-48 TICF
J418 ISOLATE MALFUNCTIONS WITHIN LINK CIRCUITS	7.14	5.58	12	13
I376 DETECT FAULTS WITHIN SWITCH MARKER/MATRIX CIRCUITS	5.57	5.37	29	28
I384 ISOLATE MALFUNCTIONS WITHIN SWITCH MARKER/MATRIX CIRCUITS	5.57	5.76	18	17
I383 ISOLATE MALFUNCTIONS WITHIN SWITCH COMPARATOR CIRCUITS	5.14	6.01	16	15
F227 INTERPRET BLOCK DIAGRAMS FOR FAULT ISOLATION	4.86	5.18	65	63
J399 ALIGN TRUNK CIRCUITS	4.43	5.05	18	17
J412 ISOLATE MALFUNCTIONS WITHIN C-SUBSETS	4.43	4.20	21	22
X763 CONFIGURE ELECTRONIC COMPUTER OR SWITCHING SYSTEMS EQUIPMENT OR ACCESSORIES FOR DEPLOYMENT	4.14	6.10	24	22
J423 ISOLATE MALFUNCTIONS WITHIN SB-22 SWITCHBOARDS	3.71	4.73	14	15
J398 ALIGN LINE CIRCUITS	3.43	5.64	18	17
J397 ALIGN INTERFACE CIRCUITS	3.29	5.74	14	15
X793 PREPARE MOBILE ELECTRONIC COMPUTER EQUIPMENT FOR DEPLOYMENT	3.29	5.46	31	30
H345 DETECT FAULTS WITHIN MAIN FRAME PROCESSORS USING FAULT INDICATORS OR STATUS PANELS	2.14	5.69	16	15
S649 DETECT FAULTS WITHIN PRINTERS USING DIAGNOSTIC PROGRAMS	1.29	4.69	12	11
G310 DISCRIMINATE BETWEEN HARDWARE AND SOFTWARE FAILURE SOURCES	1.00	7.01	16	15

* High TE rating = 3.60 or higher

** High TD rating = 6.00 or higher

TABLE 37

EXAMPLES OF TASKS NOT REFERENCED IN POI 30534Q PERFORMED BY MORE
THAN 30 PERCENT OF 30534Q COURSE GRADUATES

TASKS	TRAINING EMPHASIS*	TASK DIFFICULTY**	PERCENT MEMBERS PERFORMING	
			1-30 TICF	1-48 TICF
J426 ISOLATE MALFUNCTIONS WITHIN TA-341/TT TELEPHONES	6.43	4.96	71	70
I378 ISOLATE MALFUNCTIONS WITHIN CALL PROCESSING CIRCUITS	5.29	5.61	35	33
V733 ISOLATE MALFUNCTIONS TO POWER DISTRIBUTION SYSTEMS	4.86	5.07	33	32
J415 ISOLATE MALFUNCTIONS WITHIN HANDSETS	4.71	4.36	59	59
J416 ISOLATE MALFUNCTIONS WITHIN HEADSETS	4.57	4.49	57	57
J435 PERFORM OPERATIONAL CHECKS OF HANDSETS	4.14	3.22	67	65
J436 PERFORM OPERATIONAL CHECKS OF HEADSETS	4.14	3.22	65	63
V734 ISOLATE MALFUNCTIONS TO POWER SUPPLIES	3.86	4.90	31	32
J425 ISOLATE MALFUNCTIONS WITHIN TA-312 TELEPHONES	3.71	4.41	55	56
J459 REMOVE OR REPLACE TA-811 TELEPHONE SUPPORT PACKAGES	3.57	3.92	57	57

* High TE rating = 3.60 or higher

** High TD rating = 6.00 or higher

472M Computer Maintenance Training Documents

STS 305X4R. Table 38 lists those technical tasks not referenced to the R-shred STS performed by at least 10 percent of the first-enlistment R-shred personnel with average or higher training emphasis ratings. Overall, data matched to the STS was supportive. Subparagraphs pertaining to magnetic drum units and card punches, however, contain tasks performed by very few, if any, of the first-enlistment R-shred personnel and only a small percentage of 5- and 7-skill level respondents.

POI 30534R. Analysis of the ABR30534R POI revealed that survey data was basically supportive of course objectives. Two exceptions were noted. First, tasks relating to coding of software instructions and writing basic program routines were matched to several objectives, while performed by few first-enlistment course graduates (6 to 14 percent). While these may represent a basic need, managers may need to review objectives I5A through I5E (45 hours) for possible course adjustments. A second area that may require review is that relating to paper tape punch and reader operations (objectives III1A through III1C). Tasks matched to these operations have low percent members performing (less than 30), with only average or less than average TE and TD ratings.

Particular emphasis should be placed on reviewing the tasks not referenced to POI objectives to determine if course revision is justified. There were 70 tasks not referenced that received average or above average training emphasis ratings. Fifty-five of these received above average ratings (2.96 or higher, see Table 39 for examples). Eight of these tasks involved maintenance of keyboards or printers, nine related to CRT display equipment, and seven others to power supply or distribution equipment. Those tasks not referenced and not taught in prerequisite training should be evaluated for possible inclusion in the R-shred course.

Electronic Principles

An additional source of information for 305X4 training managers is the recently completed study of electronic fundamentals required. The electronics principles inventory (EPI) is a knowledge-based job inventory which identifies the range of electronics principles personnel need to perform electronics-oriented jobs. The EPI used in the recent survey, administered from December 1982 through July 1983, contained 1,366 questions in 63 subject areas.

Table 40 displays the percentage of 30554 personnel reporting use of electronics principles as part of their jobs. Subject areas used by 50 percent or more of the 156 5-skill level survey respondents included AC/DC current, meters/multimeters, storage devices, power supplies, logic functions, and input/output devices. Table 40 reflects the varied character of the 305X4 job with 30 subject areas used by 50 percent or more of the 30554 respondents. While some subject areas were used by few 5-skill level personnel, all 63 subject areas reflected some use by career field members. Among the areas

used by few members were electron tubes, time constants, DB and power ratios, microphones and sensing devices, speakers, and AM/FM systems.

More complete EPI data related to the 305X4 career ladder have been sent to the training manager for Basic EP at Keesler for all electronics specialties trained at Keesler. These data may be useful for evaluating electronics-related portions of the ABR courses, as well as the basic EP Fundamentals course.

In summary, this assessment of 305X4 STSs and POIs revealed, that for the most part, those training documents appeared adequate as written. Those tasks not matched to documents, particularly to the POIs, could indicate overlooked matches or a problem suggesting refinements or modifications may be needed. Survey data, along with supporting training extracts, should be reviewed by training managers to determine what changes may be needed to enhance the effectiveness of training.

TABLE 38

EXAMPLES OF TASKS NOT REFERENCED IN STS 305X4R PERFORMED BY MORE
THAN 10 PERCENT OF 30534R COURSE GRADUATES

TASKS	TRAINING EMPHASIS*	TASK DIFFICULTY**	PERCENT MEMBERS PERFORMING	
			1-30 TICF	1-48 TICF
H358 LOAD AND OPERATE CPUs WITH OPERATIONAL PROGRAMS	4.60	4.45	30	33
M513 BENCH CHECK MAINTENANCE OR OPERATOR PANELS OR CONSOLES	3.80	5.30	10	8
F270 PERFORM VISUAL INSPECTIONS OF CABLES, CABLE TROUGHS, OR CONNECTOR AIR DUCTS	3.00	3.12	50	47
S667 REMOVE OR REPLACE KEYBOARD SUBASSEMBLIES	3.00	4.35	13	17
V739 PERFORM OPERATIONAL CHECKS OF POWER DISTRIBUTION SYSTEMS	3.00	4.43	23	25
V742 PERFORM PMIs ON POWER DISTRIBUTION SYSTEMS	3.00	4.01	20	22
X764 CONNECT OR DISCONNECT POWER OR EQUIPMENT LEADS	3.00	3.75	10	8
G310 DISCRIMINATE BETWEEN HARDWARE AND SOFTWARE FAILURE SOURCES	2.80	7.01	33	39
F271 PERFORM VISUAL INSPECTIONS OF NON-ELECTRICAL HARDWARE	2.60	2.87	43	44

* High TE rating = 2.96 or higher

** High TD rating = 6.00 or higher

TABLE 39

EXAMPLES OF TASKS NOT REFERENCED IN STS 30534R PERFORMED BY MORE
THAN 30 PERCENT OF 30534R COURSE GRADUATES

TASKS	TRAINING EMPHASIS*	TASK DIFFICULTY**	PERCENT MEMBERS PERFORMING	
			1-30 TICF	1-48 TICF
T685 ISOLATE MALFUNCTIONS WITHIN CRT DISPLAY EQUIPMENT TO CARD OR SUBASSEMBLY	4.80	5.85	47	53
H358 LOAD AND OPERATE CPUs WITH OPERATIONAL PROGRAMS	4.60	4.45	30	33
T672 ALIGN CATHODE RAY TUBE (CRT) DISPLAY EQUIPMENT	4.60	5.83	57	58
T678 DETECT FAULTS WITHIN CRT DISPLAY EQUIPMENT	4.60	5.27	57	64
T695 PERFORM OPERATIONAL CHECKS OF CRT DISPLAY EQUIPMENT	4.60	4.34	70	69
S647 DETECT FAULTS WITHIN KEYBOARDS USING DIAGNOSTIC PROGRAMS	4.40	4.85	33	36
S658 PERFORM ELECTRICAL ALIGNMENTS OF PRINTERS	4.40	5.55	43	44
S660 PERFORM MECHANICAL ALIGNMENTS OF PRINTERS	4.40	6.00	53	58
V730 DETECT FAULTS WITHIN POWER SUPPLIES USING FAULT INDICATORS, STATUS PANELS, OR TEST EQUIPMENT	4.20	4.76	57	61
V728 DETECT FAULTS WITHIN POWER DISTRIBUTION SYSTEMS USING FAULT INDICATORS, STATUS PANELS, OR TEST EQUIPMENT	4.00	4.75	40	44
P579 ALIGN DISC PACK SYSTEMS	3.60	6.26	30	33
T682 ISOLATE MALFUNCTIONS TO CRT DISPLAY EQUIPMENT	3.60	5.28	70	72
S655 ISOLATE MALFUNCTIONS WITHIN PRINTERS TO CARD OR SUBASSEMBLY	3.40	5.52	53	56
M519 ISOLATE MALFUNCTIONS WITHIN MAINTENANCE OR OPERATOR PANELS OR CONSOLES TO CARD OR SUBASSEMBLY	3.00	5.86	53	53
V733 ISOLATE MALFUNCTIONS TO POWER DISTRIBUTION SYSTEMS	3.00	5.07	33	33

* High TE rating = 2.96 or higher

** High TD rating = 6.00 or higher

TABLE 40

ELECTRONICS PRINCIPLES INVENTORY (EPI)
PERCENTAGE OF 30554 PERSONNEL USING PRINCIPLES

SUBJECT AREA	PERCENT USING (N=156)
DIRECT CURRENT	97
METERS/MULTIMETERS	92
OSCILLOSCOPES	90
ALTERNATING CURRENT	86
RESISTANCE AND RESISTIVE CIRCUITS	86
INPUT/OUTPUT (PERIPHERAL) DEVICES	86
POWER SUPPLIES	85
MATHEMATICS	83
STORAGE DEVICES	83
SOLDERING OR SOLDERLESS CONNECTIONS	81
CAPACITORS AND CAPACITIVE REACTANCE	80
SEMICONDUCTOR DIODES	80
TRANSISTORS	80
REGISTERS	79
LOGIC FUNCTIONS	78
SOLID-STATE SPECIAL PURPOSE DEVICES	76
METER MOVEMENTS	74
COMPUTER, MICROPROCESSORS, AND PROGRAMMING	72
TIMING CIRCUITS	69
MULTIVIBRATORS	69
NUMBERING SYSTEMS	69
RELAYS	68
COUNTERS	65
SPECIAL PURPOSE ELECTRON TUBES	63
ELECTRON TUBE AMPLIFIERS AND CIRCUITS	61
TRANSFORMERS	59
WAVESHAPING CIRCUITS	55
OSCILLATORS	53
MOTORS AND GENERATORS	51
BOOLEAN EQUATIONS	50
SCHMITT TRIGGERS	48
INDUCTORS AND INDUCTIVE REACTANCE	45
FILTERS	44
RCL CIRCUITS	40
HETERODYNING AND MODULATION-DEMODULATION (MODEMS)	38
MAGNETISM	38
USE OF SIGNAL GENERATORS	38
DIGITAL-TO-ANALOG/ANALOG-TO-DIGITAL CONVERTERS	37
LIMITERS AND CLAMPERS	37
TRANSISTOR AMPLIFIERS	35
CABLE FABRICATION	32
PHOTO SENSITIVE DEVICES	30

TABLE 40 (CONTINUED)

ELECTRONICS PRINCIPLES INVENTORY (EPI)
PERCENTAGE OF 30554 PERSONNEL USING PRINCIPLES

SUBJECT AREA	PERCENT USING (N=156)
COUPLING	29
DB AND POWER RATIOS	22
TIME CONSTANTS	20
ELECTRON TUBES	19
MICROPHONES AND SENSING DEVICES	12
SPEAKERS	10
PHANTASTRONS	7
TRANSMISSION LINES	7
PULSE MODULATION SYSTEMS	5
DISPLAY TUBES	4
FM SYSTEMS	4
SYNCHRONOUS VIBRATION (CHOPPER CIRCUITS)	4
INFRARED	3
TELEVISION	3
AM SYSTEMS	2
LASERS	2
SINGLE OR INDEPENDENT SIDEBAND SYSTEMS	2
ANTENNAS	1
MICROWAVE AMPLIFIERS AND OSCILLATORS	1
WAVEGUIDES AND CAVITY RESONATORS	1

* Percent shown is highest percent reported for a question within the subject area

ANALYSIS OF CONUS/OVERSEAS GROUPS

Comparisons of the background data and tasks performed were made between 5-skill level personnel assigned within the continental United States (CONUS) and overseas. Five-skill level personnel sampled in CONUS numbered 662, while those overseas totaled 213. The average number of tasks performed by these group members was 117 for the CONUS personnel and 133 for the overseas incumbents. The two groups are nearly equal in all job satisfaction indicators. Fifty-four percent of the CONUS respondents indicated plans to reenlist, while 50 percent of the overseas personnel report intentions to remain in the Air Force. Time in the career field and time in service were slightly higher for the overseas group. Correspondingly, the percentage of first-enlistment personnel is lower in the overseas group (38 percent versus 43 percent for CONUS).

Although many systems were maintained by both groups, some significant differences between the groups (see Table 41) are attributable to the nature of the equipment (overseas AUTOVON) or MAJCOM mission (SACCS or tactical systems). Corresponding differences in tasks performed (see Table 42) are also inherently characteristic of the equipment maintained.

TABLE 41

COMPARISON OF SYSTEMS MAINTAINED BY DAFSC 30554 CONUS AND OVERSEAS PERSONNEL
(PERCENT MEMBERS RESPONDING)

<u>SYSTEMS MAINTAINED</u>	<u>CONUS MEMBERS (N=662)</u>	<u>OVERSEAS MEMBERS (N=213)</u>
<u>AUTOVON AND AUTODIN SYSTEMS</u>		
490L, OVERSEAS AUTOVON	3	29
RAMM, RAPID ACCESS MAINTENANCE MONITOR	1	17
TDCS, TRAFFIC DATA COLLECTION SYSTEM	1	18
CONUS AUTODIN	*	0
OVERSEAS AUTODIN	*	7
<u>AIR DEFENSE AND WARNING SYSTEMS</u>		
427M, NORAD	6	*
AN/FYQ-7 (SAGE)	8	*
AN/FYQ-47, SAGE AIR DATA PROCESSOR	2	0
AN/GYQ-18, DIGITAL TV ELEMENT	4	0
<u>SAC SYSTEMS</u>		
465L, RCC-EDLCC/SACCS	22	4
465L, EDTCC/SACCS	8	*
465L, DISPLAY EQUIPMENT/SACCS	7	*
IBM-360, SAC SATELLITE TRACKING SYSTEM	4	2
<u>AIRBORNE SYSTEMS AND EQUIPMENT</u>		
E-3A, AWACS SYSTEM	7	5
PACCS, POST ATTACK COMMAND CENTRAL SYSTEM	1	0
AN/UYK-47, GROUND DEVELOPMENT SYSTEM	2	0
<u>TACTICAL OR MOBILE SYSTEMS</u>		
AN/TSQ-91, COMMAND CONTROL SYSTEM	3	9
AN/TCC-22, TELEPHONE CENTRAL	1	*
AN/TTC-30, ELECTRONIC TELEPHONE CENTRAL OFFICE	5	8
AN/TTC-32, MANUAL SWITCH	2	1
AN/TTC-39, AUTOMATIC CIRCUIT SWITCH	*	0
AN/TYC-10, MESSAGE PROCESSING CENTER	1	6
AN/TYQ-11, TACTICAL IMAGERY INTERPRETATION	*	2
AN/TYQ-14, DISPLAY CONTROL STORAGE AND RETRIEVAL SYSTEM	1	*
AM-4118/407L, TACTICAL AIR CONTROL SYSTEM	5	5
WS-428A, TACTICAL INFORMATION PROCESSING AND INTERPRETATION (TIPI)	2	3

* Denotes less than 1 percent

TABLE 42

REPRESENTATIVE TASK DIFFERENCES BETWEEN DAFSC 30554
CONUS AND OVERSEAS PERSONNEL
(PERCENT MEMBERS PERFORMING)

TASKS	CONUS (N=662)	OVERSEAS (N=213)	DIFF
F269 PERFORM SELF-TEST PROCEDURES ON DRAWER TESTERS	22	7	+15
N546 ISOLATE MALFUNCTIONS TO FORMAT MESSAGE COMPOSERS (FMC)	19	4	+15
U715 BENCH CHECK MODEMS	25	11	+14
U717 DETECT FAULTS WITHIN MODEMS USING FAULT INDICATORS OR STATUS PANELS	26	12	+14
U721 ISOLATE MALFUNCTIONS WITHIN MODEMS TO COMPONENT	23	10	+13
U723 PERFORM PREVENTIVE MAINTENANCE INSPECTIONS (PMI) ON MODEMS	28	15	+13
U720 ISOLATE MALFUNCTIONS WITHIN MODEMS TO CARD OR SUBASSEMBLY	26	13	+13
N554 PERFORM OPERATIONAL CHECKS OF FMCs	18	4	+13
N550 ISOLATE MALFUNCTIONS WITHIN FMCs TO CARD OR SUBASSEMBLY	17	4	+13
N532 ALIGN FMCs	17	4	+13

I377 DETECT FAULTS WITHIN TRUNK SCANNER CIRCUITS	1	28	-27
F296 VISUALLY INSPECT BATTERIES	17	42	-25
I376 DETECT FAULTS WITHIN SWITCH MARKER/MATRIX CIRCUITS	2	27	-25
F217 CHECK BATTERY CELL VOLTAGE	15	40	-25
I369 ADJUST LINE OR TRUNK CIRCUITS	2	27	-25
F282 REMOVE OR REPLACE INTEGRATED CIRCUIT COMPONENTS (CHIPS)	37	61	-24
I383 ISOLATE MALFUNCTIONS WITHIN SWITCH COMPARATOR CIRCUITS	1	23	-22
E184 MAKE ENTRIES ON CROSS-CONNECT AND MEMORY RECORDS	3	24	-21
F246 LOAD PROGRAMS USING PANELS OR CONSOLES	35	55	-20
I370 DETECT FAULTS WITHIN CALL PROCESSING CIRCUITS	3	23	-20

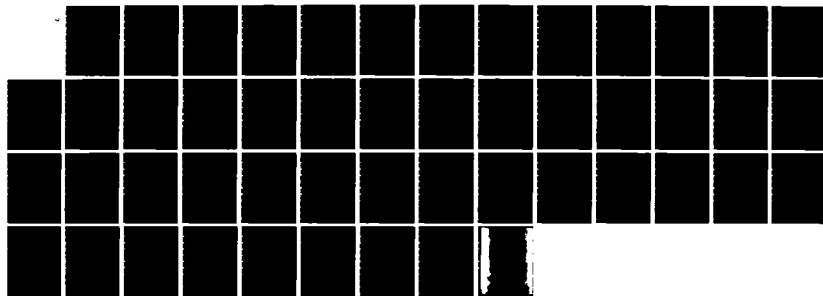
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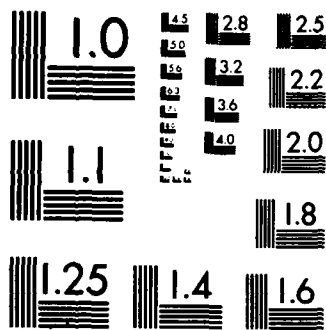
ELECTRONIC COMPUTER AND SWITCHING SYSTEMS CAREER LADDER 2/2
AFSC 385X4(U) AIR FORCE OCCUPATIONAL MEASUREMENT CENTER
RANDOLPH AFB TX JUN 84

UNCLASSIFIED

F/G 5/9

NL





MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

ANALYSIS OF MAJCOM GROUPS

The background data of and tasks performed by personnel in the seven MAJCOMs with populations above one percent--AFSC, TAC, ATC, ESC, SAC, USAFE, and PACAF--were compared to determine if job content varied as a function of MAJCOM assignment. One of the major reasons for such a comparison is to detect differences across MAJCOMs that might affect structured training programs. Table 43 compares duty differences across MAJCOMs.

Analysis of duties and tasks performed and background data shows that all MAJCOMs generally were similar. The only noteworthy difference is the increase in fixed switching center equipment duties in PACAF, and mobile switching center equipment duties in USAFE and TAC. These duties relate to overseas AUTOVON and tactical telephone equipment maintenance, respectively, which are unique to overseas and tactical organizations. Table 44 reflects the systems maintained by the seven MAJCOM groups.

TABLE 43

RELATIVE PERCENT TIME SPENT ON DUTIES BY MAJCOM GROUPS

DUTIES	AFCC (N=1,112)	TAC (N=412)	ATC (N=105)	ESC (N=84)	SAC (N=56)	USAF (N=78)	PACAF (N=22)
A ORGANIZING AND PLANNING	4	4	7	7	4	6	2
B DIRECTING AND IMPLEMENTING	5	4	7	5	4	6	3
C INSPECTING AND EVALUATING	6	5	6	7	5	5	3
D TRAINING	4	4	38	3	3	4	3
E MAKING ENTRIES ON FORMS OR RECORDS AND PERFORMING ADMINISTRATIVE AND SUPPORT FUNCTIONS	14	13	8	16	14	13	9
F PERFORMING ROUTINE, REPAIR FACILITY, OR SYSTEM UNIQUE MAINTENANCE	22	21	18	17	23	17	25
G MONITORING, OPERATING, AND PROGRAMMING ELECTRONIC COMPUTER AND SWITCHING SYSTEMS	3	3	4	3	4	3	5
H MAINTAINING CENTRAL PROCESSING UNITS (CPU)	4	5	3	7	4	4	3
I MAINTAINING FIXED SWITCHING CENTER EQUIPMENT	2	*	1	*	*	2	11
J MAINTAINING MOBILE SWITCHING CENTER EQUIPMENT	1	5	*	*	*	9	2
K MAINTAINING MEMORY ASSEMBLIES	3	3	2	3	3	2	3
L MAINTAINING INPUT/OUTPUT (I/O) ASSEMBLIES, SUCH AS BUFFERS, CONTROLLERS, OR INTERFACES	2	2	1	3	2	2	2
M MAINTAINING MAINTENANCE OR OPERATOR PANELS OR CONSOLES INCLUDING BUILT-IN TEST EQUIPMENT	2	5	1	2	2	3	3
N MAINTAINING MAGNETIC TAPE UNITS	4	4	1	5	5	3	3
O MAINTAINING MAGNETIC DRUM UNITS	*	2	*	0	*	*	*
P MAINTAINING MAGNETIC DISC SYSTEMS	1	*	*	3	2	1	1
Q MAINTAINING CARD PUNCH AND CARD READER EQUIPMENT	1	2	*	*	1	1	1
R MAINTAINING TAPE PUNCH AND TAPE READER EQUIPMENT	1	1	1	4	3	1	4
S MAINTAINING KEYBOARDS AND PRINTERS	6	4	2	6	6	5	5
T MAINTAINING DISPLAY EQUIPMENT	3	5	1	3	4	3	2
U MAINTAINING MODEMS	3	1	1	*	2	2	*
V MAINTAINING POWER SUPPLIES AND POWER DISTRIBUTION SYSTEMS	6	4	1	4	7	5	7
W MAINTAINING PLOTTERS, SUCH AS XY PLOTTERS	*	*	*	*	*	*	1
X INSTALLING, MODIFYING, RECONFIGURING, AND MANAGING ELECTRONIC COMPUTER AND SWITCHING SYSTEMS INCLUDING MOBILE EQUIPMENT	1	1	*	2	1	4	2
Y MAINTAINING, MONITORING, AND OPERATING AIRBORNE SYSTEMS UNIQUE EQUIPMENT	*	1	*	0	1	*	*

* Denotes less than 1 percent

NOTE: Columns may not equal 100 percent due to rounding

TABLE 44

COMPARISON OF SYSTEMS MAINTAINED BY DAFSC 305X4 MAJCOM GROUPS
(PERCENT MEMBERS RESPONDING)

SYSTEMS MAINTAINED	AFCC (N=1,112)	TAC (N=412)	ATC (N=105)	ESC (N=84)	SAC (N=56)	USAFE (N=78)	PACAF (N=22)
<u>AUTOVON AND AUTODIN SYSTEMS</u>							
490L, OVERSEAS AUTOVON	12	*	8	1	0	9	55
RAMM, RAPID ACCESS MAINTENANCE MONITOR	7	*	4	0	0	6	41
TDCS, TRAFFIC DATA COLLECTION SYSTEM	7	*	5	0	0	6	41
CONUS AUTODIN	*	0	0	0	2	0	0
OVERSEAS AUTODIN	3	0	1	0	2	3	0
<u>AIR DEFENSE AND WARNING SYSTEMS</u>							
427M, NORAD	7	0	4	0	0	0	0
AN/FYQ-7, SAGE	*	32	1	0	0	1	0
AN/UYK-1, SATDI	0	0	0	0	0	0	0
AN/FYQ-47, SAGE AIR DATA PROCESSOR	*	5	1	0	0	0	0
AN/GYQ-18, DIGITAL TV ELEMENT	4	0	0	0	0	0	0
<u>SAC SYSTEMS</u>							
465L, RCC-EDLCC/SACCS	30	0	7	0	13	0	0
464L, EDTCC/SACCS	9	0	3	0	13	0	0
465L, DISPLAY EQUIPMENT/SACCS	7	0	3	0	9	0	0
IBM-360, SAC SATELLITE TRACKING SYSTEM	6	0	3	0	4	0	0
<u>AIRBORNE SYSTEMS AND EQUIPMENT</u>							
E-3A, AWACS SYSTEM	*	22	5	0	0	3	0
PACCS, POST ATTACK COMMAND CONTROL SYSTEM	0	0	0	0	16	0	0
AN/UYK-47, GROUND DEVELOPMENT SYSTEM	1	0	0	0	11	0	0

TABLE 44 (CONTINUED)

COMPARISON OF SYSTEMS MAINTAINED BY DAFSC 305X4 MAJCOM GROUPS
(PERCENT MEMBERS RESPONDING)

SYSTEMS MAINTAINED	AFCC (N=1,112)	TAC (N=412)	ATC (N=105)	ESC (N=84)	SAC (N=56)	USAF (N=78)	PACAF (N=22)
<u>TACTICAL OR MOBILE SYSTEMS</u>							
AN/FTC-28/29, FIXED TELEPHONE CENTRAL	0	*	0	0	0	4	0
AN/TSQ-91, COMMAND CONTROL SYSTEM	1	10	1	1	0	37	0
AN/TCC-22, TELEPHONE CENTRAL	2	1	0	1	0	1	0
AN/TTC-30, ELECTRONIC TELEPHONE CENTRAL OFFICE	3	14	8	1	0	28	0
AN/TTC-32, MANUAL SWITCH	0	4	0	0	0	8	0
AN/TTC-39, AUTOMATIC CIRCUIT SWITCH	*	1	1	0	0	3	0
AN/TYC-10, MESSAGE PROCESSING CENTER	*	5	1	0	0	30	5
AN/TYQ-11, TACTICAL IMAGERY INTERPRETATION	0	2	2	0	0	9	10
AN/TYQ-14, DISPLAY CONTROL STORAGE AND RETRIEVAL SYSTEM	0	4	0	0	0	1	0
HM-4118/407L, TACTICAL AIR CONTROL SYSTEM	1	11	7	0	0	35	0
WS-428A, TACTICAL INFORMATION PROCESSING AND INTERPRETATION (TIPI)	0	6	9	0	0	12	27
<u>OTHER SYSTEMS</u>							
NO SPECIFIC SYSTEM	18	10	20	77	27	10	9
	5	3	22	14	20	5	0

* Denotes less than 1 percent

COMPARISON TO PREVIOUS SURVEY

Results of this survey were compared to the results of OSRs AFPT 90-305-257 (Electronic Computer Systems Career Ladder), dated 30 December 1977, and AFPT 90-362-179 (Electronic Switching Systems Repair Career Ladder), dated 29 August 1975. Comparisons were made to career ladder structures (Table 45) and job satisfaction indicators for first-enlistment groups (Table 46).

The only significant difference in career ladder structure across the three surveys is the current survey (see Table 45), identifies several system specific job types not noted in the previous 305X4 survey. This difference in the career ladder structure may be due to the increase in the number of tasks in the inventory from 577 to 843, or an increase of 46 percent. This increase enables the analyst to identify jobs with more specificity. The shredding of the career ladder at the 3-level in 1978 and 1980 classification changes also seem to have contributed to the new structure. There was an absence in the current study of any group primarily devoted to systems or equipment installation, whereas the 1977 survey had two such jobs, but less than 2 percent of that sample.

Despite some differences in earlier format, indicators of job interest, utilization of talents and training, and reenlistment intentions were reviewed across the three surveys for first-enlistment groups. Job interest and perceived utilization indicators in the current survey reflect a large increase in job satisfaction over both the previous surveys (see Table 46). Positive reenlistment intentions also increased over the 1977 and 1975 groups by 5 and 8 percent, respectively, most likely reflecting overall economic conditions.

TABLE 45

JOB SPECIALTY COMPARISONS ACROSS CURRENT AND PREVIOUS SURVEYS

<u>1984 OSR (305X4)</u>	<u>1977 OSR (305X4)</u>	<u>1975 OSR (362X2)</u>
ECSS SHIFT SUPERVISORS (N=86)(I)	COMPUTER SYSTEMS MAINTENANCE SUPERVISORS (N=118)(C)	490-L MAINTENANCE MANAGERS (N=13)(JT) NCOICs, TTC-30 AND TSQ REPAIR (N=11)(JT)
ELECTRONIC COMPUTER SYSTEMS MAINTENANCE PERSONNEL (N=493)(C)	COMPUTER SYSTEMS REPAIRMEN (N=866)(C)	NA*
SEMI-AUTOMATIC GROUND ENVIRONMENT (SAGE) SPECIALISTS (N=87)(I)	NI**	NA
RCC-EDLCC/SACCS SPECIALISTS (N=64)(I)	NI	NA
DATA DISPLAY CENTRAL (DDC/SACCS SPECIALISTS (N=36)(I)	NI	NA
AIRBORNE AWACS TECHNICIANS (N=10)(I)	NI	NA
AIRBORNE COMMAND POST COMPUTER SPECIALISTS (N=10)(I)	NI	NA
COMPUTER ASSISTED FORCE MANAGEMENT SYSTEMS (CAFMS) SPECIALISTS (N=5)(I)	NI	NA

TABLE 45 (CONTINUED)

JOB SPECIALTY COMPARISONS ACROSS CURRENT AND PREVIOUS SURVEYS

<u>1984 OSR (305X4)</u>	<u>1977 OSR (305X4)</u>	<u>1975 OSR (362X2)</u>
GENERAL COMPUTER MAINTENANCE SPECIALISTS (N=24)(I)	GENERAL COMPUTER MAINTENANCE REPAIRMEN (N=10)(I)	NA
GENERAL FACILITY MAINTENANCE SPECIALISTS (N=78)(I)	GENERAL FACILITY MAINTENANCE REPAIRMEN (N=25)(I)	SWITCHING CLERKS (N=6)(I)
OVERSEAS AUTOVON SWITCH REPAIR SPECIALISTS (N=103)(JT)	NA	AUTOVON SWITCH REPAIRMEN (N=149)(C)
TACTICAL CONTROL SWITCH REPAIRMEN (N=101)(JT)	NA	TACTICAL AIR CONTROL CENTER SWITCH REPAIRMEN (N=46)(C)
MANAGEMENT PERSONNEL (N=373)(C)	QUALITY CONTROL MONITORS (N=54)(I)	MAINTENANCE MANAGERS (N=6)(JT)
	COMPUTER SYSTEMS SUPERVISORS/SUPERINTENDENTS (N=155)(I)	SWITCHING SUPERINTENDENTS (N=9)(JT)
	MAINTENANCE CONTROLLERS (N=26)(I)	NCOs, ELECTRONIC SWITCHING (N=12)(JT)
	COMPUTER SYSTEM CONTROLLERS (N=37)(I)	490-L SWITCH SUPERVISORS (N=15)(JT)
	PROGRAM MANAGERS (N=38)(I)	
	LOGISTICS MONITORS (N=15)(I)	
	COMMUNICATIONS JOB CONTROLLERS (N=20)(I)	
	COMPUTER SYSTEMS MONITORS (N=9)(I)	
NI	DEPLOYMENT COMPUTER REPAIRMEN (N=55)(I)	NA

TABLE 45 (CONTINUED)

JOB SPECIALTY COMPARISONS ACROSS CURRENT AND PREVIOUS SURVEYS

1984 OSR (305X4)	1977 OSR (305X4)	1975 OSR (362X2)
NI	COMPUTER SYSTEMS INSTALLERS (N=25)(I)	NA
NI	TEST EQUIPMENT MAINTENANCE REPAIRMEN (N=18)(I)	NI
NI	COMPUTER EQUIPMENT INSTALLERS (N=15)(I)	NA
RESIDENT TRAINING INSTRUCTORS (N=54)(I)	TECHNICAL TRAINING INSTRUCTORS (N=76)(I)	NI
FIELD TRAINING INSTRUCTORS (N=15)(I)		
INSTRUCTOR SUPERVISORS (N=10)(I)	TRAINING SUPERVISORS/ SUPERINTENDENTS (N=13)(I)	NI
NI	NA	SEVAC REPAIRMEN (N=6)(I)
NI	NA	TTC-22 REPAIRMEN (N=10)(I)

* Not applicable

** Not identifiable

C = Cluster

JT = Job Type Within a Cluster

I = Independent Job Type

TABLE 46

COMPARISON OF JOB SATISFACTION INDICATORS FOR FIRST-ENLISTMENT
PERSONNEL FOR CURRENT AND PREVIOUS SURVEYS
(PERCENT MEMBERS RESPONDING)*

	1-48 MONTHS TAFMS		
	305X4 (1984)	305X4 (1977)	362X2 (1975)
<u>EXPRESSED JOB INTEREST</u>			
DULL	9	13	21
SO-SO	12	19	11
INTERESTING	76	67	68
<u>PERCEIVED UTILIZATION OF TALENTS</u>			
LITTLE OR NOT AT ALL	15	28	28
FAIRLY WELL TO PERFECTLY	84	72	62
<u>PERCEIVED UTILIZATION OF TRAINING</u>			
LITTLE OR NOT AT ALL	18	31	28
FAIRLY WELL TO PERFECTLY	82	68	62
<u>REENLISTMENT INTENTIONS</u>			
NO, OR PROBABLY NO	57	62	65
YES, OR PROBABLY YES	42	37	34

* Columns may not add to 100 percent due to nonresponse or rounding

IMPLICATIONS

This survey was conducted primarily to provide technical training centers with current information on the Electronic Computer and Switching Systems specialty for use in evaluating the entry-level courses revised as a result of changes in AFR 39-1 in October 1980. Those changes merged the Electronic Switching Systems specialty (formerly 362X2) with the Electronic Computer Systems specialty (305X4). In comparing the current and previous surveys, that classification change has had little impact on the jobs of the career ladder. Although the current survey identified several system specific jobs not identified in the previous 305X4 survey, those systems were maintained by members of a broadly defined group of repairmen.

With the exception of one small job group, no serious job satisfaction problems appear to exist within this specialty. Positive responses to job satisfaction questions were low for the Data Display/SACCS group, but this group accounts for only about two percent of the career field. Overall, job satisfaction responses for the entire sample compared favorably to the comparative sample of Air Force personnel surveyed in 1982.

The analysis of training presented in this report reflects a thorough review of tasks not being trained appears necessary. While the STSs provide good general outlines of the tasks being performed in the specialties, the basic course POIs appear to overlook a significant number of tasks with high percent members performing and high training emphasis ratings. The training analysis did not include a review of prerequisite training; therefore, several tasks not referenced to equipment-specific training indeed may be taught during electronic or computer principles instruction. Training managers should, however, evaluate all tasks not referenced for their respective POIs for possible inclusion in training. Several major areas are suggested for inclusion, indicating the addition of mobility tasks for the K and Q shredouts.

APPENDIX A

REPRESENTATIVE TASKS FOR CAREER LADDER STRUCTURE GROUPS



TABLE A1

ECSS SHIFT SUPERVISORS
(GRP242)

TASKS	PERCENT MEMBERS PERFORMING (N=86)
F279 REMOVE OR REPLACE ELECTRONIC CIRCUIT CARDS OR PRINTED CIRCUIT BOARDS	98
F293 SOLDER OR DESOLDER ELECTRONIC EQUIPMENT USING SOLDERING IRONS	95
F280 REMOVE OR REPLACE ELECTRONIC EQUIPMENT PINS, CONNECTORS, OR PLUGS	95
F278 REMOVE OR REPLACE DISCRETE CIRCUIT COMPONENTS, SUCH AS TRANSISTORS, DIODES, OR RESISTORS	94
F228 INTERPRET LOGIC OR SCHEMATIC DIAGRAMS FOR FAULT ISOLATION	93
F287 REPLACE MINOR ELECTRICAL HARDWARE, SUCH AS LAMPS, SWITCHES, FUSES, OR CONNECTORS	92
F232 INTERPRET VISUAL FAULT INDICATORS FOR FAULT ISOLATION	91
F281 REMOVE OR REPLACE FILTERS	91
A7 DETERMINE WORK PRIORITIES	90
F288 REPLACE NONELECTRICAL HARDWARE, SUCH AS SCREWS, NUTS, EJECTORS, OR COVERS	90
F229 INTERPRET ON-LINE STATUS PANEL INDICATIONS FOR FAULT ISOLATION	88
F227 INTERPRET BLOCK DIAGRAMS FOR FAULT ISOLATION	88
E200 RESEARCH MANUALS FOR PARTS NUMBERS	87
B34 COUNSEL PERSONNEL ON PERSONAL OR MILITARY-RELATED MATTERS	87
V741 PERFORM PREVENTIVE MAINTENANCE INSPECTIONS (PMI) ON POWER SUPPLIES	87
V734 ISOLATE MALFUNCTIONS TO POWER SUPPLIES	87
D104 CONDUCT OJT	86
D107 DEMONSTRATE HOW TO LOCATE TECHNICAL INFORMATION	86
V740 PERFORM OPERATIONAL CHECKS OF POWER SUPPLIES	86
S662 PERFORM OPERATIONAL CHECKS OF PRINTERS	86
V747 REMOVE OR REPLACE POWER SUPPLIES	86
E180 MAKE ENTRIES ON AFTO FORMS 350 (REPARABLE ITEM PROCESSING TAG)	84
D106 COUNSEL TRAINEES ON TRAINING PROGRESS	84
F262 PERFORM GENERAL CLEANING OF ELECTRONIC COMPUTER OR SWITCHING SYSTEMS EQUIPMENT	83
B50 ORIENT NEWLY ASSIGNED PERSONNEL	83
V730 DETECT FAULTS WITHIN POWER SUPPLIES USING FAULT INDICATORS, STATUS PANELS, OR TEST EQUIPMENT	83
C92 REVIEW AFTO FORMS 350 (REPARABLE ITEM PROCESSING TAG)	81
B48 INTERPRET POLICIES, DIRECTIVES, OR PROCEDURES FOR SUBORDINATES	81
A18 PARTICIPATE IN MEETINGS, SUCH AS STAFF MEETINGS, BRIEFINGS, CONFERENCES, OR WORKSHOPS	81
F223 CLEAN READ/WRITE HEADS	81

TABLE A2

ELECTRONIC COMPUTER SYSTEMS MAINTENANCE PERSONNEL CLUSTER
(GRP259)

TASKS	PERCENT MEMBERS PERFORMING (N=493)
F287 REPLACE MINOR ELECTRICAL HARDWARE, SUCH AS LAMPS, SWITCHES, FUSES, OR CONNECTORS	95
F281 REMOVE OR REPLACE FILTERS	93
S652 ISOLATE MALFUNCTIONS TO PRINTERS	93
F262 PERFORM GENERAL CLEANING OF ELECTRONIC COMPUTER OR SWITCHING SYSTEMS EQUIPMENT	93
F279 REMOVE OR REPLACE ELECTRONIC CIRCUIT CARDS OR PRINTED CIRCUIT BOARDS	92
F223 CLEAN READ/WRITE HEADS	91
H357 LOAD AND OPERATE CENTRAL PROCESSING UNITS (CPU) WITH DIAGNOSTIC PROGRAMS	91
F228 INTERPRET LOGIC OR SCHEMATIC DIAGRAMS FOR FAULT ISOLATION	91
S662 PERFORM OPERATIONAL CHECKS OF PRINTERS	90
F232 INTERPRET VISUAL FAULT INDICATORS FOR FAULT ISOLATION	90
F293 SOLDER OR DESOLDER ELECTRONIC EQUIPMENT USING SOLDERING IRONS	90
F288 REPLACE NONELECTRICAL HARDWARE, SUCH AS SCREWS, NUTS, EJECTORS, OR COVERS	89
F231 INTERPRET PROGRAM PRINTOUTS FOR FAULT ISOLATION	88
F227 INTERPRET BLOCK DIAGRAMS FOR FAULT ISOLATION	88
S664 PERFORM PMI ON PRINTERS	87
V734 ISOLATE MALFUNCTIONS TO POWER SUPPLIES	87
S649 DETECT FAULTS WITHIN PRINTERS USING DIAGNOSTIC PROGRAMS	86
F250 LOCATE UNITS, MODULES, ROWS, COLUMNS, COMPONENTS, PINS, AMPHENOLS, OR TEST POINTS USING ALPHA/NUMERIC DESIGNATORS	86
F245 LOAD PROGRAMS USING MAGNETIC TAPES	85
V747 REMOVE OR REPLACE POWER SUPPLIES	85
F222 CLEAN OR TREAT FILTERS	84
S660 PERFORM MECHANICAL ALIGNMENTS OF PRINTERS	84
N542 DETECT FAULTS WITHIN REEL TO REEL MAGNETIC TAPE UNITS USING DIAGNOSTIC PROGRAMS	84
F229 INTERPRET ON-LINE STATUS PANEL INDICATIONS FOR FAULT ISOLATION	84
S655 ISOLATE MALFUNCTIONS WITHIN PRINTERS TO CARD OR SUBASSEMBLY	84
L498 DETECT FAULTS WITHIN BUFFERS, CONTROLLERS, OR INTERFACES USING DIAGNOSTIC PROGRAMS	83
K470 INTERPRET RESULTS OF MEMORY DIAGNOSTIC PROGRAMS	82
E180 MAKE ENTRIES ON AFTO FORMS 350 (REPARABLE ITEM PROCESSING TAG)	81
F280 REMOVE OR REPLACE ELECTRONIC EQUIPMENT PINS, CONNECTORS, OR PLUGS	81
K483 PERFORM OPERATIONAL CHECKS OF MEMORY ASSEMBLIES USING DIAGNOSTIC PROGRAMS	81

TABLE A3

TACTICAL INTERPRETATION SYSTEMS REPAIR SPECIALISTS
(GRP576)

TASKS	PERCENT MEMBERS PERFORMING (N=25)
S652 ISOLATE MALFUNCTIONS TO PRINTERS	100
S651 ISOLATE MALFUNCTIONS TO KEYBOARDS	100
F262 PERFORM GENERAL CLEANING OF ELECTRONIC COMPUTER OR SWITCHING SYSTEMS EQUIPMENT	96
N558 PERFORM PMI ON REEL TO REEL MAGNETIC TAPE UNITS	96
S662 PERFORM OPERATIONAL CHECKS OF PRINTERS	96
S649 DETECT FAULTS WITHIN PRINTERS USING DIAGNOSTIC PROGRAMS	96
S661 PERFORM OPERATIONAL CHECKS OF KEYBOARDS	96
F281 REMOVE OR REPLACE FILTERS	92
N533 ALIGN REEL TO REEL MAGNETIC TAPE UNITS	92
F245 LOAD PROGRAMS USING MAGNETIC TAPES	92
S664 PERFORM PMI ON PRINTERS	92
F232 INTERPRET VISUAL FAULT INDICATORS FOR FAULT ISOLATION	92
S663 PERFORM PREVENTIVE MAINTENANCE INSPECTIONS (PMI) ON KEYBOARDS	92
F288 REPLACE NONELECTRICAL HARDWARE, SUCH AS SCREWS, NUTS, OR COVERS	92
T659 PERFORM OPERATIONAL CHECKS OF CRT DISPLAY EQUIPMENT	92
P584 DETECT FAULTS WITHIN DISC PACK SYSTEMS USING DIAGNOSTIC PROGRAMS	92
F293 SOLDER OR DESOLDER ELECTRONIC EQUIPMENT USING SOLDERING IRONS	92
S655 ISOLATE MALFUNCTIONS WITHIN PRINTERS TO CARD OR SUBASSEMBLY	92
H357 LOAD AND OPERATE CENTRAL PROCESSING UNITS (CPU) WITH DIAGNOSTIC PROGRAMS	88
F279 REMOVE OR REPLACE ELECTRONIC CIRCUIT CARDS OR PRINTED CIRCUIT BOARDS	88
E179 MAKE ENTRIES ON AFTO FORMS 349 (MAINTENANCE DATA COLLECTION RECORD)	88
F247 LOAD PROGRAMS USING PUNCHED TAPES	88
P598 PERFORM PREVENTIVE MAINTENANCE INSPECTIONS (PMI) ON DISC PACK SYSTEMS	88
F287 REPLACE MINOR ELECTRICAL HARDWARE, SUCH AS LAMPS, SWITCHES, FUSES, OR CONNECTORS	88
N547 ISOLATE MALFUNCTIONS TO REEL TO REEL MAGNETIC TAPE UNITS	88
F222 CLEAN OR TREAT FILTERS	88
R637 PERFORM PREVENTIVE MAINTENANCE INSPECTIONS (PMI) ON TAPE PUNCH EQUIPMENT	88
F228 INTERPRET LOGIC OR SCHEMATIC DIAGRAMS FOR FAULT ISOLATION	88
S653 ISOLATE MALFUNCTIONS WITHIN KEYBOARDS TO CARD OR SUBASSEMBLY	88
R625 DETECT FAULTS WITHIN TAPE READER EQUIPMENT	88

TABLE A4
INTERMEDIATE COMPUTER MAINTENANCE SPECIALISTS
(GRP748)

TASKS	PERCENT MEMBERS PERFORMING (N=89)
F293 SOLDER OR DESOLDER ELECTRONIC EQUIPMENT USING SOLDERING IRONS	100
V740 PERFORM OPERATIONAL CHECKS OF POWER SUPPLIES	100
F281 REMOVE OR REPLACE FILTERS	99
V747 REMOVE OR REPLACE POWER SUPPLIES	99
F280 REMOVE OR REPLACE ELECTRONIC EQUIPMENT PINS, CONNECTORS, OR PLUGS	99
F287 REPLACE MINOR ELECTRICAL HARDWARE, SUCH AS LAMPS, SWITCHES, FUSES, OR CONNECTORS	98
F279 REMOVE OR REPLACE ELECTRONIC CIRCUIT CARDS OR PRINTED CIRCUIT BOARDS	97
F288 REPLACE NONELECTRICAL HARDWARE, SUCH AS SCREWS, NUTS, EJECTORS, OR COVERS	97
F223 CLEAN READ/WRITE HEADS	97
V734 ISOLATE MALFUNCTIONS TO POWER SUPPLIES	97
V741 PERFORM PREVENTIVE MAINTENANCE INSPECTIONS (PMI) ON POWER SUPPLIES	97
H357 LOAD AND OPERATE CENTRAL PROCESSING UNITS (CPU) WITH DIAGNOSTIC PROGRAMS	96
F231 INTERPRET PROGRAM PRINTOUTS FOR FAULT ISOLATION	96
F232 INTERPRET VISUAL FAULT INDICATORS FOR FAULT ISOLATION	96
F278 REMOVE OR REPLACE DISCRETE CIRCUIT COMPONENTS, SUCH AS TRANSISTORS, DIODES, OR RESISTORS	94
S661 PERFORM OPERATIONAL CHECKS OF KEYBOARDS	94
T672 ALIGN CATHODE RAY TUBE (CRT) DISPLAY EQUIPMENT	94
F262 PERFORM GENERAL CLEANING OF ELECTRONIC COMPUTER OF SWITCHING SYSTEMS EQUIPMENT	93
K470 INTERPRET RESULTS OF MEMORY DIAGNOSTIC PROGRAMS	93
T697 PERFORM PREVENTIVE MAINTENANCE INSPECTIONS (PMI) ON CRT DISPLAY EQUIPMENT	93
T658 ISOLATE MALFUNCTIONS WITHIN CRT DISPLAY EQUIPMENT TO CARD OR SUBASSEMBLY	93
L498 DETECT FAULTS WITHIN BUFFERS, CONTROLLERS, OR INTERFACES USING DIAGNOSTIC PROGRAMS	93
S662 PERFORM OPERATIONAL CHECKS OF PRINTERS	93
V748 REMOVE OR REPLACE POWER SUPPLY SUBASSEMBLIES	93
V730 DETECT FAULTS WITHIN POWER SUPPLIES USING FAULT INDICATORS, STATUS PANELS, OR TEST EQUIPMENT	93
S652 ISOLATE MALFUNCTIONS TO PRINTERS	93
S651 ISOLATE MALFUNCTIONS TO KEYBOARDS	93
S667 REMOVE OR REPLACE KEYBOARD SUBASSEMBLIES	93
F228 INTERPRET LOGIC OR SCHEMATIC DIAGRAMS FOR FAULT ISOLATION	92
T682 ISOLATE MALFUNCTIONS TO CRT DISPLAY EQUIPMENT	92

TABLE A5

MAIN FRAME PROCESSORS-DISC SYSTEMS SPECIALISTS
(GRP725)

TASKS	PERCENT MEMBERS PERFORMING (N=104)
F281 REMOVE OR REPLACE FILTERS	99
F223 CLEAN READ/WRITE HEADS	99
S652 ISOLATE MALFUNCTIONS TO PRINTERS	99
H357 LOAD AND OPERATE CENTRAL PROCESSING UNITS (CPU) WITH DIAGNOSTIC PROGRAMS	98
F279 REMOVE OR REPLACE ELECTRONIC CIRCUIT CARDS OR PRINTED CIRCUIT BOARDS	98
F228 INTERPRET LOGIC OR SCHEMATIC DIAGRAMS FOR FAULT ISOLATION	98
F232 INTERPRET VISUAL FAULT INDICATORS FOR FAULT ISOLATION	98
S660 PERFORM MECHANICAL ALIGNMENTS OF PRINTERS	98
S662 PERFORM OPERATIONAL CHECKS OF PRINTERS	98
L498 DETECT FAULTS WITHIN BUFFERS, CONTROLLERS, OR INTERFACES USING DIAGNOSTIC PROGRAMS	98
S664 PERFORM PMIs ON PRINTERS	97
H347 DETECT FAULTS WITHIN MAINFRAME PROCESSORS USING DIAGNOSTIC PROGRAMS	97
F262 PERFORM GENERAL CLEANING OF ELECTRONIC COMPUTER OR SWITCHING SYSTEMS EQUIPMENT	96
H361 PERFORM PREVENTIVE MAINTENANCE INSPECTIONS (PMI) ON MAIN FRAME PROCESSORS	96
H353 ISOLATE MALFUNCTIONS WITHIN MAINFRAME PROCESSORS TO CARD OR SUBASSEMBLY	96
P587 ISOLATE MALFUNCTIONS TO DISC PACK SYSTEMS	96
S655 ISOLATE MALFUNCTIONS WITHIN PRINTERS TO CARD OR SUBASSEMBLY	96
K470 INTERPRET RESULTS OF MEMORY DIAGNOSTIC PROGRAMS	95
P590 ISOLATE MALFUNCTIONS WITHIN DISC PACK SYSTEMS TO SUBASSEMBLY OR CARD	95
S669 REMOVE OR REPLACE PRINTER SUBASSEMBLIES	95
S658 PERFORM ELECTRICAL ALIGNMENTS OF PRINTERS	95
F288 REPLACE NONELECTRICAL HARDWARE, SUCH AS SCREWS, NUTS, EJECTORS, OR COVERS	95
N542 DETECT FAULTS WITHIN REEL-TO-REEL MAGNETIC TAPE UNITS USING DIAGNOSTIC PROGRAMS	94
H351 ISOLATE MALFUNCTIONS TO MAIN FRAME PROCESSORS	94
F287 REPLACE MINOR ELECTRICAL HARDWARE, SUCH AS LAMPS, SWITCHES, FUSES, OR CONNECTORS	94
S649 DETECT FAULTS WITHIN PRINTERS USING DIAGNOSTIC PROGRAMS	94
L501 ISOLATE MALFUNCTIONS TO BUFFERS, CONTROLLERS, OR INTERFACES	94
V734 ISOLATE MALFUNCTIONS TO POWER SUPPLIES	94
P598 PERFORM PREVENTIVE MAINTENANCE INSPECTIONS (PMI) ON DISC PACK SYSTEMS	93
S661 PERFORM OPERATIONAL CHECKS OF KEYBOARDS	93

TABLE A6
TACTICAL AIR CONTROL SYSTEMS REPAIR SPECIALISTS
(GRP746)

TASKS	PERCENT MEMBERS PERFORMING (N=26)
F279 REMOVE OR REPLACE ELECTRONIC CIRCUIT CARDS OR PRINTED CIRCUIT BOARDS	100
S662 PERFORM OPERATIONAL CHECKS OF PRINTERS	100
F245 LOAD PROGRAMS USING MAGNETIC TAPES	96
F229 INTERPRET ON-LINE STATUS PANEL INDICATIONS FOR FAULT ISOLATION	96
F287 REPLACE MINOR ELECTRICAL HARDWARE, SUCH AS LAMPS, SWITCHES, FUSES, OR CONNECTORS	96
L498 DETECT FAULTS WITHIN BUFFERS, CONTROLLERS, OR INTERFACES USING DIAGNOSTIC PROGRAMS	96
F227 INTERPRET BLOCK DIAGRAMS FOR FAULT ISOLATION	96
L502 ISOLATE MALFUNCTIONS WITHIN BUFFERS, CONTROLLERS, OR INTERFACES TO CARD OR SUBASSEMBLY	96
S661 PERFORM OPERATIONAL CHECKS OF KEYBOARDS	96
F231 INTERPRET PROGRAM PRINTOUTS FOR FAULT ISOLATION	92
F228 INTERPRET LOGIC OR SCHEMATIC DIAGRAMS FOR FAULT ISOLATION	92
T685 ISOLATE MALFUNCTIONS WITHIN CRT DISPLAY EQUIPMENT TO CARD OR SUBASSEMBLY	92
H353 ISOLATE MALFUNCTIONS WITHIN MAINFRAME PROCESSORS TO CARD OR SUBASSEMBLY	92
V734 ISOLATE MALFUNCTIONS TO POWER SUPPLIES	92
V747 REMOVE OR REPLACE POWER SUPPLIES	92
F223 CLEAN READ/WRITE HEADS	92
S664 PERFORM PMI ON PRINTERS	92
L499 DETECT FAULTS WITHIN BUFFERS, CONTROLLERS, OR INTERFACES USING FAULT INDICATORS OR STATUS PANELS	92
H357 LOAD AND OPERATE CENTRAL PROCESSING UNITS (CPU) WITH DIAGNOSTIC PROGRAMS	88
N558 PERFORM PMI ON REEL-TO-REEL MAGNETIC TAPE UNITS	88
H347 DETECT FAULTS WITHIN MAINFRAME PROCESSORS USING DIAGNOSTIC PROGRAMS	88
T697 PERFORM PREVENTIVE MAINTENANCE INSPECTIONS (PMI) ON CRT DISPLAY EQUIPMENT	88
E179 MAKE ENTRIES ON AFTO FORMS 349 (MAINTENANCE DATA COLLECTION RECORD)	88
F293 SOLDER OR DESOLDER ELECTRONIC EQUIPMENT USING SOLDERING IRONS	88
M511 ALIGN CONSOLES	88
N552 ISOLATE MALFUNCTIONS WITHIN REEL-TO-REEL MAGNETIC TAPE UNITS TO CARD OR SUBASSEMBLY	88
N542 DETECT FAULTS WITHIN REEL-TO-REEL MAGNETIC TAPE UNITS USING DIAGNOSTIC PROGRAMS	88
T695 PERFORM OPERATIONAL CHECKS OF CRT DISPLAY EQUIPMENT	88
E180 MAKE ENTRIES ON AFTO FORMS 350 (REPARABLE ITEM PROCESSING TAG)	88
H345 DETECT FAULTS WITHIN MAINFRAME PROCESSORS USING FAULT INDICATORS OR STATUS PANELS	88

TABLE A7

AIR DEFENSE SYSTEMS REPAIR SPECIALISTS
(GRP649)

TASKS	PERCENT MEMBERS PERFORMING (N=53)
F245 LOAD PROGRAMS USING MAGNETIC TAPES	100
F262 PERFORM GENERAL CLEANING OF ELECTRONIC COMPUTER OF SWITCHING SYSTEMS EQUIPMENT	100
F287 REPLACE MINOR ELECTRICAL HARDWARE, SUCH AS LAMPS, SWITCHES, FUSES, OR CONNECTORS	100
F231 INTERPRET PROGRAM PRINTOUTS FOR FAULT ISOLATION	98
F228 INTERPRET LOGIC OR SCHEMATIC DIAGRAMS FOR FAULT ISOLATION	98
N555 PERFORM OPERATIONAL CHECKS OF REEL-TO-REEL MAGNETIC TAPE UNITS	98
N552 ISOLATE MALFUNCTIONS WITHIN REEL-TO-REEL MAGNETIC TAPE UNITS TO CARD OR SUBASSEMBLY	98
F293 SOLDER OF DESOLDER ELECTRONIC EQUIPMENT USING SOLDERING IRONS	98
F288 REPLACE NONELECTRICAL HARDWARE, SUCH AS SCREWS, NUTS, EJECTORS, OR COVERS	98
F232 INTERPRET VISUAL FAULT INDICATORS FOR FAULT ISOLATION	96
N542 DETECT FAULTS WITHIN REEL-TO-REEL MAGNETIC TAPE UNITS USING DIAGNOSTIC PROGRAMS	96
F281 REMOVE OR REPLACE FILTERS	96
N558 PERFORM PMI ON REEL-TO-REEL MAGNETIC TAPE UNITS	94
H361 PERFORM PREVENTIVE MAINTENANCE INSPECTIONS (PMI) ON MAINFRAME PROCESSORS	94
Q618 PERFORM PMIs ON CARD READER EQUIPMENT	94
Q606 DETECT FAULTS WITHIN CARD READER EQUIPMENT	94
Q608 ISOLATE MALFUNCTIONS TO CARD READER EQUIPMENT	94
F250 LOCATE UNITS, MODULES, ROWS, COLUMNS, COMPONENTS, PINS, AMPHENOLS, OR TEST POINTS USING ALPHA/NUMERIC DESIGNATORS	92
F229 INTERPRET ON-LINE STATUS PANEL INDICATIONS FOR FAULT ISOLATION	92
N547 ISOLATE MALFUNCTIONS TO REEL TO REEL MAGNETIC TAPE UNITS	92
H353 ISOLATE MALFUNCTIONS WITHIN MAINFRAME PROCESSORS TO CARD OR SUBASSEMBLY	92
K485 PERFORM PMI ON CORE MEMORY ASSEMBLIES	92
K475 ISOLATE MALFUNCTIONS WITHIN CORE MEMORY ASSEMBLIES TO CARD OR SUBASSEMBLY	92
N544 DETECT FAULTS WITHIN REEL-TO-REEL MAGNETIC TAPE UNITS USING OPERATIONAL OR MAINTENANCE CONSOLES	92
K471 ISOLATE MALFUNCTIONS TO CORE MEMORY ASSEMBLIES	92
H351 ISOLATE MALFUNCTIONS TO MAINFRAME PROCESSORS	92
N565 REMOVE OR REPLACE REEL-TO-REEL MAGNETIC TAPE UNIT SUBASSEMBLIES	92
K466 DETECT FAULTS WITHIN CORE MEMORY ASSEMBLIES	92
S662 PERFORM OPERATIONAL CHECKS OF PRINTERS	92
V741 PERFORM PREVENTIVE MAINTENANCE INSPECTIONS (PMI) ON POWER SUPPLIES	92

TABLE A8

AIRBORNE WARNING AND CONTROL SYSTEM (AWACS) REPAIR SPECIALISTS
(GRP464)

TASKS	PERCENT MEMBERS PERFORMING (N=55)
S652 ISOLATE MALFUNCTIONS TO PRINTERS	100
F245 LOAD PROGRAMS USING MAGNETIC TAPES	98
T658 ISOLATE MALFUNCTIONS WITHIN CRT DISPLAY EQUIPMENT TO CARD OR SUBASSEMBLY	98
T682 ISOLATE MALFUNCTIONS TO CRT DISPLAY EQUIPMENT	98
F231 INTERPRET PROGRAM PRINTOUTS FOR FAULT ISOLATION	96
F287 REPLACE MINOR ELECTRICAL HARDWARE, SUCH AS LAMPS, SWITCHES, FUSES, OR CONNECTORS	96
N564 REMOVE OR REPLACE REEL-TO-REEL MAGNETIC TAPE UNITS	96
S670 REMOVE OR REPLACE PRINTERS	96
E180 MAKE ENTRIES ON AFTO FORMS 350 (REPARABLE ITEM PROCESSING TAG)	95
M515 DETECT FAULTS WITHIN MAINTENANCE OR OPERATOR PANELS OR CONSOLES	95
E179 MAKE ENTRIES ON AFTO FORMS 349 (MAINTENANCE DATA COLLECTION RECORD)	93
F262 PERFORM GENERAL CLEANING OF ELECTRONIC COMPUTER OF SWITCHING SYSTEMS EQUIPMENT	93
T695 PERFORM OPERATIONAL CHECKS OF CRT DISPLAY EQUIPMENT	93
N542 DETECT FAULTS WITHIN REEL-TO-REEL MAGNETIC TAPE UNITS USING DIAGNOSTIC PROGRAMS	93
M516 ISOLATE MALFUNCTIONS TO MAINTENANCE OR OPERATOR PANELS OR CONSOLES	93
S668 REMOVE OR REPLACE KEYBOARDS	93
S651 ISOLATE MALFUNCTIONS TO KEYBOARDS	93
F279 REMOVE OR REPLACE ELECTRONIC CIRCUIT CARDS OR PRINTED CIRCUIT BOARDS	91
L502 ISOLATE MALFUNCTIONS WITHIN BUFFERS, CONTROLLERS, OR INTERFACES TO CARD OR SUBASSEMBLY	91
T678 DETECT FAULTS WITHIN CRT DISPLAY EQUIPMENT	91
N552 ISOLATE MALFUNCTIONS WITHIN REEL-TO-REEL MAGNETIC TAPE UNITS TO CARD OR SUBASSEMBLY	91
M519 ISOLATE MALFUNCTIONS WITHIN MAINTENANCE OR OPERATOR PANELS OR CONSOLES TO CARD OR SUBASSEMBLY	91
M528 REMOVE OR REPLACE MAINTENANCE OR OPERATORS PANEL OR CONSOLE SUBASSEMBLIES	91
F223 CLEAN READ/WRITE HEADS	89
F232 INTERPRET VISUAL FAULT INDICATORS FOR FAULT ISOLATION	89
L498 DETECT FAULTS WITHIN BUFFERS, CONTROLLERS, OR INTERFACES USING DIAGNOSTIC PROGRAMS	89
T703 REMOVE OR REPLACE CRT DISPLAY EQUIPMENT SUBASSEMBLIES	89
N533 ALIGN REEL-TO-REEL MAGNETIC TAPE UNITS	89
N565 REMOVE OR REPLACE REEL-TO-REEL MAGNETIC TAPE UNIT SUBASSEMBLIES	89
M529 REMOVE OR REPLACE MAINTENANCE OR OPERATOR PANELS OR CONSOLES	89

TABLE A9

427M-CHEYENNE MOUNTAIN COMPLEX TECHNICIANS
(GRP511)

TASKS	PERCENT MEMBERS PERFORMING (N=28)
F279 REMOVE OR REPLACE ELECTRONIC CIRCUIT CARDS OR PRINTED CIRCUIT BOARDS	100
T697 PERFORM PREVENTIVE MAINTENANCE INSPECTIONS (PMI) ON CRT DISPLAY EQUIPMENT	100
F281 REMOVE OR REPLACE FILTERS	100
F287 REPLACE MINOR ELECTRICAL HARDWARE, SUCH AS LAMPS, SWITCHES, FUSES, OR CONNECTORS	100
T702 REMOVE OR REPLACE CRT DISPLAY EQUIPMENT	100
T695 PERFORM OPERATIONAL CHECKS OF CRT DISPLAY EQUIPMENT	96
S664 PERFORM PMI ON PRINTERS	96
F250 LOCATE UNITS, MODULES, ROWS, COLUMNS, COMPONENTS, PINS, AMPHENOLS, OR TEST POINTS USING ALPHA/NUMERIC DESIGNATORS	96
S668 REMOVE OR REPLACE KEYBOARDS	96
F262 PERFORM GENERAL CLEANING OF ELECTRONIC COMPUTER OF SWITCHING SYSTEMS EQUIPMENT	93
E179 MAKE ENTRIES ON AFTO FORMS 349 (MAINTENANCE DATA COLLECTION RECORD)	93
E180 MAKE ENTRIES ON AFTO FORMS 350 (REPARABLE ITEM PROCESSING TAG)	93
H352 ISOLATE TO MINI OR MICRO PROCESSORS	93
H350 DETECT FAULTS WITHIN MINI OR MICRO PROCESSORS USING DIAGNOSTIC PROGRAMS	93
T682 ISOLATE MALFUNCTIONS TO CRT DISPLAY EQUIPMENT	93
F288 REPLACE NONELECTRICAL HARDWARE, SUCH AS SCREWS, NUTS, EJECTORS, OR COVERS	93
H348 DETECT FAULTS WITHIN MINI OR MICRO PROCESSORS USING FAULT INDICATORS OR STATUS PANELS	93
F223 CLEAN READ/WRITE HEADS	93
E200 RESEARCH MANUALS FOR PARTS NUMBERS	93
S649 DETECT FAULTS WITHIN PRINTERS USING DIAGNOSTIC PROGRAMS	93
F227 INTERPRET BLOCK DIAGRAMS FOR FAULT ISOLATION	93
S652 ISOLATE MALFUNCTIONS TO PRINTERS	93
F280 REMOVE OR REPLACE ELECTRONIC EQUIPMENT PINS, CONNECTORS, OR PLUGS	93
F222 CLEAN OR TREAT FILTERS	89
H355 ISOLATE MALFUNCTIONS WITHIN MINI OR MICRO PROCESSORS TO CARD OR SUBASSEMBLY	89
F228 INTERPRET LOGIC OR SCHEMATIC DIAGRAMS FOR FAULT ISOLATION	89
H357 LOAD AND OPERATE CENTRAL PROCESSING UNITS (CPU) WITH DIAGNOSTIC PROGRAMS	89
H366 REMOVE OR REPLACE MINI OR MICRO PROCESSOR SUBASSEMBLIES	89
V747 REMOVE OR REPLACE POWER SUPPLIES	89
V734 ISOLATE MALFUNCTIONS TO POWER SUPPLIES	89

TABLE A10
GROUND DEVELOPMENT AND DIGITAL TV SYSTEMS SPECIALISTS
(GRP523)

TASKS	PERCENT MEMBERS PERFORMING (N=6)
F228 INTERPRET LOGIC OR SCHEMATIC DIAGRAMS FOR FAULT ISOLATION	100
F282 REMOVE OR REPLACE INTEGRATED CIRCUIT COMPONENTS (CHIPS)	100
T696 PERFORM OPERATIONAL CHECKS OF LIQUID CRYSTAL LIGHT VALVES	100
F227 INTERPRET BLOCK DIAGRAMS FOR FAULT ISOLATION	100
T674 ALIGN LIQUID CRYSTAL LIGHT VALVES	100
F243 LOAD PROGRAMS USING KEYBOARDS	100
F287 REPLACE MINOR ELECTRICAL HARDWARE, SUCH AS LAMPS, SWITCHES, FUSES, OR CONNECTORS	100
K470 INTERPRET RESULTS OF MEMORY DIAGNOSTIC PROGRAMS	100
F279 REMOVE OR REPLACE ELECTRONIC CIRCUIT CARDS OR PRINTED CIRCUIT BOARDS	100
F222 CLEAN OR TREAT FILTERS	100
F231 INTERPRET PROGRAM PRINTOUTS FOR FAULT ISOLATION	100
F278 REMOVE OR REPLACE DISCRETE CIRCUIT COMPONENTS, SUCH AS TRANSISTORS, DIODES, OR RESISTORS	100
F229 INTERPRET ON-LINE STATUS PANEL INDICATIONS FOR FAULT ISOLATION	100
S649 DETECT FAULTS WITHIN PRINTERS USING DIAGNOSTIC PROGRAMS	100
T699 PERFORM PMIs ON PLASMA DISPLAY EQUIPMENT	100
F281 REMOVE OR REPLACE FILTERS	100
F223 CLEAN READ/WRITE HEADS	100
N533 ALIGN REEL TO REEL MAGNETIC TAPE UNITS	100
F233 INTERPRET WIRING DIAGRAMS FOR INTER OR INTRA UNIT DATA FLOW	100
M515 DETECT FAULTS WITHIN MAINTENANCE OR OPERATOR PANELS OR CONSOLES	100
F295 SOLDER OR DESOLDER SINGLE LAYER CIRCUIT BOARDS USING PACE KITS	100
F277 REMOVE OR REPLACE CIRCUIT CARD COMPONENTS SOCKETS OR WIRE WRAPS	100
S650 DETECT FAULTS WITHIN PRINTERS USING FAULT INDICATORS OR STATUS PANELS	100
F280 REMOVE OR REPLACE ELECTRONIC EQUIPMENT PINS, CONNECTORS, OR PLUGS	100
V747 REMOVE OR REPLACE POWER SUPPLIES	100
S652 ISOLATE MALFUNCTIONS TO PRINTERS	100
E187 MAKE ENTRIES ON DD FORMS 1574 (SERVICEABLE TAG-MATERIEL)	83
K483 PERFORM OPERATIONAL CHECKS OF MEMORY ASSEMBLIES USING DIAGNOSTIC PROGRAMS	83
V740 PERFORM OPERATIONAL CHECKS OF POWER SUPPLIES	83
N558 PERFORM PMIs ON REEL TO REEL MAGNETIC TAPE UNITS	83

TABLE A11

CARD PUNCH/CARD READER EQUIPMENT REPAIRMENT
(GRP347)

TASKS	PERCENT MEMBERS PERFORMING (N=10)
Q615 PERFORM MECHANICAL ALIGNMENTS OF CARD PUNCH EQUIPMENT	100
S664 PERFORM PMI ON PRINTERS	100
S662 PERFORM OPERATIONAL CHECKS OF PRINTERS	100
A602 ISOLATE MALFUNCTIONS TO CARD PUNCH EQUIPMENT	100
S652 ISOLATE MALFUNCTIONS TO PRINTERS	100
Q606 DETECT FAULTS WITHIN CARD READER EQUIPMENT	100
Q609 ISOLATE MALFUNCTIONS WITHIN CARD PUNCH EQUIPMENT TO CARD OR SUBASSEMBLY	100
Q621 REMOVE OR REPLACE CARD PUNCH OR CARD READER MECHANICAL EQUIPMENT COMPONENTS	100
Q608 ISOLATE MALFUNCTIONS TO CARD READER EQUIPMENT	100
N542 DETECT FAULTS WITHIN REEL-TO-REEL MAGNETIC TAPE UNITS USING DIAGNOSTIC PROGRAMS	100
N552 ISOLATE MALFUNCTIONS WITHIN REEL-TO-REEL MAGNETIC TAPE UNITS TO CARD OR SUBASSEMBLY	100
Q614 PERFORM ELECTRICAL ALIGNMENTS OF CARD READER EQUIPMENT	100
Q613 PERFORM ELECTRICAL ALIGNMENTS OF CARD PUNCH EQUIPMENT	100
S658 PERFORM ELECTRICAL ALIGNMENTS OF PRINTERS	100
F239 LOAD PROGRAMS USING CARDS	90
Q617 PERFORM PREVENTIVE MAINTENANCE INSPECTIONS (PMI) ON CARD PUNCH EQUIPMENT	90
Q618 PERFORM PMI ON CARD READER EQUIPMENT	90
S649 DETECT FAULTS WITHIN PRINTERS USING DIAGNOSTIC PROGRAMS	90
P598 PERFORM PREVENTIVE MAINTENANCE INSPECTIONS (PMI) ON DISC PACK SYSTEMS	90
N558 PERFORM PMI ON REEL-TO-REEL MAGNETIC TAPE UNITS	90
Q611 ISOLATE MALFUNCTIONS WITHIN CARD READER EQUIPMENT TO CARD OR SUBASSEMBLY	90
S660 PERFORM MECHANICAL ALIGNMENTS OF PRINTERS	90
Q616 PERFORM MECHANICAL ALIGNMENTS OF CARD READER EQUIPMENT	90
P579 ALIGN DISC PACK SYSTEMS	90
P587 ISOLATE MALFUNCTIONS TO DISC PACK SYSTEMS	90
P584 DETECT FAULTS WITHIN DISC PACK SYSTEMS USING DIAGNOSTIC PROGRAMS	90
N543 DETECT FAULTS WITHIN REEL-TO-REEL MAGNETIC TAPE UNITS USING FAULT INDICATORS OR STATUS PANELS	90
Q623 REMOVE OR REPLACE CARD READER EQUIPMENT SUBASSEMBLIES	90
V734 ISOLATE MALFUNCTIONS TO POWER SUPPLIES	90
F222 CLEAN OR TREAT FILTERS	80

TABLE A12

COMPUTER OPERATOR-MAINTAINERS
(GRP366)

TASKS	PERCENT MEMBERS PERFORMING (N=22)
P598 PERFORM PREVENTIVE MAINTENANCE INSPECTIONS (PMI) ON DISC PACK SYSTEMS	100
S663 PERFORM PREVENTIVE MAINTENANCE INSPECTIONS (PMI) ON KEYBOARDS	100
S655 ISOLATE MALFUNCTIONS WITHIN PRINTERS TO CARD OR SUBASSEMBLY	100
F287 REPLACE MINOR ELECTRICAL HARDWARE, SUCH AS LAMPS, SWITCHES, FUSES, OR CONNECTORS	95
S652 ISOLATE MALFUNCTIONS TO PRINTERS	95
S658 PERFORM ELECTRICAL ALIGNMENTS OF PRINTERS	95
P587 ISOLATE MALFUNCTIONS TO DISC PACK SYSTEMS	95
S664 PERFORM PMI ON PRINTERS	91
F223 CLEAN READ/WRITE HEADS	91
F281 REMOVE OR REPLACE FILTERS	91
S662 PERFORM OPERATIONAL CHECKS OF PRINTERS	91
H357 LOAD AND OPERATE CENTRAL PROCESSING UNITS (CPU) WITH DIAGNOSTIC PROGRAMS	91
P599 REMOVE OR REPLACE DISC PACK SYSTEM SUBASSEMBLIES	91
P584 DETECT FAULTS WITHIN DISC PACK SYSTEMS USING DIAGNOSTIC PROGRAMS	91
S660 PERFORM MECHANICAL ALIGNMENTS OF PRINTERS	91
S669 REMOVE OR REPLACE PRINTER SUBASSEMBLIES	91
P590 ISOLATE MALFUNCTIONS WITHIN DISC PACK SYSTEMS TO SUBASSEMBLY OR CARD	91
S653 ISOLATE MALFUNCTIONS WITHIN KEYBOARDS TO CARD OR SUBASSEMBLY	91
N558 PERFORM PMI ON REEL-TO-REEL MAGNETIC TAPE UNITS	86
F262 PERFORM GENERAL CLEANING OF ELECTRONIC COMPUTER OF SWITCHING SYSTEMS EQUIPMENT	86
F245 LOAD PROGRAMS USING MAGNETIC TAPES	86
F222 CLEAN OR TREAT FILTERS	86
V741 PERFORM PREVENTIVE MAINTENANCE INSPECTIONS (PMI) ON POWER SUPPLIES	86
H355 ISOLATE MALFUNCTIONS WITHIN MINI OR MICRO PROCESSORS TO CARD OR SUBASSEMBLY	86
V734 ISOLATE MALFUNCTIONS TO POWER SUPPLIES	86
P579 ALIGN DISC PACK SYSTEMS	86
N542 DETECT FAULTS WITHIN REEL-TO-REEL MAGNETIC TAPE UNITS USING DIAGNOSTIC PROGRAMS	86
S651 ISOLATE MALFUNCTIONS TO KEYBOARDS	86
F279 REMOVE OR REPLACE ELECTRONIC CIRCUIT CARDS OR PRINTED CIRCUIT BOARDS	82
F250 LOCATE UNITS, MODULES, ROWS, COLUMNS, COMPONENTS, PINS, AMPHENOLS, OR TEST POINTS USING ALPHA/NUMERIC DESIGNATORS	82

TABLE A13

TAPE PUNCH/TAPE READER EQUIPMENT REPAIRMENT
(GRP285)

TASKS	PERCENT MEMBERS PERFORMING (N=28)
R637 PERFORM PREVENTIVE MAINTENANCE INSPECTIONS (PMI) ON TAPE PUNCH EQUIPMENT	100
R638 PERFORM PMI ON TAPE READER EQUIPMENT	100
R635 DETECT FAULTS WITHIN TAPE READER EQUIPMENT	100
R624 DETECT FAULTS WITHIN TAPE PUNCH EQUIPMENT	100
F247 LOAD PROGRAMS USING PUNCHED TAPES	96
F279 REMOVE OR REPLACE ELECTRONIC CIRCUIT CARDS OR PRINTED CIRCUIT BOARDS	96
R627 ISOLATE MALFUNCTIONS TO TAPE READER EQUIPMENT	96
R628 ISOLATE MALFUNCTIONS WITHIN TAPE PUNCH EQUIPMENT TO CARD OR SUBASSEMBLY	96
R626 ISOLATE MALFUNCTIONS TO TAPE PUNCH EQUIPMENT	96
R630 ISOLATE MALFUNCTIONS WITHIN TAPE READER EQUIPMENT TO CARD OR SUBASSEMBLY	96
R636 PERFORM OPERATIONAL CHECKS OF TAPE PUNCH EQUIPMENT	96
R634 PERFORM MECHANICAL ALIGNMENTS OF TAPE PUNCH EQUIPMENT	96
F228 INTERPRET LOGIC OR SCHEMATIC DIAGRAMS FOR FAULT ISOLATION	93
R635 PERFORM MECHANICAL ALIGNMENTS OF TAPE READER EQUIPMENT	89
R633 PERFORM ELECTRICAL ALIGNMENTS OF TAPE READER EQUIPMENT	89
E180 MAKE ENTRIES ON AFTO FORMS 350 (REPARABLE ITEM PROCESSING TAG)	89
F281 REMOVE OR REPLACE FILTERS	89
S664 PERFORM PMI ON PRINTERS	86
F287 REPLACE MINOR ELECTRICAL HARDWARE, SUCH AS LAMPS, SWITCHES, FUSES, OR CONNECTORS	86
F250 LOCATE UNITS, MODULES, ROWS, COLUMNS, COMPONENTS, PINS, AMPHENOLS, OR TEST POINTS USING ALPHA/NUMERIC DESIGNATORS	86
R632 PERFORM ELECTRICAL ALIGNMENTS OF TAPE PUNCH EQUIPMENT	86
R642 REMOVE OR REPLACE TAPE PUNCH OR TAPE READER MECHANICAL EQUIPMENT COMPONENTS	86
F293 SOLDER OR DESOLDER ELECTRONIC EQUIPMENT USING SOLDERING IRONS	86
K483 PERFORM OPERATIONAL CHECKS OF MEMORY ASSEMBLIES USING DIAGNOSTIC PROGRAMS	82
S662 PERFORM OPERATIONAL CHECKS OF PRINTERS	82
F262 PERFORM GENERAL CLEANING OF ELECTRONIC COMPUTER OR SWITCHING SYSTEMS EQUIPMENT	82
H347 DETECT FAULTS WITHIN MAINFRAME PROCESSORS USING DIAGNOSTIC PROGRAMS	82
F231 INTERPRET PROGRAM PRINTOUTS FOR FAULT ISOLATION	82
S652 ISOLATE MALFUNCTIONS TO PRINTERS	82
V734 ISOLATE MALFUNCTIONS TO POWER SUPPLIES	82

TABLE A14
AIRBORNE COMMAND POST COMPUTER SPECIALIST
(GRP279)

TASKS	PERCENT MEMBERS PERFORMING (N=10)
N537 DETECT FAULTS WITHIN CARTRIDGE OR CASSETTE MAGNETIC TAPE UNITS USING DIAGNOSTIC PROGRAMS	100
H357 LOAD AND OPERATE CENTRAL PROCESSING UNITS (CPU) WITH DIAGNOSTIC PROGRAMS	100
F245 LOAD PROGRAMS USING MAGNETIC TAPES	100
E179 MAKE ENTRIES ON AFTO FORMS 349 (MAINTENANCE DATA COLLECTION RECORD)	100
N560 REMOVE OR REPLACE CARTRIDGE OR CASSETTE MAGNETIC TAPE UNITS	100
F279 REMOVE OR REPLACE ELECTRONIC CIRCUIT CARDS OR PRINTED CIRCUIT BOARDS	100
F293 SOLDER OR DESOLDER ELECTRONIC EQUIPMENT USING SOLDERING IRONS	100
F232 INTERPRET VISUAL FAULT INDICATORS FOR FAULT ISOLATION	100
F262 PERFORM GENERAL CLEANING OF ELECTRONIC COMPUTER OF SWITCHING SYSTEMS EQUIPMENT	100
F229 INTERPRET ON-LINE STATUS PANEL INDICATIONS FOR FAULT ISOLATION	100
F228 INTERPRET LOGIC OR SCHEMATIC DIAGRAMS FOR FAULT ISOLATION	100
F287 REPLACE MINOR ELECTRICAL HARDWARE, SUCH AS LAMPS, SWITCHES, FUSES, OR CONNECTORS	100
F270 PERFORM VISUAL INSPECTION OF CABLES, CABLE TROUGHS, OR CONNECTOR AIR DUCTS	100
V734 ISOLATE MALFUNCTIONS TO POWER SUPPLIES	100
B50 ORIENT NEWLY ASSIGNED PERSONNEL	100
V747 REMOVE OR REPLACE POWER SUPPLIES	100
N531 ALIGN CARTRIDGE OR CASSETTE MAGNETIC TAPE UNITS	90
N534 BENCH CHECK CARTRIDGE OR CASSETTE MAGNETIC TAPE UNITS	90
N548 ISOLATE MALFUNCTIONS WITHIN CARTRIDGE OR CASSETTE MAGNETIC TAPE UNITS TO CARD OR SUBASSEMBLY	90
N557 PERFORM PMI ON CARTRIDGE OR CASSETTE MAGNETIC TAPE UNITS	90
F282 REMOVE OR REPLACE INTEGRATED CIRCUIT COMPONENTS (CHIPS)	90
S662 PERFORM OPERATIONAL CHECKS OF PRINTERS	90
N561 REMOVE OR REPLACE CARTRIDGE OR CASSETTE MAGNETIC TAPE UNIT SUBASSEMBLIES	90
E180 MAKE ENTRIES ON AFTO FORMS 350 (REPARABLE ITEM PROCESSING TAG)	90
F223 CLEAN READ/WRITE HEADS	90
S664 PERFORM PMIs ON PRINTERS	90
F231 INTERPRET PROGRAM PRINTOUTS FOR FAULT ISOLATION	90
S661 PERFORM OPERATIONAL CHECKS OF KEYBOARDS	90
F295 SOLDER OR DESOLDER SINGLE LAYER CIRCUIT BOARDS USING PACE KITS	90
S649 DETECT FAULTS WITHIN PRINTERS USING DIAGNOSTIC PROGRAMS	90

TABLE A15

RCC-EDLCC/SACCS SPECIALISTS
(GRP208)

TASKS	PERCENT MEMBERS PERFORMING (N=242)
F287 REPLACE MINOR ELECTRICAL HARDWARE, SUCH AS LAMPS, SWITCHES, FUSES, OR CONNECTORS	98
F293 SOLDER OR DESOLDER ELECTRONIC EQUIPMENT USING SOLDERING IRONS	95
F281 REMOVE OR REPLACE FILTERS	95
F279 REMOVE OR REPLACE ELECTRONIC CIRCUIT CARDS OR PRINTED CIRCUIT BOARDS	94
F278 REMOVE OR REPLACE DISCRETE CIRCUIT COMPONENTS, SUCH AS TRANSISTORS, DIODES, OR RESISTORS	94
F288 REPLACE NONELECTRICAL HARDWARE, SUCH AS SCREWS, NUTS, EJECTORS, OR COVERS	93
E179 MAKE ENTRIES ON AFTO FORMS 349 (MAINTENANCE DATA COLLECTION RECORD)	92
F262 PERFORM GENERAL CLEANING OF ELECTRONIC COMPUTER OF SWITCHING SYSTEMS EQUIPMENT	92
F228 INTERPRET LOGIC OR SCHEMATIC DIAGRAMS FOR FAULT ISOLATION	91
E180 MAKE ENTRIES ON AFTO FORMS 350 (REPARABLE ITEM PROCESSING TAG)	90
F260 PERFORM DRAWER TESTER OPERATION TO IDENTIFY FAULTY CARD UNDER TEST	90
F280 REMOVE OR REPLACE ELECTRONIC EQUIPMENT PINS, CONNECTORS, OR PLUGS	89
S652 ISOLATE MALFUNCTIONS TO PRINTERS	88
F269 PERFORM SELF-TEST PROCEDURES ON DRAWER TESTERS	88
S662 PERFORM OPERATIONAL CHECKS OF PRINTERS	88
V747 REMOVE OR REPLACE POWER SUPPLIES	87
F232 INTERPRET VISUAL FAULT INDICATORS FOR FAULT ISOLATION	87
S664 PERFORM PMI ON PRINTERS	87
V741 PERFORM PREVENTIVE MAINTENANCE INSPECTION (PMI) ON POWER SUPPLIES	85
F222 CLEAN OR TREAT FILTERS	85
F250 LOCATE UNITS, MODULES, ROWS, COLUMNS, COMPONENTS, PINS, AMPHENOLS, OR TEST POINTS USING ALPHA/NUMERIC DESIGNATORS	84
S670 REMOVE OR REPLACE PRINTERS	84
F229 INTERPRET ON-LINE STATUS PANEL INDICATIONS FOR FAULT ISOLATION	83
F227 INTERPRET BLOCK DIAGRAMS FOR FAULT ISOLATION	82
V734 ISOLATE MALFUNCTIONS TO POWER SUPPLIES	82
S646 BENCH CHECK PRINTERS	81
V740 PERFORM OPERATIONAL CHECKS OF POWER SUPPLIES	81
F223 CLEAN READ/WRITE HEADS	79
F258 PERFORM CARD TESTER OPERATION TO IDENTIFY FAULTY COMPONENTS	79
S668 REMOVE OR REPLACE KEYBOARDS	79

TABLE A16

EDTCC/SACCS SPECIALISTS
(GRP196)

TASKS	PERCENT MEMBERS PERFORMING (N=64)
F293 SOLDER OR DESOLDER ELECTRONIC EQUIPMENT USING SOLDERING IRONS	95
F287 REPLACE MINOR ELECTRICAL HARDWARE, SUCH AS LAMPS, SWITCHES, FUSES, OR CONNECTORS	95
F262 PERFORM GENERAL CLEANING OF ELECTRONIC COMPUTER OR SWITCHING SYSTEMS EQUIPMENT	94
F279 REMOVE OR REPLACE ELECTRONIC CIRCUIT CARDS OR PRINTED CIRCUIT BOARDS	94
F228 INTERPRET LOGIC OR SCHEMATIC DIAGRAMS FOR FAULT ISOLATION	94
F278 REMOVE OR REPLACE DISCRETE CIRCUIT COMPONENTS, SUCH AS TRANSISTORS, DIODES, OR RESISTORS	92
F232 INTERPRET VISUAL FAULT INDICATORS FOR FAULT ISOLATION	92
F281 REMOVE OR REPLACE FILTERS	91
F231 INTERPRET PROGRAM PRINTOUTS FOR FAULT ISOLATION	89
F245 LOAD PROGRAMS USING MAGNETIC TAPES	88
F227 INTERPRET BLOCK DIAGRAMS FOR FAULT ISOLATION	88
F282 REMOVE OR REPLACE INTEGRATED CIRCUIT COMPONENTS (CHIPS)	88
F223 CLEAN READ/WRITE HEADS	86
E179 MAKE ENTRIES ON AFTO FORMS 349 (MAINTENANCE DATA COLLECTION RECORD)	84
E180 MAKE ENTRIES ON AFTO FORMS 350 (REPARABLE ITEM PROCESSING TAG)	83
F229 INTERPRET ON-LINE STATUS PANEL INDICATIONS FOR FAULT ISOLATION	83
V741 PERFORM PREVENTIVE MAINTENANCE INSPECTIONS (PMI) ON POWER SUPPLIES	83
F288 REPLACE NONELECTRICAL HARDWARE, SUCH AS SCREWS, NUTS, EJECTORS, OR COVERS	81
N558 PERFORM PMI ON REEL-TO-REEL MAGNETIC TAPE UNITS	80
F239 LOAD PROGRAMS USING CARDS	80
N533 ALIGN REEL-TO-REEL MAGNETIC TAPE UNITS	78
F222 CLEAN OR TREAT FILTERS	77
F250 LOCATE UNITS, MODULES, ROWS, COLUMNS, COMPONENTS, PINS, AMPHENOLS, OR TEST POINTS USING ALPHA/NUMERIC DESIGNATORS	75
F246 LOAD PROGRAMS USING PANELS OR CONSOLES	73
U715 BENCH CHECK MODEMS	72
U720 ISOLATE MALFUNCTIONS WITHIN MODEMS TO CARD OR SUBASSEMBLY	72
U721 ISOLATE MALFUNCTIONS WITHIN MODEMS TO COMPONENT	72
U723 PERFORM PREVENTIVE MAINTENANCE INSPECTIONS (PMI) ON MODEMS	70
U713 ALIGN MODEMS	70
U719 ISOLATE MALFUNCTIONS TO MODEMS	70

TABLE A17
CAFMS SPECIALISTS
(GRP220)

TASKS	PERCENT MEMBERS PERFORMING (N=5)
F280 REMOVE OR REPLACE ELECTRONIC EQUIPMENT PINS, CONNECTORS, OR PLUGS	100
G321 OPERATE KEYBOARDS OTHER THAN FOR AIRBORNE SYSTEMS	100
S670 REMOVE OR REPLACE PRINTERS	100
X772 FABRICATE OR MODIFY CABLE INSTALLATIONS	100
F293 SOLDER OR DESOLDER ELECTRONIC EQUIPMENT USING SOLDERING IRONS	100
F243 LOAD PROGRAMS USING KEYBOARDS	100
F277 REMOVE OR REPLACE CIRCUIT CARD COMPONENT SOCKETS OR WIRE WRAPS	100
F288 REPLACE NONELECTRICAL HARDWARE, SUCH AS SCREWS, NUTS, EJECTORS, OR COVERS	100
G301 COORDINATE COMPUTER SYSTEM FUNCTIONAL REQUIREMENTS WITH USERS	100
F228 INTERPRET LOGIC OR SCHEMATIC DIAGRAMS FOR FAULT ISOLATION	100
S646 BENCH CHECK PRINTERS	100
s655 ISOLATE MALFUNCTIONS WITHIN PRINTERS TO CARD OR SUBASSEMBLY	100
S662 PERFORM OPERATIONAL CHECKS OF PRINTERS	100
S652 ISOLATE MALFUNCTIONS TO PRINTERS	100
X764 CONNECT OR DISCONNECT POWER OR EQUIPMENT LEADS	100
G310 DISCRIMINATE BETWEEN HARDWARE AND SOFTWARE FAILURE SOURCES	100
F287 REPLACE MINOR ELECTRICAL HARDWARE, SUCH AS LAMPS, SWITCHES, FUSES, OR CONNECTORS	100
G302 COORDINATE COMPUTER SYSTEM INTERFACE AND INTEGRATION REQUIREMENTS WITH USERS	100
S668 REMOVE OR REPLACE KEYBOARDS	100
F278 REMOVE OR REPLACE DISCRETE CIRCUIT COMPONENTS, SUCH AS TRANSISTORS, DIODES, OR RESISTORS	100
T695 PERFORM OPERATIONAL CHECKS OF CRT DISPLAY EQUIPMENT	100
P588 ISOLATE MALFUNCTIONS TO FLOPPY DISC SYSTEMS	100
S669 REMOVE OR REPLACE PRINTER SUBASSEMBLIES	100
P602 REMOVE OR REPLACE FLOPPY DISC SYSTEMS	100
S645 BENCH CHECK KEYBOARDS	100
T685 ISOLATE MALFUNCTIONS WITHIN CRT DISPLAY EQUIPMENT TO CARD OR SUBASSEMBLY	100
A3 COORDINATE JOB REQUIREMENTS WITH OTHER SECTIONS	100
F242 LOAD PROGRAMS USING FLOPPY DISCS	80
U725 REMOVE OR REPLACE MODEMS	80
F264 PERFORM PATCH PANEL OPERATIONS	80

TABLE A18
GENERAL COMPUTER MAINTENANCE SPECIALISTS
(GRP132)

TASKS	PERCENT MEMBERS PERFORMING (N=24)
F287 REPLACE MINOR ELECTRICAL HARDWARE, SUCH AS LAMPS, SWITCHES, FUSES, OR CONNECTORS	96
F279 REMOVE OR REPLACE ELECTRONIC CIRCUIT CARDS OR PRINTED CIRCUIT BOARDS	92
F222 CLEAN OR TREAT FILTERS	92
F262 PERFORM GENERAL CLEANING OF ELECTRONIC COMPUTER OR SWITCHING SYSTEMS EQUIPMENT	88
F281 REMOVE OR REPLACE FILTERS	88
E180 MAKE ENTRIES ON AFTO FORMS 350 (REPARABLE ITEM PROCESSING TAG)	83
F223 CLEAN READ/WRITE HEADS	83
F293 SOLDER OR DESOLDER ELECTRONIC EQUIPMENT USING SOLDERING IRONS	83
F227 INTERPRET BLOCK DIAGRAMS FOR FAULT ISOLATION	79
F250 LOCATE UNITS, MODULES, ROWS, COLUMNS, COMPONENTS, PINS, AMPHENOLS, OR TEST POINTS USING ALPHA/NUMERIC DESIGNATORS	75
H357 LOAD AND OPERATE CENTRAL PROCESSING UNITS (CPU) WITH DIAGNOSTIC PROGRAMS	75
F228 INTERPRET LOGIC OR SCHEMATIC DIAGRAMS FOR FAULT ISOLATION	75
F288 REPLACE NONELECTRICAL HARDWARE, SUCH AS SCREWS, NUTS, EJECTORS, OR COVERS	75
E179 MAKE ENTRIES ON AFTO FORMS 349 (MAINTENANCE DATA COLLECTION RECORD)	71
S663 PERFORM PREVENTIVE MAINTENANCE INSPECTIONS (PMI) ON KEYBOARDS	67
V747 REMOVE OR REPLACE POWER SUPPLIES	67
K470 INTERPRET RESULTS OF MEMORY DIAGNOSTIC PROGRAMS	63
E133 ESCORT VISITORS THROUGH FACILITIES	63
F280 REMOVE OR REPLACE ELECTRONIC EQUIPMENT PINS, CONNECTORS, OR PLUGS	63
G321 OPERATE KEYBOARDS OTHER THAN FOR AIRBORNE SYSTEMS	58
S662 PERFORM OPERATIONAL CHECKS OF PRINTERS	58
S661 PERFORM OPERATIONAL CHECKS OF KEYBOARDS	58
F245 LOAD PROGRAMS USING MAGNETIC TAPES	58
S651 ISOLATE MALFUNCTIONS TO KEYBOARDS	58
E200 RESEARCH MANUALS FOR PARTS NUMBERS	58
H358 LOAD AND OPERATE CPUs WITH OPERATIONAL PROGRAMS	54
T697 PERFORM PREVENTIVE MAINTENANCE INSPECTIONS (PMI) ON CRT DISPLAY EQUIPMENT	54
F241 LOAD PROGRAMS USING DISC PACKS	54
S664 PERFORM PMI ON PRINTERS	54
H355 ISOLATE MALFUNCTIONS WITHIN MINI OR MICRO PROCESSORS TO CARD OR SUBASSEMBLY	54

TABLE A19
SAGE SPECIALISTS
(GRP110)

TASKS	PERCENT MEMBERS PERFORMING (N=87)
F245 LOAD PROGRAMS USING MAGNETIC TAPES	93
F231 INTERPRET PROGRAM PRINTOUTS FOR FAULT ISOLATION	85
F293 SOLDER OR DESOLDER ELECTRONIC EQUIPMENT USING SOLDERING IRONS	85
F287 REPLACE MINOR ELECTRICAL HARDWARE, SUCH AS LAMPS, SWITCHES, FUSES, OR CONNECTORS	84
F250 LOCATE UNITS, MODULES, ROWS, COLUMNS, COMPONENTS, PINS, AMPHENOLS, OR TEST POINTS USING ALPHA/NUMERIC DESIGNATORS	80
F262 PERFORM GENERAL CLEANING OF ELECTRONIC COMPUTER OR SWITCHING SYSTEMS EQUIPMENT	79
F228 INTERPRET LOGIC OR SCHEMATIC DIAGRAMS FOR FAULT ISOLATION	78
F239 LOAD PROGRAMS USING CARDS	78
T695 PERFORM OPERATIONAL CHECKS OF CRT DISPLAY EQUIPMENT	76
T672 ALIGN CATHODE RAY TUBE (CRT) DISPLAY EQUIPMENT	76
E180 MAKE ENTRIES ON AFTO FORMS 350 (REPARABLE ITEM PROCESSING TAG)	76
F232 INTERPRET VISUAL FAULT INDICATORS FOR FAULT ISOLATION	76
T685 ISOLATE MALFUNCTIONS WITHIN CRT DISPLAY EQUIPMENT TO CARD OR SUBASSEMBLY	75
F288 REPLACE NONELECTRICAL HARDWARE, SUCH AS SCREWS, NUTS, EJECTORS, OR COVERS	75
T682 ISOLATE MALFUNCTIONS TO CRT DISPLAY EQUIPMENT	74
T703 REMOVE OR REPLACE CRT DISPLAY EQUIPMENT SUBASSEMBLIES	72
E179 MAKE ENTRIES ON AFTO FORMS 349 (MAINTENANCE DATA COLLECTION RECORD)	69
T697 PERFORM PREVENTIVE MAINTENANCE INSPECTIONS (PMI) ON CRT DISPLAY EQUIPMENT	67
T678 DETECT FAULTS WITHIN CRT DISPLAY EQUIPMENT	67
M511 ALIGN CONSOLES	66
F244 LOAD PROGRAMS USING MAGNETIC DRUMS	64
T702 REMOVE OR REPLACE CRT DISPLAY EQUIPMENT	62
F229 INTERPRET ON-LINE STATUS PANEL INDICATIONS FOR FAULT ISOLATION	62
F223 CLEAN READ/WRITE HEADS	62
F227 INTERPRET BLOCK DIAGRAMS FOR FAULT ISOLATION	60
F281 REMOVE OR REPLACE FILTERS	59
F278 REMOVE OR REPLACE DISCRETE CIRCUIT COMPONENTS, SUCH AS TRANSISTORS, DIODES, OR RESISTORS	57
F279 REMOVE OR REPLACE ELECTRONIC CIRCUIT CARDS OR PRINTED CIRCUIT BOARDS	56
M515 DETECT FAULTS WITHIN MAINTENANCE OR OPERATOR PANELS OR CONSOLES	54
H357 LOAD AND OPERATE CENTRAL PROCESSING UNITS (CPU) WITH DIAGNOSTIC PROGRAMS	54

TABLE A20

DDC/SACCS SPECIALISTS
(GRP205)

TASKS	PERCENT MEMBERS PERFORMING (N=36)
F278 REMOVE OR REPLACE DISCRETE CIRCUIT COMPONENTS, SUCH AS TRANSISTORS, DIODES, OR RESISTORS	97
T673 ALIGN FLUID DISTRIBUTION SYSTEMS	94
T711 REMOVE OR REPLACE XENON LAMPS IN PROJECTION DISPLAY EQUIPMENT	94
F280 REMOVE OR REPLACE ELECTRONIC EQUIPMENT PINS, CONNECTORS, OR PLUGS	94
T708 REMOVE OR REPLACE PROCESSING MATERIALS, SUCH AS FILM, CHEMICALS, OR OILS	92
T698 PERFORM PMIs ON FLUID DISTRIBUTION SYSTEMS	92
F279 REMOVE OR REPLACE ELECTRONIC CIRCUIT CARDS OR PRINTED CIRCUIT BOARDS	92
T687 ISOLATE MALFUNCTIONS WITHIN FLUID DISTRIBUTION SYSTEMS	89
F288 REPLACE NONELECTRICAL HARDWARE, SUCH AS SCREWS, NUTS, EJECTORS, OR COVERS	89
F262 PERFORM GENERAL CLEANING OF ELECTRONIC COMPUTER OF SWITCHING SYSTEMS EQUIPMENT	89
F287 REPLACE MINOR ELECTRICAL HARDWARE, SUCH AS LAMPS, SWITCHES, FUSES, OR CONNECTORS	89
F293 SOLDER OR DESOLDER ELECTRONIC EQUIPMENT USING SOLDERING IRONS	89
T692 ISOLATE MALFUNCTIONS WITHIN PROJECTION DISPLAY EQUIPMENT TO CARD OR SUBASSEMBLY	89
F229 INTERPRET ON-LINE STATUS PANEL INDICATIONS FOR FAULT ISOLATION	86
E179 MAKE ENTRIES ON AFTO FORMS 349 (MAINTENANCE DATA COLLECTION RECORD)	83
V747 REMOVE OR REPLACE POWER SUPPLIES	83
V734 ISOLATE MALFUNCTIONS TO POWER SUPPLIES	83
F281 REMOVE OR REPLACE FILTERS	83
F228 INTERPRET LOGIC OR SCHEMATIC DIAGRAMS FOR FAULT ISOLATION	83
T681 DETECT FAULTS WITHIN PROJECTION DISPLAY EQUIPMENT	81
T676 ALIGN PROJECTION DISPLAY EQUIPMENT	81
T709 REMOVE OR REPLACE PROJECTION DISPLAY EQUIPMENT SUBASSEMBLIES	81
T704 REMOVE OR REPLACE FLUID DISTRIBUTION SYSTEM COMPONENTS	81
E180 MAKE ENTRIES ON AFTO FORMS 350 (REPARABLE ITEM PROCESSING TAG)	81
T693 ISOLATE MALFUNCTIONS WITHIN PROJECTION DISPLAY EQUIPMENT TO COMPONENT	78
T672 ALIGN CATHODE RAY TUBE (CRT) DISPLAY EQUIPMENT	78
F271 PERFORM VISUAL INSPECTIONS OF NONELECTRICAL HARDWARE	75
F232 INTERPRET VISUAL FAULT INDICATORS FOR FAULT ISOLATION	72
F250 LOCATE UNITS, MODULES, ROWS, COLUMNS, COMPONENTS, PINS, AMPHENOLS, OR TEST POINTS USING ALPHA/NUMERIC DESIGNATORS	72
T695 PERFORM OPERATIONAL CHECKS OF CRT DISPLAY EQUIPMENT	72

TABLE A21

AIRBORNE AWACS TECHNICIANS
(GRP300)

TASKS	PERCENT MEMBERS PERFORMING (N=10)
Y834 PREFLIGHT AWACS COMMUNICATIONS AND DATA PROCESSING EQUIPMENT	100
F254 PERFORM AIRCRAFT PREFLIGHT INSPECTIONS	100
F245 LOAD PROGRAMS USING MAGNETIC TAPES	100
F232 INTERPRET VISUAL FAULT INDICATORS FOR FAULT ISOLATION	100
Y829 PERFORM OPERATIONAL CHECKS OF AWACS ON-LINE OR OFF-LINE BUILT-IN TEST EQUIPMENT	100
F231 INTERPRET PROGRAM PRINTOUTS FOR FAULT ISOLATION	100
Y807 DETECT FAULTS WITHIN AWACS INTERFACE EQUIPMENT	100
Y823 MONITOR OPERATION OF AWACS SYSTEMS POWER SUPPLIES	100
F229 INTERPRET ON-LINE STATUS PANEL INDICATIONS FOR FAULT ISOLATION	100
Y808 DETECT FAULTS WITHIN AWACS LRUs	100
F255 PERFORM AIRCREW EMERGENCY PROCEDURES	100
O575 PERFORM PREFLIGHT INSPECTIONS OF MAGNETIC DRUM UNITS	100
N559 PERFORM PREFLIGHT INSPECTIONS OF REEL-TO-REEL MAGNETIC TAPE UNITS	100
Y813 ISOLATE AWACS INTERFACE EQUIPMENT MALFUNCTIONS	100
O569 DETECT FAULTS WITHIN MAGNETIC DRUM UNITS USING FAULT INDICATORS OR STATUS PANELS	100
S665 PERFORM PREFLIGHT INSPECTIONS ON KEYBOARDS	100
Y825 OPERATE AWACS DATA PROCESSING SYSTEMS (DPS)	90
G329 PERFORM MISSION PLANNING	90
F256 PERFORM ANNUAL AIRCREW GROUND TRAINING AND CERTIFICATION REQUIREMENTS	90
Y827 PERFORM MANUAL CABLE RECONFIGURATION IN SUPPORT OF AWACS INFLIGHT MAINTENANCE	90
H358 LOAD AND OPERATE CPUs WITH OPERATIONAL PROGRAMS	80
E151 MAINTAIN STANDARD AIR FORCE PUBLICATIONS, REGULATIONS, OR MANUALS	80
H357 LOAD AND OPERATE CENTRAL PROCESSING UNITS (CPU) WITH DIAGNOSTIC PROGRAMS	80
G313 INTERPRET COMPUTER CODES	80
N555 PERFORM OPERATIONAL CHECKS OF REEL TO REEL MAGNETIC TAPE UNITS	80
M524 PERFORM PREFLIGHT INSPECTIONS OF MAINTENANCE OR OPERATOR PANEL OR CONSOLES	80
N543 DETECT FAULTS WITHIN REEL-TO-REEL MAGNETIC TAPE UNITS USING FAULT INDICATORS OR STATUS PANELS	80
O570 DETECT FAULTS WITHIN MAGNETIC DRUM UNITS USING OPERATIONAL OR MAINTENANCE CONSOLES	80
S666 PERFORM PREFLIGHT INSPECTIONS ON PRINTERS	80
S662 PERFORM OPERATIONAL CHECKS OF PRINTERS	80

TABLE A22
FIELD TRAINING INSTRUCTORS
(GRP105)

TASKS	PERCENT MEMBERS PERFORMING (N=15)
D126 WRITE TEST QUESTIONS	100
D100 ADMINISTER TESTS	100
D122 PREPARE LESSON PLANS	100
D125 SCORE TESTS	100
D103 CONDUCT CLASSROOM TRAINING OTHER THAN FOR OJT	93
D111 DEVELOP TRAINING AIDS	93
D110 DEVELOP RESIDENT COURSE OR CAREER DEVELOPMENT COURSE (CDC) CURRICULUM MATERIALS	87
D106 COUNSEL TRAINEES ON TRAINING PROGRESS	87
D116 EVALUATE RESIDENT COURSE STUDENT PROGRESS	80
D124 PROCURE TRAINING AIDS, SPACE, OR EQUIPMENT	80
K483 PERFORM OPERATIONAL CHECKS OF MEMORY ASSEMBLIES USING DIAGNOSTIC PROGRAMS	73
F250 LOCATE UNITS, MODULES, ROWS, COLUMNS, COMPONENTS, PINS, AMPHENOLS, OR TEST POINTS USING ALPHA/NUMERIC DESIGNATORS	73
D117 EVALUATE TRAINING METHODS OR TECHNIQUES	73
F228 INTERPRET LOGIC OR SCHEMATIC DIAGRAMS FOR FAULT ISOLATION	73
F279 REMOVE OR REPLACE ELECTRONIC CIRCUIT CARDS OR PRINTED CIRCUIT BOARDS	73
H357 LOAD AND OPERATE CENTRAL PROCESSING UNITS (CPU) WITH DIAGNOSTIC PROGRAMS	73
F227 INTERPRET BLOCK DIAGRAMS FOR FAULT ISOLATION	73
D107 DEMONSTRATE HOW TO LOCATE TECHNICAL INFORMATION	73
H350 DETECT FAULTS WITHIN MINI OR MICRO PROCESSORS USING DIAGNOSTIC PROGRAMS	67
G321 OPERATE KEYBOARDS OTHER THAN FOR AIRBORNE SYSTEMS	67
F229 INTERPRET ON-LINE STATUS PANEL INDICATIONS FOR FAULT ISOLATION	67
F245 LOAD PROGRAMS USING MAGNETIC TAPES	67
H358 LOAD AND OPERATE CPU's WITH OPERATIONAL PROGRAMS	67
K470 INTERPRET RESULTS OF MEMORY DIAGNOSTIC PROGRAMS	60
H355 ISOLATE MALFUNCTIONS WITHIN MINI OR MICRO PROCESSORS TO CARD OR SUBASSEMBLY	60
D109 DETERMINE TRAINING REQUIREMENTS OTHER THAN FOR OJT	60
L498 DETECT FAULTS WITHIN BUFFERS, CONTROLLERS, OR INTERFACES USING DIAGNOSTIC PROGRAMS	60
G318 OPERATE DISPLAY EQUIPMENT OTHER THAN FOR AIRBORNE SYSTEMS	60
H348 DETECT FAULTS WITHIN MINI OR MICRO PROCESSORS USING FAULT INDICATORS OR STATUS PANELS	60
F231 INTERPRET PROGRAM PRINTOUTS FOR FAULT ISOLATION	60

TABLE A23

ELECTRONIC SWITCHING SYSTEMS MAINTENANCE CLUSTER
(GRP79)

TASKS	PERCENT MEMBERS PERFORMING (N=204)
F293 SOLDER OR DESOLDER ELECTRONIC EQUIPMENT USING SOLDERING IRONS	91
F278 REMOVE OR REPLACE DISCRETE CIRCUIT COMPONENTS, SUCH AS TRANSISTORS, DIODES, OR RESISTORS	89
F287 REPLACE MINOR ELECTRICAL HARDWARE, SUCH AS LAMPS, SWITCHES, FUSES, OR CONNECTORS	87
F279 REMOVE OR REPLACE ELECTRONIC CIRCUIT CARDS OR PRINTED CIRCUIT BOARDS	86
E180 MAKE ENTRIES ON AFTO FORMS 350 (REPARABLE ITEM PROCESSING TAG)	83
F296 VISUALLY INSPECT BATTERIES	83
F217 CHECK BATTERY CELL VOLTAGE	82
F228 INTERPRET LOGIC OR SCHEMATIC DIAGRAMS FOR FAULT ISOLATION	79
F262 PERFORM GENERAL CLEANING OF ELECTRONIC COMPUTER OR SWITCHING SYSTEMS EQUIPMENT	78
F232 INTERPRET VISUAL FAULT INDICATORS FOR FAULT ISOLATION	78
F229 INTERPRET ON-LINE STATUS PANEL INDICATIONS FOR FAULT ISOLATION	77
F216 CHARGE OR EQUALIZE BATTERIES	75
F288 REPLACE NONELECTRICAL HARDWARE, SUCH AS SCREWS, NUTS, EJECTORS, OR COVERS	69
E179 MAKE ENTRIES ON AFTO FORMS 349 (MAINTENANCE DATA COLLECTION RECORD)	67
F264 PERFORM PATCH PANEL OPERATIONS	66
V728 DETECT FAULTS WITHIN POWER DISTRIBUTION SYSTEMS USING FAULT INDICATORS, STATUS PANELS, OR TEST EQUIPMENT	66
F227 INTERPRET BLOCK DIAGRAMS FOR FAULT ISOLATION	65
V741 PERFORM PREVENTIVE MAINTENANCE INSPECTIONS (PMI) ON POWER SUPPLIES	65
F280 REMOVE OR REPLACE ELECTRONIC EQUIPMENT PINS, CONNECTORS, OR PLUGS	65
E200 RESEARCH MANUALS FOR PARTS NUMBERS	64
E201 RESEARCH MICROFICHE DOCUMENTS FOR PARTS INFORMATION	63
F277 REMOVE OR REPLACE CIRCUIT CARD COMPONENTS SOCKETS OR WIRE WRAPS	60
V730 DETECT FAULTS WITHIN POWER SUPPLIES USING FAULT INDICATORS, STATUS PANELS, OR TEST EQUIPMENT	60
F258 PERFORM CARD TESTER OPERATION TO IDENTIFY FAULTY COMPONENTS	60
V726 ALIGN POWER SUPPLY UNITS, SUCH AS RECTIFIERS, INVERTERS, CONVERTERS, OR REGULATORS	59
V734 ISOLATE MALFUNCTIONS TO POWER SUPPLIES	58
V740 PERFORM OPERATIONAL CHECKS OF POWER SUPPLIES	57
F276 REMOVE OR REPLACE BATTERIES	56
V732 DETECT FAULTS WITHIN POWER SUPPLIES USING VISUAL FAULT INDICATORS	56
V742 PERFORM PMI ON POWER DISTRIBUTION SYSTEMS	56

TABLE A24

OVERSEAS AUTOVON SWITCH REPAIR SPECIALISTS
(GRP104)

TASKS	PERCENT MEMBERS PERFORMING (N=103)
F217 CHECK BATTERY CELL VOLTAGE	94
I376 DETECT FAULTS WITHIN SWITCH MARKER/MATRIX CIRCUITS	92
F293 SOLDER OR DESOLDER ELECTRONIC EQUIPMENT USING SOLDERING IRONS	92
I395 PERFORM PREVENTIVE MAINTENANCE INSPECTIONS (PMI) ON AUTOVON SUBSYSTEMS	91
I377 DETECT FAULTS WITHIN TRUNK SCANNER CIRCUITS	90
F231 INTERPRET PROGRAM PRINTOUTS FOR FAULT ISOLATION	89
F279 REMOVE OR REPLACE ELECTRONIC CIRCUIT CARDS OR PRINTED CIRCUIT BOARDS	89
F229 INTERPRET ON-LINE STATUS PANEL INDICATIONS FOR FAULT ISOLATION	88
F278 REMOVE OR REPLACE DISCRETE CIRCUIT COMPONENTS, SUCH AS TRANSISTORS, DIODES, OR RESISTORS	88
I384 ISOLATE MALFUNCTIONS WITHIN SWITCH MARKER/MATRIX CIRCUITS	88
I393 PERFORM OPERATIONAL CHECKS OF SWITCH MARKER/MATRIX CIRCUITS	88
F287 REPLACE MINOR ELECTRICAL HARDWARE, SUCH AS LAMPS, SWITCHES, FUSES, OR CONNECTORS	88
F296 VISUALLY INSPECT BATTERIES	88
I388 PERFORM OPERATIONAL CHECKS OF COMPARATOR CIRCUITS	86
I375 DETECT FAULTS WITHIN SWITCH COMPARATOR CIRCUITS	86
I369 ADJUST LINE OR TRUNK CIRCUITS	85
I385 ISOLATE MALFUNCTIONS WITHIN TRUNK SCANNER CIRCUITS	85
I386 PERFORM EMERGENCY RECOVERY PROCEDURES	84
F228 INTERPRET LOGIC OR SCHEMATIC DIAGRAMS FOR FAULT ISOLATION	83
I370 DETECT FAULTS WITHIN CALL PROCESSING CIRCUITS	83
I378 ISOLATE MALFUNCTIONS WITHIN CALL PROCESSING CIRCUITS	83
F232 INTERPRET VISUAL FAULT INDICATORS FOR FAULT ISOLATION	82
F262 PERFORM GENERAL CLEANING OF ELECTRONIC COMPUTER OR SWITCHING SYSTEMS EQUIPMENT	81
E180 MAKE ENTRIES ON AFTO FORMS 350 (REPARABLE ITEM PROCESSING TAG)	81
I373 DETECT FAULTS WITHIN ELECTRO-MECHANICAL LINE OR TRUCK CIRCUITS	80
I387 PERFORM OPERATIONAL CHECKS OF CALL PROCESSING CIRCUITS	80
I383 ISOLATE MALFUNCTIONS WITHIN SWITCH COMPARATOR CIRCUITS	80
I396 REMOVE OR REPLACE AUTOVON ELECTRO-MECHANICAL CIRCUIT COMPONENTS	78
I394 PERFORM OPERATIONAL CHECKS OF TRUNK SCANNER CIRCUITS	76
F216 CHARGE OR EQUALIZE BATTERIES	75

TABLE A25

TACTICAL CONTROL SWITCH REPAIRMEN
(GRP125)

TASKS	PERCENT MEMBERS PERFORMING (N=101)
J443 PERFORM OPERATIONAL CHECKS OF TA-341/TT TELEPHONES	92
F278 REMOVE OR REPLACE DISCRETE CIRCUIT COMPONENTS, SUCH AS TRANSISTORS, DIODES, OR RESISTORS	90
F293 SOLDER OR DESOLDER ELECTRONIC EQUIPMENT USING SOLDERING IRONS	89
J426 ISOLATE MALFUNCTIONS WITHIN TA-341/TT TELEPHONES	88
J451 REMOVE OR REPLACE HANDSETS	87
J456 REMOVE OR REPLACE TA-341/TT TELEPHONES	86
J453 REMOVE OR REPLACE MOBILE ELECTRONIC SWITCHING CIRCUIT CARDS	86
F287 REPLACE MINOR ELECTRICAL HARDWARE, SUCH AS LAMPS, SWITCHES, FUSES, OR CONNECTORS	85
E180 MAKE ENTRIES ON AFTO FORMS 350 (REPARABLE ITEM PROCESSING TAG)	85
J448 PERFORM PREVENTIVE MAINTENANCE INSPECTIONS (PMI) ON MOBILE ELECTRONIC SWITCHING EQUIPMENT	85
J435 PERFORM OPERATIONAL CHECKS OF HANDSETS	85
F276 REMOVE OR REPLACE BATTERIES	85
E179 MAKE ENTRIES ON AFTO FORMS 349 (MAINTENANCE DATA COLLECTION RECORD)	84
J402 DETECT FAULTS WITHIN LINE CIRCUITS	83
F279 REMOVE OR REPLACE ELECTRONIC CIRCUIT CARDS OR PRINTED CIRCUIT BOARDS	82
J452 REMOVE OR REPLACE HEADSETS	82
J409 DETECT FAULTS WITHIN SCANNER CIRCUITS	82
F264 PERFORM PATCH PANEL OPERATIONS	81
J408 DETECT FAULTS WITHIN REGISTER CIRCUITS	80
J415 ISOLATE MALFUNCTIONS WITHIN HANDSETS	80
J436 PERFORM OPERATIONAL CHECKS OF HEADSETS	79
J416 ISOLATE MALFUNCTIONS WITHIN HEADSETS	79
J447 PERFORM OPERATIONAL CHECKS OF TRUNK CIRCUITS	79
J407 DETECT FAULTS WITHIN NUMBER GROUPS	79
J431 PERFORM OPERATIONAL CHECKS OF CONFERENCE CIRCUITS	79
J422 ISOLATE MALFUNCTIONS WITHIN REGISTER CIRCUITS	78
J417 ISOLATE MALFUNCTIONS WITHIN LINE CIRCUITS	78
J432 PERFORM OPERATIONAL CHECKS OF CORD CIRCUITS	78
F296 VISUALLY INSPECT BATTERIES	77
F262 PERFORM GENERAL CLEANING OF ELECTRONIC COMPUTER OR SWITCHING SYSTEM EQUIPMENT	76

TABLE A26
GENERAL FACILITY MAINTENANCE SPECIALISTS
(GRP69)

TASKS	PERCENT MEMBERS PERFORMING (N=78)
F228 INTERPRET LOGIC OR SCHEMATIC DIAGRAMS FOR FAULT ISOLATION	85
F293 SOLDER OR DESOLDER ELECTRONIC EQUIPMENT USING SOLDERING IRONS	81
F287 REPLACE MINOR ELECTRICAL HARDWARE, SUCH AS LAMPS, SWITCHES, FUSES, OR CONNECTORS	81
F279 REMOVE OR REPLACE ELECTRONIC CIRCUIT CARDS OR PRINTED CIRCUIT BOARDS	78
F262 PERFORM GENERAL CLEANING OF ELECTRONIC COMPUTER OR SWITCHING SYSTEM EQUIPMENT	76
F278 REMOVE OR REPLACE DISCRETE CIRCUIT COMPONENTS, SUCH AS TRANSISTORS, DIODES, OR RESISTORS	73
F281 REMOVE OR REPLACE FILTERS	72
F232 INTERPRET VISUAL FAULT INDICATORS FOR FAULT ISOLATION	68
E180 MAKE ENTRIES ON AFTO FORMS 350 (REPARABLE ITEM PROCESSING TAG)	67
F288 REPLACE NONELECTRICAL HARDWARE, SUCH AS SCREWS, NUTS, EJECTORS, OR COVERS	62
E179 MAKE ENTRIES ON AFTO FORMS 349 (MAINTENANCE DATA COLLECTION RECORD)	60
F222 CLEAN OR TREAT FILTERS	58
F227 INTERPRET BLOCK DIAGRAMS FOR FAULT ISOLATION	56
F250 LOCATE UNITS, MODULES, ROWS, COLUMNS, COMPONENTS, PINS, AMPHENOLS, OR TEST POINTS USING ALPHA/NUMERIC DESIGNATORS	55
F229 INTERPRET ON-LINE STATUS PANEL INDICATIONS FOR FAULT ISOLATION	54
F223 CLEAN READ/WRITE HEADS	50
F258 PERFORM CARD TESTER OPERATION TO IDENTIFY FAULTY COMPONENTS	50
F280 REMOVE OR REPLACE ELECTRONIC EQUIPMENT PINS, CONNECTORS, OR PLUGS	47
F231 INTERPRET PROGRAM PRINTOUTS FOR FAULT ISOLATION	45
E200 RESEARCH MANUALS FOR PARTS NUMBERS	44
F233 INTERPRET WIRING DIAGRAMS FOR INTER OR INTRA UNIT DATA FLOW	40
F270 PERFORM VISUAL INSPECTIONS OF CABLES, CABLE TROUGHS, OR CONNECTOR AIR DUCTS	40
F269 PERFORM SELF-TEST PROCEDURES ON DRAWER TESTERS	36
F260 PERFORM DRAWER TESTER OPERATION TO IDENTIFY FAULTY CARD UNDER TEST	36
F259 PERFORM CORROSION CONTROL OTHER THAN GENERAL CLEANING	36
E201 RESEARCH MICROFICHE DOCUMENTS FOR PARTS INFORMATION	35
S664 PERFORM PMI ON PRINTERS	33
F264 PERFORM PATCH PANEL OPERATIONS	33
V741 PERFORM PREVENTIVE MAINTENANCE INSPECTIONS (PMI) ON POWER SUPPLIES	32
E159 MAKE ENTRIES ON AF FORMS 2005 (ISSUE/TURN IN REQUEST)	31

TABLE A27

MANAGEMENT PERSONNEL CLUSTER
(GRP19)

TASKS	PERCENT MEMBERS PERFORMING (N=373)
A18 PARTICIPATE IN MEETINGS, SUCH AS STAFF MEETINGS, BRIEFINGS, CONFERENCES, OR WORKSHOPS	79
B41 DRAFT OR WRITE CORRESPONDENCE	71
C93 REVIEW CORRESPONDENCE	65
A3 COORDINATE JOB REQUIREMENTS WITH OTHER SECTIONS	63
A7 DETERMINE WORK PRIORITIES	63
B48 INTERPRET POLICIES, DIRECTIVES, OR PROCEDURES FOR SUBORDINATES	61
B50 ORIENT NEWLY ASSIGNED PERSONNEL	58
E133 ESCORT VISITORS THROUGH FACILITIES	57
B34 COUNSEL PERSONNEL ON PERSONAL OR MILITARY-RELATED MATTERS	54
C89 PREPARE AIRMAN PERFORMANCE REPORTS (APR)	53
A6 DETERMINE SUPPLY REQUIREMENTS	49
A29 SCHEDULE TEMPORARY DUTY, LEAVES, OR PASSES	49
B30 COMPILE INFORMATION FOR REPORTS OR STAFF STUDIES	49
A24 PLAN WORK ASSIGNMENTS	48
C66 EVALUATE COMPLIANCE WITH PERFORMANCE STANDARDS	47
E128 ADVISE COMMAND STAFF AGENCIES ON CURRENT OPERATIONAL STATUS OF EQUIPMENT OR SYSTEMS	46
A1 ASSIGN PERSONNEL DUTY POSITIONS	46
C63 DRAFT REPLIES TO INSPECTION REPORTS	45
A16 ESTABLISH PERFORMANCE STANDARDS FOR SUBORDINATES	44
C69 EVALUATE INDIVIDUALS FOR RECOGNITION	44
D108 DETERMINE OJT TRAINING REQUIREMENTS	44
E198 PREPARE SCHEDULES OR ROSTERS, SUCH AS SHIFT SCHEDULES OR RECALL ROSTERS	43
C90 PREPARE RECOMMENDATIONS FOR AWARDS	43
C94 REVIEW EQUIPMENT RECORDS	43
A5 DETERMINE PERSONNEL REQUIREMENTS	43
A4 DETERMINE EQUIPMENT REQUIREMENTS	42
A12 DEVELOP WORK METHODS OR PROCEDURES	42
A15 ESTABLISH ORGANIZATIONAL POLICIES, OFFICE INSTRUCTIONS (OI), OR STANDING OPERATING PROCEDURES (SOP)	42
D106 COUNSEL TRAINEES ON TRAINING PROGRESS	41
B45 IMPLEMENT SELF-INSPECTION PROGRAMS	40

TABLE A28
QUALITY CONTROL INSPECTORS
(GRP90)

TASKS	PERCENT MEMBERS PERFORMING (N=44)
C62 DRAFT INSPECTION REPORTS	98
E163 MAKE ENTRIES ON AF FORMS 2419 (ROUTING AND REVIEW OF QUALITY CONTROL REPORTS)	95
C88 PERFORM QUALITY CONTROL INSPECTIONS OF ELECTRONIC COMPUTER OR SWITCHING SYSTEM EQUIPMENT	91
A18 PARTICIPATE IN MEETINGS, SUCH AS STAFF MEETINGS, BRIEFINGS, CONFERENCES, OR WORKSHOPS	91
E164 MAKE ENTRIES ON AF FORMS 2420 (QUALITY CONTROL INSPECTION SUMMARY)	89
C66 EVALUATE COMPLIANCE WITH PERFORMANCE STANDARDS	86
C76 EVALUATE QUALITY CONTROL PROCEDURES	84
B42 IMPLEMENT QUALITY CONTROL PROGRAMS	80
E162 MAKE ENTRIES ON AF FORMS 2415 (QUALITY CONTROL CHECKSHEET)	80
B41 DRAFT OR WRITE CORRESPONDENCE	80
C95 REVIEW TECHNICAL ORDER IMPROVEMENT REPORTS	80
C93 REVIEW CORRESPONDENCE	77
C87 PERFORM MAINTENANCE STANDARDIZATION PROGRAM INSPECTIONS	73
C74 EVALUATE MATERIEL DEFICIENCY REPORTS	73
A8 DEVELOP INSPECTION PROCEDURES	73
C94 REVIEW EQUIPMENT RECORDS	68
C71 EVALUATE MAINTENANCE OF PUBLICATION LIBRARIES	68
B30 COMPILE INFORMATION FOR REPORTS OR STAFF STUDIES	66
C67 EVALUATE CORROSION CONTROL PROGRAMS	66
C63 DRAFT REPLIES TO INSPECTION REPORTS	64
E176 MAKE ENTRIES ON AFTO FORMS 22 (TECHNICAL ORDER SYSTEM PUBLICATION IMPROVEMENT REPORT AND REPLY)	64
B45 IMPLEMENT SELF-INSPECTION PROGRAMS	61
C64 EVALUATE ADMINISTRATIVE FORMS, FILES, OR PROCEDURES	59
C72 EVALUATE MAINTENANCE OR UTILIZATION OF WORKSPACE, EQUIPMENT, OR SUPPLIES	59
C58 CERTIFY STATUS OF REPARABLE, SERVICEABLE, OR CONDEMNED PARTS	57
C85 INITIATE UNSATISFACTORY OR MATERIAL DEFICIENCY REPORTS	52
B48 INTERPRET POLICIES, DIRECTIVES, OR PROCEDURES FOR SUBORDINATES	52
B40 DRAFT INPUTS TO HIGHER HEADQUARTERS DIRECTIVES	52
B31 CONDUCT BRIEFINGS	52
A15 ESTABLISH ORGANIZATIONAL POLICIES, OFFICE INSTRUCTIONS (OI), OR STANDING OPERATING PROCEDURES (SOP)	50

TABLE A29

MAINTENANCE WORKCENTER NCOICs
(GRP324)

TASKS	PERCENT MEMBERS PERFORMING (N=125)
B50 ORIENT NEWLY ASSIGNED PERSONNEL	97
A7 DETERMINE WORK PRIORITIES	96
B48 INTERPRET POLICIES, DIRECTIVES, OR PROCEDURES FOR SUBORDINATES	96
A18 PARTICIPATE IN MEETINGS, SUCH AS STAFF MEETINGS, BRIEFINGS, CONFERENCES, OR WORKSHOPS	94
C93 REVIEW CORRESPONDENCE	94
C89 PREPARE AIRMAN PERFORMANCE REPORTS (APR)	94
B41 DRAFT OR WRITE CORRESPONDENCE	91
A24 PLAN WORK ASSIGNMENTS	91
A3 COORDINATE JOB REQUIREMENTS WITH OTHER SECTIONS	91
B34 COUNSEL PERSONNEL ON PERSONAL OR MILITARY-RELATED MATTERS	90
A1 ASSIGN PERSONNEL TO DUTY POSITIONS	90
D108 DETERMINE OJT TRAINING REQUIREMENTS	90
A29 SCHEDULE TEMPORARY DUTY, LEAVES, OR PASSES	89
E133 ESCORT VISITORS THROUGH FACILITIES	86
A2 ASSIGN SPONSORS FOR NEWLY ASSIGNED PERSONNEL	86
A6 DETERMINE SUPPLY REQUIREMENTS	84
C90 PREPARE RECOMMENDATIONS FOR AWARDS	83
C69 EVALUATE INDIVIDUALS FOR RECOGNITION	82
B54 SUPERVISE ELECTRONIC COMPUTER AND SWITCHING SYSTEMS TECHNICIANS (AFSC 30574)	81
D109 DETERMINE TRAINING REQUIREMENTS OTHER THAN FOR OJT	81
E198 PREPARE SCHEDULES OR ROSTERS, SUCH AS SHIFT SCHEDULES OR RECALL ROSTERS	81
B37 DIRECT MAINTENANCE OF FACILITIES OR WORK AREAS	80
C63 DRAFT REPLIES TO INSPECTION REPORTS	80
A16 ESTABLISH PERFORMANCE STANDARDS FOR SUBORDINATES	80
B55 SUPERVISE ELECTRONIC COMPUTER AND SWITCHING SYSTEMS SPECIALISTS (AFSC 30554)	78
C83 INDORSE AIRMAN PERFORMANCE REPORTS (APR)	78
A5 DETERMINE PERSONNEL REQUIREMENTS	78
B47 INITIATE PERSONNEL ACTION REQUESTS	78
B39 DIRECT MAINTENANCE OR UTILIZATION OF EQUIPMENT OR SUPPLIES	78
C96 SELECT INDIVIDUALS FOR SPECIALIZED TRAINING	78

TABLE A30

MAINTENANCE CONTROLLERS
(GRP297)

TASKS	PERCENT MEMBERS PERFORMING (N=20)
A18 PARTICIPATE IN MEETINGS, SUCH AS STAFF MEETINGS, BRIEFINGS, CONFERENCES, OR WORKSHOPS	95
A7 DETERMINE WORK PRIORITIES	90
B41 DRAFT OR WRITE CORRESPONDENCE	90
A3 COORDINATE JOB REQUIREMENTS WITH OTHER SECTIONS	85
D104 CONDUCT OJT	85
B31 CONDUCT BRIEFINGS	85
E133 ESCORT VISITORS THROUGH FACILITIES	85
E198 PREPARE SCHEDULES OR ROSTERS, SUCH AS SHIFT SCHEDULES OR RECALL ROSTERS	85
E128 ADVISE COMMAND STAFF AGENCIES ON CURRENT OPERATIONAL STATUS OF EQUIPMENT OR SYSTEMS	80
E140 MAINTAIN AUTHORIZED ENTRANCE LISTS	80
D108 DETERMINE OJT TRAINING REQUIREMENTS	80
B48 INTERPRET POLICIES, DIRECTIVES, OR PROCEDURES FOR SUBORDINATES	80
E151 MAINTAIN STANDARD AIR FORCE PUBLICATIONS, REGULATIONS, OR MANUALS	80
A15 ESTABLISH ORGANIZATIONAL POLICIES, OFFICE INSTRUCTIONS (OI), OR STANDING OPERATING PROCEDURES (SOP)	80
D106 COUNSEL TRAINEES ON TRAINING PROGRESS	80
E136 ISSUE JOB CONTROL NUMBERS	75
D118 MAINTAIN MAINTENANCE MANAGEMENT INFORMATION AND CONTROL SYSTEM (MMICS) WORKCENTER LISTINGS	75
E148 MAINTAIN PREVENTIVE MAINTENANCE INSPECTION (PMI) LISTINGS	75
E150 MAINTAIN SECURITY OF FACILITIES OR CLASSIFIED MATERIALS	75
A19 PLAN BRIEFINGS	75
E137 MAINTAIN ADMINISTRATIVE FILES	75
A16 ESTABLISH PERFORMANCE STANDARDS FOR SUBORDINATES	75
B50 ORIENT NEWLY ASSIGNED PERSONNEL	75
E131 DIRECT ACTIONS AS MAINTENANCE CONTROLLER TO CORRECT DEFICIENCIES IN EQUIPMENT AND SYSTEMS	70
E132 DISPATCH MAINTENANCE PERSONNEL	70
E144 MAINTAIN MASTER IDENTIFICATION (ID) LISTINGS	70
E157 MAKE ENTRIES ON AF FORMS 1530 (PUNCH CARD TRANSCRIPT)	70
E152 MAINTAIN STATUS BOARDS, GRAPHS, OR CHARTS OTHER THAN FOR TRAINING	70
C89 PREPARE AIRMAN PERFORMANCE REPORTS (APR)	70
A24 PLAN WORK ASSIGNMENTS	70

TABLE A31

PROGRAM MANAGERS
(GRP111)

TASKS	PERCENT MEMBERS PERFORMING (N=25)
A18 PARTICIPATE IN MEETINGS, SUCH AS STAFF MEETINGS, BRIEFINGS, CONFERENCES, OR WORKSHOPS	96
B41 DRAFT OR WRITE CORRESPONDENCE	92
C93 REVIEW CORRESPONDENCE	88
B30 COMPILE INFORMATION FOR REPORTS OR STAFF STUDIES	76
A3 COORDINATE JOB REQUIREMENTS WITH OTHER SECTIONS	76
A5 DETERMINE PERSONNEL REQUIREMENTS	76
E133 ESCORT VISITORS THROUGH FACILITIES	72
B48 INTERPRET POLICIES, DIRECTIVES, OR PROCEDURES FOR SUBORDINATES	68
A4 DETERMINE EQUIPMENT REQUIREMENTS	68
A6 DETERMINE SUPPLY REQUIREMENTS	68
A7 DETERMINE WORK PRIORITIES	64
C69 EVALUATE INDIVIDUALS FOR RECOGNITION	64
C66 EVALUATE COMPLIANCE WITH PERFORMANCE STANDARDS	60
B40 DRAFT INPUTS TO HIGHER HEADQUARTERS DIRECTIVES	60
A15 ESTABLISH ORGANIZATIONAL POLICIES, OFFICE INSTRUCTIONS (OI), OR STANDING OPERATING PROCEDURES (SOP)	60
E128 ADVISE COMMAND STAFF AGENCIES ON CURRENT OPERATIONAL STATUS OF EQUIPMENT OR SYSTEMS	56
C80 EVALUATE SUGGESTIONS	56
E130 CONDUCT PHYSICAL SECURITY INSPECTIONS OF FACILITIES	56
A20 PLAN EQUIPMENT OR FACILITY MAINTENANCE REQUIREMENTS	52
C90 PREPARE RECOMMENDATIONS FOR AWARDS	52
C61 CONDUCT STAFF ASSISTANCE VISITS	52
A19 PLAN BRIEFINGS	52
B31 CONDUCT BRIEFINGS	48
C99 WRITE STAFF STUDIES, SURVEYS, OR SPECIAL REPORTS	44
C83 INDORSE AIRMAN PERFORMANCE REPORTS (APR)	44
C89 PREPARE AIRMAN PERFORMANCE REPORTS (APR)	44
A21 PLAN LAYOUT OF FACILITIES	44
B34 COUNSEL PERSONNEL ON PERSONAL OR MILITARY-RELATED MATTERS	44
A8 DEVELOP INSPECTION PROCEDURES	44
A29 SCHEDULE TEMPORARY DUTY, LEAVES, OR PASSES	44

TABLE A32

HEADQUARTERS ADMINISTRATIVE STAFF PERSONNEL
(GRP96)

TASKS	PERCENT MEMBERS PERFORMING (N=34)
B41 DRAFT OR WRITE CORRESPONDENCE	94
A18 PARTICIPATE IN MEETINGS, SUCH AS STAFF MEETINGS, BRIEFINGS, CONFERENCES, OR WORKSHOPS	94
B30 COMPILE INFORMATION FOR REPORTS OR STAFF STUDIES	79
C93 REVIEW CORRESPONDENCE	65
B40 DRAFT INPUTS TO HIGHER HEADQUARTERS DIRECTIVES	62
C99 WRITE STAFF STUDIES, SURVEYS, OR SPECIAL REPORTS	50
A19 PLAN BRIEFINGS	47
E128 ADVISE COMMAND STAFF AGENCIES ON CURRENT OPERATIONAL STATUS OF EQUIPMENT OR SYSTEMS	44
B31 CONDUCT BRIEFINGS	44
A3 COORDINATE JOB REQUIREMENTS WITH OTHER SECTIONS	35
A25 PREPARE AGENDA FOR STAFF MEETINGS	29
C95 REVIEW TECHNICAL ORDER IMPROVEMENT REPORTS	29
E137 MAINTAIN ADMINISTRATIVE FILES	29
E133 ESCORT VISITORS THROUGH FACILITIES	29
C61 CONDUCT STAFF ASSISTANCE VISITS	29
A4 DETERMINE EQUIPMENT REQUIREMENTS	26
C62 DRAFT INSPECTION REPORTS	26
E130 CONDUCT PHYSICAL SECURITY INSPECTIONS OF FACILITIES	26
E151 MAINTAIN STANDARD AIR FORCE PUBLICATIONS, REGULATIONS, OR MANUALS	26
B48 INTERPRET POLICIES, DIRECTIVES, OR PROCEDURES FOR SUBORDINATES	24
A6 DETERMINE SUPPLY REQUIREMENTS	24
E200 RESEARCH MANUALS FOR PARTS NUMBERS	24
D109 DETERMINE TRAINING REQUIREMENTS OTHER THAN FOR OJT	21
B50 ORIENT NEWLY ASSIGNED PERSONNEL	18
A26 PREPARE AGENDA FOR SYMPOSIUMS, CONFERENCES, OR WORKSHOPS	18
A20 PLAN EQUIPMENT OR FACILITY MAINTENANCE REQUIREMENTS	18
C66 EVALUATE COMPLIANCE WITH PERFORMANCE STANDARDS	18
E205 TYPE CORRESPONDENCE, FORMS, OR REPORTS	18
A5 DETERMINE PERSONNEL REQUIREMENTS	18
C80 EVALUATE SUGGESTIONS	18

TABLE A33
SUPPLY MONITORS
(GRP33)

TASKS	PERCENT MEMBERS PERFORMING (N=13)
E139 MAINTAIN AF FORMS 2413 (SUPPLY CONTROL LOG)	77
E168 MAKE ENTRIES ON AF FORMS 601B (CUSTODIAN REQUEST/RECEIPT)	77
E209 VERIFY PRIORITY MONITOR REPORTS (D18 REPORTS)	77
E186 MAKE ENTRIES ON DD FORMS 1348-6 (NON-NSN REQUISITION MANUAL))	77
E207 VERIFY DUE-OUT VALIDATION LISTINGS (M-30 LISTINGS)	77
E159 MAKE ENTRIES ON AF FORMS 2005 (ISSUE/TURN IN REQUEST)	77
E188 MAKE ENTRIES ON DD FORMS 1577 (UNSERVICEABLE (CONDEMNED) TAG-MATERIEL)	77
E142 MAINTAIN DAILY DOCUMENT REGISTER AND ITEM SURVEILLANCE LISTS (DO4 LISTS)	69
E189 MAKE ENTRIES ON DD FORMS 1577-2 (UNSERVICEABLE (REPARABLE) TAG-MATERIEL)	69
E187 MAKE ENTRIES ON DD FORMS 1574 (SERVICEABLE TAG-MATERIEL)	69
E201 RESEARCH MICROFICHE DOCUMENTS FOR PARTS INFORMATION	62
A6 DETERMINE SUPPLY REQUIREMENTS	62
B41 DRAFT OR WRITE CORRESPONDENCE	62
E200 RESEARCH MANUALS FOR PARTS NUMBERS	54
E135 INVENTORY SUPPLIES, EQUIPMENT, OR TOOLS EXCEPT DURING EQUIPMENT INSTALLATION OR RECONFIGURATION	54
E193 PERFORM AS FORWARD SUPPLY POINT MONITOR	54
E206 VERIFY DUE-IN FROM MAINTENANCE (DIFM) DOCUMENT LISTINGS	54
A18 PARTICIPATE IN MEETINGS, SUCH AS STAFF MEETINGS, BRIEFINGS, CONFERENCES, OR WORKSHOPS	54
E180 MAKE ENTRIES ON AFTO FORMS 350 (REPARABLE ITEM PROCESSING TAG)	54
E149 MAINTAIN PROPERTY CUSTODIAN AUTHORIZATION/CUSTODY RECEIPT LISTINGS (CA/CRL)	46
E141 MAINTAIN BENCH STOCK PARTS OR EQUIPMENT LEVELS	46
E185 MAKE ENTRIES ON DD FORMS 1348 SERIES (DOD SINGLE LINE ITEM REQUISITION SYSTEM DOCUMENT), EXCEPT DD FORMS 1348-6	46
C58 CERTIFY STATUS OF REPARABLE, SERVICEABLE, OR CONDEMNED PARTS	46
e195 PREPARE EQUIPMENT FOR PRECISION MEASUREMENT EQUIPMENT (PME) PROCESSING	38
C92 REVIEW AFTO FORMS 350 (REPARABLE ITEM PROCESSING TAG)	38
E133 ESCORT VISITORS THROUGH FACILITIES	38
E179 MAKE ENTRIES ON AFTO FORMS 349 (MAINTENANCE DATA COLLECTION RECORD)	38
E137 MAINTAIN ADMINISTRATIVE FILES	31
E147 MAINTAIN PRECISION MEASUREMENT EQUIPMENT (PME) CALIBRATION LISTINGS AND SCHEDULES	31
C85 INITIATE UNSATISFACTORY OR MATERIAL DEFICIENCY REPORTS	31

TABLE A34

JOB CONTROLLERS
(GRP193)

TASKS	PERCENT MEMBERS PERFORMING (N=30)
E136 ISSUE JOB CONTROL NUMBERS	97
E131 DIRECT ACTIONS AS MAINTENANCE CONTROLLER TO CORRECT DEFICIENCIES IN EQUIPMENT AND SYSTEMS	87
E132 DISPATCH MAINTENANCE PERSONNEL	87
E152 MAINTAIN STATUS BOARDS, GRAPHS, OR CHARTS OTHER THAN FOR TRAINING	83
E167 MAKE ENTRIES ON AF FORMS 264 (JOB/STATUS DOCUMENT)	70
E128 ADVISE COMMAND STAFF AGENCIES ON CURRENT OPERATIONAL STATUS OF EQUIPMENT OR SYSTEMS	67
A7 DETERMINE WORK PRIORITIES	67
A3 COORDINATE JOB REQUIREMENTS WITH OTHER SECTIONS	53
A18 PARTICIPATE IN MEETINGS, SUCH AS STAFF MEETINGS, BRIEFINGS, CONFERENCES, OR WORKSHOPS	47
B35 DIRECT DEVELOPMENT OR MAINTENANCE OF STATUS BOARDS, GRAPHS, OR CHARTS	40
B31 CONDUCT BRIEFINGS	40
E190 MAKE ENTRIES ON DD FORMS 1753 (MASTER STATION LOG)	37
E144 MAINTAIN MASTER IDENTIFICATION (ID) LISTINGS	37
E154 MAINTAIN VEHICLE CONTROL LOGS	37
B50 ORIENT NEWLY ASSIGNED PERSONNEL	37
E150 MAINTAIN SECURITY OF FACILITIES OR CLASSIFIED MATERIALS	33
E148 MAINTAIN PREVENTIVE MAINTENANCE INSPECTION (PMI) LISTINGS	33
D118 MAINTAIN MAINTENANCE MANAGEMENT INFORMATION AND CONTROL SYSTEM (MMICS) WORKCENTER LISTINGS	30
E155 MAINTAIN VISITOR REGISTERS	30
E130 CONDUCT PHYSICAL SECURITY INSPECTIONS OF FACILITIES	30
E133 ESCORT VISITORS THROUGH FACILITIES	30
A19 PLAN BRIEFINGS	27
A6 DETERMINE SUPPLY REQUIREMENTS	27
E169 MAKE ENTRIES ON AF FORMS 861 (BASE/TRANSIENT JOB CONTROL NUMBER REGISTER)	23
B51 REVISE DAILY MAINTENANCE PLANS TO MEET OPERATIONAL COMMITMENTS	23
B49 MAINTAIN EMERGENCY OR CONTINGENCY PLANS	23
E208 VERIFY ENTRY AUTHORIZATION OF VISITORS	23
C89 PREPARE AIRMAN PERFORMANCE REPORTS (APR)	23
E198 PREPARE SCHEDULES OR ROSTERS, SUCH AS SHIFT SCHEDULES OR RECALL ROSTERS	23
B48 INTERPRET POLICIES, DIRECTIVES, OR PROCEDURES FOR SUBORDINATES	20

TABLE A35
SYSTEMS CONTROLLERS
(GRP56)

TASKS	PERCENT MEMBERS PERFORMING (N=19)
G321 OPERATE KEYBOARDS OTHER THAN FOR AIRBORNE SYSTEMS	95
E128 ADVISE COMMAND STAFF AGENCIES ON CURRENT OPERATIONAL STATUS OF EQUIPMENT OR SYSTEMS	79
E172 MAKE ENTRIES ON AFCC FORMS 1517 (SACCS TROUBLE MONITOR REPORT)	68
G314 MONITOR OPERATION OF ELECTRONIC COMPUTER OR SWITCHING SYSTEMS OTHER THAN FOR AIRBORNE SYSTEMS	68
E171 MAKE ENTRIES ON AFCC FORMS 1516 (SACCS TROUBLE MONITOR SURVEY)	68
F264 PERFORM PATCH PANEL OPERATIONS	68
E190 MAKE ENTRIES ON DD FORMS 1753 (MASTER STATION LOG)	63
E170 MAKE ENTRIES ON AFCC FORMS 1515 (SYSTEM CONTROL DAILY EQUIPMENT RELEASES)	63
F232 INTERPRET VISUAL FAULT INDICATORS FOR FAULT ISOLATION	63
E199 PROVIDE GUIDANCE ON SYSTEM RESTORAL PROCEDURES	37
F231 INTERPRET PROGRAM PRINTOUTS FOR FAULT ISOLATION	37
E152 MAINTAIN STATUS BOARDS, GRAPHS, OR CHARTS OTHER THAN FOR TRAINING	32
F229 INTERPRET ON-LINE STATUS PANEL INDICATIONS FOR FAULT ISOLATION	32
E130 CONDUCT PHYSICAL SECURITY INSPECTIONS OF FACILITIES	32
D104 CONDUCT OJT	32
G318 OPERATE DISPLAY EQUIPMENT OTHER THAN FOR AIRBORNE SYSTEMS	26
G320 OPERATE INPUT/OUTPUT (I/O) ASSEMBLIES, SUCH AS BUFFERS, CONTROLLERS, OR INTERFACES OTHER THAN FOR AIRBORNE SYSTEMS	26
B30 COMPILE INFORMATION FOR REPORTS OR STAFF STUDIES	26
A3 COORDINATE JOB REQUIREMENTS WITH OTHER SECTIONS	26
E131 DIRECT ACTIONS AS MAINTENANCE CONTROLLER TO CORRECT DEFICIENCIES IN EQUIPMENT AND SYSTEMS	26
D107 DEMONSTRATE HOW TO LOCATE TECHNICAL INFORMATION	26
G324 OPERATE OPERATORS CONSOLES OTHER THAN FOR AIRBORNE SYSTEMS	21
E150 MAINTAIN SECURITY OF FACILITIES OR CLASSIFIED MATERIALS	21
A7 DETERMINE WORK PRIORITIES	21
G301 COORDINATE COMPUTER SYSTEM FUNCTIONAL REQUIREMENTS WITH USERS	21
B34 COUNSEL PERSONNEL ON PERSONAL OR MILITARY-RELATED MATTERS	21
B35 DIRECT DEVELOPMENT OR MAINTENANCE OF STATUS BOARDS, GRAPHS, OR CHARTS	21
B50 ORIENT NEWLY ASSIGNED PERSONNEL	21
G302 COORDINATE COMPUTER SYSTEMS INTERFACE AND INTEGRATION REQUIREMENTS WITH USERS	16
G341 TEST AND IMPLEMENT PROGRAM PATCHES	16

TABLE A36

RESIDENT TRAINING INSTRUCTORS
(GRP140)

TASKS	PERCENT MEMBERS PERFORMING (N=54)
D103 CONDUCT CLASSROOM TRAINING OTHER THAN FOR OJT	100
D122 PREPARE LESSON PLANS	100
D125 SCORE TESTS	98
D100 ADMINISTER TESTS	96
D111 DEVELOP TRAINING AIDS	81
D106 COUNSEL TRAINEES ON TRAINING PROGRESS	78
D107 DEMONSTRATE HOW TO LOCATE TECHNICAL INFORMATION	76
D126 WRITE TEST QUESTIONS	76
D116 EVALUATE RESIDENT COURSE STUDENT PROGRESS	65
F227 INTERPRET BLOCK DIAGRAMS FOR FAULT ISOLATION	43
F228 INTERPRET LOGIC OR SCHEMATIC DIAGRAMS FOR FAULT ISOLATION	41
F229 INTERPRET ON-LINE STATUS PANEL INDICATIONS FOR FAULT ISOLATION	39
D120 MAINTAIN TRAINING RECORDS, CHARTS, OR GRAPHS OTHER THAN MMICS WORKCENTER LISTINGS	37
B34 COUNSEL PERSONNEL ON PERSONAL OR MILITARY RELATED MATTERS	37
F232 INTERPRET VISUAL FAULT INDICATORS FOR FAULT ISOLATION	37
D110 DEVELOP RESIDENT COURSE OR CAREER DEVELOPMENT COURSE (CDC) CURRICULUM MATERIALS	35
F250 LOCATE UNITS, MODULES, ROWS, COLUMNS, COMPONENTS, PINS, AMPHENOLS, OR TEST POINTS USING ALPHA/NUMERIC DESIGNATORS	35
F231 INTERPRET PROGRAM PRINTOUTS FOR FAULT ISOLATION	33
E135 INVENTORY SUPPLIES, EQUIPMENT, OR TOOLS EXCEPT DURING EQUIPMENT INSTALLATION OR RECONFIGURATION	31
D117 EVALUATE TRAINING METHODS OR TECHNIQUES	30
D124 PROCURE TRAINING AIDS, SPACE, OR EQUIPMENT	30
F245 LOAD PROGRAM USING MAGNETIC TAPES	28
F230 INTERPRET PROGRAM ABSTRACTS OR OTHER PROGRAM DATA FOR FAULT ISOLATION	28
F243 LOAD PROGRAMS USING KEYBOARDS	26
A18 PARTICIPATE IN MEETINGS, SUCH AS STAFF MEETINGS, BRIEFINGS, CONFERENCES, OR WORKSHOPS	26
E153 MAINTAIN TECHNICAL ORDER LIBRARIES	24
E133 ESCORT VISITORS THROUGH FACILITIES	24
G320 OPERATE INPUT/OUTPUT (I/O) ASSEMBLIES, SUCH AS BUFFERS, CONTROLLERS, OR INTERFACES OTHER THAN FOR AIRBORNE SYSTEMS	24
F223 INTERPRET WIRING DIAGRAMS FOR INTER OR INTRA UNIT DATA FLOW	22
G321 OPERATE KEYBOARDS OTHER THAN FOR AIRBORNE SYSTEMS	22

TABLE A37
INSTRUCTOR SUPERVISORS
(GRP100)

TASKS	PERCENT MEMBERS PERFORMING (N=10)
D103 CONDUCT CLASSROOM TRAINING OTHER THAN FOR OJT	90
D106 COUNSEL TRAINEES ON TRAINING PROGRESS	90
D125 SCORE TESTS	90
D101 ASSIGN COURSE INSTRUCTORS	80
D100 ADMINISTER TESTS	80
D126 WRITE TEST QUESTIONS	80
B48 INTERPRET POLICIES, DIRECTIVES, OR PROCEDURES FOR SUBORDINATES	80
D122 PREPARE LESSON PLANS	70
D123 PREPARE TRAINING SCHEDULES	70
D120 MAINTAIN TRAINING RECORDS, CHARTS, OR GRAPHS OTHER THAN MMICS WORKCENTER LISTINGS	70
D124 PROCURE TRAINING AIDS, SPACE, OR EQUIPMENT	70
D117 EVALUATE TRAINING METHODS OR TECHNIQUES	70
B50 ORIENT NEWLY ASSIGNED PERSONNEL	70
A18 PARTICIPATE IN MEETINGS, SUCH AS STAFF MEETINGS, BRIEFINGS, CONFERENCES, OR WORKSHOPS	70
D114 EVALUATE INSTRUCTOR PERFORMANCE	60
D116 EVALUATE RESIDENT COURSE STUDENT PROGRESS	60
C69 EVALUATE INDIVIDUALS FOR RECOGNITION	60
A1 ASSIGN PERSONNEL TO DUTY POSITIONS	60
B34 COUNSEL PERSONNEL ON PERSONAL OR MILITARY RELATED MATTERS	60
C93 REVIEW CORRESPONDENCE	60
A29 SCHEDULE TEMPORARY DUTY, LEAVES, OR PASSES	60
D127 WRITE TRAINING REPORTS	50
B31 CONDUCT BRIEFINGS	50
A3 COORDINATE JOB REQUIREMENTS WITH OTHER SECTIONS	50
E198 PREPARE SCHEDULES OR ROSTERS, SUCH AS SHIFT SCHEDULES OR RECALL ROSTERS	50
D111 DEVELOP TRAINING AIDS	50
D107 DEMONSTRATE HOW TO LOCATE TECHNICAL INFORMATION	50
D113 DIRECT OR IMPLEMENT TRAINING PROGRAMS OTHER THAN OJT	50
C89 PREPARE AIRMAN PERFORMANCE REPORTS (APR)	50
A7 DETERMINE WORK PRIORITIES	50

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