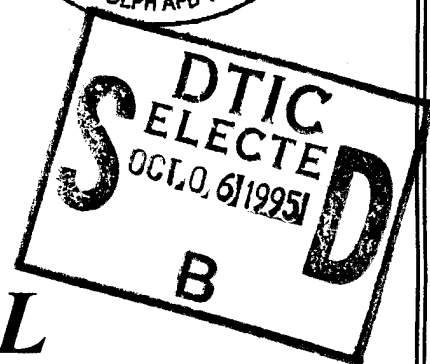
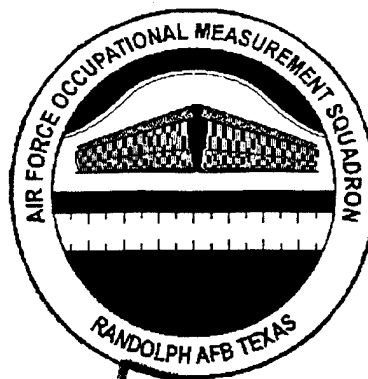




**UNITED STATES
AIR FORCE**



OCCUPATIONAL SURVEY REPORT

**AIR TRAFFIC CONTROL, AC&W, AND
AUTO TRACKING RADAR**

AFSCs 2E0X1, 2E0X2, AND 2E0X3

AFPT 90-303-963

AUGUST 1995

19951004 110

**OCCUPATIONAL ANALYSIS PROGRAM
AIR FORCE OCCUPATIONAL MEASUREMENT SQUADRON
AIR EDUCATION and TRAINING COMMAND
RANDOLPH AFB, TEXAS 78150-4449**

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PREFACE

This report presents the results of an Air Force Occupational Survey of the Radar Maintenance career field (AFSCs 2E0X1, 2E0X2, and 2E0X3). Authority for conducting occupational surveys is contained in AFI 36-2623. Computer products used in this report are available for use by operations and training officials.

The survey instrument was developed by Chief Master Sergeant Jeffrey L. Milligan, Inventory Development Specialist. Computer programming was furnished by Mrs. Rebecca Hernandez and Mrs. Jeannie C. Guesman. Ms. Linda McDonald provided administrative support. Mr. Roberto B. Salinas analyzed the data and wrote the final report. This report has been reviewed and approved by Major Randall C. Agee, Chief, Airman Analysis Section, Occupational Analysis Flight, Air Force Occupational Measurement Squadron (AFOMS).

Copies of this report are distributed to Air Staff sections and other interested training and management personnel. Additional copies may be requested from the AFOMS, Attention: Chief, Occupational Analysis Flight (OMY), 1550 5th Street East, Randolph AFB TX 78150-4449.

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SUMMARY OF RESULTS

1. Survey Coverage: This report is based on data collected from 1,791 respondents, constituting 74 percent of all assigned AFSC 2E0XX personnel and 78 percent of those receiving survey booklets.
2. Specialty Jobs: Six clusters and one independent job were identified in the career ladder structure analysis. Four clusters and the independent job type involved the primary day-to-day radar maintenance and operations responsibilities of these specialties. The remaining clusters were oriented toward managerial, administrative, and training activities.
3. Career Ladder Progression: Overall, personnel at the 3- and 5-skill levels spend practically all of their job time performing technical duties and tasks across a number of jobs. Seven-skill level personnel devote over 50 percent of their relative duty time to nontechnical tasks, clearly reflecting a shift toward supervisory functions. Nine-skill level members are basically managers and supervisors.
4. AFMAN 36-2108 Specialty Descriptions: All descriptions accurately depict the nature of the respective jobs. However, a comprehensive review of the utilization of specialty shredouts authorized at the 3-skill level for AFSC 2E0X1 is warranted.
5. Implications: Consolidating the Radar Maintenance career specialty is plausible.

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**OCCUPATIONAL SURVEY REPORT (OSR)
RADAR MAINTENANCE CAREER FIELD
(AFSC 2E0XX)**

INTRODUCTION

This is an occupational survey report of the Radar Maintenance career field, AFSC 2E0XX. This survey was requested by HQ USAF/LGMM to determine the best career ladder structure for the Radar Maintenance specialties. In addition, OSR data were needed to support a utilization and training workshop (U&TW) conducted 29 November-3 December 1993 at Keesler AFB MS. The last survey results pertaining to these specialties were published as listed:

AFSC 2E0X1, Air Traffic Control Radar (formerly AFSC 303X1) - September 1987
AFSC 2E0X2, Aircraft Control and Warning Radar (formerly AFSC 303X2) - July 1985
AFSC 2E0X3, Automatic Tracking Radar (formerly AFSC 303X3) - November 1987

Background

The Radar Maintenance career ladders, as shown in Figure 1 (from AFMAN 36-2108, Specialty Descriptions), currently consist of three separate specialties up to the 9-skill level. All three Radar Maintenance career ladders are incorporated into AFSC 2E090 at the 9-skill level.

As described in AFMAN 36-2108, *Specialty Descriptions* AFSCs 2E0X1 (Air Traffic Control Radar), 2E0X2 (Aircraft Control and Warning Radar), and 2E0X3 (Automatic Tracking Radar) personnel are responsible for installing, repairing, and maintaining various radar systems, electronic combat systems, and associated equipment. The particular type of radar system or equipment members are responsible for depends on the AFSC or shred they possess. Entry level requirements and the radar systems and equipment maintained for each specialty are presented below.

A. Air Traffic Control Radar Specialty (AFSC 2E0X1): Personnel inspect, troubleshoot, repair, modify, and install traffic control and weather radar, associated communications equipment, radar beacon systems, remoting devices, video mappers, and display equipment.

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RADAR MAINTENANCE CAREER LADDERS
AFSC 2E0XX

OLD AFSC	OLD TITLE	NEW AFSC	NEW TITLE
30100	Communications-Electronics Systems Manager	2E000	No Change
30399	Ground Radar Supt	2E090	No Change
30371	Air Traffic Control Radar Techn	2E071	Air Traffic Control Radar Craftsman
30351	Air Traffic Control Radar Specialist	2E051	Air Traffic Control Radar Journeyman
30331A	Apr Air Traffic Control Radar Spec, GPN-20/FPN-62	2E031A	Air Traffic Control Radar Apr, GPN-20/FPN-62
30331B	Apr Air Traffic Control Radar Spec, GPN-20/GPN-22	2E031B	Air Traffic Control Radar Apr, GPN-20/GPN-22
30331C	Apr Air Traffic Control Radar Spec, GPN-12/FPN-62	2E031C	Air Traffic Control Radar Apr, GPN-12/FPN-62
30331D	Apr Air Traffic Control Radar Spec, GPN-12/GPN-22	2E031D	Air Traffic Control Radar Apr, GPN-12/GPN-22
30331E	Apr Air Traffic Control Radar Spec, MPN-14K/GPN-20/GPN-22	2E031E	Air Traffic Control Radar Apr, MPN-14K/GPN-20/GPN-22
30311A	Air Traffic Control Radar Helper, GPN-20/FPN-62	2E011A	No Change
30311B	Air Traffic Control Radar Helper, GPN-20/GPN-22	2E011B	No Change
30311C	Air Traffic Control Radar Helper, GPN-12/FPN-62	2E011C	No Change
30311D	Air Traffic Control Radar Helper, GPN-12/GPN-22	2E011D	No Change
30311E	Air Traffic Control Radar Helper, MPN-14K/GPN-20/GPN-22	2E011E	No Change

OLD AFSC	OLD TITLE	NEW AFSC	NEW TITLE
30372	Aircraft Control and Warning Radar Techn	2E072	Aircraft Control and Warning Radar Craftsman
30352	Aircraft Control and Warning Radar Spec	2E052	Aircraft Control and Warning Radar Jmymn
30332	Apr Aircraft Control and Warning Radar Specialist	2E032	Aircraft Control and Warning Radar Apprentice
30312	Aircraft Control and Warning Radar Helper	2E012	No Change
30373	Auto Tracking Radar Techn	2E073	Auto Tracking Radar Craftsman
30353	Auto Tracking Radar Spec	2E053	Auto Tracking Radar Jmymn
30333	Apr Auto Tracking Radar Specialist	2E033	Auto Tracking Radar Apr
30313	Auto Tracking Radar Helper	2E013	No Change

FIGURE 1

A minimum Armed Forces Vocational Aptitude Battery (ASVAB) electronic score of 67 and strength factor of "H" (weight lift of 50 lbs) is required for entry into the 2E0X1 AFSC. Formal training for all the Radar Maintenance career ladders is provided by the 334th Technical Training Squadron, Keesler AFB MS. This career ladder has five shreds at the 3-skill level, based upon the types of air traffic control radar systems maintained. Systems that are unique to each shred are listed below.

<u>Shred</u>	<u>Air Traffic Control Radar System</u>
A	AN/GPN-20 ASR*, AN/FPN-62 PAR*
B	AN/GPN-20 ASR, AN/GPN-22 PAR
C	AN/GPN-12 ASR, AN/FPN-62 PAR
D	AN/GPN-12 ASR, AN/GPN-22 PAR
E	AN/GPN-20 ASR, AN/GPN-22 PAR, AN/MPN-14 Mobil RAPCON*

* ASR (Airport Surveillance Radar)
PAR (Precision Approach Radar)
RAPCON (Radar Approach Control)

The length of training varies according to shred from 31 weeks, 4 days for A and C shreds to 39 weeks, 4 days for the E shred. It is intended that, upon graduation and award of the 3-skill level, students will be "channeled" to bases that have radar systems corresponding to the basic technical training received. Training includes knowledge of electronic principles and use of safety procedures, maintenance publications, and related test equipment.

B. Aircraft Control and Warning Radar Specialty (AFSC 2E0X2): Personnel inspect, troubleshoot, repair, overhaul, modify, and install fixed or mobile ground types of aircraft control and warning radar, related radar operator training devices, and associated identification and test equipment.

Entry into the career ladder currently requires a minimum ASVAB electronic score of 77 and the capability to lift 70 pounds to a height of 6 feet (strength factor "K"). The formal training course, 29 weeks, 3 days in duration, covers knowledge of electronic principles, circuit analysis, alignment, testing, and troubleshooting.

C. Automatic Tracking Radar Specialty (AFSC 2E0X3): Personnel inspect, operate, troubleshoot, repair, modify, and relocate automatic tracking radar or electronic combat systems; signal analysis equipment; associated identification equipment; related support, communications, and intercommunications. All personnel entering the AFSC 2E0X3 career ladder must have a minimum aptitude electronic score of 72 and strength factor of "G" (weight lift of 40 lbs). The formal course, 26 weeks, 3 days in length, covers the development and application of electronic principles, circuit analysis, and performance checks.

As mentioned before, this survey was requested to gather the latest occupational data to help determine the best career ladder structure and to support a U&TW. Survey data, in the form of four separate training extracts, were provided to training personnel in August 1993. On 28 November-3 December 1993, at Keesler AFB MS, a U&TW was held in which the survey data played an integral role in the decision-making process. The purpose of this workshop was to define the future direction and structure of AFSCs 2E0X1, 2E0X2, and 2E0X3 to support the Air Force into the 21st century and beyond. To this end, the attendees of the U&TW established a new specialty structure that essentially eliminated existing shreds for AFSC 2E0X1 and created a new AFSC structure that encompasses the duties and responsibilities of all three specialties. Target implementation date was tentatively set for April 1995. This report shall summarize the information presented at the U&TW and give the reader a clear understanding of the findings of this survey that support the restructuring activities.

SURVEY METHODOLOGY

Inventory Development

The data collection instrument for this occupational survey was USAF Job Inventory (JI) AFPT 90-303-963, dated September 1991. A tentative task list was prepared after reviewing pertinent career ladder publications and directives, tasks from the previous survey instrument, and data from the last OSR. The preliminary task list was refined and validated through personal interviews with 65 subject-matter experts (SMEs) (selected to cover a variety of MAJCOMs and career ladder functions) at the following locations:

BASE

Hurlburt Fld FL

Keesler AFB MS

REASON FOR VISIT

Typical ATC mission

New AC&W equipment tested before entering AF inventory

Maintain and operate auto tracking equipment found in ACC, USAFE, and PACAF

Engineering and installation activities

Tinker AFB OK	Mobile communications activities
La Junta RBS CO	Radar Bomb Scoring activities and training
Hill AFB UT	Only radar evaluation squadron in the AF AC&W site with mobility mission ATC site
Mt Home AFB ID	Electronics warfare range RBS range located in vicinity ATC location
Wilder RBS ID	Radar tracking mission
Luke AFB AZ	Fixed AC&W site with TPS-75 tactical radar ATC site
Nellis AFB NV	Quality assurance work civilian maintenance contracts ATC radar, GPN-25 - exclusive to Nellis FAA radar, ASR-9 - exclusive to Nellis
Kelly AFB TX	Installation and depot maintenance of weather radars

The resulting JI contained a comprehensive listing of 1,174 tasks grouped under 22 duty headings and a background section requesting such information as paygrade, job title, work schedule, electron tube technology, vehicles operated, and equipment used.

Survey Administration

From January through June 1992, Survey Control Monitors at Military Personnel Flights (MPF) in operational units worldwide administered the inventory to job incumbents holding DAFSC 2E0XX. However, due to the number of unacceptable returns, personnel holding DAFSC 2E031A/B/C/D/E were re-administered inventories from July to November 1992. Job incumbents were selected from a computer-generated mailing list obtained from personnel data tapes maintained by the Air Force Military Personnel Center (AFMPC).

Each individual who completed the inventory first completed an identification and biographical information section and then checked each task performed in his or her 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 1 (very small amount time spent) through 5 (about average time spent) to 9 (very large amount spent).

To determine relative time spent for each task checked by a respondent, all of the 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 of task ratings and multiplied by 100 to provide a relative percentage of time for each task. 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 so as to ensure an accurate representation across MAJCOMs and paygrade groups. All eligible DAFSC 2E031, 2E051, 2E071, 2E032, 2E052, 2E072, 2E033, 2E053, 2E073, and 2E090 personnel were mailed survey booklets. Eligibility to participate in an occupational survey is limited to personnel who have held their duty AFSC a minimum of 6 weeks and who have at least 6 weeks on the job. Those projected to retire or in PCS status within the data collection phase of the study are excluded.

Table 1 reflects the percentage distribution, by MAJCOM, of assigned personnel in the career field as of January 1993. The 1,791 respondents in the final sample represent 78 percent of the total personnel surveyed. Table 2 reflects the paygrade distribution for these respondents. As reflected in these tables, the survey sample is a very good representation of the career ladder population.

Data Processing and Analysis

Once the JIs were received from the field, the booklets were screened for completeness and accuracy and optically scanned to create a complete case record for each respondent. Comprehensive Occupational Data Analysis Program (CODAP) then created a job description for each respondent, as well as composite job descriptions for members of various demographic groups. These job descriptions were used for much of the analyses reported in this OSR.

TABLE I

MAJCOM REPRESENTATION IN SAMPLE AFSC 2E0XX

COMMAND	2E0X1		2E0X2		2E0X3	
	PERCENT ASSIGNED* (N=1,051)	PERCENT SAMPLE (N=739)	PERCENT ASSIGNED* (N=459)	PERCENT SAMPLE (N=362)	PERCENT ASSIGNED* (N=865)	PERCENT SAMPLE (N=650)
ACC	40	40	66	70	89	89
USAFE	15	14	11	11	**	**
ATC	12	14	9	9	4	4
AMC	10	10	-	-	-	-
PACAF	9	10	5	6	5	5
AFMC	6	7	4	1	1	**
AFCC	6	4	4	1	-	-
OTHER	2	1	1	2	**	**

Total Assigned = 2,427

Total Surveyed = 2,291

Total in Survey Sample = 1,791

Percent of Assigned in Sample = 74%

Percent of Surveyed in Sample = 78%

* Assigned strength as of September 1992

** Less than 1 percent

TABLE 2

PAYGRADE DISTRIBUTION OF SAMPLE AFSC 2E0XX

PAYGRADE	2E0X1		2E0X2		2E0X3	
	PERCENT ASSIGNED* (N=1,051)	PERCENT IN SAMPLE (N=739)	PERCENT ASSIGNED* (N=459)	PERCENT IN SAMPLE (N=362)	PERCENT ASSIGNED* (N=865)	PERCENT IN SAMPLE (N=650)
E-1 to E-3	15	12	6	8	20	27
E-4	31	28	31	31	34	27
E-5	25	29	32	37	24	25
E-6	17	19	17	14	14	12
E-7	12	12	13	9	8	8
E-8	0	0	1	1	0	0
E-9	0	0	0	0	0	0

* Assigned strength as of September 1992

NOTE: Columns may not add up to 100 percent due to rounding

Task Factor Administration

Personnel who make decisions about career ladder classification and utilization policies and about training programs use task factor data (training emphasis (TE) and task difficulty (TD) ratings), as well as job descriptions. The survey process provides these data by asking selected E-6 and E-7 supervisors to complete either a TE or TD booklet. These booklets are processed separately from the JIs, and TE and TD data, when applicable, are considered when analyzing other issues in the study.

Task Difficulty (TD). TD is defined as an estimate of the length of time the average airman takes to learn how to perform each task listed in the inventory. One hundred forty-one (54 ATC, 32 AC&W, 55 AT) experienced AFSC 2E0XX supervisors rated the difficulty of the tasks in the inventory on a 9-point scale ranging from 1 (easy to learn) to 9 (very difficult to learn). Interrater agreement for the raters in each specialty is acceptable. TD ratings are normally adjusted so tasks of average difficulty have a value of 5.00 and a standard deviation of 1.00. Any task with a TD rating of 6.00 or greater is considered to be difficult to learn.

Training Emphasis (TE). TE is defined as the amount of structured training that first-enlistment personnel need to perform tasks successfully. Structured training is defined as training provided by resident technical schools, field training detachments (FTD), mobile training teams (MTT), formal OJT, or any other organized training method. TE data were independently collected from 140 AFSC 2E0XX 7-skill level personnel (51 ATC, 38 AC&W, 51 AT) stationed worldwide. These experienced NCOs rated tasks in the inventory on a 10-point scale ranging from 0 (no training required) to 9 (high TE required). The interrater reliability for each rating group was adequate, indicating there was satisfactory agreement among raters for each specialty as to which tasks required some form of structured training and which did not. For ATC tasks (AFSC 2E0X1), the average TE rating was 1.78. Tasks considered high in TE have ratings of 3.25 and above. The average TE rating for AFSC 2E0X2 tasks was 2.11. AC&W tasks considered high in TE have ratings of 2.88 and above. Finally, the average TE rating for auto tracking tasks was 1.74. AFSC 2E0X3 tasks considered high in TE have ratings of 2.99 and above.

SPECIALTY JOBS (Career Ladder Structure)

A USAF Occupational Analysis begins with an examination of the career ladder structure. The structure of jobs within the Radar Maintenance career ladders was examined on the basis of similarity of tasks performed and the percent of time spent ratings provided by job incumbents, independent of other specialty background factors.

Each individual in the sample performs a set of tasks called a job. For the purpose of organizing individual jobs into similar units of work, an automated job clustering program is used. This hierarchical grouping program is a basic part of the Comprehensive Occupational Data Analysis Program (CODAP) system for job analysis. Each individual job description (all the tasks performed by that individual and the relative amount of time spent on those tasks) in the sample is compared to every other job description in terms of tasks performed and the relative amount of time spent on each task in the JI. The automated system is designed to locate the two job descriptions with the most similar tasks and percent time ratings and combine them to form a composite job description. In successive stages, new members are added to initial groups, or new groups are formed based on the similarity of tasks performed and similar time ratings in the individual job descriptions.

As mentioned above, the basic identifying group used in the hierarchical job structuring process is the **Job**. When there is a substantial degree of similarity between Jobs, they are grouped together and identified as a **Cluster**. Specialized Jobs too dissimilar to fit within the Cluster are labeled **Independent Jobs (IJs)**. The job structure information resulting from this grouping process (the various jobs within the career ladder) can be used to evaluate the accuracy of career ladder documents (AFMAN 36-2108 *Specialty Descriptions* and Specialty Training Standards (STSS)) and to gain a better understanding of current utilization patterns. The above terminology will be used in the discussion of the AFSC 2E0XX career ladder structure.

Overview of Specialty Jobs

Structure analysis identified six clusters and one independent job within the survey sample of 1,791 airman. Based on task similarity and relative time spent, the division of jobs performed by AFSC 2E0XX personnel is illustrated in Figure 2, and a listing of those clusters and independent jobs is provided below. The stage (ST) or group (GP) number shown beside each title is a reference to computer-printed information; the number of personnel in each group (N) is also shown. The reader should be aware that the number of personnel in the subgroups does not always equal the total number shown for the cluster. However, the jobs performed by those few not included are adequately described by the cluster description.

AFSC 2E0XX SPECIALTY JOBS (N=1,791)

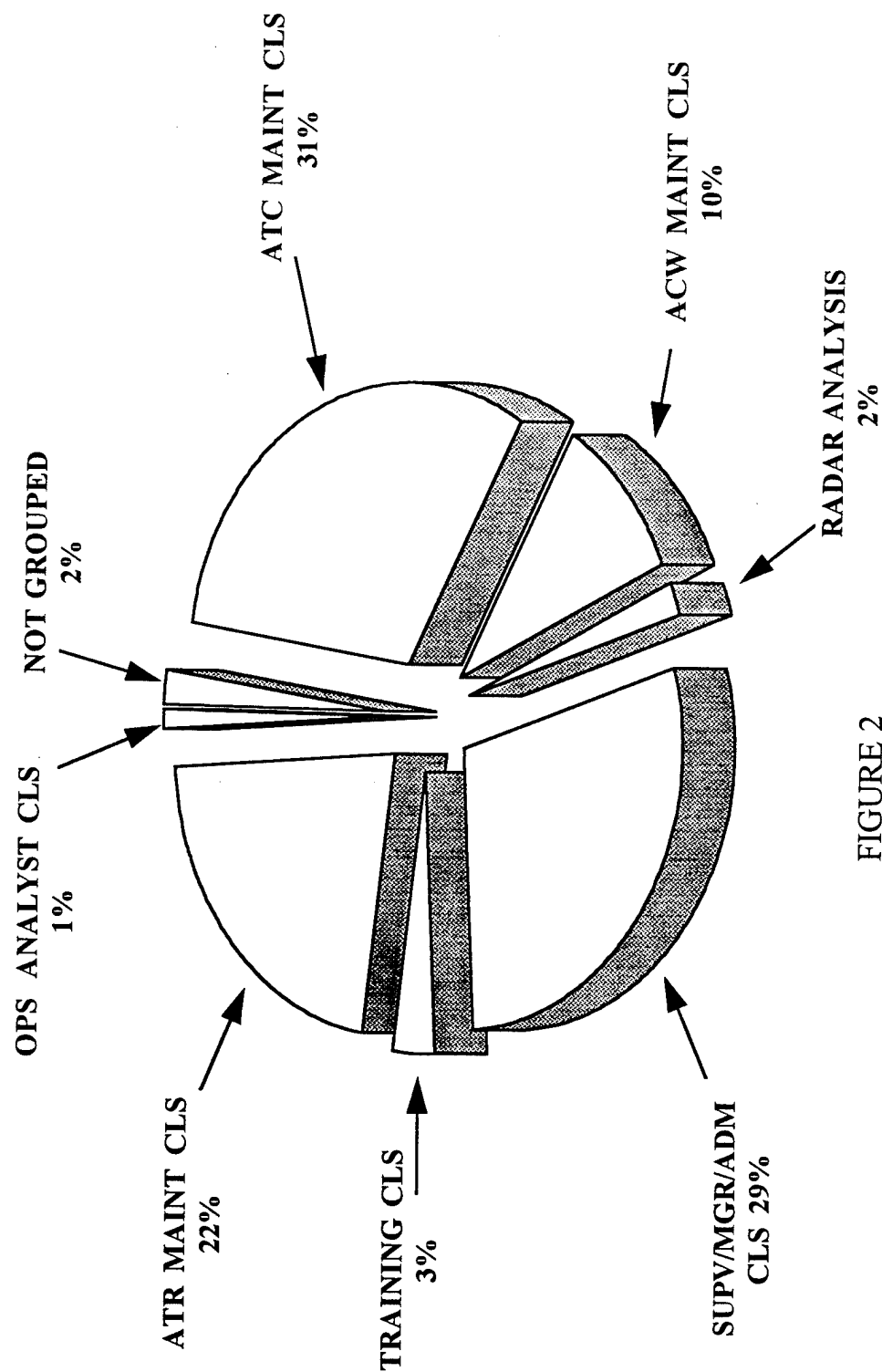


FIGURE 2

- I. AIR TRAFFIC CONTROL (ATC) RADAR MAINTENANCE CLUSTER
(GP0149, N=556)
 - A. Supply and Admin Job (ST0174, N=48)
 - B. Weather Radar Repair Job (ST0334, N=21)
 - C. ATC Radar General Maintenance Job (ST0288, N=340)
 - D. Landing Control Centrals Maintenance Job (ST0373, N=38)
 - E. Mobility Equipment Maintenance Job (ST0102, N=11)
 - F. Computer Systems Maintenance Job (ST0272, N=5)
 - G. Engineering and Installation Job (ST0231, N=23)

- II. AIRCRAFT CONTROL AND WARNING (AC&W) RADAR MAINTENANCE
CLUSTER (GP0147, N=173)
 - A. Video Mapper Maintenance Job (ST0522, N=14)
 - B. Multi-Radar Maintenance Job (ST0138, N=43)
 - C. Mobile Radar Workcenter Maintenance Job (ST0353, N=110)

- III. AUTOMATIC TRACKING RADAR (ATR) MAINTENANCE AND OPERATIONS
CLUSTER (GP0148, N=400)
 - A. Ground-Based Jammer Operator Job (ST0197, N=5)
 - B. Radar Bomb Scoring (RBS) Maintenance Supervisory Job (ST0212, N=5)
 - C. EW Equipment Maintenance Workcenter Supervisory Job (ST0476, N=57)
 - D. EW/ECM Equipment Maintenance Job (ST0300, N=72)
 - E. RBS Maintenance/Operator Job (ST0330, N=55)
 - F. Antenna Maintenance/Range Operations Job (ST0255, N=15)
 - G. Tactical Threat Radar Maintenance Supervisory Job (ST0395, N=5)
 - H. SAM Simulator Operations and Maintenance Job (ST0241, N=36)
 - I. EW Equipment Operations Job (ST0159, N=50)
 - J. Smokey Gun Battery Operations Job (ST0303, N=5)
 - K. Signal Analysis Job (ST0601, N=6)
 - L. RBS Operations Job (ST0470, N=12)

- IV. OPERATION ANALYST AND COMMUNICATIONS CLUSTER (ST0055, N=19)
 - A. Operation Analyst (ST0291, N=7)
 - B. Radar Bomb Scoring Communications Job (ST0168, N=6)

- V. RADAR ANALYSIS AND EVALUATION JOB (ST0113, N=40)

VI. SUPERVISORY, MANAGERIAL, AND ADMINISTRATIVE CLUSTER
(GP0145, N=520)

- A. Maintenance Control/Production Operations Job (ST0133, N=69)
- B. Quality Control/Quality Assurance Inspector Job (ST0333, N=87)
- C. Maintenance/Operations Management Job (ST0282, N=187)
- D. Radar Bomb Scoring Shift Supervisory Job (ST0208, N=22)
- E. Auto Tracking Radar Quality Assurance Chief Job (ST0401, N=7)
- F. Mobile Workcenter Admin and Supply Managerial Job (ST0225, N=7)
- G. Air Traffic Control Radar Systems Managerial Job (ST0294, N=12)
- H. Acquisition and Planning Managerial Job (ST0192, N=13)
- I. Contract Evaluation and Quality Assurance Job (ST0135, N=11)

VII. TRAINING CLUSTER (ST0033, N=60)

- A. Training Manager (ST0245, N=11)
- B. Instructor Supervisory Job (ST0202, N=5)
- C. Instructor Job (ST0084, N=29)
- D. CDC Writer (ST0206, N=5)

The respondents forming these groups account for 98 percent of the survey sample. The remaining few were performing tasks or series of tasks that did not group with any of the defined jobs. Job titles given by respondents that were representative of these personnel included Dormitory Manager, Courseware Designer, and Photonics Technician.

Group Descriptions

The following paragraphs contain brief descriptions of the six clusters and an independent job identified through the career ladder structure analysis. Table 3 presents the relative time spent on duties by members of these specialty jobs. Selected background data for these groups are provided in Table 4. Representative tasks for all the groups are contained in Appendix A.

Radar Maintenance Job Groups

The first three clusters comprise this functional area and are characterized by the commonality of tasks associated with the maintenance of radar systems. Inspecting, troubleshooting, repairing, overhauling, maintaining, and installing radar systems constitutes the main emphasis of the technical jobs involved in these clusters. There is high overlap in tasks performed across radar types; however, radar system-specific-tasks did break the area into three clusters, according to the specific type of radar being maintained. The three radar maintenance

TABLE 3

RELATIVE PERCENT TIME SPENT ON DUTIES BY SPECIALTY JOBS

DUTIES	ATC RADAR MAINT CLUSTER (N=556)	AC&W RADAR MAINT CLUSTER (N=173)	ATR MAINT & OPS CLUSTER (N=400)	OP ANALYST & COMM CLUSTER (N=19)	RADAR ANALYSIS & EVAL JOB (N=40)	SUPV, MGR, & ADMIN CLUSTER (N=520)	TRAINING CLUSTER (N=60)
A. ORGANIZING AND PLANNING	2	2	1	10	2	17	8
B. DIRECTING AND IMPLEMENTING	2	2	2	7	3	15	5
C. INSPECTING AND EVALUATING	4	4	3	9	2	25	10
D. TRAINING	2	2	2	56	10	7	6
E. PERFORMING GENERAL ADMIN AND SUPPLY ACTIVITIES	9	9	7	9	7	23	4
F. PERFORMING QUALITY ASSURANCE EVALUATOR ACTIVITIES	*	*	*	*	*	3	*
G. PERFORMING OPERATIONS ACTIVITIES	2	4	25	2	71	3	3
H. PERFORMING MOBILITY ACTIVITIES	2	9	2	*	0	2	*
I. PERFORMING RADAR SYSTEM INSTALLATION, REMOVAL, AND RELOCATION ACTIVITIES	4	6	4	*	*	*	*
J. PERFORMING GENERAL MAINTENANCE ACTIVITIES	12	11	15	1	1	1	2
K. MAINTAINING POWER AND DISTRIBUTION EQUIPMENT	3	3	3	*	*	*	*
L. MAINTAINING TIMING SYSTEMS	2	2	1	*	0	*	*
M. MAINTAINING RADAR TRANSMITTER SYSTEMS	10	11	10	*	*	*	1
N. MAINTAINING ANTENNA AND WAVEGUIDE SYSTEMS	9	7	8	*	*	*	3
O. MAINTAINING RECEIVER OR PROCESSOR SYSTEMS	11	9	4	2	*	*	2
P. MAINTAINING DISPLAY AND BRIGHT RADAR INDICATING TOWER EQUIPMENT (BRITE)	5	4	*	*	0	*	*
Q. MAINTAINING REMOTING EQUIPMENT	3	*	*	*	*	*	*
R. MAINTAINING ANCILLARY EQUIPMENT	6	3	2	0	*	*	*
S. MAINTAINING IFF AND SIF EQUIPMENT	5	9	2	0	0	*	1
T. MAINTAINING RANGE AND ANGLE TRACKING SYSTEMS	*	*	2	0	0	*	*
U. MAINTAINING COMPUTER SYSTEMS	2	*	4	*	1	*	2
V. PERFORMING RADAR EVALUATION ACTIVITIES	*	*	*	*	0	*	56

* Denotes less than 1 percent

TABLE 4

SELECTED BACKGROUND DATA FOR SPECIALTY JOBS

	ATC RADAR MAINT CLUSTER	AC&W RADAR MAINT CLUSTER	ATR MAINT & OPS CLUSTER	OP ANALYST & COMM CLUSTER	RADAR ANALYSIS & EVAL JOB	SUPV, MGR, & ADMIN CLUSTER	TRAINING CLUSTER
NUMBER IN GROUP	556	173	400	19	40	520	60
PERCENT OF SAMPLE	31%	10%	22%	1%	2%	29%	2%
PERCENT IN CONUS	73%	75%	94%	100%	98%	81%	97%
<u>DAFSC DISTRIBUTION:</u>							
2E031A	6%	0	0	0	0	0	0
2E031B	6%	0	0	0	0	0	0
2E031C	3%	0	0	0	0	0	0
2E031D	3%	0	0	0	0	0	0
2E031E	1%	0	0	0	0	0	0
2E051	51%	1%	1%	0	3%	7%	22%
2E071	26	0	0	0	18%	22%	22%
2E032	1%	12%	0	0	0	0	0
2E052	2%	72%	1%	0	40%	11%	12%
2E072	0	13%	0	0	35%	14%	12%
2E033	0	1%	28%	11%	0	0	0
2E053	1%	2%	63%	74%	0	13%	10%
2E073	0	1%	7%	16%	3%	25%	22%
2E090	0	1%	0	0	3%	7%	2%
PREDOMINANT GRADE(S)	E-4/5	E-4/6	E-3/4	E-4/5	E-5	E-5/6	E-5
AVERAGE MONTHS IN CAREER FIELD	86	76	52	81	151	150	138
AVERAGE MONTHS IN SERVICE	98	81	57	85	160	170	152
PERCENT IN FIRST ENLISTMENT	30%	9%	60%	0	0	3%	0
PERCENT SUPERVISING	49%	45%	30%	37%	50%	57%	15%
AVERAGE NUMBER OF TASKS PERFORMED	238	217	165	31	48	73	27

clusters identified account for 63 percent of the total sample. The 1,129 respondents in this area spend an average of 93 percent of their relative job time in the technical arena of radar maintenance and operations.

I. AIR TRAFFIC CONTROL (ATC) RADAR MAINTENANCE CLUSTER (GP0149).

The primary focus of the jobs in this cluster is the maintenance of radars and equipment associated with air traffic control. The radar systems involved include airport surveillance radars (ASRs), precision approach radars (PARs), and radar approach controls (RAPCONs). These systems are maintained by 31 percent of the sample (N=556). This group spends over 50 percent of their relative job time performing an average of 197 tasks. Typical tasks performed by a majority of this group include:

- inventory project (scheme) materials
- inspect project (scheme) materials
- perform diagnostic checks on computer peripheral hardware
- perform diagnostic checks on computers
- maintain or make entries in maintenance logs
- coordinate obtaining parts with base supply
- perform fault isolation
- perform PMIs on antenna systems
- adjust or align automatic frequency control (AFC) circuits
- adjust or align magnetron transmitters
- perform PMIs on transmitter systems

Seven jobs make up this cluster. The bulk of the maintenance covering the spectrum of ATC radar systems depicts the "ATC Radar General Maintenance Job." Two jobs that concentrate on the maintenance of a specific ATC radar system are descriptive of the "Weather Radar Repair Job" and the "Landing Control Maintenance Job." Associated equipment related maintenance jobs highly characterize both "Mobility Equipment Maintenance Job" and "Computer Systems Maintenance Job." The installation, removal, and relocation of radar systems are featured traits of the "Engineering and Installation Job." Finally, a supportive job by nature and a network for ATC radar maintenance activities is the "Supply and Admin Job."

These jobs are performed by personnel in the AFSC 2E0X1 specialty, with 54 percent holding a 5-skill level. Members average 8 years' TAFMS and 7 years in the career field. Thirty percent are in their first enlistment. The predominant paygrades are E-4 through E-5.

II. AIRCRAFT CONTROL AND WARNING (AC&W) RADAR MAINTENANCE CLUSTER (GP0147). In addition to maintaining AC&W radars and equipment and unlike the other clusters in this area, a distinguishing feature of this group is the performance of tasks associated with mobility activities, accounting for 9 percent of their relative job time. A few of the AC&W radars maintained include FPS-20 series, FPS-6 series, TPS-43E, and the TPS-70 radar sets. The radar maintenance on these systems is performed by 173 members, representing 10 percent of the total survey sample. They perform an average of 217 tasks, including the following:

- assemble or disassemble mobile radar equipment for mission deployments
- attach mobilizers or transporters, such as M-720s or M-832s, to mobile radar equipment
- level mobile shelters, trailers, or vans
- perform PMIs on ancillary equipment
- adjust or align video mapper deflection amplifiers
- isolate video mapper pretrigger delay card malfunctions
- perform PMIs on transmitter systems
- perform PMIs on IFF/SIF equipment
- adjust or align IFF/SIF transmitters
- isolate transmitter trigger amplifier malfunctions

The majority of the members in this cluster have the maintenance responsibility over the air-transportable three-dimensional TPS-75 and TPS-43E mobile radar sets; a descriptive trait of the "Mobile Radar Workcenter Maintenance Job." There are two small groups within this cluster that differ according to the equipment being maintained. The "Multi-Radar Maintenance Job" is distinguished by the performance of maintenance on automatic tracking radars and equipment, such as Smokey Sam/AAA Simulators, LMU-24; Sentry Dawgs, SPS-66; and Interrogator Sets, MPX-7. Highlighting the "Video Mapper Maintenance Job" is the time devoted on the maintenance of ancillary equipment (video mapper, GPA-131).

Seventy-two percent of the group are AFSC 2E052 and report an average of 6 years 4 months in the career field. Twenty-five percent are in their first enlistment and an equal percentage number are located overseas. They average slightly less than 7 years' TAFMS and have a predominant paygrade of E-4.

III. AUTOMATIC TRACKING RADAR (ATR) MAINTENANCE AND OPERATIONS CLUSTER (GP0148). The 400 airmen in this cluster are responsible for the performance of maintenance and operational tasks associated with automatic tracking radars. Radars involved include Radar Bomb Scoring Centrals (seek score), Smokey SAM/AAA Simulators, Electronic Warfare Training Sets, and Intercommunicators Networks. Sixty-seven percent of their time is spent maintaining ATRs and another 25 percent performing operational activities. Examples of tasks performed by this group, who account for 22 percent of the sample, include:

- operate ground based jammers
- perform system run-down procedures
- rescore EW/ECM data
- perform aircraft acquisition procedures for EW/ECM threats
- identify tracked aircraft
- assist other radar units in acquisition of aircraft
- perform aircraft automatic tracking procedures for EW/ECM threats
- perform radar lock-on procedures
- initiate aircraft tracking
- operate smokey surface-to-air (SAM) missile launchers
- load computer programs
- perform aircraft acquisition and automatic tracking procedures for RBS scoring

There are 12 jobs identified within this cluster; the differentiating factors are the time spent performing operational and maintenance tasks, supervisory tasks performed, and the function peculiar to the radar or equipment being maintained or operated.

Personnel with the "Signal Analysis Job" perform functions associated with electronic warfare/electronic countermeasures (EW/ECM) scoring and analysis. The "Smokey Gun Battery Operations Job," while including mobility requirements, focuses more on creating a simulated gauntlet defended by the use of electronic countermeasures. Those in the "Radar Bomb Scoring (RBS) Operations Job" perform tasks associated with the tracking and recording of bombing runs. Personnel in the "Ground-Based Jammer Operator Job" perform operational tasks related to electronic jamming of aircraft systems during a given scenario. The "SAM Simulator Operations and Maintenance Job" stresses the performance of EW/ECW threat scenarios and preventive operational maintenance checks on simulators. The "Antenna Maintenance/Range Operations Job" is characterized by the time spent repairing antennas and performing tasks related to EW/ECM activities. Personnel in the "RBS Maintenance/Operator Job" primarily perform operational checks and associated maintenance on RBS systems. The "EW Equipment Operations Job" tasking involves EW/ECM analysis and validation, computer set-up and associated maintenance on EW equipment. By contrast, the time spent on transmitter maintenance is the primary focus of the "EW/ECM Equipment Maintenance Job." The next three

jobs, "Tactical Threat Radar Maintenance Supervisory Job," "EW Equipment Maintenance Workcenter Supervisory Job," and the "Radar Bomb Scoring Maintenance Supervisory Job" are performed by this cluster's most senior personnel and involve complex maintenance, supervision, and operation activities.

Ninety-eight percent of these respondents are AFSC 2E0X3. Sixty percent are in their first enlistment. The predominant paygrade is E-3 through E-4, with 63 percent qualified at the 5-skill level, 28 percent at the 3-skill level, and only 7 percent at the 7-skill level. Members average 4 years 9 months' TAFMS.

IV. OPERATION ANALYST AND COMMUNICATIONS CLUSTER (ST0055). The 19 members of this group make up 1 percent of the sample. They perform an average of 31 tasks. Fifty-four percent of their job time is spent on tasks related to operations functions, 14 percent on inspecting and evaluating, and another 12 percent of their time is spent on training activities. A sampling of the tasks performed includes:

- analyze trends in system malfunctions
- perform ground-to-air voice communications
- evaluate computer status printouts
- perform EW/ECM analysis
- confirm RBS scores
- compile mission results
- write test questions
- administer or score tests
- annotate communicator recorder tapes

Within this cluster, two jobs were identified. The first, "Operation Analyst," is performed by senior personnel responsible for computing mission information, performing data analysis, and training functions in a workcenter environment. The second job, "Radar Bomb Scoring Communications Job," is characterized by the exchange of RBS information with aircrew members via ground to air communications.

All members in this cluster are AFSC 2E0X3, with 74 percent of these respondents qualified at the 5-skill level. Thirty-two percent are in their first enlistment and average 7 years' TAFMS. The predominant paygrade is E-4.

V. RADAR ANALYSIS AND EVALUATION JOB (ST0113). This job involves the assessment of radar system performance and capabilities and the examination of malfunction trends. Aircraft control and warning radar sets are the predominant systems examined and include the ARSR-1, FPS-20, and TPS-75. As a group, these 40 members spend 52 percent of their relative job time performing radar evaluation activities followed by 24 percent inspecting, organizing, and directing. They average 48 tasks, with only 18 accounting for half their time, including the following examples.

- evaluate radars or associated equipment
- analyze radar performance using computers and specialized hardware
- evaluate beacon systems
- evaluate Federal Aviation Administration (FAA) and contract radar
- evaluate performance of newly installed equipment
- compile data for reports or staff studies
- supervise Radar Specialists (AFSC 30351, 30352, or 30353)

This group is highly experienced reporting an average of 12 years 7 months in the career field, 13 years' TAFMS, and a little less than 4 years in their present job. Personnel performing this job represent all three AFSs with 75 percent 2E0X2, 22 percent 2E0X1, and 3 percent with 2E0X3. They also reflect a predominant paygrade of E-5.

VI. SUPERVISORY, MANAGERIAL, AND ADMINISTRATIVE CLUSTER (GP0145). This cluster consists of 510 members, comprising 29 percent of the AFSC 2E0XX survey sample. The primary focus of this cluster is on management functions. Eighty-nine percent of this groups' relative job time is devoted to the supervision of personnel, management as directors and policy makers, or miscellaneous support functions, such as quality and assurance control, administrative and supply functions, acquisition and planning, and contract evaluation. The jobs vary in accordance to the specific assigned function and the peculiarity of the tasking associated with the radar system being maintained. Other differentiating factors seem to be the average number of tasks performed and the amount of time spent performing various supervisory or maintenance duties. Personnel in this group perform an average of 73 tasks. Examples of tasks most commonly performed include:

- compile data for reports or staff studies
- review CAMS or MMICS output data
- perform self-inspections
- interpret policies, directives, or procedures for subordinates
- evaluate personnel for compliance with performance standards
- write EPRs

- counsel personnel on personal or military-related matters
- supervise Radar Specialists (AFSC 30351, 30352, or 30353)
- supervise Radar Technicians (AFSC 30371, 30372, or 30373)
- evaluate quality control procedures
- perform quality assurance checks
- evaluate performance of newly installed equipment

Most members of this group hold a 7- or 9-skill level (68 percent). These highly experienced personnel average 14 years' of active duty, 12 years 7 months in the career field, and a little over 2 years in their present job. Their predominant grades are E-5 and E-6. Nineteen percent of these respondents are assigned to an overseas location.

VII. TRAINING CLUSTER (ST0033). This cluster, accounting for only 3 percent of the total sample, is comprised of instructors, training managers, career development course writers, and instructor supervisors responsible for the theory and hands-on training of the operation and maintenance of ATC, AC&W, and automatic tracking radar systems and associated equipment. This training is provided to entry-level personnel and advanced students at Keesler AFB and various other locations throughout the Air Force. Over 56 percent of their relative job time is spent performing training functions, 10 percent planning and organizing, and an additional 9 percent is spent performing related administrative functions. Some of the specialized tasks performed by these airmen are:

- prepare lesson plans
- write test questions
- administer or score tests
- brief personnel on training matters, such as methods or procedures
- determine training requirements
- counsel trainees on training progress
- develop career development course (CDC) materials

The most distinguishing characteristic of the four jobs in this cluster is that of location and emphasis of work. Instructors at the training school spent more time training in a classroom, while their counterparts, located at various operational bases, spent more of their time training personnel on the job or monitoring training activities.

These seasoned instructors average over 11 years in the career field and 3 years in their present job. The group reports an average of 12 years 8 months' TAFMS and reflects a predominant grade of E-5. Three percent of this group are located overseas.

Comparisons of Specialty Jobs

Six clusters and one independent job (IJ) were identified in the career ladder structure analysis. Four clusters and the lone IJ were directly involved in performing duties and tasks pertaining to radar maintenance and operations, analysis, evaluation, and communications. The remaining jobs were characterized by supervisory, managerial, or training activities.

ANALYSIS OF DAFSC GROUPS

Analysis of DAFSC groups, together with the analysis of the career ladder structure, is an important part of each occupational survey. The DAFSC analysis identifies differences in tasks performed by members of the various skill-level groups, which in turn may be used to determine how well career ladder documents, such as AFMAN 36-2108 *Specialty Descriptions* and the STS, reflect what members of the various skill-level groups are doing.

The distribution of skill-level members across the specialty jobs is displayed in Table 5, while relative amounts of time members of the various skill-level groups spend on duties is shown in Table 6. A typical pattern of progression is present, with personnel spending more of their relative time on duties involving supervisory, managerial, and training tasks as they move upward toward the 7- and 9-skill level. It is also obvious, though, that 7-skill level personnel are still somewhat involved with technical performance, and the 9-skill level members are the primary managers in the career ladder.

Skill-Level Descriptions

AFSC 2E0X1 - Air Traffic Control Radar Specialty

DAFSC 2E031A/B/C/D/E. A comparison of the duty and task performance among the 5 shreds in this skill level indicated that, while there are minor differences, their job descriptions are essentially the same (see Table 7). Therefore, the job description performed by 3-skill level members will be inclusive of all DAFSC 2E031 personnel.

There are 100 airmen (6 percent of sample) qualified at the 3-skill level. These members perform an average of 164 tasks and, as in most career ladders, these junior-level airmen perform primarily a technical job. They spend approximately 88 percent of their job time on technical radar maintenance duties and associated administrative and supply activities, as illustrated in Table 8. A more detailed job description for these airmen is presented in Table 9 showing the representative tasks performed. As expected, these 3-skill level personnel perform tasks characteristic of the Air Traffic Control Maintenance cluster (see Table 10).

TABLE 5

DISTRIBUTION OF DAFSC GROUP MEMBERS ACROSS
CAREER LADDER JOBS
(Percent)

CAREER LADDER JOBS	DAFSC 2E03XX (N=241)	DAFSC 2E05X (N=930)	DAFSC 2E07X (N=580)	DAFSC 2E090 (N=40)
I. AIR TRAFFIC CONTROL (ATC) RADAR MAINTENANCE CLUSTER (N=556)	44	33	25	0
II. AIRCRAFT CONTROL AND WARNING (AC&W) RADAR MAINTENANCE CLUSTER (N=173)	9	14	4	0
III. AUTOMATIC TRACKING RADAR (ATR) MAINTENANCE AND OPERATIONS CLUSTER (N=400)	46	28	5	0
IV. OPERATION ANALYST AND COMMUNICATIONS CLUSTER (N=19)	*	2	*	0
V. RADAR ANALYSIS AND EVALUATION JOB (N=40)	0	2	4	3
VI. SUPERVISORY, MANAGERIAL, AND ADMINISTRATIVE CLUSTER (N=520)	0	17	55	91
VII. TRAINING CLUSTER (N=60)	0	3	6	3

* Less than 1 percent

TABLE 6

AVERAGE PERCENT TIME SPENT PERFORMING DUTIES BY DAFSC GROUPS
(RELATIVE PERCENT OF JOB TIME)

DUTIES	TOTAL SAMPLE GROUPS					
	DAFSC 2E0XX (N=1,791)	DAFSC 2E03XX (N=241)	DAFSC 2E05X (N=930)	DAFSC 2E07X (N=580)	DAFSC 2E090 (N=40)	
A. ORGANIZING AND PLANNING	7	*	4	12	27	
B. DIRECTING AND IMPLEMENTING	6	*	4	11	21	
C. INSPECTING AND EVALUATING	11	2	7	19	29	
D. TRAINING	5	*	5	9	5	
E. PERFORMING GENERAL ADMIN AND SUPPLY ACTIVITIES	13	7	13	15	8	
F. PERFORMING QUALITY ASSURANCE EVALUATOR ACTIVITIES	1	*	*	2	5	
G. PERFORMING OPERATIONS ACTIVITIES	8	18	10	0	*	
H. PERFORMING MOBILITY ACTIVITIES	3	2	4	2	3	
I. PERFORMING RADAR SYSTEM INSTALLATION, REMOVAL, AND RELOCATION ACTIVITIES	3	3	4	2	*	
J. PERFORMING GENERAL MAINTENANCE ACTIVITIES	9	16	10	5	*	
K. MAINTAINING POWER AND DISTRIBUTION EQUIPMENT	2	3	3	*	0	
L. MAINTAINING TIMING SYSTEMS	1	2	1	*	*	
M. MAINTAINING RADAR TRANSMITTER SYSTEMS	6	11	8	3	*	
N. MAINTAINING ANTENNA AND WAVEGUIDE SYSTEMS	6	9	7	3	*	
O. MAINTAINING RECEIVER OR PROCESSOR SYSTEMS	6	8	7	4	*	
P. MAINTAINING DISPLAY AND BRIGHT RADAR INDICATING TOWER EQUIP (BRUTE)	2	3	3	2	*	
Q. MAINTAINING REMOTING EQUIPMENT	1	2	1	*	0	
R. MAINTAINING ANCILLARY EQUIPMENT	3	4	3	2	0	
S. MAINTAINING IFF AND SIF EQUIPMENT	3	4	4	2	*	
T. MAINTAINING RANGE AND ANGLE TRACKING SYSTEMS	*	1	*	*	0	
U. MAINTAINING COMPUTER SYSTEMS	2	2	3	1	*	
V. PERFORMING RADAR EVALUATION ACTIVITIES	1	*	1	2	*	

* Denotes less than 1 percent

TABLE 7

AVERAGE PERCENT TIME SPENT PERFORMING DUTIES BY DAFSC 2E031A/B/C/D/E GROUPS
(RELATIVE PERCENT OF JOB TIME)

DUTIES	DAFSC 2E031X (N=100)	DAFSC 2E031A (N=32)	DAFSC 2E031B (N=33)	DAFSC 2E031C (N=15)	DAFSC 2E031D (N=16)	DAFSC 2E031E (N=4)
A. ORGANIZING AND PLANNING	*	1	*	*	*	*
B. DIRECTING AND IMPLEMENTING	*	1	*	*	*	*
C. INSPECTING AND EVALUATING	2	3	2	*	2	2
D. TRAINING	*	*	*	*	*	*
E. PERFORMING GENERAL ADMIN AND SUPPLY ACTIVITIES	9	12	8	10	7	6
F. PERFORMING QUALITY ASSURANCE EVALUATOR ACTIVITIES	1	1	*	1	*	*
G. PERFORMING OPERATIONS ACTIVITIES	3	3	3	4	3	5
H. PERFORMING MOBILITY ACTIVITIES	*	*	*	*	*	7
I. PERFORMING RADAR SYSTEM INSTALLATION, REMOVAL, AND RELOCATION ACTIVITIES	2	*	3	*	*	7
J. PERFORMING GENERAL MAINTENANCE ACTIVITIES	16	17	13	20	16	18
K. MAINTAINING POWER AND DISTRIBUTION EQUIPMENT	4	4	3	4	4	4
L. MAINTAINING TIMING SYSTEMS	3	3	3	2	2	3
M. MAINTAINING RADAR TRANSMITTER SYSTEMS	12	9	13	14	15	13
N. MAINTAINING ANTENNA AND WAVEGUIDE SYSTEMS	11	11	13	6	10	9
O. MAINTAINING RECEIVER OR PROCESSOR SYSTEMS	13	13	13	13	14	9
P. MAINTAINING DISPLAY AND BRIGHT RADAR INDICATING TOWER EQUIPMENT (BRITE)	5	4	6	6	5	5
Q. MAINTAINING REMOTING EQUIPMENT	3	4	2	2	6	3
R. MAINTAINING ANCILLARY EQUIPMENT	6	7	5	7	4	5
S. MAINTAINING IFF AND SIF EQUIPMENT	5	4	7	5	5	1
T. MAINTAINING RANGE AND ANGLE TRACKING SYSTEMS	*	*	*	0	1	0
U. MAINTAINING COMPUTER SYSTEMS	1	1	2	*	1	*
V. PERFORMING RADAR EVALUATION ACTIVITIES	*	*	*	*	*	*

* Denotes less than 1 percent

TABLE 8

AVERAGE PERCENT TIME SPENT PERFORMING DUTIES BY DAFSC 2E0X1 GROUPS
(RELATIVE PERCENT OF JOB TIME)

DUTIES	DAFSC 2E031X (N=100)	DAFSC 2E051 (N=580)	DAFSC 2E071 (N=40)
A. ORGANIZING AND PLANNING	*	3	10
B. DIRECTING AND IMPLEMENTING	*	3	9
C. INSPECTING AND EVALUATING	2	6	17
D. TRAINING	*	4	7
E. PERFORMING GENERAL ADMIN AND SUPPLY ACTIVITIES	9	12	14
F. PERFORMING QUALITY ASSURANCE EVALUATOR ACTIVITIES	1	*	1
G. PERFORMING OPERATIONS ACTIVITIES	3	2	*
H. PERFORMING MOBILITY ACTIVITIES	*	3	2
I. PERFORMING RADAR SYSTEM INSTALLATION, REMOVAL, AND RELOCATION ACTIVITIES	2	4	2
J. PERFORMING GENERAL MAINTENANCE ACTIVITIES	16	11	6
K. MAINTAINING POWER AND DISTRIBUTION EQUIPMENT	4	3	1
L. MAINTAINING TIMING SYSTEMS	3	2	1
M. MAINTAINING RADAR TRANSMITTER SYSTEMS	12	8	5
N. MAINTAINING ANTENNA AND WAVEGUIDE SYSTEMS	11	8	5
O. MAINTAINING RECEIVER OR PROCESSOR SYSTEMS	13	10	6
P. MAINTAINING DISPLAY AND BRIGHT RADAR INDICATING TOWER EQUIP (BRITE)	5	5	3
Q. MAINTAINING REMOTING EQUIPMENT	3	3	2
R. MAINTAINING ANCILLARY EQUIPMENT	6	5	3
S. MAINTAINING IFF AND SIF EQUIPMENT	5	4	3
T. MAINTAINING RANGE AND ANGLE TRACKING SYSTEMS	*	*	*
U. MAINTAINING COMPUTER SYSTEMS	1	2	1
V. PERFORMING RADAR EVALUATION ACTIVITIES	*	*	1

* Denotes less than 1 percent

TABLE 9
REPRESENTATIVE TASKS PERFORMED BY
DAFSC 2E031A/B/C/D/E PERSONNEL

TASKS	PERCENT MEMBERS PERFORMING (N=100)
J480 Perform general soldering	92
J447 Adjust or align automatic frequency control (AFC) circuits	91
M583 Perform PMIs on transmitter systems	88
M554 Adjust or align magnetron transmitters	86
N677 Perform PMIs on antenna systems	84
M556 Adjust or align transmitter high-voltage power supplies	82
E169 Input core automated maintenance systems (CAMS) data on computer terminals	78
J501 Remove or replace cathode ray tubes	76
L548 Perform PMIs on timing systems	73
O732 Adjust or align coherent crystal oscillators (COHOs)	71
P872 Isolate indicator range mark generator malfunctions	70
M559 Adjust or align transmitter modulators	68
M569 Isolate magnetron transmitter malfunctions	68
J485 Perform PMIs on built-in test equipment (BITE)	67
J464 Fabricate cables, such as coaxial, power, or triaxial	66
O763 Adjust or align receiver local oscillators (STALOs)	66
J504 Remove or replace general electronics hardware, such as sockets, meters, fuse holders, or clamps	65
E216 Research microfiche files for supply requisition data	64
O748 Adjust or align MTI receivers	61
J467 Isolate AFC circuit malfunctions	61
P887 Perform PMIs on display equipment	60
E172 Inventory tools, equipment, or supplies	57
G305 Perform fault isolation	53
Q919 Perform PMIs on remoting equipment	53

TABLE 10

DISTRIBUTION OF DAFSC 2E0X1 GROUP MEMBERS ACROSS
CAREER LADDER JOBS
(Percent)

CAREER LADDER JOBS	DAFSC 2E031X (N=100)	DAFSC 2E051 (N=360)	DAFSC 2E071 (N=279)
I. AIR TRAFFIC CONTROL (ATC) RADAR MAINTENANCE CLUSTER (N=556)	100	83	52
II. AIRCRAFT CONTROL AND WARNING (AC&W) RADAR MAINTENANCE CLUSTER (N=173)	0	0	0
III. AUTOMATIC TRACKING RADAR (ATR) MAINTENANCE AND OPERATIONS CLUSTER (N=400)	0	0	0
IV. OPERATION ANALYST AND COMMUNICATIONS CLUSTER (N=19)	0	0	0
V. RADAR ANALYSIS AND EVALUATION JOB (N=40)	0	*	2
VI. SUPERVISORY, MANAGERIAL, AND ADMINISTRATIVE CLUSTER (N=520)	0	10	41
VII. TRAINING CLUSTER (N=60)	0	4	5

* Less than 1 percent

Radars Maintained: As pointed out earlier in this report, the 3-skill level for the 2E0X1 AFSC is divided into five shreds based upon radar systems and equipment unique to each group; however, according to survey findings, this is not the case (Table 11). For example, personnel from DAFSCs 2E031B and 2E031E do not specialize to the extent implied in their specialty descriptions. Members in these two shreds also maintained, to a large extent, weather radars; PARs, FPN-62; LCCs TPN-19; and ASRs, GPN-25. This lack of specialization shows a substantial amount of overlap in the radars maintained by personnel in these shreds, with members repairing radars other than those initially trained and responsible for. These airmen, by demonstrating the ability to maintain radar systems outside their specialized area, support the viability of applying the skills and knowledge used on one radar system on to another.

DAFSC 2E051. The 360 airmen in the 5-skill level group perform an average of 205 tasks, with 199 tasks accounting for approximately 50 percent of their time. As shown in Table 10, 83 percent of these airmen are in the ATC Maintenance cluster. Sixty-one percent of their time is spent performing radar maintenance related tasks, while 5 percent of their time is spent performing mobility and operations activities. An additional 28 percent of their job time is devoted to performing supervisory and administrative functions (see Table 8). Table 12 displays selected representative tasks performed by the highest percentages of these airmen. Table 13 displays those tasks that reflect differences between the 3- and 5-skill level groups. Progression toward supervision is the highlighted trait favoring 5-skill level personnel.

DAFSC 2E071. Seven-skill level personnel take on a more diverse role, dividing their time between technical and supervisory tasks. With an average of 192 tasks performed, these members cover a wider range of tasks than 3- or 5-skill level members. As illustrated in Table 8, 7-skill level members spend over half (57 percent) of their job time on supervisory duties, and yet, 7-skill level personnel still perform a highly technical job. An examination of representative tasks performed by DAFSC 2E071 personnel (see Table 14) reveals these incumbents typically perform such tasks as counseling personnel on personal or military-related matters, writing EPRs, performing PMIs on transmitter systems, and initiating quality control discrepancy reports. Of these 279 members (16 percent of sample), the largest concentration in any job is again in the Air Traffic Control Maintenance cluster. Table 15 provides those tasks that distinguish between these members and 5-skill level personnel. As anticipated, the key difference reflects a greater emphasis on supervisory tasks for 7-skill level personnel.

TABLE 11

AIR TRAFFIC CONTROL RADAR EQUIPMENT MAINTAINED
BY AFSC 2E031A/B/C/D/E PERSONNEL

<u>RADAR EQUIPMENT</u>	<u>DAFSC 2E031X (N=100)</u>	<u>DAFSC 2E031A (N=32)</u>	<u>DAFSC 2E031B (N=33)</u>	<u>DAFSC 2E031C (N=15)</u>	<u>DAFSC 2E031D (N=16)</u>	<u>DAFSC 2E031E (N=4)</u>
ASRs, GPN-12	30	0	6	93	88	0
ASRs, GPN-20	46	75	67	0	0	0
ASRs, GPN-25	8	0	21	0	0	25
LCCs, TPN-19	2	0	0	0	0	50
MOBILE RAPCONs, MPN-14K	3	0	9	0	0	0
PARs, FPN-62	41	84	12	60	0	25
PARs, GPN-22	37	0	76	0	69	25
RAPCONs, GSN-12	16	16	30	0	6	0
WEATHER RADARS, FPS-77	63	44	52	100	94	50
WEATHER RADARS, TPS-68	1	0	0	0	0	25
WEATHER RADARS, FPQ-21	13	19	21	0	0	0

TABLE 12
REPRESENTATIVE TASKS PERFORMED
BY DAFSC 2E051 PERSONNEL

TASKS		PERCENT MEMBERS PERFORMING (N=360)
J480	Perform general soldering	80
J447	Adjust or align automatic frequency control (AFC) circuits	77
M554	Adjust or align magnetron transmitters	76
E169	Input core automated maintenance systems (CAMS) data on computer terminals	73
M583	Perform PMIs on transmitter systems	73
M556	Adjust or align transmitter high-voltage power supplies	71
J501	Remove or replace cathode ray tubes	71
N677	Perform PMIs on antenna systems	66
E172	Inventory tools, equipment, or supplies	64
O827	Perform PMIs on receiver or processor systems	62
E216	Research microfiche files for supply requisition data	58
M596	Remove or replace transmitter high-voltage power supplies	58
O763	Adjust or align receiver local oscillators (STALOs)	58
E158	Coordinate obtaining parts with base supply	56
J485	Perform PMIs on built-in test equipment (BITE)	56
J494	Read and interpret equipment technical manuals	54
K522	Isolate power supply malfunctions	50
C112	Perform vehicle inspections	49
G305	Perform fault isolation	48
E188	Maintain or make entries in maintenance logs	48
D129	Counsel trainees on training progress	45
E224	Review status of awaiting parts (AWP) equipment	42
B40	Counsel personnel on personal or military-related matters	41
E221	Review CAMS or MMICS output data	40

TABLE 13

TASKS WHICH BEST DIFFERENTIATE BETWEEN
DAFSC 2E031 AND DAFSC 2E051 PERSONNEL
(PERCENT MEMBERS PERFORMING)

TASKS	2E031 (N=100)	2E051 (N=360)	DIFFERENCE
J475 Maintain radar turntables	43	23	20
C117 Write EPRs	0	43	-43
D129 Counsel trainees on training progress	6	45	-39
B40 Counsel personnel on personal or military-related matters	4	41	-37
C67 Conduct performance feedback worksheet (PFW) sessions	1	36	-35
B59 Supervise Apprentice Radar Specialists (AFSC 30331, 30332, or 30333)	4	37	-33
B62 Supervise Radar Specialists (AFSC 30351, 30352, or 30353)	1	34	-33
C84 Evaluate personnel for compliance with performance standards	3	31	-28
E208 Prepare MDRs	9	36	-27
E219 Review and verify priority monitor (D18) reports	1	27	-26
C119 Write recommendations for awards or decorations	0	24	-24
E165 Estimate job durations	10	33	-23

TABLE 14
REPRESENTATIVE TASKS PERFORMED BY
DAFSC 2E071 PERSONNEL

TASKS	PERCENT MEMBERS PERFORMING (N=279)
C117 Write EPRs	74
B40 Counsel personnel on personal or military-related matters	70
C67 Conduct performance feedback worksheet (PFW) sessions	66
C84 Evaluate personnel for compliance with performance standards	62
E169 Input core automated maintenance systems (CAMS) data on computer	62
A5 Determine work schedules, assignments, or priorities	61
C119 Write recommendations for awards or decorations	61
B62 Supervise Radar Specialists (AFSC 30351, 30352, or 30353)	60
B55 Interpret policies, directives, or procedures for subordinates	58
E158 Coordinate obtaining parts with base supply	58
C110 Perform self-inspections	57
C103 Perform equipment inspections	56
E221 Review CAMS or MMICS output data	54
C120 Write replies to inspection reports	54
D130 Determine training requirements	53
A31 Schedule leaves, passes, or temporary duties (TDYs)	53
A3 Determine logistics requirements, such as personnel, supplies, or equipment	52
A28 Review drafts of regulations, manuals, or other directives	48
C64 Analyze trends in system malfunctions	46
C81 Evaluate maintenance procedures	46
B36 Compile data for reports or staff studies	44
C77 Evaluate inspection or maintenance reports	43
B63 Supervise Radar Technicians (AFSC 30371, 30372, or 30373)	43
C118 Write inspection reports	38

TABLE 15

TASKS WHICH BEST DIFFERENTIATE BETWEEN
DAFSC 2E051 AND DAFSC 2E071 PERSONNEL
(PERCENT MEMBERS PERFORMING)

TASKS	2E051 (N=360)	2E071 (N=279)	DIFFERENCE
M583 Perform PMIs on transmitter systems	73	45	28
M554 Adjust or align magnetron transmitters	76	49	27
J480 Perform general soldering	80	53	27
J447 Adjust or align automatic frequency control (AFC) circuits	77	50	27
K535 Remove or replace power supplies, other than transmitter high-voltage power supplies	58	32	26
J501 Remove or replace cathode ray tubes	71	46	25
A19 Participate in meetings, such as staff meetings, pre-deployment mobility briefings, conferences, or workshops	29	75	-46
A31 Schedule leaves, passes, or temporary duties (TDYs)	11	53	-42
A28 Review drafts of regulations, manuals, or other directives	8	48	-40
C120 Write replies to inspection reports	14	54	-40
B63 Supervise Radar Technicians (AFSC 30371, 30372, or 30373)	4	43	-39
A3 Determine logistics requirements, such as personnel, supplies, or equipment	13	52	-39

AFSC 2E0X2 - Air Control and Warning Radar Specialty

DAFSC 2E032. The 25 members (1 percent of the survey sample) with a DAFSC 2E032 performed an average of 108 tasks. Performing a highly technical job, 79 percent of their relative duty time is devoted to tasks covering a variety of functions associated with the maintenance of air control and warning radars, while 14 percent of their time is spent performing mobility and operational activities (see Table 16). As shown in Table 17, it comes as no surprise that these airmen represent the entire workforce of the Aircraft Control and Warning Radar Maintenance cluster identified in the **SPECIALTY JOBS** analysis section, with 70 percent of these airmen concentrated in the cluster's three nonsupervisory jobs. Table 18 displays selected representative time-consuming tasks performed by the highest percentages of these airmen, such as performing general soldering, fabricating cables, and performing preventive maintenance inspections on various radar systems and components.

DAFSC 2E052. Two hundred fifteen 5-skill level airmen are included in the survey sample. They perform an average of 158 tasks, with 157 of these accounting for over 50 percent their relative job time. Five-skill level personnel, as depicted in Table 16, are much like 3-level personnel in that they spend most of their duty time (50 percent) supporting radar maintenance related activities. What distinguishes 5-skill level members is an increased amount of time performing supervisory, administrative, and training functions (see Table 19). As illustrated in Table 17, the majority of this group are also represented in the AC&W Radar Maintenance cluster, followed by large numbers in both the Training and Supervisory, Managerial, and Administrative clusters. Representative tasks 5-skill level members perform, shown in Table 20, reflect the technical nature of the work.

DAFSC 2E072. Seven-skill level personnel perform an average of 95 tasks, with 90 tasks accounting for 50 percent or more of their relative job time. Over half of their job time is spent on tasks in the supervisory, managerial, administrative, and training duties, with the remainder of their time dedicated to technical duties (see Table 16). Sixty-one percent of the 122 members in this group are actually supervising personnel. This supervisory nature is clearly shown by representative tasks performed, listed in Table 21, and tasks that best distinguish between 5- and 7-skill level members, listed in Table 22. A higher percentage of 5-skill level airmen perform the purely technical tasks listed in the top half of the table, while a higher percentage of 7-skill level airmen perform the administrative and supervisory tasks listed in the bottom half of the table.

TABLE 16

AVERAGE PERCENT TIME SPENT PERFORMING DUTIES BY DAFSC 2E0X2 GROUPS
(RELATIVE PERCENT OF JOB TIME)

DUTIES	DAFSC 2E032 (N=25)	DAFSC 2E052 (N=215)	DAFSC 2E072 (N=122)
A. ORGANIZING AND PLANNING	2	5	14
B. DIRECTING AND IMPLEMENTING	*	5	11
C. INSPECTING AND EVALUATING	3	7	21
D. TRAINING	*	5	7
E. PERFORMING GENERAL ADMIN AND SUPPLY ACTIVITIES	8	17	17
F. PERFORMING QUALITY ASSURANCE EVALUATOR ACTIVITIES	*	*	3
G. PERFORMING OPERATIONS ACTIVITIES	5	3	1
H. PERFORMING MOBILITY ACTIVITIES	9	7	5
I. PERFORMING RADAR SYSTEM INSTALLATION, REMOVAL, AND RELOCATION ACTIVITIES	9	5	2
J. PERFORMING GENERAL MAINTENANCE ACTIVITIES	14	8	3
K. MAINTAINING POWER AND DISTRIBUTION EQUIPMENT	2	2	*
L. MAINTAINING TIMING SYSTEMS	1	1	*
M. MAINTAINING RADAR TRANSMITTER SYSTEMS	13	7	2
N. MAINTAINING ANTENNA AND WAVEGUIDE SYSTEMS	7	5	2
O. MAINTAINING RECEIVER OR PROCESSOR SYSTEMS	8	6	2
P. MAINTAINING DISPLAY AND BRIGHT RADAR INDICATING TOWER EQUIP (BRITE)	7	2	*
Q. MAINTAINING REMOTING EQUIPMENT	*	*	*
R. MAINTAINING ANCILLARY EQUIPMENT	4	2	1
S. MAINTAINING IFF AND SIF EQUIPMENT	6	6	3
T. MAINTAINING RANGE AND ANGLE TRACKING SYSTEMS	0	*	0
U. MAINTAINING COMPUTER SYSTEMS	*	1	*
V. PERFORMING RADAR EVALUATION ACTIVITIES	*	5	6

* Denotes less than 1 percent

TABLE 17

DISTRIBUTION OF DAFSC 2E0X2 GROUP MEMBERS ACROSS
CAREER LADDER JOBS
(Percent)

CAREER LADDER JOBS	DAFSC 2E032 (N=25)	DAFSC 2E052 (N=215)	DAFSC 2E072 (N=122)
I. AIR TRAFFIC CONTROL (ATC) RADAR MAINTENANCE CLUSTER (N=556)	0	5	0
II. AIRCRAFT CONTROL AND WARNING (AC&W) RADAR MAINTENANCE CLUSTER (N=173)	83	57	18
III. AUTOMATIC TRACKING RADAR (ATR) MAINTENANCE AND OPERATIONS CLUSTER (N=400)	0	1	0
IV. OPERATION ANALYST AND COMMUNICATIONS CLUSTER (N=19)	0	0	0
V. RADAR ANALYSIS AND EVALUATION JOB (N=40)	0	7	11
VI. SUPERVISORY, MANAGERIAL, AND ADMINISTRATIVE CLUSTER (N=520)	0	27	60
VII. TRAINING CLUSTER (N=60)	0	33	6

TABLE 18
REPRESENTATIVE TASKS PERFORMED BY
DAFSC 2E032 PERSONNEL

TASKS	PERCENT MEMBERS PERFORMING (N=25)
J480 Perform general soldering	88
M580 Maintain gas tank pressure, such as SF6, argon, or nitrogen	84
M581 Perform high-voltage insulating oil breakdown tests	76
J464 Fabricate cables, such as coaxial, power, or triaxial	72
N677 Perform PMIs on antenna systems	68
M583 Perform PMIs on transmitter systems	68
I414 Install or remove mobile IFF/SIF antennas	60
J454 Change oil supplies, such as dielectric oil	60
M589 Remove or replace dummy loads	60
G316 Perform system run-down procedures	56
O827 Perform PMIs on receiver or processor systems	56
J481 Perform high reliability soldering	56
H357 Level mobile shelters, trailers, or vans	56
G317 Perform system run-up procedures	52
G305 Perform fault isolation	52
J494 Read and interpret equipment technical manuals	52
H342 Connect or disconnect primary power to radar systems	52
N672 Level antenna pedestals	52
J466 Fabricate test cables or plugs	52
P857 Adjust or align sweep or cursor offset circuits	52
M568 Isolate liquid cooling system malfunctions	52
J459 Determine locations of shorts or opens in cable runs	52
E188 Maintain or make entries in maintenance logs	40
K522 Isolate power supply malfunctions	40
C112 Perform vehicle inspections	32

TABLE 19

TASKS WHICH BEST DIFFERENTIATE BETWEEN
DAFSC 2E032 AND DAFSC 2E052 PERSONNEL
(PERCENT MEMBERS PERFORMING)

TASKS	2E032 (N=25)	2E052 (N=215)	DIFFERENCE
M580 Maintain gas tank pressure, such as SF6, argon, or nitrogen	84	52	32
P848 Adjust or align indicator sweep generators	48	17	31
M589 Remove or replace dummy loads	60	30	30
P857 Adjust or align sweep or cursor offset circuits	52	23	29
G316 Perform system run-down procedures	56	31	25
J480 Perform general soldering	88	63	25
E224 Review status of awaiting parts (AWP) equipment	4	47	-43
D125 Brief personnel on training matters, such as methods or procedures	0	34	-34
D129 Counsel trainees on training progress	0	34	-34
C117 Write EPRs	0	34	-34
D128 Conduct training, other than resident course class training, such as OJT or ancillary training	4	38	-34
B57 Orient newly assigned personnel	0	33	-33

TABLE 20
REPRESENTATIVE TASKS PERFORMED BY
DAFSC 2E052 PERSONNEL

TASKS	PERCENT MEMBERS PERFORMING (N=215)
E169 Input core automated maintenance systems (CAMS) data on computer terminals	69
E172 Inventory tools, equipment, or supplies	58
S1002 Adjust or align IFF/SIF decoders	58
S1039 Perform PMIs on IFF/SIF equipment	57
S1022 Isolate IFF/SIF decoder malfunctions	56
E216 Research microfiche files for supply requisition data	54
M580 Maintain gas tank pressure, such as SF6, argon, or nitrogen	52
E188 Maintain or make entries in maintenance logs	48
E221 Review CAMS or MMICS output data	48
H337 Assemble or disassemble mobile radar equipment for mission deployments	48
H367 Perform operator maintenance on heavy-duty vehicles up to 10-ton, such as M-series vehicles	47
O827 Perform PMIs on receiver or processor systems	47
I414 Install or remove mobile IFF/SIF antennas	47
J494 Read and interpret equipment technical manuals	46
H341 Camouflage equipment	45
H357 Level mobile shelters, trailers, or vans	45
H354 Erect tents	41
D128 Conduct training, other than resident course class training, such as OJT or ancillary training	38
E173 Issue job control numbers	37
B40 Counsel personnel on personal or military-related matters	37
B57 Orient newly assigned personnel	33
I383 Conduct operational tests of newly installed equipment	33
B62 Supervise Radar Specialists (AFSC 30351, 30352, or 30353)	25
E182 Maintain equipment status reports	20

TABLE 21
REPRESENTATIVE TASKS PERFORMED BY
DAFSC 2E072 PERSONNEL

TASKS	PERCENT MEMBERS PERFORMING (N=122)
C117 Write EPRs	53
A5 Determine work schedules, assignments, or priorities	53
C84 Evaluate personnel for compliance with performance standards	53
E221 Review CAMS or MMICS output data	52
C67 Conduct performance feedback worksheet (PFW) sessions	51
C110 Perform self-inspections	51
A28 Review drafts of regulations, manuals, or other directives	51
A10 Develop work methods or procedures	50
B57 Orient newly assigned personnel	49
D129 Counsel trainees on training progress	48
A17 Establish performance standards for subordinates	46
B62 Supervise Radar Specialists (AFSC 30351, 30352, or 30353)	43
B55 Interpret policies, directives, or procedures for subordinates	43
D130 Determine training requirements	40
C120 Write replies to inspection reports	37
A1 Assign personnel to duty positions	37
C81 Evaluate maintenance procedures	37
C83 Evaluate performance of newly installed equipment	34
E158 Coordinate obtaining parts with base supply	30
C65 Analyze workload requirements	27
E168 Initiate quality control discrepancy reports	25
E187 Maintain master equipment identification listings	23
E215 Report communication outages	16
V1164 Evaluate radars or associated equipment	13

TABLE 22

TASKS WHICH BEST DIFFERENTIATE BETWEEN
DAFSC 2E052 AND DAFSC 2E072 PERSONNEL
(PERCENT MEMBERS PERFORMING)

TASKS	2E052 (N=215)	2E072 (N=122)	DIFFERENCE
M583 Perform PMIs on transmitter systems	56	18	38
S1002 Adjust or align IFF/SIF decoders	58	21	37
S1039 Perform PMIs on IFF/SIF equipment	57	20	37
N677 Perform PMIs on antenna systems	55	19	36
J480 Perform general soldering	63	28	35
J504 Remove or replace general electronics hardware, such as sockets, meters, fuse holders, or clamps	52	16	36
A28 Review drafts of regulations, manuals, or other directives	16	51	-35
A5 Determine work schedules, assignments, or priorities	23	53	-30
A31 Schedule leaves, passes, or temporary duties (TDYs)	14	43	-29
A1 Assign personnel to duty positions	8	37	-29
A2 Assign sponsors for newly assigned personnel	5	33	-28
A3 Determine logistics requirements, such as personnel, supplies, or supplies	19	45	-26

AFSC 2E0X3 - Automatic Tracking Radar Specialty

DAFSC 2E033. This group (N=116) spends 56 percent of their time performing tasks associated with the maintenance of automatic tracking radars; 6 percent on administrative and supply activities and a substantial amount of time (33 percent) is spent accomplishing operations activities (see Table 23). As illustrated in Table 24, 96 percent of these airmen represent the workforce for the Automatic Tracking Radar Maintenance and Operations cluster. An average of 126 tasks is performed by this group, with 96 tasks accounting for approximately 50 percent of their job time. High percentages of tasks performed by these airmen (Table 25) include identifying tracked aircraft, performing automatic tracking procedures for electronic warfare/electronic-countermeasure threats, and loading computer programs.

DAFSC 2E053. The job performed by 5-skill level respondents is largely technical in nature. Table 23 shows the majority of job time for 5-skill level personnel is spent in system maintenance functions (41 percent), operations activities (21 percent), and supervision and training duties (33 percent). This trend is reflected by the fact that most 5-skill level personnel are found in jobs related to radar maintenance or operations (see Table 24). Table 26 provides a listing of those tasks performed by the highest percentage of 5-skill level respondents. In a most predictable fashion, the differentiation between 3- and 5-skill level airmen is the emphasis on the performance of supervisory and administrative tasks for 5-skill level members (see Table 27).

DAFSC 2E073. Seven-skill level personnel (10 percent of the survey sample) spend the majority of their job time in supervisory and management functions (61 percent), plus, an additional 16 percent is spent on related administrative activities. A decrease in technical work is clearly evident at the 7-skill level, as shown in Table 23, with only 19 percent of the job time. This trend is supported by Table 28, where tasks performed by the highest percentages of 7-skill level personnel are supervisory or managerial in nature. Tasks that best distinguish the 7-skill level personnel from their junior counterparts are presented in Table 29. As expected, the key difference is a greater emphasis on supervisory functions for 7-skill level airmen.

DAFSC 2E090. As in most career fields, personnel at this level reported performing primarily nontechnical tasks. They performed an average of 60 tasks, with 41 tasks accounting for over 50 percent of their relative job time. Group members spent 90 percent of their duty time on supervisory and training functions and managerial administrative-type tasks. Table 30 displays representative tasks for the group, while Table 31 presents tasks that reflect differences between these senior NCOs and 7-skill level personnel. A greater emphasis on managerial functions is the highlighted distinction favoring 9-skill level airmen.

TABLE 23

AVERAGE PERCENT TIME SPENT PERFORMING DUTIES BY DAFSC 2E0X3 GROUPS
(RELATIVE PERCENT OF JOB TIME)

DUTIES	DAFSC 2E033 (N=116)	DAFSC 2E053 (N=355)	DAFSC 2E073 (N=179)
A. ORGANIZING AND PLANNING	*	4	15
B. DIRECTING AND IMPLEMENTING	*	5	13
C. INSPECTING AND EVALUATING	1	8	21
D. TRAINING	*	5	12
E. PERFORMING GENERAL ADMIN AND SUPPLY ACTIVITIES	6	11	16
F. PERFORMING QUALITY ASSURANCE EVALUATOR ACTIVITIES	*	*	3
G. PERFORMING OPERATIONS ACTIVITIES	33	21	7
H. PERFORMING MOBILITY ACTIVITIES	2	2	*
I. PERFORMING RADAR SYSTEM INSTALLATION, REMOVAL, AND RELOCATION ACTIVITIES	4	3	1
J. PERFORMING GENERAL MAINTENANCE ACTIVITIES	16	11	3
K. MAINTAINING POWER AND DISTRIBUTION EQUIPMENT	3	3	*
L. MAINTAINING TIMING SYSTEMS	*	*	*
M. MAINTAINING RADAR TRANSMITTER SYSTEMS	9	7	2
N. MAINTAINING ANTENNA AND WAVEGUIDE SYSTEMS	8	6	2
O. MAINTAINING RECEIVER OR PROCESSOR SYSTEMS	4	3	*
P. MAINTAINING DISPLAY AND BRIGHT RADAR INDICATING TOWER EQUIP (BRITE)	*	*	*
Q. MAINTAINING REMOTING EQUIPMENT	*	*	*
R. MAINTAINING ANCILLARY EQUIPMENT	2	2	*
S. MAINTAINING IFF AND SIF EQUIPMENT	2	1	*
T. MAINTAINING RANGE AND ANGLE TRACKING SYSTEMS	2	2	*
U. MAINTAINING COMPUTER SYSTEMS	4	3	1
V. PERFORMING RADAR EVALUATION ACTIVITIES	*	*	*

* Denotes less than 1 percent

TABLE 24

DISTRIBUTION OF DAFSC 2E0X3 GROUP MEMBERS ACROSS
CAREER LADDER JOBS
(Percent)

CAREER LADDER JOBS	DAFSC 2E033 (N=116)	DAFSC 2E053 (N=355)	DAFSC 2E073 (N=179)
I. AIR TRAFFIC CONTROL (ATC) RADAR MAINTENANCE CLUSTER (N=556)	0	2	0
II. AIRCRAFT CONTROL AND WARNING (AC&W) RADAR MAINTENANCE CLUSTER (N=173)	1	*	*
III. AUTOMATIC TRACKING RADAR (ATR) MAINTENANCE AND OPERATIONS CLUSTER (N=400)	96	71	16
IV. OPERATION ANALYST AND COMMUNICATIONS CLUSTER (N=19)	2	4	1
V. RADAR ANALYSIS AND EVALUATION JOB (N=40)	0	0	*
VI. SUPERVISORY, MANAGERIAL, AND ADMINISTRATIVE CLUSTER (N=520)	0	19	73
VII. TRAINING CLUSTER (N=60)	0	2	7

* Less than 1 percent

TABLE 25
REPRESENTATIVE TASKS PERFORMED BY
DAFSC 2E033 PERSONNEL

TASKS	PERCENT MEMBERS PERFORMING (N=116)
G316 Perform system run-down procedures	94
G317 Perform system run-up procedures	93
J480 Perform general soldering	83
J476 Paint equipment	78
G310 Perform pre-operational checks	76
M583 Perform PMIs on transmitter systems	69
N677 Perform PMIs on antenna systems	68
G271 Initiate aircraft tracking	62
G274 Load computer programs	60
G270 Identify tracked aircraft	59
G312 Perform radar lock-on procedures	59
G251 Assist other radar units in acquisition of aircraft	59
G292 Perform aircraft automatic tracking procedures for EW/ECM threats	58
G273 Install paper on recording devices	57
M556 Adjust or align transmitter high-voltage power supplies	55
G305 Perform fault isolation	53
G291 Perform aircraft acquisition procedures for EW/ECM threats	53
G320 Position radar antennas after operations	53
G330 Run ECM scenarios	48
G255 Compare aircraft initial points (IP) with IP charts	48
J494 Read and interpret equipment technical manuals	47
G334 Verify mission schedules	46
G282 Operate magnetic tape systems to record mission data	44
G300 Perform end run summaries	42
G303 Perform EW/ECM analysis	34

TABLE 26

REPRESENTATIVE TASKS PERFORMED BY
DAFSC 2E053 PERSONNEL

TASKS	PERCENT MEMBERS PERFORMING (N=355)
J480 Perform general soldering	69
G317 Perform system run-up procedures	68
G316 Perform system run-down procedures	68
J476 Paint equipment	65
G310 Perform pre-operational checks	62
J464 Fabricate cables, such as coaxial, power, or triaxial	61
M583 Perform PMIs on transmitter systems	58
N677 Perform PMIs on antenna systems	54
K513 Adjust or align power supplies, other than transmitter high-voltage power supplies	54
G312 Perform radar lock-on procedures	49
G270 Identify tracked aircraft	48
G292 Perform aircraft automatic tracking procedures for EW/ECM threats	47
G291 Perform aircraft acquisition procedures for EW/ECM threats	45
G271 Initiate aircraft tracking	45
G334 Verify mission schedules	41
G274 Load computer programs	41
G307 Perform ground-to-ground voice communications	39
C117 Write EPRs	34
G303 Perform EW/ECM analysis	32
B62 Supervise Radar Specialists (AFSC 30351, 30352, or 30353)	32
A5 Determine work schedules, assignments, or priorities	31
G259 Compute radar bomb scoring (RBS) mission scores	28
G262 Confirm RBS scores	27
G256 Compile mission results	27
B36 Compile data for reports or staff studies	18

TABLE 27

TASKS WHICH BEST DIFFERENTIATE BETWEEN
DAFSC 2E033 AND DAFSC 2E053 PERSONNEL
(PERCENT MEMBERS PERFORMING)

TASKS	2E033 (N=116)	2E053 (N=355)	DIFFERENCE
G316 Perform system run-down procedures	94	68	26
G317 Perform system run-up procedures	93	68	25
G273 Install paper on recording devices	57	36	21
G274 Load computer programs	60	41	19
G300 Perform end run summaries	42	24	18
J478 Perform corrosion control on mechanical assemblies, such as antenna towers, equipment racks, or equipment vans	79	62	17
B36 Compile data for reports or staff studies	0	78	-78
A19 Participate in meetings, such as staff meetings, pre-deployment mobility briefings, conferences, or workshops	6	77	-71
C110 Perform self-inspections	4	64	-60
C84 Evaluate personnel for compliance with performance standards	1	61	-60
B62 Supervise Radar Specialists (AFSC 30351, 30352, or 30353)	1	55	-54
A5 Determine work schedules, assignments, or priorities	1	55	-54

TABLE 28
REPRESENTATIVE TASKS PERFORMED BY
DAFSC 2E073 PERSONNEL

TASKS	PERCENT MEMBERS PERFORMING (N=179)
A5 Determine work schedules, assignments, or priorities	70
B40 Counsel personnel on personal or military-related matters	70
C110 Perform self-inspections	68
C117 Write EPRs	64
C84 Evaluate personnel for compliance with performance standards	59
C67 Conduct performance feedback worksheet (PFW) sessions	59
C119 Write recommendations for awards or decorations	59
A31 Schedule leaves, passes, or temporary duties (TDYs)	54
A17 Establish performance standards for subordinates	53
C120 Write replies to inspection reports	50
B62 Supervise Radar Specialists (AFSC 30351, 30352, or 30353)	49
C76 Evaluate individuals for recognition, promotion, demotion, or reclassification	45
B63 Supervise Radar Technicians (AFSC 30371, 30372, or 30373)	44
B50 Implement self-inspection programs	44
C113 Perform work area security inspections	42
C77 Evaluate inspection or maintenance reports	41
A10 Develop work methods or procedures	41
C93 Evaluate work schedules	39
C65 Analyze workload requirements	35
B44 Direct maintenance of facilities or work areas	35
A32 Schedule personnel for schools or nontechnical training	30
D122 Administer or score tests	28
D154 Write test questions	20
E182 Maintain equipment status reports	17

TABLE 29

TASKS WHICH BEST DIFFERENTIATE BETWEEN
DAFSC 2E053 AND DAFSC 2E073 PERSONNEL
(PERCENT MEMBERS PERFORMING)

TASKS	2E053 (N=355)	2E073 (N=179)	DIFFERENCE
J480 Perform general soldering	69	22	47
G317 Perform system run-up procedures	68	23	45
G316 Perform system run-down procedures	68	24	44
J476 Paint equipment	65	21	44
G310 Perform pre-operational checks	62	18	44
J464 Fabricate cables, such as coaxial, power, or triaxial	61	18	43
A19 Participate in meetings, such as staff meetings, pre-deployment mobility briefings, conferences, or workshops	34	78	-44
A1 Assign personnel to duty positions	18	59	-41
B63 Supervise Radar Technicians (AFSC 30371, 30372, or 30373)	5	44	-39
A31 Schedule leaves, passes, or temporary duties (TDYs)	15	54	-39
A5 Determine work schedules, assignments, or priorities	31	70	-39
C119 Write recommendations for awards or decorations	21	59	-38

TABLE 30
REPRESENTATIVE TASKS PERFORMED BY
DAFSC 2E090 PERSONNEL

TASKS	PERCENT MEMBERS PERFORMING (N=40)
B36 Compile data for reports or staff studies	90
A28 Review drafts of regulations, manuals, or other directives	85
B40 Counsel personnel on personal or military-related matters	70
C119 Write recommendations for awards or decorations	70
A21 Plan briefings	70
A1 Assign personnel to duty positions	70
C117 Write EPRs	68
A31 Schedule leaves, passes, or temporary duties (TDYs)	63
C120 Write replies to inspection reports	60
C77 Evaluate inspection or maintenance reports	55
A12 Draft directive supplements or changes	55
A11 Draft budget requirements	55
B53 Initiate follow-up actions on work in progress	53
C64 Analyze trends in system malfunctions	48
B63 Supervise Radar Technicians (AFSC 30371, 30372, or 30373)	48
C95 Indorse enlisted performance reports (EPRs)	48
B61 Supervise military personnel in AFSCs other than 303XX	45
C71 Evaluate budget requirements	43
C75 Evaluate implementation of contract maintenance	40
C81 Evaluate maintenance procedures	40
D130 Determine training requirements	40
C86 Evaluate quality control procedures	38
E167 Identify and evaluate supply problems	38
F244 Recommend contract changes	28
F234 Coordinate contract issues, such as modification proposals or equipment authorizations, with contract parties	23

TABLE 31

TASKS WHICH BEST DIFFERENTIATE BETWEEN
DAFSC 2E07X AND DAFSC 2E090 PERSONNEL
(PERCENT MEMBERS PERFORMING)

TASKS	2E07X (N=580)	2E090 (N=40)	DIFFERENCE
E169 Input core automated maintenance systems (CAMS) data on computer terminals	48	10	38
E200 Make entries on MDC forms, such as MDC records or reparable item processing tags	41	3	38
E172 Inventory tools, equipment, or supplies	45	8	37
C103 Perform equipment inspections	46	13	33
E156 Certify status of reparable, serviceable, or condemned parts or equipment	50	18	32
M583 Perform PMIs on transmitter systems	31	0	31
B37 Conduct meetings, such as staff meetings, conferences, workshops, or symposiums	29	80	-51
B36 Compile data for reports or staff studies	43	90	-47
A20 Plan agendas for meetings, such as staff meetings, briefings, or workshops	28	72	-44
C121 Write staff studies, surveys, or special reports, other than training reports	25	65	-40
A8 Develop organizational or functional charts	21	57	-36
A28 Review drafts of regulations, manuals, or other directives	49	85	-36

Summary

Normal career ladder progression within the career ladders is evident, with personnel at the 3- and 5-skill levels spending the vast majority of their time performing technical tasks. At the 7-skill level, although members still spend a good portion of their duty time on nonsupervisory tasks, a shift toward supervisory functions is quite clear. Nine-skill level members are basically managers and supervisors performing predominant supervisory and managerial tasks.

ANALYSIS OF AFMAN 36-2108 *SPECIALTY DESCRIPTION*

Survey data were compared to the AFMAN 36-2108 *Specialty Descriptions* for Air Traffic Control Radar, Aircraft Control and Warning Radar, and Automatic Tracking Radar, all dated October 1993. The overall specialty descriptions for the 3-, 5-, 7-, and 9-skill levels of each career ladder accurately describe the technical and supervisory nature of jobs at the various levels with one exception. The 3-skill level specialty description for AFSC 2E031A/B/C/D/E warrants a thorough evaluation. As reflected by OSR data, personnel do not specialize on designated radars to the extent implied by their specialty descriptions.

TRAINING FACTORS AND RESOURCES

Occupational survey data are one of the many sources of information which can be used to assist in the development of a training program relevant to the needs of personnel in their first enlistment. To this end, Training Extracts were provided to training personnel prior to the U&TW. Some of the factors which may be used in evaluating training include the overall description of the job being performed by first-enlistment personnel and their overall distribution across career ladder jobs, percentages of first-job (1-24 months' TAFMS) or first-enlistment (1-48 months' TAFMS) members performing specific tasks or using certain equipment or tools, as well as task modules and TE and TD ratings (previously explained in the **SURVEY METHODOLOGY** section). A summary of this information is explained below.

First-Enlistment Personnel

In this study, there are 472 members in their first enlistment (1-48 months' TAFMS), accounting for 27 percent of the survey sample. Figure 3 shows the percentage of first-enlistment personnel from each specialty in the survey sample, while Figure 4 illustrates the distribution of first-enlistment personnel across the job groups discussed in the **SPECIALTY JOBS** section of this report. Over half (51 percent) are contained in the Automatic Tracking Radar Maintenance

**FIRST-ENLISTMENT SURVEY SAMPLE
(N=472)**

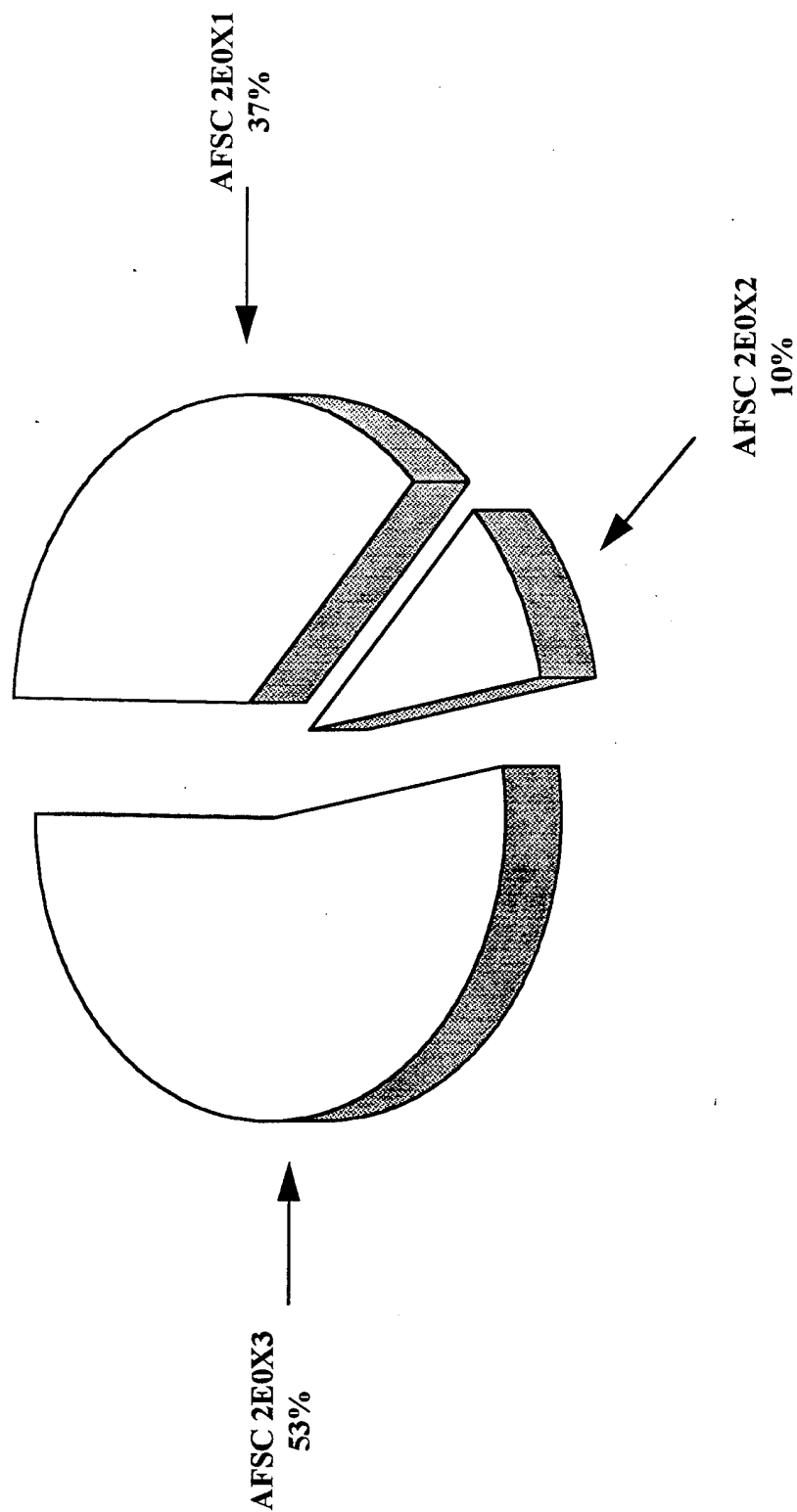


FIGURE 3

**DISTRIBUTION OF FIRST-ENLISTMENT PERSONNEL
ACROSS SPECIALTY JOBS
(N=472)**

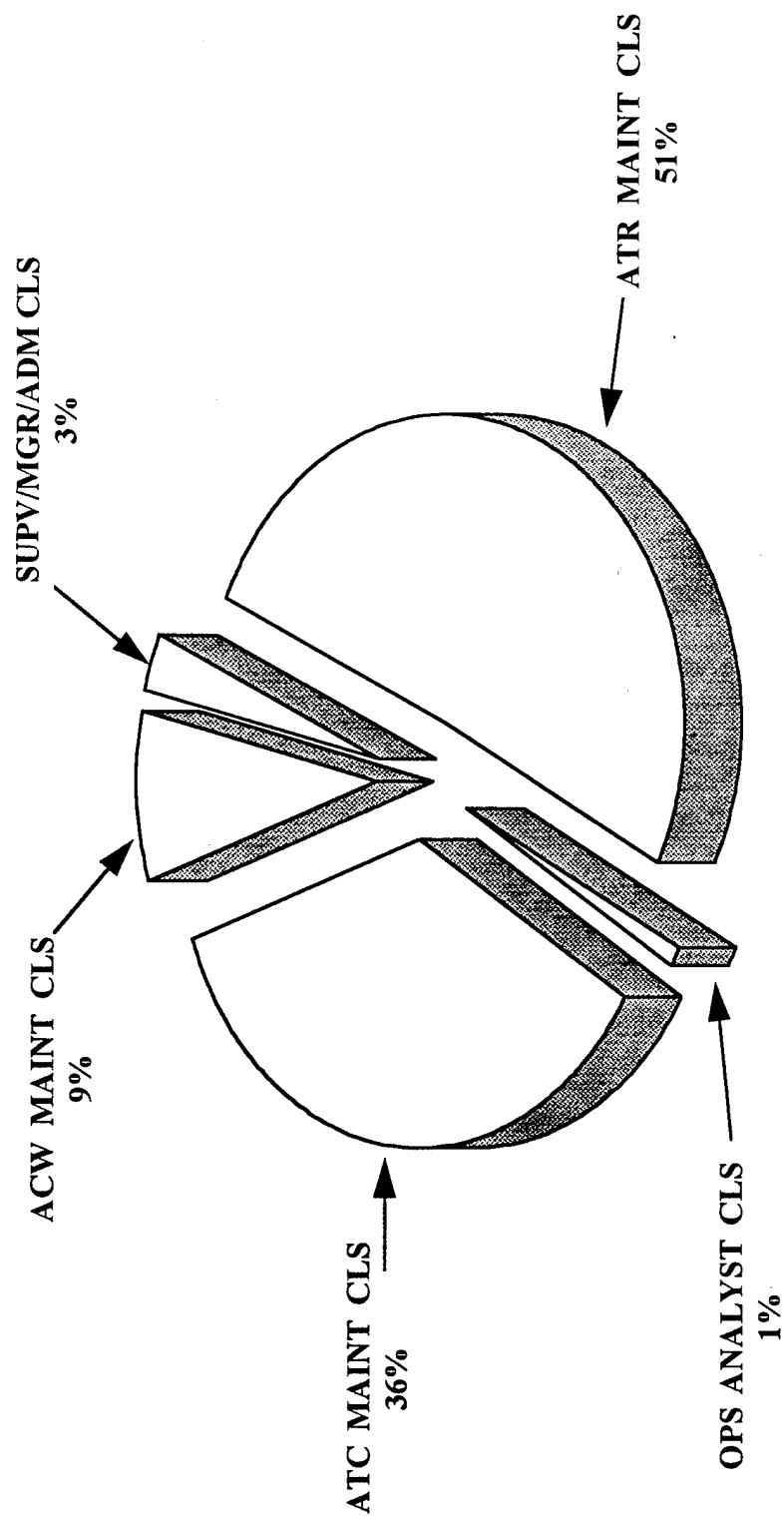


FIGURE 4

and Operations cluster. The remaining first-enlistment personnel are dispersed over several other jobs, with 36 percent in the Air Traffic Control Radar Maintenance cluster, followed by 9 percent in the Aircraft Control and Warning Radar Maintenance cluster.

As displayed in Table 32, 18 percent of DAFSC 2E0XX first-enlistment personnel duty time is devoted to performing tasks related to operations activities that involve aircraft tracking, electronic warfare/electronic countermeasures, and radar bomb scoring functions. Performing general maintenance activities (14 percent) and maintaining radar transmitter systems (10 percent) are the next two most time-consuming duties. Tables 33A-33D display some of the tasks performed by first-enlistment personnel in the total sample as well as in each specialty.

One of the objectives of this survey project was to gather data for the technical school pertaining to the specific types of radars and equipment being used or maintained. Accordingly, Tables 34 and 35 present percentages of first-enlistment airmen responding to questions concerning their activities involving these items. This type of information is useful for both technical school and MAJCOM training personnel to assist them in focusing limited training time or other resources on the most utilized items.

Training Emphasis and Task Difficulty Data

Training emphasis (TE) and task difficulty (TD) are secondary factors that can assist technical school personnel in deciding which tasks should be emphasized in training. These ratings, based on the judgments of senior career ladder NCOs working at operational units in the field, are collected to provide training personnel with a rank-ordering of those tasks in the JI considered important for first-term airmen training (TE) (see Tables 36A, 36B, and 36C for the top-rated tasks for each specialty), along with a measure of the difficulty of the JI tasks (TD) (see selected highest rated tasks presented in Tables 37A, 37B, and 37C). When combined with data on the percentages of first-enlistment personnel performing tasks, comparisons can then be made to determine if training adjustments are necessary. For example, tasks receiving high ratings on both factors, accompanied by moderate to high percentages performing, may warrant resident training. Those tasks receiving high task factor ratings, but low percentages performing, may be more appropriately planned for OJT programs within the career ladder or for specialized training programs. Low task factor ratings may highlight tasks best omitted from training for first-enlistment personnel, but this decision must be weighed against percentages of personnel performing the tasks, command concerns, and criticality of the tasks.

To assist technical school personnel, AFOMS has developed a computer program that incorporates these secondary factors and the percentages of first-assignment personnel performing each task to produce an Automated Training Indicator (ATI) for each task. These indicators correspond to training decisions listed and defined in the Training Decision Logic Table found in Attachment 1, AETCR 52-22, and allow course personnel to quickly focus their attention on those tasks that are most likely to qualify for initial resident course consideration.

TABLE 32

RELATIVE TIME SPENT ON DUTIES BY FIRST-ENLISTMENT PERSONNEL
(RELATIVE PERCENT OF JOB TIME)

DUTIES	DAFSC 2E0XX (N=472)	DAFSC 2E0X1 (N=173)	DAFSC 2E0X2 (N=49)	DAFSC 2E0X3 (N=250)
A. ORGANIZING AND PLANNING	*	1	*	*
B. DIRECTING AND IMPLEMENTING	1	1	*	*
C. INSPECTING AND EVALUATING	2	3	3	2
D. TRAINING	1	*	*	1
E. PERFORMING GENERAL ADMIN AND SUPPLY ACTIVITIES	8	11	7	7
F. PERFORMING QUALITY ASSURANCE EVALUATOR ACTIVITIES	*	*	*	*
G. PERFORMING OPERATIONS ACTIVITIES	18	3	5	31
H. PERFORMING MOBILITY ACTIVITIES	4	4	9	2
I. PERFORMING RADAR SYSTEM INSTALLATION, REMOVAL, AND RELOCATION ACTIVITIES	4	3	8	4
J. PERFORMING GENERAL MAINTENANCE ACTIVITIES	14	14	13	15
K. MAINTAINING POWER AND DISTRIBUTION EQUIPMENT	3	3	3	3
L. MAINTAINING TIMING SYSTEMS	2	2	1	*
M. MAINTAINING RADAR TRANSMITTER SYSTEMS	10	11	13	9
N. MAINTAINING ANTENNA AND WAVEGUIDE SYSTEMS	8	10	7	8
O. MAINTAINING RECEIVER OR PROCESSOR SYSTEMS	7	11	8	4
P. MAINTAINING DISPLAY AND BRIGHT RADAR INDICATING TOWER EQUIPMENT (BRITE)	3	5	6	*
Q. MAINTAINING REMOTING EQUIPMENT	2	3	*	*
R. MAINTAINING ANCILLARY EQUIPMENT	4	5	3	3
S. MAINTAINING IFF AND SIF EQUIPMENT	3	4	9	2
T. MAINTAINING RANGE AND ANGLE TRACKING SYSTEMS	1	*	0	2
U. MAINTAINING COMPUTER SYSTEMS	3	2	*	4
V. PERFORMING RADAR EVALUATION ACTIVITIES	*	*	*	*

* Denotes less than 1 percent

TABLE 33A

REPRESENTATIVE TASKS PERFORMED BY
AFSC 2E0XX FIRST-ENLISTMENT PERSONNEL

TASKS	PERCENT MEMBERS PERFORMING (N=472)
J480 Perform general soldering	85
J478 Perform corrosion control on mechanical assemblies, such as antenna towers, equipment racks, or equipment vans	75
M583 Perform PMIs on transmitter systems	74
N677 Perform PMIs on antenna systems	70
J464 Fabricate cables, such as coaxial, power, or triaxial	70
G316 Perform system run-down procedures	64
J476 Paint equipment	64
G317 Perform system run-up procedures	63
E172 Inventory tools, equipment, or supplies	63
K513 Adjust or align power supplies, other than transmitter high-voltage power supplies	63
M554 Adjust or align magnetron transmitters	61
M556 Adjust or align transmitter high-voltage power supplies	60
J504 Remove or replace general electronics hardware, such as sockets, meters, fuse holders, or clamps	60
J447 Adjust or align automatic frequency control (AFC) circuits	59
O827 Perform PMIs on receiver or processor systems	56
J473 Lubricate mechanical bearing surfaces, such as antenna rotary joints or bull gears	55
G305 Perform fault isolation	53
M596 Remove or replace transmitter high-voltage power supplies	52
J459 Determine locations of shorts or opens in cable runs	52
J494 Read and interpret equipment technical manuals	51
K527 Perform PMIs on power or power distribution systems	51
E169 Input core automated maintenance systems (CAMS) data on computer terminals	43
J489 Performance check interlock protective circuits	41
G273 Install paper on recording devices	30

TABLE 33B

REPRESENTATIVE TASKS PERFORMED BY
AFSC 2E0X1 FIRST-ENLISTMENT PERSONNEL

TASKS	PERCENT MEMBERS PERFORMING (N=173)
J480 Perform general soldering	86
J447 Adjust or align automatic frequency control (AFC) circuits	85
M583 Perform PMIs on transmitter systems	82
M554 Adjust or align magnetron transmitters	80
E169 Input core automated maintenance systems (CAMS) data on computer terminals	76
N677 Perform PMIs on antenna systems	76
J501 Remove or replace cathode ray tubes	74
M556 Adjust or align transmitter high-voltage power supplies	72
J446 Adjust or align analog-to-digital or digital-to-analog converters	71
J478 Perform corrosion control on mechanical assemblies, such as antenna towers, equipment racks, or equipment vans	70
O827 Perform PMIs on receiver or processor systems	66
L548 Perform PMIs on timing systems	66
J477 Perform corrosion control on electrical assemblies, such as electric component boards	63
M569 Isolate magnetron transmitter malfunctions	63
O732 Adjust or align coherent crystal oscillators (COHOs)	63
O747 Adjust or align moving target indicator (MTI) cancellation systems	61
M559 Adjust or align transmitter modulators	61
E172 Inventory tools, equipment, or supplies	60
O763 Adjust or align receiver local oscillators (STALOs)	60
M592 Remove or replace magnetron tubes	58
J485 Perform PMIs on built-in test equipment (BITE)	57
O748 Adjust or align MTI receivers	56
K535 Remove or replace power supplies, other than transmitter high-voltage power supplies	55
K527 Perform PMIs on power or power distribution systems	51
P887 Perform PMIs on display equipment	51

TABLE 33C

REPRESENTATIVE TASKS PERFORMED BY
AFSC 2E0X2 FIRST-ENLISTMENT PERSONNEL

TASKS	PERCENT MEMBERS PERFORMING (N=49)
J480 Perform general soldering	94
M580 Maintain gas tank pressure, such as SF ₆ , argon, or nitrogen	84
M583 Perform PMIs on transmitter systems	80
M581 Perform high-voltage insulating oil breakdown tests	80
N677 Perform PMIs on antenna systems	76
S1039 Perform PMIs on IFF/SIF equipment	73
J464 Fabricate cables, such as coaxial, power, or triaxial	73
J473 Lubricate mechanical bearing surfaces, such as antenna rotary joints or bull gears	69
S1002 Adjust or align IFF/SIF decoders	69
J454 Change oil supplies, such as dielectric oil	69
O827 Perform PMIs on receiver or processor systems	65
I414 Install or remove mobile IFF/SIF antennas	65
S1022 Isolate IFF/SIF decoder malfunctions	65
S1004 Adjust or align IFF/SIF expander boxes	63
E216 Research microfiche files for supply requisition data	61
H342 Connect or disconnect primary power to radar systems	61
N672 Level antenna pedestals	61
S1011 Adjust or align IFF/SIF transmitters	59
H357 Level mobile shelters, trailers, or vans	57
H339 Attach mobilizers or transporters, such as M-720s or M-832s, to mobile radar equipment	55
E172 Inventory tools, equipment, or supplies	55
O748 Adjust or align MTI receivers	55
M606 Remove or replace transmitter trigger amplifiers	53
H359 Load or unload equipment onto or from trucks, using manual lifting techniques	53
G305 Perform fault isolation	51
H341 Camouflage equipment	49

TABLE 33D

REPRESENTATIVE TASKS PERFORMED BY
AFSC 2E0X3 FIRST-ENLISTMENT PERSONNEL

TASKS	PERCENT MEMBERS PERFORMING (N=250)
G316 Perform system run-down procedures	88
G317 Perform system run-up procedures	88
J480 Perform general soldering	83
J476 Paint equipment	80
G310 Perform pre-operational checks	77
J464 Fabricate cables, such as coaxial, power, or triaxial	74
M583 Perform PMIs on transmitter systems	68
N677 Perform PMIs on antenna systems	65
G251 Assist other radar units in acquisition of aircraft	63
G271 Initiate aircraft tracking	60
G312 Perform radar lock-on procedures	60
G270 Identify tracked aircraft	60
M554 Adjust or align magnetron transmitters	57
G274 Load computer programs	56
G292 Perform aircraft automatic tracking procedures for EW/ECM threats	54
G313 Perform radar orientation checks	54
G273 Install paper on recording devices	52
G305 Perform fault isolation	52
J455 Clean or replace air moisture filters	50
G330 Run ECM scenarios	44
G285 Operate manual tracker range controls	42
G258 Compute electronic warfare/electronic countermeasures (EW/ECM) mission scores	38
G259 Compute radar bomb scoring (RBS) mission scores	33
G266 Enter postrelease information	32
G256 Compile mission results	30

TABLE 34

RADAR EQUIPMENT OPERATED OR MAINTAINED
BY FIRST-ENLISTMENT PERSONNEL
(MORE THAN 20 PERCENT MEMBERS RESPONDING)

RADAR EQUIPMENT	DAFSC 2E0XX (N=472)	DAFSC 2E0X1 (N=173)	DAFSC 2E0X2 (N=49)	DAFSC 2E0X3 (N=250)
<u>ATC Radars</u>				
ASRs, GPN-12	8	22	0	0
ASRs, GPN-20	13	35	0	0
LCCs, TPN-19	7	20	0	0
PARs, FPN-62	10	27	0	0
PARs, GPN-22	11	29	0	0
WEATHER RADARS, FPS-77	16	43	0	0
<u>AC&W Radars</u>				
RADAR SETS, TPS-43E	5	0	47	0
RADAR SETS, TPS-75	6	0	59	0
<u>Auto Tracking Radar/Equip</u>				
EW TRAINING SETS, MST-T1A	14	0	0	27
INTERCOMMUNICATIONS NETWORKS, AIC-25	15	0	0	27
RBS CENTRALS (SEEK SCORE), TPQ-43	16	0	0	30

TABLE 35

ANCILLARY EQUIPMENT USED OR OPERATED BY
AFSC 2E0XX FIRST-ENLISTMENT PERSONNEL
(30 Percent or Greater)

EQUIPMENT	PERCENT MEMBERS RESPONDING (N=472)
Oscilloscopes	94
Multimeters	91
Digital Voltmeters (DVM)	89
Power Meters	88
Signal Generators	88
Spectrum Analyzers	83
High-Voltage Probes	77
Crystal Detectors	76
Directional Couplers	70
Frequency Counters	66
Current Probes	53
Echo Boxes	49
Desktop Computers	44
Dial Indicators	40

TABLE 36A

2E0X1 TASKS RATED HIGHEST IN TRAINING EMPHASIS (TE)

TASKS	X1 TE*	2E0X1 PERCENT MEMBERS PERFORMING			X1 TD**
		1ST JOB (N=37)	1ST ENL (N=173)		
J481 Perform high reliability soldering	6.96	24	38		5.55
J480 Perform general soldering	6.59	89	86		3.51
M556 Adjust or align transmitter high-voltage power supplies	5.80	76	72		4.78
O747 Adjust or align moving target indicator (MTI) cancellation systems	5.78	62	61		6.06
O748 Adjust or align MTI receivers	5.73	57	56		5.89
J447 Adjust or align automatic frequency control (AFC) circuits	5.71	86	85		5.22
M585 Performance check transmitter systems, other than PMIs	5.55	38	48		4.64
M554 Adjust or align magnetron transmitters	5.53	81	80		5.04
N677 Perform PMIs on antenna systems	5.49	78	76		4.29
S1011 Adjust or align IFF/SIF transmitters	5.49	41	47		5.35
M569 Isolate magnetron transmitter malfunctions	5.45	62	63		5.89
M583 Perform PMIs on transmitter systems	5.43	89	82		4.27
J494 Read and interpret equipment technical manuals	5.39	43	49		5.24
M573 Isolate transmitter modulator malfunctions	5.39	49	51		5.99
M557 Adjust or align transmitter high-voltage protective or fault circuits	5.33	51	58		4.93

* X1 TE MEAN = 1.78 SD = 1.49 (High TE = 3.25)

** TD MEAN = 5.00 SD = 1.00

TABLE 36B

2E0X2 TASKS RATED HIGHEST IN TRAINING EMPHASIS (TE)

TASKS	X2 TE*	2E0X2 PERCENT MEMBERS PERFORMING			X2 TD**
		1ST JOB (N=22)	1ST ENL (N=49)		
J481 Perform high reliability soldering	6.34	45	53		5.50
H337 Assemble or disassemble mobile radar equipment for mission deployments	6.29	50	57		5.70
H339 Attach mobilizers or transporters, such as M-720s or M-832s, to mobile radar equipment	5.97	41	55		4.67
J494 Read and interpret equipment technical manuals	5.84	36	51		5.44
J480 Perform general soldering	5.82	91	94		3.78
M580 Maintain gas tank pressure, such as SF ₆ , argon, or nitrogen	5.34	86	84		3.37
M573 Isolate transmitter modulator malfunctions	5.29	23	31		6.02
O748 Adjust or align MTI receivers	5.29	50	55		5.72
S1011 Adjust or align IFF/SIF transmitters	5.26	41	59		5.76
M560 Adjust or align transmitter output tubes, other than magnetrons	5.18	18	39		5.15
J487 Perform system grounding checks	5.16	23	45		3.51
E200 Make entries on MDC forms, such as MDC records or repairable item processing tags	5.16	32	43		3.97
M585 Performance check transmitter systems, other than PMIs	5.16	41	47		4.67
O747 Adjust or align moving target indicator (MTI) cancellation systems	5.13	36	41		5.83
M577 Isolate transmitter tube malfunctions, other than magnetrons	5.13	23	43		5.92

* X2 TE MEAN = 2.11 SD = .77 (High TE = 2.88)

** TD MEAN = 5.00 SD = 1.00

TABLE 36C

2E0X3 TASKS RATED HIGHEST IN TRAINING EMPHASIS (TE)

TASKS	X3 TE*	2E0X3 PERCENT MEMBERS PERFORMING			X3 TD**
		1ST JOB (N=75)	1ST ENL (N=250)		
J480 Perform general soldering	6.73	83	83		4.15
J481 Perform high reliability soldering	6.31	37	42		5.96
M583 Perform PMIs on transmitter systems	5.61	69	68		4.76
M556 Adjust or align transmitter high-voltage power supplies	5.57	57	55		4.76
E200 Make entries on MDC forms, such as MDC records or reparable item processing tags	5.39	32	43		3.96
N677 Perform PMIs on antenna systems	5.31	61	65		4.62
E201 Make entries on supply forms, such as requests for purchase or issue requests	5.29	49	50		4.07
M569 Isolate magnetron transmitter malfunctions	5.25	45	47		6.15
J494 Read and interpret equipment technical manuals	5.22	52	52		5.45
M554 Adjust or align magnetron transmitters	5.18	60	57		5.32
J478 Perform corrosion control on mechanical assemblies, such as antenna towers, equipment racks, or equipment vans	5.18	76	79		3.79
G317 Perform system run-up procedures	5.14	91	88		3.77
G316 Perform system run-down procedures	5.04	91	88		3.55
M573 Isolate transmitter modulator malfunctions	5.00	31	33		6.40
G290 Perform aircraft acquisition and automatic tracking procedures for RBS scoring	5.00	20	31		4.81

* X3 TE MEAN = 1.74 SD = 1.25 (High TE = 2.99)

** TD MEAN = 5.00 SD = 1.00

TABLE 37A

2E0X1 TECHNICAL TASKS RATED HIGHEST IN TASK DIFFICULTY (TD)

TASKS	X1 TD	2E0X1 PERCENT MEMBERS PERFORMING		
		1E1 (N=173)	2E051 (N=360)	2E071 (N=279)
F245 Write contracts	8.59	0	1	2
U1106 Isolate computer malfunctions to the component level	7.72	2	9	9
V1163 Evaluate prototypes or modified equipment	7.61	0	2	9
U1155 Repair computer equipment malfunctions to the component level	7.56	1	4	5
V1162 Evaluate Federal Aviation Administration (FAA) and contract radars	7.56	0	1	3
V1174 Prepare solar collection and reduction reports	7.54	1	3	6
V1173 Predict theoretical radar detection capabilities	7.49	1	2	4
S1025 Isolate IFF/SIF IDP, programmable indicator data processors, or 980B computer malfunctions	7.35	29	42	31
S1036 Isolate IFF/SIF VSP malfunctions	7.31	35	40	35
J458 Design and fabricate electronic circuitry	7.28	5	9	7
S1037 Isolate mode 4 circuit malfunctions	7.24	2	2	1
V1166 Evaluate tethered aerostat radar systems (TARSs)	7.19	0	1	0
V1165 Evaluate solar collection and reduction data	7.16	1	4	7
N675 Overhaul antenna pedestals	7.16	5	7	5
V1167 Measure or plot antenna beam patterns	7.15	1	3	5

TD MEAN = 5.00 SD = 1.00

TABLE 37B

2E0X2 TECHNICAL TASKS RATED HIGHEST IN TASK DIFFICULTY (TD)

TASKS	X2 TD	2E0X2 PERCENT MEMBERS PERFORMING		
		1EL (N=49)	2E052 (N=215)	2E072 (N=122)
T1068	9.18	0	0	0
G293	8.19	0	1	0
G292	8.19	0	0	0
U1115	8.00	0	1	0
U1113	8.00	0	1	0
U1114	8.00	0	0	0
U1117	8.00	0	1	0
U1112	8.00	2	2	0
U1116	8.00	0	3	0
Q917	7.73	0	5	0
J458	7.43	14	9	4
N676	7.35	14	7	1
G291	7.20	4	5	1
T1067	7.20	0	1	0
T1085	7.20	0	1	0

TD MEAN = 5.00 SD = 1.00

TABLE 37C

2E0X3 TECHNICAL TASKS RATED HIGHEST IN TASK DIFFICULTY (TD)

TASKS	X3 TD	2E0X3 PERCENT MEMBERS PERFORMING		
		1EL (N=250)	2E053 (N=355)	2E073 (N=179)
F245 Write contracts	8.02	0	1	4
U1106 Isolate computer malfunctions to the component level	7.77	8	9	5
J458 Design and fabricate electronic circuitry	7.43	7	12	7
V1163 Evaluate prototypes or modified equipment	7.36	0	3	4
U1112 Isolate erasable programmable read only memory (EPROM) malfunctions	7.35	2	4	1
U1155 Repair computer equipment malfunctions to the component level	7.27	6	7	2
N703 Remove or replace antenna slip ring assemblies	7.17	16	17	5
F246 Write quality assurance surveillance plans	7.10	0	0	6
V1173 Predict theoretical radar detection capabilities	6.95	0	0	0
N675 Overhaul antenna pedestals	6.95	3	5	2
T1068 Isolate automatic tracking servo loop malfunctions	6.94	21	22	6
U1117 Isolate peripheral interface or computer buss circuit malfunctions	6.93	10	11	4
R954 Isolate aircraft simulator malfunctions	6.89	1	1	1
P879 Isolate plasma display malfunctions	6.82	7	5	1
O795 Isolate MTI cancellation system malfunctions	6.82	1	1	1

TD MEAN = 5.00 SD = 1.00

Various lists of tasks, accompanied by TE and TD ratings, and where appropriate, ATI information, are contained in each TRAINING EXTRACT package and should be reviewed in detail by technical school personnel. (For a more detailed explanation of TE and TD ratings, see Task Factor Administration in the **SURVEY METHODOLOGY** section of this report.)

Task Module Data

Task modules (TMs) were developed to organize and summarize the extensive task information for the Radar Maintenance Specialty. The TMs were derived by statistical clustering in the Comprehensive Occupational Analysis Program (CODAP) that identifies groups of related tasks and groups them together to form TMs. CODAP calculates an index of co-performed tasks by examining the task performance patterns of all survey respondents as a whole. The statistical clustering generally approximates these "natural groupings." For example, Table 38 illustrates a TM performed by personnel in the Operation Analyst and Communications cluster. The tasks within the module are presented in descending order of task difficulty (TD), along with percent of members performing for the total cluster and selected skill-level group. Hence, if a member performs one task in this module, the probability is very high that she or he will also perform other tasks in this grouping. Thus, this group of tasks (task module) can be considered a "natural group" of associated or related tasks.

TMs are useful for organizing the task data into meaningful units and as a way to concisely summarize the extensive job data. A complete list of TMs for each job grouping identified in the **SPECIALTY JOBS** section of this report are contained in the TASK MODULE EXTRACT package. Both the TRAINING EXTRACT and the TASK MODULE EXTRACT complement each other and were created as a set of tools for use regarding training decisions.

TASK ANALYSIS

Task analyses (TAs) identify activities, skills, and knowledge needed to perform jobs, as well as specific information needed for revision or development of career field education and training plans, specialty training standards, course training standards, initial skills training, on-the-job training (OJT), and career development courses. These TA fulfill most requirements of the analysis phase of the Instructional System Development model prescribed in AFM 36-2234, Instructional System Development. A Radar Maintenance TA was developed in conjunction with this OSR. The task analyst for this project was MSgt Bobby Watts.

Detailed TAs for AFSC 2E0XX were accomplished via interviews with highly qualified subject-matter experts located at Keesler AFB MS, Hurlburt FLD FL, Tyndall AFB FL, and Davis Monthan AFB AZ. A separate task analysis worksheet (TAW) was created for each task and includes information, such as task title, publications, team task information, recertification requirements, standards, and equipment needed to support each task. The activities that are

TABLE 38

SELECTED TASK MODULE

OPERATIONS ANALYST AND COMMUNICATIONS CLUSTER
(Percent Performing in Cluster)

MODULE TITLE		TOTAL CLUSTER (N=19)	DAFSC 2E053 (N=34)	X3 TD
G257	Compute ballistics information	47	57	5
G259	Compute radar bomb scoring (RBS) mission scores	74	79	5
N626	Adjust or align antenna twist sensors	5	7	5
G256	Compile mission results	47	57	5
G290	Perform aircraft acquisition and automatic tracking procedures for RBS scoring	11	14	5
G329	Rescore RBS data	63	57	5
G306	Perform ground-to-air voice communications	26	14	5
G301	Perform equipment set-up procedures for navigation termination missions	5	7	4
G302	Perform equipment set-up procedures for RBS missions	5	7	4
G309	Perform postrun calibration checks for unreliable activity	11	7	4
G296	Perform beacon delay calibrator checks	0	0	4
G331	Run RBS recheck program	37	36	4
G299	Perform constant height checks	0	0	3
G255	Compare aircraft initial points (IP) with IP charts	53	50	3
G297	Perform bomb tone circuitry operational checks	0	0	3
G267	Enter target coordinates into computers	32	36	3
G325	Record transmitted mission details from aircrews	21	14	3

identified provide a step-by-step breakdown of how the task is accomplished. Skills are the proficiencies personnel must have to perform the activities. Knowledge is a mental process that involves the recall and application of information.

The analysis for this project encompasses tasks from the AFSC 303XX JI, dated September 1991. Tasks selected for analysis are performed by a substantial percentage (20 percent or greater) of 5-skill level personnel occupying each radar specialty. Additionally, Task Difficulty (TD) and the relative time spent performing the task are criteria used when selecting tasks for analysis. TA data were collected from August 1993 through November 1993.

TA findings reveal, as suggested by OSR data and extremely relevant to this report, a high degree of task commonality (60 percent time-spent overlap) among the three specialties. The skills and knowledge used in the performance of these tasks, according to TA data, can be applied across all types of similar radar system configurations.

TA is a source of information for personnel developing training programs. TA information recorded on task analysis worksheets can be, yet another, useful tool for decision-making.

JOB SATISFACTION ANALYSIS

An important part of analysis within any OSR involves the job satisfaction of members and how their responses compare with the responses of members of similar Air Force specialties. Table 39 presents the job satisfaction data for the AFSC 2E0XX respondents, together with TAFMS data for a comparative sample of Mission Equipment Maintenance career ladders surveyed in 1992. An indication of how job satisfaction perceptions have changed over time is provided in Tables 40A, 40B, and 40C, where TAFMS group data for 1992 survey respondents are presented, along with data from respondents to the last occupational surveys involving these career ladders (AFSCs 2E0X1 and 2E0X3 - 1987, AFSC 2E0X2 - 1985). Finally, Table 41 presents job satisfaction responses from personnel in the job groups discussed in the **SPECIALTY JOBS** section of this report. An examination of these data can show how overall job satisfaction may be influenced by the type of job performed.

In a comparative study of experience groups of the AFSC 2E0XX career and mission equipment maintenance personnel surveyed by AFOMS in 1992, AFSC 2E0XX personnel are slightly higher across most job satisfaction indicators (see Table 39). The biggest difference is in perceptions of the use of training and talents, expressed job interest, and intention of personnel to reenlist, where AFSC 2E0XX first-enlistment personnel show a higher interest in their job and are more likely to reenlist than members of the comparative sample. Additionally, perceived use of talents and training was mostly higher across the board in comparison to the 1992 sample.

TABLE 39

COMPARISON OF JOB SATISFACTION INDICATORS FOR AFSC 2E0XX
TAFMS GROUPS IN CURRENT STUDY TO A COMPARATIVE SAMPLE
(PERCENT MEMBERS RESPONDING)*

	1-48 MONTHS TAFMS		49-96 MONTHS TAFMS		97+ MONTHS TAFMS	
	2E0XX (N=472)	COMP SAMPLE** (N=3,272)	2E0XX (N=348)	COMP SAMPLE** (N=2,917)	2E0XX (N=971)	COMP SAMPLE** (N=6,421)
<u>EXPRESSED JOB INTEREST:</u>						
INTERESTING	78	74	74	72	77	75
SO-SO	12	16	16	17	14	16
DULL	10	10	10	11	8	9
<u>PERCEIVED USE OF TALENTS:</u>						
FAIRLY WELL TO EXCELLENT	83	75	86	71	84	76
LITTLE OR NOT AT ALL	17	25	14	29	16	24
<u>PERCEIVED USE OF TRAINING:</u>						
FAIRLY WELL TO EXCELLENT	90	85	84	81	75	79
LITTLE OR NOT AT ALL	10	14	16	19	25	21
<u>SENSE OF ACCOMPLISHMENT GAINED FROM WORK:</u>						
SATISFIED	73	73	72	71	70	72
NEUTRAL	10	13	12	12	9	11
DISSATISFIED	17	14	16	17	20	17
<u>REENLISTMENT INTENTIONS:</u>						
PLAN TO REENLIST	62	59	70	70	69	75
PLAN NOT TO REENLIST	38	41	30	30	12	7
PLAN TO RETIRE	0	0	0	0	19	18

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

** Comparative sample of nine Mission Equipment Maintenance career ladders surveyed in 1992 (included AFSCs 2A5X2, 2A6X6, 2E2X1, 2E5X1, 2M0X1, and 2W2X0)

TABLE 40A

COMPARISON OF AFSC 2E0X1 JOB SATISFACTION INDICATORS
FOR CURRENT AND PREVIOUS SURVEY
(Percent Members Responding)*

	1-48 MONTHS TAFMS		49-96 MONTHS TAFMS		97+ MONTHS TAFMS	
	CURRENT (N=173)	1987 (N=288)	CURRENT (N=136)	1987 (N=165)	CURRENT (N=430)	1987 (N=316)
<u>EXPRESSED JOB INTEREST:</u>						
INTERESTING	80	85	79	81	82	83
SO-SO	10	8	12	14	11	9
DULL	10	7	10	5	7	8
<u>PERCEIVED USE OF TALENTS:</u>						
FAIRLY WELL TO EXCELLENT	86	90	90	82	87	85
LITTLE OR NOT AT ALL	14	10	10	18	13	15
<u>PERCEIVED USE OF TRAINING:</u>						
FAIRLY WELL TO EXCELLENT	90	85	82	82	80	75
LITTLE OR NOT AT ALL	10	15	18	18	20	25
<u>SENSE OF ACCOMPLISHMENT GAINED FROM WORK:</u>						
SATISFIED	75	70	74	72	73	73
NEUTRAL	10	12	14	15	9	12
DISSATISFIED	14	18	13	13	18	15
<u>REENLISTMENT INTENTIONS:</u>						
PLAN TO REENLIST	61	58	73	62	66	74
PLAN NOT TO REENLIST	39	42	27	38	13	8
PLAN TO RETIRE	0	0	0	0	20	18

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

TABLE 40B

COMPARISON OF AFSC 2E0X2 JOB SATISFACTION INDICATORS
FOR CURRENT AND PREVIOUS SURVEY
(Percent Members Responding)*

	1-48 MONTHS TAFMS		49-96 MONTHS TAFMS		97+ MONTHS TAFMS	
	CURRENT (N=49)	1985 (N=395)	CURRENT (N=101)	1985 (N=78)	CURRENT (N=212)	1985 (N=287)
<u>EXPRESSED JOB INTEREST:</u>						
INTERESTING	82	73	64	67	70	70
SO-SO	8	15	21	19	19	16
DULL	10	12	15	13	11	14
<u>PERCEIVED USE OF TALENTS:</u>						
FAIRLY WELL TO EXCELLENT	81	83	74	82	79	79
LITTLE OR NOT AT ALL	18	17	26	17	21	21
<u>PERCEIVED USE OF TRAINING:</u>						
FAIRLY WELL TO EXCELLENT	92	78	81	81	65	73
LITTLE OR NOT AT ALL	8	22	19	17	34	27
<u>SENSE OF ACCOMPLISHMENT GAINED FROM WORK:</u>						
SATISFIED	80	72	65	69	67	75
NEUTRAL	8	14	14	16	10	16
DISSATISFIED	12	14	21	15	23	8
<u>REENLISTMENT INTENTIONS:</u>						
PLAN TO REENLIST	63	55	66	67	72	67
PLAN NOT TO REENLIST	37	45	34	33	9	14
PLAN TO RETIRE	0	0	0	0	18	19

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

TABLE 40C

COMPARISON OF AFSC 2E0X3 JOB SATISFACTION INDICATORS
FOR CURRENT AND PREVIOUS SURVEY
(Percent Members Responding)*

	1-48 MONTHS TAFMS		49-96 MONTHS TAFMS		97+ MONTHS TAFMS	
	CURRENT (N=250)	1987 (N=366)	CURRENT (N=111)	1987 (N=169)	CURRENT (N=289)	1987 (N=250)
<u>EXPRESSED JOB INTEREST:</u>						
INTERESTING	75	63	78	66	75	73
SO-SO	14	24	15	18	17	20
DULL	11	13	6	15	8	7
<u>PERCEIVED USE OF TALENTS:</u>						
FAIRLY WELL TO EXCELLENT	82	76	93	77	83	80
LITTLE OR NOT AT ALL	18	24	7	23	16	19
<u>PERCEIVED USE OF TRAINING:</u>						
FAIRLY WELL TO EXCELLENT	90	79	86	81	74	75
LITTLE OR NOT AT ALL	10	21	14	19	26	25
<u>SENSE OF ACCOMPLISHMENT GAINED FROM WORK:</u>						
SATISFIED	70	60	74	63	68	66
NEUTRAL	11	15	10	8	10	9
DISSATISFIED	19	24	16	28	22	24
<u>REENLISTMENT INTENTIONS:</u>						
PLAN TO REENLIST	62	52	68	72	70	76
PLAN NOT TO REENLIST	37	48	32	27	14	6
PLAN TO RETIRE	0	0	0	0	16	17

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

TABLE 41

COMPARISON OF JOB SATISFACTION INDICATORS FOR MEMBERS OF 2E0XX SPECIALTY JOBS
(PERCENT MEMBERS RESPONDING)*

	ATC RADAR MAINT CLUSTER (N=556)	AC&W RADAR MAINT CLUSTER (N=173)	ATR MAINT & OPS CLUSTER (N=400)	OP ANALYST & COMM CLUSTER (N=19)	RADAR ANALYSIS & EVAL JOB (N=40)	SUPV, MGR, & ADMIN CLUSTER (N=520)	TRAINING CLUSTER (N=60)
<u>EXPRESSED JOB INTEREST:</u>							
INTERESTING	82	77	76	74	85	73	63
SO-SO	10	17	15	5	8	17	18
DULL	8	6	9	21	8	9	18
<u>PERCEIVED USE OF TALENTS:</u>							
FAIRLY WELL TO EXCELLENT	88	88	85	79	90	80	71
LITTLE OR NOT AT ALL	12	12	15	21	10	20	28
<u>PERCEIVED USE OF TRAINING:</u>							
FAIRLY WELL TO EXCELLENT	88	91	90	74	82	66	68
LITTLE TO NOT AT ALL	12	9	10	26	18	34	32
<u>SENSE OF ACCOMPLISHMENT GAINED FROM WORK:</u>							
SATISFIED	75	76	70	68	77	68	60
NEUTRAL	9	9	11	11	5	11	10
DISSATISFIED	16	15	19	21	18	21	30
<u>REENLISTMENT INTENTIONS:</u>							
PLAN TO REENLIST	67	72	66	63	72	67	65
PLAN NOT TO REENLIST	25	27	33	32	10	11	15
PLAN TO RETIRE	7	1	1	5	18	21	20

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

Comparison of job satisfaction indicator responses of current TAFMS group to those in the 1987 survey for AFSCs 2E0X1 and 2E0X3 and the 1985 survey for AFSC 2E0X2 (see Tables 40A, 40B, and 40C) indicates that responses are highly positive and generally comparable to the corresponding groups. The biggest difference is noted in reenlistment intentions for first-enlistment groups. In particular, the percent planning to reenlist was substantially higher for Automatic Tracking Radar personnel (AFSC 2E0X3) in the 1992 sample than for the 1987 sample.

The responses of members in most jobs were quite positive (see Table 41). Most indicated effective use of talents and training. Of all the jobs identified, though, training personnel found their job the least interesting and also perceived their talents are not adequately being used. Radar Analysis and Evaluation personnel, on the other hand, perceive their job to be highly interesting, gain a sense of accomplishment from their work, and are much more likely to reenlist. Personnel in the Supervisory, Managerial, and Administrative cluster are obviously the most senior as they reflect the highest percentages of members (21 percent) who plan to retire. Overall, personnel across all career ladder jobs are satisfied with their jobs, feel their talents and training are adequately utilized, and gain some sense of accomplishment from their work.

IMPLICATIONS

This survey was requested to help determine the best career ladder structure for the radar maintenance specialties and to support a U&TW held at Keesler AFB, 29 Nov-3 Dec 1993. This objective was met as attendees of the U&TW established a new specialty structure which embodies the duties and responsibilities of all three specialties.

The findings of this survey suggest that the present classification structure does accurately portray the jobs in each of the career ladders but for one exception. Information has surfaced which warrant an extensive review of the utilization of shreds at the 3-skill level for AFSC 2E0X1. The fact is members in respective shreds do not specialize to the extent implied in their specialty descriptions.

Three distinct radar maintenance groups were identified, each performing maintenance on specialized radar equipment. Though cross utilization of personnel between groups was not evident, a high degree of common tasks being performed by all specialties is quite obvious according to OSR data. These findings are highlighted by the commonality of skills and knowledge used in the performance of similar maintenance tasks across specific radar equipment as evidenced by Task Analysis data. It's quite conceivable then, that these three maintenance groups and associate support could be viewed as prime candidates for restructuring into one.

No serious job satisfaction problems appear to exist within the radar maintenance specialty. In fact, the job satisfaction responses for AFSC 2E0XX personnel were slightly higher than those of a comparative sample of Air Force personnel in 1992.

The findings of this OSR come directly from survey data collected from radar maintenance personnel worldwide. These data are readily available to training and utilization personnel, career field managers, and any other interested parties having a need for such information. Much of the data are compiled into extracts which are excellent tools in the decision-making process. These data extracts should be used when a training or utilization decision is made.

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APPENDIX A

**SELECTED REPRESENTATIVE TASKS PERFORMED BY
MEMBERS OF CAREER LADDER JOBS**

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TABLE I

AIR TRAFFIC CONTROL (ATC) RADAR MAINTENANCE CLUSTER
(GP0149)

GROUP SIZE: 556
PERCENT OF SAMPLE: 31%
PREDOMINANT GRADE: E-4/E-5

AVERAGE TICF: 86 MONTHS
AVERAGE TAFMS: 96 MONTHS

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

REPRESENTATIVE TASKS	PERCENT MEMBERS PERFORMING
J480 Perform general soldering	92
J447 Adjust or align automatic frequency control (AFC) circuits	86
M554 Adjust or align magnetron transmitters	85
M583 Perform PMIs on transmitter systems	83
M556 Adjust or align transmitter high-voltage power supplies	81
J501 Remove or replace cathode ray tubes	81
E169 Input core automated maintenance systems (CAMS) data on computer terminals	76
J478 Perform corrosion control on mechanical assemblies, such as antenna towers, equipment racks, or equipment vans	74
M569 Isolate magnetron transmitter malfunctions	74
J464 Fabricate cables, such as coaxial, power, or triaxial	73
O747 Adjust or align moving target indicator (MTI) cancellation systems	73
M592 Remove or replace magnetron tubes	73
O827 Perform PMIs on receiver or processor systems	72
M559 Adjust or align transmitter modulators	70
O748 Adjust or align MTI receivers	69
M596 Remove or replace transmitter high-voltage power supplies	67
E216 Research microfiche files for supply requisition data	65
M585 Performance check transmitter systems, other than PMIs	64
J485 Perform PMIs on built-in test equipment (BITE)	63
J494 Read and interpret equipment technical manuals	62
O795 Isolate MTI cancellation system malfunctions	62
R977 Perform PMIs on ancillary equipment	55
C103 Perform equipment inspections	54
K527 Perform PMIs on power or power distribution systems	53
G305 Perform fault isolation	50

TABLE IA
SUPPLY AND ADMIN JOB
(ST0174)

GROUP SIZE: 48
PERCENT OF SAMPLE: 3%
PREDOMINANT GRADE: E-4

AVERAGE TICF: 68 MONTHS
AVERAGE TAFMS: 84 MONTHS

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

REPRESENTATIVE TASKS	PERCENT MEMBERS PERFORMING
N677 Perform PMIs on antenna systems	92
J480 Perform general soldering	92
J447 Adjust or align automatic frequency control (AFC) circuits	92
E169 Input core automated maintenance systems (CAMS) data on computer terminals	90
M583 Perform PMIs on transmitter systems	90
M554 Adjust or align magnetron transmitters	90
M556 Adjust or align transmitter high-voltage power supplies	88
L548 Perform PMIs on timing systems	79
E172 Inventory tools, equipment, or supplies	77
J446 Adjust or align analog-to-digital or digital-to-analog converters	77
E200 Make entries on MDC forms, such as MDC records or reparable item processing tags	75
O747 Adjust or align moving target indicator (MTI) cancellation systems	75
J478 Perform corrosion control on mechanical assemblies, such as antenna towers, equipment racks, or equipment vans	73
O827 Perform PMIs on receiver or processor systems	67
K527 Perform PMIs on power or power distribution systems	67
J477 Perform corrosion control on electrical assemblies, such as electronic component boards	67
E188 Maintain or make entries in maintenance logs	65
E216 Research microfiche files for supply requisition data	65
O732 Adjust or align coherent crystal oscillators (COHOs)	65
J494 Read and interpret equipment technical manuals	56
E158 Coordinate obtaining parts with base supply	56
P887 Perform PMIs on display equipment	54
E176 Maintain benchstock	54
E195 Maintain test measurement and diagnostic equipment (TMDE) status listings or calibration schedules	50

TABLE IB

WEATHER RADAR REPAIR JOB
(ST0334)

GROUP SIZE: 21
PERCENT OF SAMPLE: 1%
PREDOMINANT GRADE: E-4

AVERAGE TICF: 86 MONTHS
AVERAGE TAFMS: 102 MONTHS

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

REPRESENTATIVE TASKS	PERCENT MEMBERS PERFORMING
J509 Remove or replace servos, synchros, or selsyns	100
J480 Perform general soldering	100
N678 Performance check antenna systems, other than PMIs	95
K515 Adjust or align voltage regulators	95
J501 Remove or replace cathode ray tubes	95
M569 Isolate magnetron transmitter malfunctions	90
J504 Remove or replace general electronics hardware, such as sockets, meters, fuse holders, or clamps	90
M569 Isolate magnetron transmitter malfunctions	90
M554 Adjust or align magnetron transmitters	90
J472 Isolate servos, synchro, or selsyn malfunctions	90
J467 Isolate AFC circuit malfunctions	90
M585 Performance check transmitter systems, other than PMIs	86
J502 Remove or replace electric motors or generators	86
N730 Repair antenna system malfunctions to the component level	81
J447 Adjust or align automatic frequency control (AFC) circuits	81
N692 Remove or replace antenna drive motors	81
M556 Adjust or align transmitter high-voltage power supplies	81
N674 Overhaul antenna gear boxes	76
J498 Remove or replace bushings or bearings	76
N618 Adjust or align antenna gain and damping circuits	76
C108 Perform pre-mobile depot maintenance (MDM) inspections	71
M610 Repair transmitter system malfunctions to the component level	71
J494 Read and interpret equipment technical manuals	67
L552 Repair timing system malfunctions to the component level	67
J481 Perform high reliability soldering	57

TABLE IC

ATC RADAR GENERAL MAINTENANCE JOB
(ST0288)

GROUP SIZE: 340
PERCENT OF SAMPLE: 19%
PREDOMINANT GRADE: E-5

AVERAGE TICF: 96 MONTHS
AVERAGE TAFMS: 108 MONTHS

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

REPRESENTATIVE TASKS		PERCENT MEMBERS PERFORMING
J447	Adjust or align automatic frequency control (AFC) circuits	97
M554	Adjust or align magnetron transmitters	96
M556	Adjust or align transmitter high-voltage power supplies	96
M583	Perform PMIs on transmitter systems	95
N677	Perform PMIs on antenna systems	94
J501	Remove or replace cathode ray tubes	94
O747	Adjust or align moving target indicator (MTI) cancellation systems	92
M569	Isolate magnetron transmitter malfunctions	90
O827	Perform PMIs on receiver or processor systems	89
O732	Adjust or align coherent crystal oscillators (COHOs)	89
O748	Adjust or align MTI receivers	88
E169	Input core automated maintenance systems (CAMS) data on computer terminals	87
M559	Adjust or align transmitter modulators	87
O763	Adjust or align receiver local oscillators (STALOs)	87
O811	Isolate receiver STALO malfunctions	85
O795	Isolate MTI cancellation system malfunctions	82
Q919	Perform PMIs on remoting equipment	80
U1089	Adjust or align computer disk drives	79
S1011	Adjust or align IFF/SIF transmitters	79
O745	Adjust or align linear or normal receivers	79
O830	Remove or replace receiver or processor electronic component boards	78
P887	Perform PMIs on display equipment	76
O828	Performance check receiver or processor systems, other than PMIs	73
E188	Maintain or make entries in maintenance logs	65
G305	Perform fault isolation	57

TABLE ID

LANDING CONTROL CENTRALS MAINTENANCE JOB
(ST0373)

GROUP SIZE: 38
 PERCENT OF SAMPLE: 2%
 PREDOMINANT GRADE: E-4

AVERAGE TICF: 71 MONTHS
 AVERAGE TAFMS: 79 MONTHS

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

REPRESENTATIVE TASKS	PERCENT MEMBERS PERFORMING
H357 Level mobile shelters, trailers, or vans	100
H359 Load or unload equipment onto or from trucks, using manual lifting techniques	97
H381 Tow mobile radar equipment using heavy-duty vehicles up to 10-ton tractor-trailer combinations	97
H342 Connect or disconnect primary power to radar systems	97
M554 Adjust or align magnetron transmitters	97
H337 Assemble or disassemble mobile radar equipment for mission deployments	95
H341 Camouflage equipment	95
J480 Perform general soldering	95
H339 Attach mobilizers or transporters, such as M-720s or M-832s, to mobile radar equipment	92
M583 Perform PMIs on transmitter systems	92
H354 Erect tents	92
J447 Adjust or align automatic frequency control (AFC) circuits	92
M556 Adjust or align transmitter high-voltage power supplies	87
H363 Palletize mobility containers	87
M569 Isolate magnetron transmitter malfunctions	87
M559 Adjust or align transmitter modulators	87
H367 Perform operator maintenance on heavy-duty vehicles up to 10-ton, such as M-series vehicles	84
L548 Perform PMIs on timing systems	82
I416 Install or remove obstruction lights	82
H368 Perform operator maintenance on mobilizers or transporters, such as M-720s or M-832s	79
H353 Erect or dismantle support facilities, such as transportable shelters	76
I413 Install or remove mobile air conditioning systems or ECUs	76
I414 Install or remove mobile IFF/SIF antennas	76
E172 Inventory tools, equipment, or supplies	74
I436 Pack or unpack support equipment for shipment	74
I424 Install or remove radar reflectors	74

TABLE IE
MOBILITY EQUIPMENT MAINTENANCE JOB
(ST0102)

GROUP SIZE: 11
PERCENT OF SAMPLE: <1%
PREDOMINANT GRADE: E-3

AVERAGE TICF: 40 MONTHS
AVERAGE TAFMS: 47 MONTHS

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

REPRESENTATIVE TASKS	PERCENT MEMBERS PERFORMING
H357 Level mobile shelters, trailers, or vans	100
H339 Attach mobilizers or transporters, such as M-720s or M-832s, to mobile radar equipment	91
H342 Connect or disconnect primary power to radar systems	91
H337 Assemble or disassemble mobile radar equipment for mission deployments	82
M583 Perform PMIs on transmitter systems	82
H367 Perform operator maintenance on heavy-duty vehicles up to 10-ton, such as M-series vehicles	82
H341 Camouflage equipment	82
H371 Perform preventive maintenance on mobilizers or transporters, such as M-923s or M-35s	73
H368 Perform operator maintenance on mobilizers or transporters, such as M-720s or M-832s	73
I413 Install or remove mobile air conditioning systems or ECUs	73
I416 Install or remove obstruction lights	73
J501 Remove or replace cathode ray tubes	73
H354 Erect tents	73
H359 Load or unload equipment onto or from trucks, using manual lifting techniques	64
H381 Tow mobile radar equipment using heavy-duty vehicles up to 10-ton tractor-trailer combinations	64
H363 Palletize mobility containers	64
K513 Adjust or align power supplies, other than transmitter high-voltage power supplies	64
K535 Remove or replace power supplies, other than transmitter high-voltage power supplies	55
H370 Perform preventive maintenance on heavy-duty vehicles up to 10-ton, such as M-series vehicles	55
F241 Perform surveillance of equipment performance, such as power out or minimum discernible signal	55
M554 Adjust or align magnetron transmitters	55
M585 Performance check transmitter systems, other than PMIs	45
F240 Perform surveillance of equipment condition, such as TO completeness or corrosion control	37
H376 Prepare equipment for air mobilization	36

TABLE IF
COMPUTER SYSTEMS MAINTENANCE JOB
(ST0272)

GROUP SIZE: 5
PERCENT OF SAMPLE: <1%
PREDOMINANT GRADE: E-4

AVERAGE TICF: 39 MONTHS
AVERAGE TAFMS: 41 MONTHS

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

REPRESENTATIVE TASKS		PERCENT MEMBERS PERFORMING
E169	Input core automated maintenance systems (CAMS) data on computer terminals	100
U1128	Perform diagnostic checks on computers	100
U1127	Perform diagnostic checks on computer peripheral hardware	100
M583	Perform PMIs on transmitter systems	100
U1118	Isolate printer malfunctions	100
U1115	Isolate hard disk drive or controller malfunctions	100
M554	Adjust or align magnetron transmitters	100
J480	Perform general soldering	100
J447	Adjust or align automatic frequency control (AFC) circuits	100
U1129	Perform diagnostic tests on computer interfaces	80
O827	Perform PMIs on receiver or processor systems	80
U1093	Adjust or align digital magnetic or digital optical tape units	80
U1149	Remove or replace printers	80
U1096	Adjust or align printers	60
U1131	Reboot or recycle computer power	60
K535	Remove or replace power supplies, other than transmitter high-voltage power supplies	60
U1111	Isolate digital magnetic or optical magnetic tape unit malfunctions	60
U1100	Clean and reseal peripheral interface cards	60
U1137	Remove or replace computer subassemblies	60
U1147	Remove or replace peripheral interfaces	60
U1112	Isolate erasable programmable read only memory (EPROM) malfunctions	60
U1141	Remove or replace digital magnetic or optical magnetic tape unit assemblies	60
V1157	Analyze radar performance using computers and specialized hardware	40
U1094	Adjust or align graphics generators/translators	40
U1095	Adjust or align integrators, such as ramp generators	40

TABLE IG
ENGINEERING AND INSTALLATION JOB
(ST0231)

GROUP SIZE: 23
PERCENT OF SAMPLE: 1%
PREDOMINANT GRADE: E-5

AVERAGE TICF: 104 MONTHS
AVERAGE TAFMS: 120 MONTHS

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

REPRESENTATIVE TASKS		PERCENT MEMBERS PERFORMING
I385	Inspect project (scheme) materials	100
I383	Conduct operational tests of newly installed equipment	100
I391	Install or remove bright radar indicating tower equipment (BRITE) systems	96
I435	Inventory project (scheme) materials	91
E172	Inventory tools, equipment, or supplies	91
I396	Install or remove conduits	91
I410	Install or remove interconnecting cables or harnesses	91
I394	Install or remove cable support systems	87
I399	Install or remove equipment cabinets or consoles	87
I395	Install or remove cable troughs or ducting	87
I384	Conduct shakedown tests	87
C112	Perform vehicle inspections	83
I441	Review project (scheme) packages	78
I393	Install or remove cable junction boxes	78
J480	Perform general soldering	78
I434	Interpret installation plans, such as diagrams or schematics	74
I409	Install or remove IFF/SIF radar systems	74
J464	Fabricate cables, such as coaxial, power, or triaxial	70
I405	Install or remove ground anchoring equipment	70
I400	Install or remove external power or signal cabling	70
I422	Install or remove radar or auxiliary equipment	70
I406	Install or remove grounding systems	61
J466	Fabricate test cables or plugs	57
I411	Install or remove lightning arresters	57
I392	Install or remove building intercommunications systems	48

TABLE II

AIRCRAFT CONTROL AND WARNING (AC&W) RADAR MAINTENANCE CLUSTER
(GP0147)

GROUP SIZE: 173

PERCENT OF SAMPLE: 10%

PREDOMINANT GRADE: E-4

AVERAGE TICF: 76 MONTHS

AVERAGE TAFMS: 81 MONTHS

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

REPRESENTATIVE TASKS		PERCENT MEMBERS PERFORMING
J480	Perform general soldering	98
S1039	Perform PMIs on IFF/SIF equipment	86
M583	Perform PMIs on transmitter systems	87
H337	Assemble or disassemble mobile radar equipment for mission deployments	73
J464	Fabricate cables, such as coaxial, power, or triaxial	87
H339	Attach mobilizers or transporters, such as M-720s or M-832s, to mobile radar equipment	69
M580	Maintain gas tank pressure, such as SF6, argon, or nitrogen	80
J473	Lubricate mechanical bearing surfaces, such as antenna rotary joints or bull gears	80
S1002	Adjust or align IFF/SIF decoders	84
S1022	Isolate IFF/SIF decoder malfunctions	84
H357	Level mobile shelters, trailers, or vans	72
H342	Connect or disconnect primary power to radar systems	72
S1040	Performance check IFF/SIF systems, other than PMIs	69
S1049	Repair IFF/SIF equipment malfunctions to the component level	74
S1011	Adjust or align IFF/SIF transmitters	75
S1008	Adjust or align IFF/SIF receivers	74
H368	Perform operator maintenance on mobilizers or transporters, such as M-720s or M-832s	65
H367	Perform operator maintenance on heavy-duty vehicles up to 10-ton such as M-series vehicles	68
H341	Camouflage equipment	66
S1024	Isolate IFF/SIF expander box malfunctions	75
S1004	Adjust or align IFF/SIF expander boxes	75
M581	Perform high-voltage insulating oil breakdown tests	78
H359	Load or unload equipment onto or from trucks, using manual lifting techniques	60
S1031	Isolate IFF/SIF receiver malfunctions	71
S1034	Isolate IFF/SIF transmitter malfunctions	71
M585	Performance check transmitter systems, other than PMIs	62

TABLE IIA

VIDEO MAPPER MAINTENANCE JOB
(ST0522)

GROUP SIZE: 14
PERCENT OF SAMPLE: <1%
PREDOMINANT GRADE: E-5

AVERAGE TICF: 77 MONTHS
AVERAGE TAFMS: 78 MONTHS

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

REPRESENTATIVE TASKS		PERCENT MEMBERS PERFORMING
E169	Input core automated maintenance systems (CAMS) data on computer terminals	100
R942	Adjust or align video mapper deflection amplifiers	100
R948	Adjust or align video mapper video bias focus circuitry	100
R966	Isolate video mapper deflection amplifier malfunctions	100
J480	Perform general soldering	100
R970	Isolate video mapper sweep generator malfunctions	100
R972	Isolate video mapper video bias focus circuitry malfunctions	100
R946	Adjust or align video mapper sweep generators	100
R945	Adjust or align video mapper pretrigger delay cards	100
R943	Adjust or align video mapper intensity cutoff circuitry	100
R969	Isolate video mapper pretrigger delay card malfunctions	100
R967	Isolate video mapper intensity cutoff circuitry malfunctions	100
E200	Make entries on MDC forms, such as MDC records or reparable item processing tags	100
R947	Adjust or align video mapper synchro circuitry	100
R971	Isolate video mapper synchronizing circuitry malfunctions	100
E216	Research microfiche files for supply requisition data	93
R949	Adjust or align video mapper video processor circuits	93
R973	Isolate video mapper video processor circuits	93
S1039	Perform PMIs on IFF/SIF equipment	86
S1022	Isolate IFF/SIF decoder malfunctions	86
S1024	Isolate IFF/SIF expander box malfunctions	86
S1002	Adjust or align IFF/SIF decoders	86
S1004	Adjust or align IFF/SIF expander boxes	79
R977	Perform PMIs on ancillary equipment	71
J481	Perform high reliability soldering	71

TABLE IIB
MULTI-RADAR MAINTENANCE JOB
(ST0138)

GROUP SIZE: 43
PERCENT OF SAMPLE: 2%
PREDOMINANT GRADE: E-4

AVERAGE TICF: 61 MONTHS
AVERAGE TAFMS: 65 MONTHS

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

REPRESENTATIVE TASKS		PERCENT MEMBERS PERFORMING
M583	Perform PMIs on transmitter systems	91
N677	Perform PMIs on antenna systems	88
J473	Lubricate mechanical bearing surfaces, such as antenna rotary joints or bull gears	86
J478	Perform corrosion control on mechanical assemblies, such as antenna towers, equipment racks, or equipment vans	86
J464	Fabricate cables, such as coaxial, power, or triaxial	84
S1039	Perform PMIs on IFF/SIF equipment	81
I414	Install or remove mobile IFF/SIF antennas	77
H357	Level mobile shelters, trailers, or vans	74
H342	Connect or disconnect primary power to radar systems	72
S1008	Adjust or align IFF/SIF receivers	72
S1011	Adjust or align IFF/SIF transmitters	72
H337	Assemble or disassemble mobile radar equipment for mission deployments	70
J504	Remove or replace general electronics hardware, such as sockets, meters, fuse holders, or clamps	70
M580	Maintain gas tank pressure, such as SF6, argon, or nitrogen	65
S1002	Adjust or align IFF/SIF decoders	65
J477	Perform corrosion control on electrical assemblies, such as electronic component boards	65
G316	Perform system run-down procedures	58
S1031	Isolate IFF/SIF receiver malfunctions	58
H341	Camouflage equipment	56
H367	Perform operator maintenance on heavy-duty vehicles up to 10-ton, such as M-series vehicles	56
H339	Attach mobilizers or transporters, such as M-720s or M-832s, to mobile radar equipment	53
P887	Perform PMIs on display equipment	53
H368	Perform operator maintenance on mobilizers or transporters, such as M-720s or M-832s	53
H354	Erect tents	51
J494	Read and interpret equipment technical manuals	49
G281	Operate identification friend or foe/selection identification feature (IFF/SIF) equipment	44

TABLE IIC

MOBILE RADAR WORKCENTER MAINTENANCE JOB
(ST0353)

GROUP SIZE: 110
PERCENT OF SAMPLE: 6%
PREDOMINANT GRADE: E-4

AVERAGE TICF: 83 MONTHS
AVERAGE TAFMS: 89 MONTHS

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

REPRESENTATIVE TASKS	PERCENT MEMBERS PERFORMING
M580 Maintain gas tank pressure, such as SF ₆ , argon, or nitrogen	99
M583 Perform PMIs on transmitter systems	97
S1002 Adjust or align IFF/SIF decoders	96
M581 Perform high-voltage insulating oil breakdown tests	96
S1022 Isolate IFF/SIF decoder malfunctions	95
M576 Isolate transmitter trigger amplifier malfunctions	91
S1004 Adjust or align IFF/SIF expander boxes	91
S1039 Perform PMIs on IFF/SIF equipment	90
S1049 Repair IFF/SIF equipment malfunctions to the component level	89
M606 Remove or replace transmitter trigger amplifiers	89
O827 Perform PMIs on receiver or processor systems	88
S1011 Adjust or align IFF/SIF transmitters	88
S1008 Adjust or align IFF/SIF receivers	87
H339 Attach mobilizers or transporters, such as M-720s or M-832s, to mobile radar equipment	85
M568 Isolate liquid cooling system malfunctions	85
O748 Adjust or align MTI receivers	84
M610 Repair transmitter system malfunctions to the component level	84
S1040 Performance check IFF/SIF systems, other than PMIs	83
H367 Perform operator maintenance on heavy-duty vehicles up to 10-ton, such as M-series vehicles	82
H341 Camouflage equipment	82
H368 Perform operator maintenance on mobilizers or transporters, such as M-720s or M832s	80
M562 Adjust or align transmitter synthesizers or frequency generators	80
M558 Adjust or align transmitter liquid cooling systems	79
H357 Level mobile shelters, trailers, or vans	79
M585 Performance check transmitter systems, other than PMIs	77
H354 Erect tents	73
H343 Construct combat area defenses, such as foxholes, sandbags, or concertina wire	72
H374 Perform site defense, such as perimeter, foxhole, or entry control point duty	68

TABLE III

AUTOMATIC TRACKING RADAR (ATR) MAINTENANCE AND OPERATIONS CLUSTER
(GP0148)

GROUP SIZE: 400

AVERAGE TICF: 52 MONTHS

PERCENT OF SAMPLE: 22%

AVERAGE TAFMS: 57 MONTHS

PREDOMINANT GRADE: E-3/E-4

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

REPRESENTATIVE TASKS	PERCENT MEMBERS PERFORMING
G316 Perform system run-down procedures	90
G317 Perform system run-up procedures	89
G310 Perform pre-operational checks	78
G312 Perform radar lock-on procedures	63
G271 Initiate aircraft tracking	59
G292 Perform aircraft automatic tracking procedures for EW/ECM threats	58
G270 Identify tracked aircraft	58
G251 Assist other radar units in acquisition of aircraft	57
G320 Position radar antennas after operations	55
G291 Perform aircraft acquisition procedures for EW/ECM threats	54
G313 Perform radar orientation checks	54
G274 Load computer programs	52
G305 Perform fault isolation	49
G307 Perform ground-to-ground voice communications	48
G334 Verify mission schedules	46
G330 Run ECM scenarios	44
G284 Operate manual tracker elevation controls	43
G283 Operate manual tracker azimuth controls	43
G272 Inspect indicators for correct identification friend or foe (IFF) responses	43
G282 Operate magnetic tape systems to record mission data	42
G281 Operate identification friend or foe/selection identification feature (IFF/SIF) equipment	42
G258 Compute electronic warfare/electronic countermeasures (EW/ECM) mission scores	37
G285 Operate manual tracker range controls	37
G303 Perform EW/ECM analysis	35
G300 Perform end run summaries	33

TABLE IIIA

GROUND-BASED JAMMER OPERATOR JOB
(ST0197)

GROUP SIZE: 5
 PERCENT OF SAMPLE: <1%
 PREDOMINANT GRADE: E-3

AVERAGE TICF: 27 MONTHS
 AVERAGE TAFMS: 29 MONTHS

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

REPRESENTATIVE TASKS	PERCENT MEMBERS PERFORMING
G279 Operate ground based jammers	100
G317 Perform system run-up procedures	100
G271 Initiate aircraft tracking	100
M596 Remove or replace transmitter high-voltage power supplies	100
G316 Perform system run-down procedures	100
G272 Inspect indicators for correct identification friend or foe (IFF) responses	100
G334 Verify mission schedules	100
J464 Fabricate cables, such as coaxial, power, or triaxial	100
J478 Perform corrosion control on mechanical assemblies, such as antenna towers, equipment racks, or equipment vans	100
G274 Load computer programs	100
J476 Paint equipment	100
R961 Isolate radio transmitter malfunctions	100
R960 Isolate radio receiver malfunctions	100
J480 Perform general soldering	100
E172 Inventory tools, equipment, or supplies	100
G281 Operate identification friend or foe/selection identification feature (IFF/SIF) equipment	80
M556 Adjust or align transmitter high-voltage power supplies	80
M608 Remove or replace TWT driver amplifiers	80
J504 Remove or replace general electronics hardware, such as sockets, meters, fuse holders, or clamps	80
G270 Identify tracked aircraft	80
M564 Adjust or align traveling wave tube (TWT) driver amplifiers	80
G278 Operate closed-circuit televisions (TVs)	80
M589 Remove or replace dummy loads	80
G260 Conduct daily or shift changeover crew briefings	80
M578 Isolate TWT amplifier malfunctions, other than TWT driver amplifiers	80

TABLE IIIB

RADAR BOMB SCORING (RBS) MAINTENANCE SUPERVISORY JOB
(ST0212)

GROUP SIZE: 5

AVERAGE TICF: 100 MONTHS

PERCENT OF SAMPLE: <1%

AVERAGE TAFMS: 113 MONTHS

PREDOMINANT GRADE: E-5

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

REPRESENTATIVE TASKS		PERCENT MEMBERS PERFORMING
B62	Supervise Radar Specialists (AFSC 30351, 30352, or 30353)	100
M583	Perform PMIs on transmitter systems	100
E200	Make entries on MDC forms, such as MDC records or reparable item processing tags	100
D144	Maintain training records, charts, or graphs	100
B40	Counsel personnel on personal or military-related matters	100
D129	Counsel trainees on training progress	100
T1081	Perform PMIs on range and angle tracking systems	100
N677	Perform PMIs on antenna systems	100
S995	Adjust or align IFF antenna positioning systems	100
U1103	Isolate bomb tone circuit malfunctions	100
E223	Review or edit MDC forms	80
O827	Perform PMIs on receiver or processor systems	80
E224	Review status of awaiting parts (AWP) equipment	80
A5	Determine work schedules, assignments, or priorities	80
E156	Certify status of reparable, serviceable, or condemned parts or equipment	80
J480	Perform general soldering	80
D125	Brief personnel on training matters, such as methods or procedures	80
D123	Assign on-the-job training (OJT) trainers	80
N626	Adjust or align antenna twist sensors	80
C117	Write EPRs	80
B59	Supervise Apprentice Radar Specialists (AFSC 30331, 30332, or 30333)	60
B33	Adjust daily maintenance plans to meet operational commitments	60
G312	Perform radar lock-on procedures	60
J494	Read and interpret equipment technical manuals	60
J477	Perform corrosion control on electrical assemblies, such as electronic component boards	60

TABLE IIIC

ELECTRONIC WARFARE (EW) EQUIPMENT MAINTENANCE
WORKCENTER SUPERVISORY JOB
(ST0476)

GROUP SIZE: 57
PERCENT OF SAMPLE: 3%
PREDOMINANT GRADE: E-5/E-4

AVERAGE TICF: 87 MONTHS
AVERAGE TAFMS: 93 MONTHS

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

REPRESENTATIVE TASKS	PERCENT MEMBERS PERFORMING
M583 Perform PMIs on transmitter systems	98
M596 Remove or replace transmitter high-voltage power supplies	95
G316 Perform system run-down procedures	93
G317 Perform system run-up procedures	91
E172 Inventory tools, equipment, or supplies	91
M554 Adjust or align magnetron transmitters	91
M610 Repair transmitter system malfunctions to the component level	89
N677 Perform PMIs on antenna systems	88
G310 Perform pre-operational checks	84
M573 Isolate transmitter modulator malfunctions	84
J494 Read and interpret equipment technical manuals	82
M585 Performance check transmitter systems, other than PMIs	82
M572 Isolate transmitter high-voltage protective or fault-circuit malfunctions	81
C117 Write EPRs	77
G271 Initiate aircraft tracking	75
B59 Supervise Apprentice Radar Specialists (AFSC 30331, 30332, or 30333)	74
A5 Determine work schedules, assignments, or priorities	74
D144 Maintain training records, charts, or graphs	74
G307 Perform ground-to-ground voice communications	74
B40 Counsel personnel on personal or military-related matters	72
B62 Supervise Radar Specialists (AFSC 30351, 30352, or 30353)	68
A17 Establish performance standards for subordinates	63
C84 Evaluate personnel for compliance with performance standards	63
B33 Adjust daily maintenance plans to meet operational commitments	58

TABLE IIID

ELECTRONIC WARFARE/ELECTRONIC COUNTERMEASURES
(EW/ECM) EQUIPMENT MAINTENANCE JOB
(ST0300)

GROUP SIZE: 72
PERCENT OF SAMPLE: 4%
PREDOMINANT GRADE: E-3/E-4

AVERAGE TICF: 52 MONTHS
AVERAGE TAFMS: 58 MONTHS

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

REPRESENTATIVE TASKS	PERCENT MEMBERS PERFORMING
M583 Perform PMIs on transmitter systems	99
M556 Adjust or align transmitter high-voltage power supplies	99
M557 Adjust or align transmitter high-voltage protective or fault circuits	93
M554 Adjust or align magnetron transmitters	92
G316 Perform system run-down procedures	90
M581 Perform high-voltage insulating oil breakdown tests	89
G317 Perform system run-up procedures	89
M559 Adjust or align transmitter modulators	88
J454 Change oil supplies, such as dielectric oil	88
G292 Perform aircraft automatic tracking procedures for EW/ECM threats	82
G330 Run ECM scenarios	82
M572 Isolate transmitter high-voltage protective or fault-circuit malfunctions	82
G310 Perform pre-operational checks	81
G291 Perform aircraft acquisition procedures for EW/ECM threats	79
M569 Isolate magnetron transmitter malfunctions	78
N637 Boresight antennas	78
G272 Inspect indicators for correct identification friend or foe (IFF) responses	75
G274 Load computer programs	75
G270 Identify tracked aircraft	72
M585 Performance check transmitter systems, other than PMIs	72
G320 Position radar antennas after operations	72
G271 Initiate aircraft tracking	69
G312 Perform radar lock-on procedures	68
G251 Assist other radar units in acquisition of aircraft	68
G281 Operate identification friend or foe/selection identification feature (IFF/SIF) equipment	63

TABLE IIIE

RBS MAINTENANCE/OPERATOR JOB
(GP0330)

GROUP SIZE: 55
 PERCENT OF SAMPLE: 3%
 PREDOMINANT GRADE: E-4

AVERAGE TICF: 40 MONTHS
 AVERAGE TAFMS: 45 MONTHS

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

REPRESENTATIVE TASKS		PERCENT MEMBERS PERFORMING
G265	Compute radar bomb scoring (RBS) mission scores	98
G266	Enter postrelease information	98
G290	Perform aircraft acquisition and automatic tracking procedures for RBS scoring	98
G302	Perform equipment set-up procedures for RBS missions	98
G312	Perform radar lock-on procedures	98
G251	Assist other radar units in acquisition of aircraft	95
G271	Initiate aircraft tracking	93
G310	Perform pre-operational checks	93
M583	Perform PMIs on transmitter systems	93
J464	Fabricate cables, such as coaxial, power, or triaxial	93
G262	Confirm RBS scores	87
K527	Perform PMIs on power or power distribution systems	82
G322	Record bomb away times	80
G319	Performance check azimuth automatic tracking circuits	80
J486	Perform PMIs on facility air-conditioning systems or ECUs	80
G296	Perform beacon delay calibrator checks	80
T1084	Remove or replace range and angle tracking circuit modules	80
J447	Adjust or align automatic frequency control (AFC) circuits	78
M554	Adjust or align magnetron transmitters	76
G331	Run RBS recheck program	76
T1081	Perform PMIs on range and angle tracking systems	69
J469	Isolate analog-to-digital or digital-to-analog converter malfunctions	64
G294	Perform azimuth and elevation angle detection circuitry checks	60
J506	Remove or replace motor or generator brushes	60
R977	Perform PMIs on ancillary equipment	53

TABLE IIIF

ANTENNA MAINTENANCE/RANGE OPERATIONS JOB
(ST0255)

GROUP SIZE: 15

AVERAGE TICF: 33 MONTHS

PERCENT OF SAMPLE: <1%

AVERAGE TAFMS: 38 MONTHS

PREDOMINANT GRADE: E-3/E-4

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

REPRESENTATIVE TASKS	PERCENT MEMBERS PERFORMING
N709 Remove or replace ATR tubes, TR tubes, or receiver protectors	100
M583 Perform PMIs on transmitter systems	93
M554 Adjust or align magnetron transmitters	93
M556 Adjust or align transmitter high-voltage power supplies	93
N611 Adjust or align (focus) antenna feedhorn or gimbals	93
G258 Compute electronic warfare/electronic countermeasures (EW/ECM) mission scores	87
G281 Operate identification friend or foe/selection identification feature (IFF/SIF) equipment	87
L542 Adjust or align analog synchronizers or timing systems	87
R957 Isolate brushgraph recording system malfunctions	87
J506 Remove or replace motor or generator brushes	87
M563 Adjust or align transmitter trigger amplifiers	87
G277 Operate brushgraph recording systems	80
J452 Adjust or align servos, synchros, or selsyns	80
G324 Record oscillograph run data	73
G292 Perform aircraft automatic tracking procedures for EW/ECM threats	73
G255 Compare aircraft initial points (IP) with IP charts	73
N657 Isolate anti-transmit-receive (ATR), transmit-receive (TR) tube, or receiver protector malfunctions	73
N677 Perform PMIs on antenna systems	73
N728 Remove or replace waveguide sections	73
N672 Level antenna pedestals	73
N667 Isolate rotary joint or coupler malfunctions	73
G291 Perform aircraft acquisition procedures for EW/ECM threats	67
N660 Isolate duplexer malfunctions	60
N730 Repair antenna system malfunctions to the component level	53
N630 Adjust or align gas or air waveguide pressurizing/dehydrating systems	53

TABLE III G

TACTICAL THREAT RADAR MAINTENANCE SUPERVISORY JOB
(ST0395)

GROUP SIZE: 5
 PERCENT OF SAMPLE: <1%
 PREDOMINANT GRADE: E-4/E-5

AVERAGE TICE: 76 MONTHS
 AVERAGE TAFMS: 84 MONTHS

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

REPRESENTATIVE TASKS	PERCENT MEMBERS PERFORMING
G270 Identify tracked aircraft	100
G292 Perform aircraft automatic tracking procedures for EW/ECM threats	100
G310 Perform pre-operational checks	100
G271 Initiate aircraft tracking	100
E201 Make entries on supply forms, such as requests for purchase or issue requests	100
J480 Perform general soldering	100
N692 Remove or replace antenna drive motors	100
J502 Remove or replace electric motors or generators	100
G291 Perform aircraft acquisition procedures for EW/ECM threats	80
G317 Perform system run-up procedures	80
G316 Perform system run-down procedures	80
G312 Perform radar lock-on procedures	80
M589 Remove or replace dummy loads	80
D129 Counsel trainees on training progress	80
J503 Remove or replace gears or gear train assemblies	80
R965 Isolate video camera malfunctions	80
G268 Evaluate aircrew tactics and countermeasures	60
C110 Perform self-inspections	60
B55 Interpret policies, directives, or procedures for subordinates	60
C117 Write EPRs	60
G288 Operate smokey surface-to-air (SAM) missile launchers	60
B59 Supervise Apprentice Radar Specialists (AFSC 30331, 30332, or 30333)	40
C67 Conduct performance feedback worksheet (PFW) sessions	40
D125 Brief personnel on training matters, such as methods or procedures	40
G264 Designate target for EW threats	40

TABLE IIIH

SAM SIMULATOR OPERATIONS AND MAINTENANCE JOB
(ST0241)

GROUP SIZE: 36
PERCENT OF SAMPLE: 3%
PREDOMINANT GRADE: E-3

AVERAGE TICF: 22 MONTHS
AVERAGE TAFMS: 32 MONTHS

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

REPRESENTATIVE TASKS	PERCENT MEMBERS PERFORMING
G317 Perform system run-up procedures	100
G316 Perform system run-down procedures	100
G283 Operate manual tracker azimuth controls	97
G284 Operate manual tracker elevation controls	97
M583 Perform PMIs on transmitter systems	92
G292 Perform aircraft automatic tracking procedures for EW/ECM threats	89
G312 Perform radar lock-on procedures	86
J447 Adjust or align automatic frequency control (AFC) circuits	86
G285 Operate manual tracker range controls	83
M554 Adjust or align magnetron transmitters	83
J464 Fabricate cables, such as coaxial, power, or triaxial	83
G291 Perform aircraft acquisition procedures for EW/ECM threats	78
J459 Determine locations of shorts or opens in cable runs	75
G307 Perform ground-to-ground voice communications	72
G288 Operate smokey surface-to-air (SAM) missile launchers	72
M556 Adjust or align transmitter high-voltage power supplies	72
G314 Perform SAM firing sequences	69
H342 Connect or disconnect primary power to radar systems	69
G270 Identify tracked aircraft	58
H337 Assemble or disassemble mobile radar equipment for mission deployments	53
H359 Load or unload equipment onto or from trucks, using manual lifting techniques	53
H357 Level mobile shelters, trailers, or vans	53
H367 Perform operator maintenance on heavy-duty vehicles up to 10-ton, such as M-series vehicles	47
H341 Camouflage equipment	42
H372 Perform radar site preparations, such as leveling or clearing	39

TABLE III I

ELECTRONIC WARFARE (EW) EQUIPMENT OPERATIONS JOB
(ST0159)

GROUP SIZE: 50
 PERCENT OF SAMPLE: 3%
 PREDOMINANT GRADE: E-3

AVERAGE TICF: 50 MONTHS
 AVERAGE TAFMS: 53 MONTHS

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

REPRESENTATIVE TASKS	PERCENT MEMBERS PERFORMING
G317 Perform system run-up procedures	98
G316 Perform system run-down procedures	94
G303 Perform EW/ECM analysis	92
G300 Perform end run summaries	92
G318 Perform threat validations	90
G310 Perform pre-operational checks	88
G305 Perform fault isolation	84
G282 Operate magnetic tape systems to record mission data	82
G274 Load computer programs	80
G330 Run ECM scenarios	78
G258 Compute electronic warfare/electronic countermeasures (EW/ECM) mission scores	70
U1099 Build and maintain software files	70
U1100 Clean and reseal peripheral interface cards	68
U1156 Transfer data between magnetic tapes and hard disk drives	66
U1096 Adjust or align printers	64
G278 Operate closed-circuit televisions (TVs)	62
U1128 Perform diagnostic checks on computers	62
G298 Perform computer hardware status checks	58
O827 Perform PMIs on receiver or processor systems	56
G328 Rescore EW/ECM data	56
U1136 Remove or replace computer disk drive assemblies	50
U1138 Remove or replace computers	46
O830 Remove or replace receiver or processor electronic component boards	44
G281 Operate identification friend or foe/selection identification feature (IFF/SIF) equipment	32
G276 Operate audio recording equipment	28

TABLE IIIJ

SMOKEY GUN BATTERY OPERATIONS JOB
(ST303)

GROUP SIZE: 5
PERCENT OF SAMPLE: <1%
PREDOMINANT GRADE: E-3

AVERAGE TICF: 34 MONTHS
AVERAGE TAFMS: 38 MONTHS

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

REPRESENTATIVE TASKS	PERCENT MEMBERS PERFORMING
G288 Operate smokey surface-to-air (SAM) missile launchers	100
G291 Perform aircraft acquisition procedures for EW/ECM threats	100
G292 Perform aircraft automatic tracking procedures for EW/ECM threats	100
G285 Operate manual tracker range controls	100
G284 Operate manual tracker elevation controls	100
G283 Operate manual tracker azimuth controls	100
G263 Convert grid system data to azimuth and range data	100
H342 Connect or disconnect primary power to radar systems	100
H367 Perform operator maintenance on heavy-duty vehicles up to 10-ton, such as M-series vehicles	100
E172 Inventory tools, equipment, or supplies	100
E216 Research microfiche files for supply requisition data	100
H381 Tow mobile radar equipment using heavy-duty vehicles up to 10-ton tractor-trailer combinations	80
H337 Assemble or disassemble mobile radar equipment for mission deployments	80
G287 Operate smokey gun batteries	80
M554 Adjust or align magnetron transmitters	80
M556 Adjust or align transmitter high-voltage power supplies	80
J476 Paint equipment	80
G270 Identify tracked aircraft	60
G268 Evaluate aircrew tactics and countermeasures	60
G317 Perform system run-up procedures	60
G316 Perform system run-down procedures	60
G289 Operate video cassette recorder equipment controls	60
G314 Perform SAM firing sequences	40
H339 Attach mobilizers or transporters, such as M-720s or M-832s, to mobile radar equipment	40
H368 Perform operator maintenance on mobilizers or transporters, such as M-720s or M-832s	40

TABLE IIIK

SIGNAL ANALYSIS JOB
(ST0601)

GROUP SIZE: 6
 PERCENT OF SAMPLE: <1%
 PREDOMINANT GRADE: E-3

AVERAGE TICF: 25 MONTHS
 AVERAGE TAFMS: 26 MONTHS

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

REPRESENTATIVE TASKS	PERCENT MEMBERS PERFORMING
G274 Load computer programs	100
G272 Inspect indicators for correct identification friend or foe (IFF) responses	100
G292 Perform aircraft automatic tracking procedures for EW/ECM threats	100
G273 Install paper on recording devices	100
G317 Perform system run-up procedures	100
G316 Perform system run-down procedures	100
G270 Identify tracked aircraft	100
G251 Assist other radar units in acquisition of aircraft	100
G271 Initiate aircraft tracking	83
G310 Perform pre-operational checks	83
G330 Run ECM scenarios	83
G285 Operate manual tracker range controls	83
G283 Operate manual tracker azimuth controls	83
G284 Operate manual tracker elevation controls	83
G291 Perform aircraft acquisition procedures for EW/ECM threats	83
G320 Position radar antennas after operations	67
G300 Perform end run summaries	67
G281 Operate identification friend or foe/selection identification feature (IFF/SIF) equipment	67
G303 Perform EW/ECM analysis	67
G282 Operate magnetic tape systems to record mission data	67
G255 Compare aircraft initial points (IP) with IP charts	67
G318 Perform threat validations	50
G304 Perform external adjustments on indicator scopes	50
G278 Operate closed-circuit televisions (TVs)	50
G315 Perform spectrum analysis on received ECM signals	33

TABLE III

RBS OPERATIONS JOB
(ST0470)

GROUP SIZE: 12
 PERCENT OF SAMPLE: <1%
 PREDOMINANT GRADE: E-3

AVERAGE TICF: 25 MONTHS
 AVERAGE TAFMS: 28 MONTHS

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

REPRESENTATIVE TASKS	PERCENT MEMBERS PERFORMING
G312 Perform radar lock-on procedures	93
G290 Perform aircraft acquisition and automatic tracking procedures for RBS scoring	92
G310 Perform pre-operational checks	92
G282 Operate magnetic tape systems to record mission data	92
G316 Perform system run-down procedures	92
G302 Perform equipment set-up procedures for RBS missions	83
G285 Operate manual tracker range controls	83
G283 Operate manual tracker azimuth controls	83
G284 Operate manual tracker elevation controls	83
G266 Enter postrelease information	83
G259 Compute radar bomb scoring (RBS) mission scores	83
G317 Perform system run-up procedures	83
G271 Initiate aircraft tracking	83
G251 Assist other radar units in acquisition of aircraft	75
G270 Identify tracked aircraft	75
G313 Perform radar orientation checks	75
G261 Confirm postrelease information	67
G281 Operate identification friend or foe/selection identification feature (IFF/SIF) equipment	67
G272 Inspect indicators for correct identification friend or foe (IFF) responses	67
G329 Rescore RBS data	67
G307 Perform ground-to-ground voice communications	58
G262 Confirm RBS scores	58
G257 Compute ballistics information	58
G256 Compile mission results	50
G267 Enter target coordinates into computers	42
G326 Relay confirmed RBS premission run information, such as targets, IPs, or run types	42
G322 Record bomb away times	33

TABLE IV
OPERATION ANALYST AND COMMUNICATIONS CLUSTER
(ST0055)

GROUP SIZE: 19
PERCENT OF SAMPLE: 1%
PREDOMINANT GRADE: E-4

AVERAGE TICF: 81 MONTHS
AVERAGE TAFMS: 85 MONTHS

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

REPRESENTATIVE TASKS	PERCENT MEMBERS PERFORMING
G262 Confirm RBS scores	74
G328 Rescore EW/ECM data	68
G259 Compute radar bomb scoring (RBS) mission scores	74
G329 Rescore RBS data	63
D154 Write test questions	63
G258 Compute electronic warfare/electronic countermeasures (EW/ECM) mission scores	53
G334 Verify mission schedules	47
G266 Enter postrelease information	42
D122 Administer or score tests	58
G256 Compile mission results	47
G261 Confirm postrelease information	37
G257 Compute ballistics information	47
C84 Evaluate personnel for compliance with performance standards	42
G255 Compare aircraft initial points (IP) with IP charts	53
G274 Load computer programs	42
G268 Evaluate aircrew tactics and countermeasures	37
G267 Enter target coordinates into computers	32
G303 Perform EW/ECM analysis	26
G331 Run RBS recheck program	37
C110 Perform self-inspections	42
G250 Annotate communicator recorder tapes	37
C114 Prepare trend analysis inspections	26
G269 Evaluate computer status printouts	26
C88 Evaluate safety or security programs	37
G323 Record mission results	26

TABLE IVA
OPERATION ANALYST
(ST0291)

GROUP SIZE: 7
PERCENT OF SAMPLE: <1%
PREDOMINANT GRADE: E-5

AVERAGE TICF: 88 MONTHS
AVERAGE TAFMS: 94 MONTHS

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

REPRESENTATIVE TASKS	PERCENT MEMBERS PERFORMING
D154 Write test questions	100
D122 Administer or score tests	100
G328 Rescore EW/ECM data	86
G256 Compile mission results	71
C84 Evaluate personnel for compliance with performance standards	86
G258 Compute electronic warfare/electronic countermeasures (EW/ECM) mission scores	71
B36 Compile data for reports or staff studies	71
G259 Compute radar bomb scoring (RBS) mission scores	71
G329 Rescore RBS data	71
G257 Compute ballistics information	57
C114 Prepare trend analysis inspections	57
C64 Analyze trends in system malfunctions	57
C109 Perform quality assurance checks	43
G262 Confirm RBS scores	43
G303 Perform EW/ECM analysis	43
C89 Evaluate self-inspection programs or checklists	43
G331 Run RBS recheck program	57
D125 Brief personnel on training matters, such as methods or procedures	43
D144 Maintain training records, charts, or graphs	43
G255 Compare aircraft initial points (IP) with IP charts	43
G265 Direct scoring of special missions runs	43
G268 Evaluate aircrew tactics and countermeasures	29
G334 Verify mission schedules	29
D140 Evaluate OJT trainees or trainers	29
B55 Interpret policies, directives, or procedures for subordinates	29

TABLE IVB

RADAR BOMB SCORING COMMUNICATIONS JOB
(ST0168)

GROUP SIZE: 6
PERCENT OF SAMPLE: <1%
PREDOMINANT GRADE: E-3

AVERAGE TICF: 64 MONTHS
AVERAGE TAFMS: 68 MONTHS

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

REPRESENTATIVE TASKS	PERCENT MEMBERS PERFORMING
G261 Confirm postrelease information	100
G262 Confirm RBS scores	100
G250 Annotate communicator recorder tapes	100
G255 Compare aircraft initial points (IP) with IP charts	100
G306 Perform ground-to-air voice communications	83
G266 Enter postrelease information	83
G326 Relay confirmed RBS premission run information, such as targets, IPs, or run types	83
G310 Perform pre-operational checks	83
G259 Compute radar bomb scoring (RBS) mission scores	83
G334 Verify mission schedules	67
G325 Record transmitted mission details from aircrews	67
D129 Counsel trainees on training progress	67
G251 Assist other radar units in acquisition of aircraft	67
G276 Operate audio recording equipment	67
G328 Rescore EW/ECM data	50
G323 Record mission results	50
G275 Log equipment calibration checks	50
G332 Set timing devices	50
G274 Load computer programs	50
G256 Compile mission results	50
G322 Record bomb away times	50
G258 Compute electronic warfare/electronic countermeasures (EW/ECM) mission scores	50
G329 Rescore RBS data	33
D125 Brief personnel on training matters, such as methods or procedures	33
G307 Perform ground-to-ground voice communications	33

TABLE V
RADAR ANALYSIS AND EVALUATION JOB
(ST0113)

GROUP SIZE: 40
PERCENT OF SAMPLE: 2%
PREDOMINANT GRADE: E-5

AVERAGE TICE: 151 MONTHS
AVERAGE TAFMS: 160 MONTHS

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

REPRESENTATIVE TASKS	PERCENT MEMBERS PERFORMING
V1164 Evaluate radars or associated equipment	100
V1157 Analyze radar performance using computers and specialized hardware	98
V1161 Evaluate beacon systems	93
V1173 Predict theoretical radar detection capabilities	85
V1163 Evaluate prototypes or modified equipment	83
V1172 Perform solar boresight and azimuth orientation checks	83
V1158 Construct radar coverage indicators (RCIs)	83
V1165 Evaluate solar collection and reduction data	83
V1159 Develop evaluation operating instructions (EOIs)	83
V1162 Evaluate Federal Aviation Administration (FAA) and contract radars	80
V1170 Perform clutter tests	75
V1174 Prepare solar collection and reduction reports	75
V1167 Measure or plot antenna beam patterns	73
V1169 Perform annular subclutter visibility (ASCV) checks	70
V1160 Develop STC levels	70
V1171 Perform lobing studies	68
V1168 Optimize beacon coverage and power	68
C83 Evaluate performance of newly installed equipment	63
B36 Compile data for reports or staff studies	45
C117 Write EPRs	45
A4 Determine transportation requirements	38
V1166 Evaluate tethered aerostat radar systems (TARSs)	33
C64 Analyze trends in system malfunctions	33
B62 Supervise Radar Specialists (AFSC 30351, 30352, or 30353)	30
I383 Conduct operational tests of newly installed equipment	20

TABLE VI
SUPERVISORY, MANAGERIAL, AND ADMINISTRATIVE CLUSTER
(GP0145)

GROUP SIZE: 520
PERCENT OF SAMPLE: 29%
PREDOMINANT GRADE: E-5/E-6

AVERAGE TICF: 151 MONTHS
AVERAGE TAFMS: 170 MONTHS

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

REPRESENTATIVE TASKS		PERCENT MEMBERS PERFORMING
A19	Participate in meetings, such as staff meetings, pre-deployment mobility briefings, conferences, or workshops	80
C110	Perform self-inspections	57
A5	Determine work schedules, assignments, or priorities	57
B40	Counsel personnel on personal or military-related matters	56
B55	Interpret policies, directives, or procedures for subordinates	55
C117	Write EPRs	55
C84	Evaluate personnel for compliance with performance standards	54
A28	Review drafts of regulations, manuals, or other directives	53
B36	Compile data for reports or staff studies	52
B57	Orient newly assigned personnel	50
C119	Write recommendations for awards or decorations	49
E221	Review CAMS or MMICS output data	43
C77	Evaluate inspection or maintenance reports	43
C64	Analyze trends in system malfunctions	41
B62	Supervise Radar Specialists (AFSC 30351, 30352, or 30353)	37
C103	Perform equipment inspections	35
C80	Evaluate maintenance or use of workshops, equipment, or supplies	35
B63	Supervise Radar Technicians (AFSC 30371, 30372, or 30373)	33
C86	Evaluate quality control procedures	33
C83	Evaluate performance of newly installed equipment	31
C65	Analyze workload requirements	30
E167	Identify and evaluate supply problems	30
A12	Draft directive supplements or changes	29
C109	Perform quality assurance checks	25
C99	Perform activity inspections	25
E165	Estimate job durations	20

TABLE IVA

MAINTENANCE CONTROL/PRODUCTION OPERATIONS JOB
(ST0133)

GROUP SIZE: 69

AVERAGE TICF: 102 MONTHS

PERCENT OF SAMPLE: 4%

AVERAGE TAFMS: 116 MONTHS

PREDOMINANT GRADE: E-5

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

REPRESENTATIVE TASKS		PERCENT MEMBERS PERFORMING
E169	Input core automated maintenance systems (CAMS) data on computer terminals	96
E173	Issue job control numbers	94
E182	Maintain equipment status reports	75
E221	Review CAMS or MMICS output data	72
E215	Report communication outages	65
E224	Review status of awaiting parts (AWP) equipment	56
B42	Direct development or maintenance of status indicators, such as boards, graphs, or charts	48
B36	Compile data for reports or staff studies	48
B53	Initiate follow-up actions on work in progress	45
E230	Validate mission capability (MICAP) requirements	43
E162	Document equipment cannibalization	43
E223	Review or edit MDC forms	38
E165	Estimate job durations	36
E187	Maintain master equipment identification listings	36
E188	Maintain or make entries in maintenance logs	35
E158	Coordinate obtaining parts with base supply	35
A5	Determine work schedules, assignments, or priorities	35
C79	Evaluate maintenance data collection (MDC) reports	35
A21	Plan briefings	33
B33	Adjust daily maintenance plans to meet operational commitments	32
E209	Prepare monthly maintenance reports	29
E193	Maintain status records or maintenance requirement records	28
A30	Schedule equipment or vehicle use	23
E159	Coordinate work requests with maintenance control	20
E194	Maintain support equipment daily status records	20

TABLE VIB

QUALITY CONTROL/QUALITY ASSURANCE INSPECTOR JOB
(ST0333)

GROUP SIZE: 87
PERCENT OF SAMPLE: 5 %
PREDOMINANT GRADE: E-6

AVERAGE TICF: 154 MONTHS
AVERAGE TAFMS: 172 MONTHS

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

REPRESENTATIVE TASKS	PERCENT MEMBERS PERFORMING
C103 Perform equipment inspections	92
C118 Write inspection reports	91
C82 Evaluate materiel deficiency reports (MDRs)	89
C101 Perform corrosion control inspections	87
C84 Evaluate personnel for compliance with performance standards	87
C99 Perform activity inspections	86
C86 Evaluate quality control procedures	85
C77 Evaluate inspection or maintenance reports	83
C105 Perform grounding inspections	82
C72 Evaluate corrosion control programs	82
C110 Perform self-inspections	82
C98 Perform acceptance inspections	79
C102 Perform deficiency inspections	79
C91 Evaluate technical literature deficiency reports or TO improvement reports	79
E211 Prepare quality control discrepancy reports	79
C81 Evaluate maintenance procedures	78
C68 Develop inspection programs or checklists	76
C107 Perform personnel proficiency evaluations	75
B48 Implement quality control programs or procedures	75
C83 Evaluate performance of newly installed equipment	74
C64 Analyze trends in system malfunctions	71
C109 Perform quality assurance checks	71
F240 Perform surveillance of equipment condition, such as TO completeness or corrosion control	68
C80 Evaluate maintenance or use of workshops, equipment, or supplies	67
C104 Perform facilities inspections	64
C114 Prepare trend analysis inspections	61
E168 Initiate quality control discrepancy reports	61

TABLE VIC

MAINTENANCE/OPERATIONS MANAGEMENT JOB
(ST0282)

GROUP SIZE: 187
 PERCENT OF SAMPLE: 10%
 PREDOMINANT GRADE: E-7

AVERAGE TICF: 164 MONTHS
 AVERAGE TAFMS: 188 MONTHS

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

REPRESENTATIVE TASKS	PERCENT MEMBERS PERFORMING
A5 Determine work schedules, assignments, or priorities	95
B40 Counsel personnel on personal or military-related matters	94
A19 Participate in meetings, such as staff meetings, pre-deployment mobility briefings, conferences, or workshops	93
C117 Write EPRs	91
A31 Schedule leaves, passes, or temporary duties (TDYs)	90
C119 Write recommendations for awards or decorations	90
B55 Interpret policies, directives, or procedures for subordinates	88
C67 Conduct performance feedback worksheet (PFW) sessions	87
A17 Establish performance standards for subordinates	85
A1 Assign personnel to duty positions	83
C76 Evaluate individuals for recognition, promotion, demotion, or reclassification	80
C84 Evaluate personnel for compliance with performance standards	79
B53 Initiate follow-up actions on work in progress	79
C120 Write replies to inspection reports	79
C110 Perform self-inspections	74
B62 Supervise Radar Specialists (AFSC 30351, 30352, or 30353)	72
B63 Supervise Radar Technicians (AFSC 30371, 30372, or 30373)	71
B50 Implement self-inspection programs	70
B44 Direct maintenance of facilities or work areas	70
A10 Develop work methods or procedures	67
B49 Implement safety or security programs	67
B46 Direct maintenance or utilization of equipment	66
B33 Adjust daily maintenance plans to meet operational commitments	66
A16 Establish organizational policies, office instructions (OIs), or standard operating procedures (SOPs)	66
C93 Evaluate work schedules	63

TABLE IVD

RADAR BOMB SCORING SHIFT SUPERVISORY JOB
(ST0208)

GROUP SIZE: 22
PERCENT OF SAMPLE: 1%
PREDOMINANT GRADE: E-5/E-6

AVERAGE TICF: 134 MONTHS
AVERAGE TAFMS: 148 MONTHS

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

REPRESENTATIVE TASKS		PERCENT MEMBERS PERFORMING
A19	Participate in meetings, such as staff meetings, pre-deployment mobility briefings, conferences, or workshops	95
A5	Determine work schedules, assignments, or priorities	91
A1	Assign personnel to duty positions	91
D129	Counsel trainees on training progress	91
G334	Verify mission schedules	86
B40	Counsel personnel on personal or military-related matters	86
D122	Administer or score tests	86
G262	Confirm RBS scores	82
G260	Conduct daily or shift changeover crew briefings	82
B62	Supervise Radar Specialists (AFSC 30351, 30352, or 30353)	77
D144	Maintain training records, charts, or graphs	77
C84	Evaluate personnel for compliance with performance standards	73
D130	Determine training requirements	73
B59	Supervise Apprentice Radar Specialists (AFSC 30331, 30332, or 30333)	73
A17	Establish performance standards for subordinates	73
B55	Interpret policies, directives, or procedures for subordinates	68
D123	Assign on-the-job training (OJT) trainers	64
G265	Direct scoring of special missions runs	64
G256	Compile mission results	59
G258	Compute electronic warfare/electronic countermeasures (EW/ECM) mission scores	59
G259	Compute radar bomb scoring (RBS) mission scores	59
C117	Write EPRs	59
G328	Rescore EW/ECM data	59
G329	Rescore RBS data	59
B63	Supervise Radar Technicians (AFSC 30371, 30372, or 30373)	50
G257	Compute ballistics information	50

TABLE VID

AUTO TRACKING RADAR QUALITY ASSURANCE CHIEF JOB
(ST0401)

GROUP SIZE: 7

AVERAGE TICE: 126 MONTHS

PERCENT OF SAMPLE: <1%

AVERAGE TAFMS: 156 MONTHS

PREDOMINANT GRADE: E-6

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

REPRESENTATIVE TASKS		PERCENT MEMBERS PERFORMING
A16	Establish organizational policies, office instructions (OIs), or standard operating procedures (SOPs)	100
D130	Determine training requirements	100
C83	Evaluate performance of newly installed equipment	100
B48	Implement quality control programs or procedures	100
C75	Evaluate implementation of contract maintenance	100
C104	Perform facilities inspections	100
C109	Perform quality assurance checks	100
C88	Evaluate safety or security programs	100
C81	Evaluate maintenance procedures	100
C80	Evaluate maintenance or use of workshops, equipment, or supplies	100
C70	Evaluate administrative forms, files, or procedures	100
C86	Evaluate quality control procedures	100
C105	Perform grounding inspections	100
A19	Participate in meetings, such as staff meetings, pre-deployment mobility briefings, conferences, or workshops	100
F240	Perform surveillance of equipment condition, such as TO completeness or corrosion control	100
C98	Perform acceptance inspections	100
F241	Perform surveillance of equipment performance, such as power out or minimum discernible signal	100
F243	Perform surveillance of site support functions, such as TMDE, technical data, or supply functions	100
F242	Perform surveillance of maintenance management functions	100
C100	Perform administrative forms, files, or procedures inspections	100
C79	Evaluate maintenance data collection (MDC) reports	100
C115	Review supply or equipment inventories	100
A5	Determine work schedules, assignments, or priorities	100
E211	Prepare quality control discrepancy reports	100
E168	Initiate quality control discrepancy reports	100
E163	Establish quality standards for inspections of repaired items or equipment	100

TABLE VIE

MOBILE WORKCENTER ADMIN AND SUPPLY MANAGERIAL JOB
(ST0225)

GROUP SIZE: 7
PERCENT OF SAMPLE: <1%
PREDOMINANT GRADE: E-5

AVERAGE TICF: 88 MONTHS
AVERAGE TAFMS: 121 MONTHS

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

REPRESENTATIVE TASKS	PERCENT MEMBERS PERFORMING
E221 Review CAMS or MMICS output data	100
E226 Review, verify and maintain DIFM (D23) listings	100
E219 Review and verify priority monitor (D18) reports	100
E218 Review and maintain supply daily document (D04) registers	100
E224 Review status of awaiting parts (AWP) equipment	100
E231 Verify due-out validation (M30) listings	100
E175 Log supply and equipment turn-ins	100
E216 Research microfiche files for supply requisition data	100
E230 Validate mission capability (MICAP) requirements	100
E169 Input core automated maintenance systems (CAMS) data on computer terminals	86
E201 Make entries on supply forms, such as requests for purchase or issue requests	86
E200 Make entries on MDC forms, such as MDC records or reparable item processing tags	86
E158 Coordinate obtaining parts with base supply	86
E156 Certify status of reparable, serviceable, or condemned parts or equipment	86
E172 Inventory tools, equipment, or supplies	86
C115 Review supply or equipment inventories	71
E159 Coordinate work requests with maintenance control	71
H337 Assemble or disassemble mobile radar equipment for mission deployments	71
E165 Estimate job durations	71
C79 Evaluate maintenance data collection (MDC) reports	71
E193 Maintain status records or maintenance requirement records	71
E162 Document equipment cannibalization	71
H367 Perform operator maintenance on heavy-duty vehicles up to 10-ton, such as M-series vehicles	71
E173 Issue job control numbers	57
H338 Assemble or disassemble mobile radio antennas	57
H357 Level mobile shelters, trailers, or vans	57

TABLE VIF

AIR TRAFFIC CONTROL RADAR SYSTEMS MANAGERIAL JOB
(ST0294)

GROUP SIZE: 12

AVERAGE TICF: 202 MONTHS

PERCENT OF SAMPLE: <1%

AVERAGE TAFMS: 217 MONTHS

PREDOMINANT GRADE: E-7

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

REPRESENTATIVE TASKS		PERCENT MEMBERS PERFORMING
A19	Participate in meetings, such as staff meetings, pre-deployment mobility briefings, conferences, or workshops	100
B36	Compile data for reports or staff studies	92
C90	Evaluate suggestions	83
A28	Review drafts of regulations, manuals, or other directives	83
C64	Analyze trends in system malfunctions	75
A27	Request formal training courses	75
C91	Evaluate technical literature deficiency reports or TO improvement reports	75
C82	Evaluate materiel deficiency reports (MDRs)	75
A21	Plan briefings	75
C121	Write staff studies, surveys, or special reports, other than training reports	67
B55	Interpret policies, directives, or procedures for subordinates	58
C79	Evaluate maintenance data collection (MDC) reports	58
C66	Conduct and document staff assistance visits	58
C81	Evaluate maintenance procedures	58
A3	Determine logistics requirements, such as personnel, supplies, or equipment	58
B37	Conduct meetings, such as staff meetings, conferences, workshops, or symposiums	58
E221	Review CAMS or MMICS output data	50
E167	Identify and evaluate supply problems	50
C77	Evaluate inspection or maintenance reports	50
A32	Schedule personnel for schools or nontechnical training	50
C70	Evaluate administrative forms, files, or procedures	50
A12	Draft directive supplements or changes	50
C83	Evaluate performance of newly installed equipment	42
A20	Plan agendas for meetings, such as staff meetings, briefings, or workshops	42
E182	Maintain equipment status reports	33

TABLE VIH

ACQUISITION AND PLANNING MANAGERIAL JOB
(ST0192)

GROUP SIZE: 13
 PERCENT OF SAMPLE: <1%
 PREDOMINANT GRADE: E-7

AVERAGE TICF: 208 MONTHS
 AVERAGE TAFMS: 215 MONTHS

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

REPRESENTATIVE TASKS		PERCENT MEMBERS PERFORMING
A19	Participate in meetings, such as staff meetings, pre-deployment mobility briefings, conferences, or workshops	100
F238	Evaluate contractor proposals	92
A3	Determine logistics requirements, such as personnel, supplies, or equipment	85
F236	Develop, evaluate, or rate contract data requirements list (CDRL) items	85
F234	Coordinate contract issues, such as modification proposals or equipment authorizations, with contract parties	85
A28	Review drafts of regulations, manuals, or other directives	85
B36	Compile data for reports or staff studies	77
F244	Recommend contract changes	77
A21	Plan briefings	69
A20	Plan agendas for meetings, such as staff meetings, briefings, or workshops	54
C121	Write staff studies, surveys, or special reports, other than training reports	54
B37	Conduct meetings, such as staff meetings, conferences, workshops, or symposiums	46
C75	Evaluate implementation of contract maintenance	46
B38	Coordinate engineering change reports with project engineers	38
C64	Analyze trends in system malfunctions	38
E225	Review TOs	38
A4	Determine transportation requirements	38
A11	Draft budget requirements	31
B43	Direct maintenance of administrative files	23
C90	Evaluate suggestions	23
C91	Evaluate technical literature deficiency reports or TO improvement reports	23

TABLE VI I

CONTRACT EVALUATION AND QUALITY ASSURANCE JOB
(ST0135)

GROUP SIZE: 11
PERCENT OF SAMPLE: <1%
PREDOMINANT GRADE: E-7

AVERAGE TICF: 192 MONTHS
AVERAGE TAFMS: 206 MONTHS

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

REPRESENTATIVE TASKS		PERCENT MEMBERS PERFORMING
F240	Perform surveillance of equipment condition, such as TO completeness or corrosion control	91
C75	Evaluate implementation of contract maintenance	73
F243	Perform surveillance of site support functions, such as TMDE, technical data, or supply functions	73
F247	Write surveillance reports	73
F242	Perform surveillance of maintenance management functions	73
A19	Participate in meetings, such as staff meetings, pre-deployment mobility briefings, conferences, or workshops	73
F241	Perform surveillance of equipment performance, such as power out or minimum discernible signal	64
C103	Perform equipment inspections	64
C72	Evaluate corrosion control programs	55
F237	Establish quality standards for contractor ratings	55
F246	Write quality assurance surveillance plans	55
F234	Coordinate contract issues, such as modification proposals or equipment authorizations, with contract parties	55
F235	Develop surveillance implementation plans	55
C77	Evaluate inspection or maintenance reports	46
A29	Schedule equipment or facility inspections	46
C109	Perform quality assurance checks	46
F239	Initiate contractor discrepancy reports	45
C68	Develop inspection programs or checklists	45
C86	Evaluate quality control procedures	45
F244	Recommend contract changes	45
C101	Perform corrosion control inspections	36
C81	Evaluate maintenance procedures	36
F238	Evaluate contractor proposals	36
C85	Evaluate procedures for storage, inventory, or inspection of supplies, equipment, or real property items	36
B36	Compile data for reports or staff studies	36

TABLE VII
TRAINING CLUSTER
(ST0033)

GROUP SIZE: 60
PERCENT OF SAMPLE: 3%
PREDOMINANT GRADE: E-5

AVERAGE TICE: 138 MONTHS
AVERAGE TAFMS: 152 MONTHS

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

REPRESENTATIVE TASKS	PERCENT MEMBERS PERFORMING
D149 Prepare lesson plans	62
D154 Write test questions	67
D122 Administer or score tests	63
D125 Brief personnel on training matters, such as methods or procedures	63
D130 Determine training requirements	50
D129 Counsel trainees on training progress	55
D126 Conduct resident course classroom training, including mobile training teams (MTTs)	35
D141 Evaluate progress of students	50
D134 Develop training aids	53
D132 Develop formal course curricula, plans of instruction (POIs), or specialty training standards (STSs)	43
B40 Counsel personnel on personal or military-related matters	60
D133 Develop performance tests	42
D148 Prepare instruction training areas or facilities	38
D147 Prepare course control documents	33
D128 Conduct training, other than resident course class training, such as OJT or ancillary training	33
D127 Conduct training conferences or briefings	28
D142 Evaluate training methods or techniques	30
D150 Prepare training evaluation forms	33
D151 Procure training aids, space, or equipment	33
D135 Develop unique training programs, such as new equipment training or mobilization training	27
D137 Direct or implement training programs, other than OJT	23
D144 Maintain training records, charts, or graphs	30
D155 Write training reports	30
A32 Schedule personnel for schools or nontechnical training	23
D140 Evaluate OJT trainees or trainers	22
E172 Inventory tools, equipment, or supplies	22
D131 Develop career development course (CDC) materials	8

TABLE VIIA

TRAINING MANAGER
(ST0245)

GROUP SIZE: 11

PERCENT OF SAMPLE: <1%

PREDOMINANT GRADE: E-5

AVERAGE TICF: 142 MONTHS

AVERAGE TAFMS: 156 MONTHS

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

REPRESENTATIVE TASKS	PERCENT MEMBERS PERFORMING
D125 Brief personnel on training matters, such as methods or procedures	100
D130 Determine training requirements	100
A32 Schedule personnel for schools or nontechnical training	91
D155 Write training reports	91
D127 Conduct training conferences or briefings	82
B37 Conduct meetings, such as staff meetings, conferences, workshops, or symposiums	82
A21 Plan briefings	64
A27 Request formal training courses	55
D152 Schedule special classes, such as classes to implement changes or modifications of equipment	55
D144 Maintain training records, charts, or graphs	55
D129 Counsel trainees on training progress	45
D141 Evaluate progress of students	45
D142 Evaluate training methods or techniques	45
D128 Conduct training, other than resident course class training, such as OJT or ancillary training	45
D150 Prepare training evaluation forms	45
D140 Evaluate OJT trainees or trainers	45
C110 Perform self-inspections	45
D153 Select individuals for specialized training	36
D122 Administer or score tests	36
D143 Maintain study reference files	36
D151 Procure training aids, space, or equipment	36
B40 Counsel personnel on personal or military-related matters	36
D135 Develop unique training programs, such as new equipment training or mobilization training	36
D149 Prepare lesson plans	27

TABLE VIIB
INSTRUCTOR SUPERVISOR JOB
(ST0202)

GROUP SIZE: 5
PERCENT OF SAMPLE: <1%
PREDOMINANT GRADE: E-7

AVERAGE TICF: 187 MONTHS
AVERAGE TAFMS: 230 MONTHS

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

REPRESENTATIVE TASKS	PERCENT MEMBERS PERFORMING
D149 Prepare lesson plans	100
A31 Schedule leaves, passes, or temporary duties (TDYs)	100
B40 Counsel personnel on personal or military-related matters	100
D132 Develop formal course curricula, plans of instruction (POIs), or specialty training standards (STSs)	80
C117 Write EPRs	80
D134 Develop training aids	80
D151 Procure training aids, space, or equipment	80
D146 Prepare changes to course summary documents or course objective documents	80
D150 Prepare training evaluation forms	80
D125 Brief personnel on training matters, such as methods or procedures	80
A17 Establish performance standards for subordinates	80
D135 Develop unique training programs, such as new equipment training or mobilization training	60
D133 Develop performance tests	60
C119 Write recommendations for awards or decorations	60
D139 Evaluate instructors' performance	60
D142 Evaluate training methods or techniques	60
D147 Prepare course control documents	60
D148 Prepare instruction training areas or facilities	60
B60 Supervise civilian personnel	60
C116 Write civilian performance appraisals	60
D154 Write test questions	60
C95 Indorse enlisted performance reports (EPRs)	60
D155 Write training reports	60
D141 Evaluate progress of students	60
C76 Evaluate individuals for recognition, promotion, demotion, or reclassification	60
D153 Select individuals for specialized training	40

TABLE VIIC

INSTRUCTOR JOB
(ST0084)

GROUP SIZE: 29
 PERCENT OF SAMPLE: 2%
 PREDOMINANT GRADE: E-5

AVERAGE TICF: 128 MONTHS
 AVERAGE TAFMS: 134 MONTHS

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

REPRESENTATIVE TASKS	PERCENT MEMBERS PERFORMING
D122 Administer or score tests	100
D149 Prepare lesson plans	97
D154 Write test questions	93
D141 Evaluate progress of students	69
D133 Develop performance tests	69
D134 Develop training aids	69
B40 Counsel personnel on personal or military-related matters	66
D126 Conduct resident course classroom training, including mobile training teams (MTTs)	62
D129 Counsel trainees on training progress	62
D125 Brief personnel on training matters, such as methods or procedures	59
D132 Develop formal course curricula, plans of instruction (POIs), or specialty training standards (STSs)	59
D148 Prepare instruction training areas or facilities	55
D147 Prepare course control documents	45
D151 Procure training aids, space, or equipment	38
E172 Inventory tools, equipment, or supplies	38
D150 Prepare training evaluation forms	31
D135 Develop unique training programs, such as new equipment training or mobilization training	28
D146 Prepare changes to course summary documents or course objective documents	24
E225 Review TOs	21
D142 Evaluate training methods or techniques	21
D137 Direct or implement training programs, other than OJT	21
E191 Maintain publication libraries or TO order files	17
D128 Conduct training, other than resident course class training, such as OJT or ancillary training	17

TABLE VIID

CDC WRITER
(ST0206)GROUP SIZE: 5
PERCENT OF SAMPLE: <1%
PREDOMINANT GRADE: E-7AVERAGE TICF: 195 MONTHS
AVERAGE TAFMS: 212 MONTHS

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

REPRESENTATIVE TASKS	PERCENT MEMBERS PERFORMING
D154 Write test questions	100
D131 Develop career development course (CDC) materials	80
D132 Develop formal course curricula, plans of instruction (POIs), or specialty training standards (STSs)	80
D134 Develop training aids	80
D130 Determine training requirements	80
D142 Evaluate training methods or techniques	80
D143 Maintain study reference files	60
D127 Conduct training conferences or briefings	60
D125 Brief personnel on training matters, such as methods or procedures	60
D137 Direct or implement training programs, other than OJT	40
D147 Prepare course control documents	40
A10 Develop work methods or procedures	40
A5 Determine work schedules, assignments, or priorities	40
E165 Estimate job durations	40
B36 Compile data for reports or staff studies	40
A21 Plan briefings	40
B40 Counsel personnel on personal or military-related matters	40
D128 Conduct training, other than resident course class training, such as OJT or ancillary training	40
D138 Establish study reference files	40
C100 Perform administrative forms, files, or procedures inspections	40
B35 Arrange for local procurement of supplies	40
D149 Prepare lesson plans	20
A13 Draft or revise job descriptions	20
C91 Evaluate technical literature deficiency reports or TO improvements reports	20
C117 Write EPRs	20