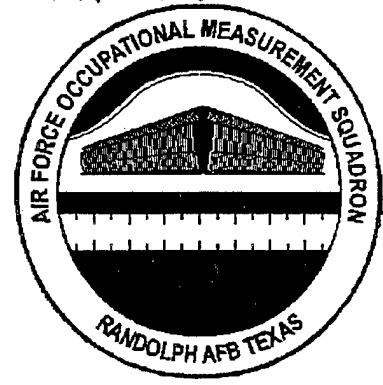




UNITED STATES AIR FORCE

OCCUPATIONAL SURVEY REPORT

19980817 056

AEROSPACE CONTROL AND
WARNING SYSTEMS

AFSC 1C5X1

OSSN 2301

JUNE 1998

OCCUPATIONAL ANALYSIS PROGRAM
AIR FORCE OCCUPATIONAL MEASUREMENT SQUADRON
AIR EDUCATION AND TRAINING COMMAND
1550 5TH STREET EAST
RANDOLPH AFB, TEXAS 78150-4449

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PREFACE

This report presents the results of an Air Force Occupational Survey of the Aerospace Control and Warning Systems career ladder, Air Force Specialty Code (AFSC) 1C5X1. Authority for conducting occupational surveys is contained in AFI 36-2623. Copies of this report and pertinent computer printouts are distributed to the Air Force Functional Manager, the technical training location, all using major commands (MAJCOMs), and other interested operations and training officials.

The survey instrument was developed by Mr. Michael F. Brosnan, Inventory Development Specialist, with computer programming support from Mr. Tyrone Hill. Mr. Richard G. Ramos provided administrative support. First Lieutenant David A. Huber, Occupational Analyst, analyzed the data and wrote the final report. This report has been reviewed and approved by Lieutenant Colonel Roger W. Barnes, Chief, Airmen Analysis Section, Occupational Analysis Flight, Air Force Occupational Measurement Squadron (AFOMS).

Additional copies of this report can be obtained by writing to AFOMS/OMYXI, 1550 5th Street East, Randolph AFB Texas 78150-4449, or by calling DSN 487-5543. For information on the Air Force occupational survey process or other on-going projects, visit our web site at <http://www.omsq.af.mil>.

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SUMMARY OF RESULTS

1. **Survey Coverage:** Survey results are based on responses from 1,082 Aerospace Control and Warning Systems personnel. This represents 54 percent of the total assigned AFSC 1C5X1 population. Incumbents were surveyed across all the MAJCOMs. Active Duty and National Guard personnel are included in this survey. The sample includes personnel from the 3B-, 3C-, 5-, 5D-, 7-, 7D-, 9-, and 00-skill levels.
2. **Specialty Jobs:** In this survey, seven jobs and four clusters were identified. The Air Surveillance Cluster, Identification Job, Data Link Cluster, Battle Management Cluster, and Weapons Director Cluster are the core technical functions of this career ladder. Other technical functions include the Air Tasking Order (ATO) Automation Job, Mobility Job, Action Officer Job, and Radar Evaluation Job. There were also non-technical functions which included the Managerial and Training jobs.
3. **Career Ladder Progression:** Distinctions between skill level groups are evident, with personnel at the 3B-, 3C-, and 5-skill levels spending the vast majority of their time performing technical tasks across a number of different jobs. Members holding a 5D- or 7D-skill level are found performing technical work in the Weapons Director Cluster. At the 7-skill level, the shift towards supervisory tasks becomes clear. The 9/00-skill level positions are almost solely supervisory in nature.
4. **Training Analysis:** The AFSC 1C5X1 Specialty Training Standard (STS) document was well supported by survey data. There were a few STS elements requiring review by experienced subject-matter experts for possible deletion or revision.
5. **Job Satisfaction Analysis:** Group incumbents indicate moderate job satisfaction across the career ladder. Members of the Air Surveillance and Weapons Director clusters, in particular, show high job satisfaction. Job satisfaction ratings are generally lower than those of similar Mission Equipment Operations AFSCs, though they become consistent with these comparative groups at the 97+ month Total Active Federal Military Service level.
6. **Implications:** Survey data for AFSC 1C5X1 reflect a well-functioning career ladder. The career ladder structure is similar to that found in the previous occupational survey report (OSR); the career ladder has remained stable over time. Career ladder managers should review information contained in this OSR for possible use in future utilization and training decisions.

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**OCCUPATIONAL SURVEY REPORT (OSR)
AEROSPACE CONTROL AND WARNING SYSTEMS CAREER LADDER
(AFSC 1C5X1)**

INTRODUCTION

This report presents the results of an occupational survey of the Aerospace Control and Warning Systems career ladder completed by the Occupational Analysis Flight, Air Force Occupational Measurement Squadron, in June 1998. This survey was conducted as part of a 5-year survey cycle. The previous survey was completed in 1994 and reported on both AFSCs 1C5X1 (enlisted) and 13B3 (officer).

Background

According to AFMAN 36-2108 *Specialty Summary* for AFSC 1C5X1, effective 31 October 1997, Aerospace Control and Warning Systems personnel manage and operate aerospace control and warning systems, including functions involving electronic countermeasures and counter-countermeasures (ECCM), surveillance, data link management, identification, and weapons control. They provide radar control and monitoring of air weapons during offensive and defensive air operations. They make decisions in the conduct of air operations and in system equipment management. For entry into this specialty, normal color vision as defined in AFI 48-123 is required. Also, an ASVAB score of General 53 is required. Furthermore, for AFSC 1C5X1 the strength factor is "G," indicating a required weight lift of 40 lbs.

The current AFSC 1C5X1 technical schools are located at Keesler AFB MS and Tyndall AFB FL. The E3ABR1C531-003 Modular Control Equipment (MCE) Surveillance Operator course is taught at Keesler AFB MS. It is 6 weeks and 3 days long and includes instruction in fundamental subject areas common to aerospace control and warning operations, as well as familiarization and background relating to other positions which, when combined with unit on-the-job training (OJT), should enable graduates to rapidly adjust when assigned to other specific semi-automatic systems.

The Q-JSS-1C531 Apprentice Aerospace Control and Warning (AC&W) Operator, Joint Surveillance System (JSS) course is taught at Tyndall AFB FL. It is 3 weeks long and includes instruction in fundamental subject areas common to AC&W operations, such as the operation of the HMD22 console, which enables graduates to perform at an apprentice level in air surveillance operator positions in a JSS Region Operation Control Center or Sector Operation Control Center (SOCC).

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A third 3-skill level class, V3AZP1C531-001 North American Aerospace Defense (NORAD) and USSPACECOM Command Center Emergency Actions Controller is offered. This course is 3 weeks long and located at Falcon AFB CO. This course is for all personnel assigned to an Air Defense Operations Center or NBMC unit. It includes preparatory training in equipment operations, communications procedures, formatted message preparations and disseminations, and associated command and control functions and procedures required to perform duties as an emergency actions controller in the NORAD and USSPACECOM Command Center.

The W-JSS-1C551D Aerospace Control and Warning Weapons Director SOCC course is located at Tyndall AFB FL and is 19 weeks, 4 days long. The course provides instruction in subjects designed to qualify the graduate to solve the air mass problem, direct aircraft conducting air defense and tactical missions, coordinate aircraft control and warning activities, interact with other controlling agencies, understand the principles of radar and electronic countermeasures and electronic counter-countermeasures, and be familiar with the air defense organization of NORAD, the Tactical Air Control System (TACS), console familiarization and computer logic.

The W-MCE-1C551D Aerospace Control and Warning Weapons Director MCE course is located at Tyndall AFB FL and is 19 weeks, 4 days long. The course provides instruction in subjects designed to qualify the graduate to solve the air mass problem, direct aircraft conducting air defense and tactical missions, coordinate aircraft control and warning activities, interact with other controlling agencies, understand the principles of radar and electronic countermeasures and electronic counter-countermeasures, and be familiar with the air defense organization of NORAD and TACS. Also, the graduate will be familiar with employment of MCE operator interface equipment, Operator Console Unit familiarization and preparation, data base preparation, Voice Communications Access Unit preparation, and weapons control procedures.

The E3ACR1C571-000 Aerospace Control and Warning System Craftsman course is located at Keesler AFB MS and is 2 weeks long. It instructs DAFSC 1C571 members in the functional relationships within and among Aerospace Control and Warning System operations, electronic warfare systems, ground environmental systems, and electronic attack/electronic protection capabilities.

SURVEY METHODOLOGY

Inventory Development

Data for this survey were collected by administering USAF Job Inventory (JI) OSSN 2301, dated June 1997. During the initial inventory development, 48 subject-matter experts from 5 operational bases and 2 training units were interviewed. The developer reviewed pertinent career ladder documents, the previous inventory, and the previous OSR to prepare a task list. Bases visited during the development included:

<u>BASE</u>	<u>UNIT</u>	<u>REASON FOR VISIT</u>
Keesler AFB MS	335 TRS	Technical Training School
Hurlburt Field FL	505 TSS	MCE and CTAPS testing
Eglin AFB FL	728 ACS	Surveillance
Tyndall AFB FL	81 TSS and 325 TRS	Range Control/Technical Training
Cheyenne Mountain Operations Center (CMOC)	CMOC	Air Defense information
Davis-Monthan AFB AZ	612 COS	Air Operations Center

The resulting JI lists 591 tasks, grouped into 13 duty categories. The inventory also contains a number of background questions relating to duty AFSC (DAFSC), time in present job, total active military service (TAFMS), work area assigned, job title, equipment used, and job satisfaction information.

Survey Administration

From June 1997 through January 1998, the inventory disks were administered to personnel eligible for the survey. Base training offices located worldwide gave survey booklets to AFSC 1C5X1 personnel with DAFSCs of 1C531B, 1C531C, 1C551, 1C551D, 1C571, 1C571D, 1C591, and 1C500. The respondents were picked from a computer-generated mailing list from the Air Force Personnel Center. Personnel not considered eligible to take part in the survey were those in transition to a permanent change of station, those retiring at the time of the survey, those hospitalized, and those who had not been in their present job for a period of 6 weeks.

All eligible members who completed an inventory disk first completed an identification and background information section. Next, personnel went through the disk and checked all tasks performed on their present job. After checking the performed tasks, they then rated the tasks on a scale from 1 to 9 based on the relative amount of time they spent on that task compared to all others. A rating of 1 indicated a very small amount of time was spent and a rating of 9 indicated a large amount of time was spent on the task. To determine relative time spent on each task checked by a respondent, the sum of the ratings was assumed to account for 100 percent of his time on the job. All members' responses were added, then each rating was divided by the sum of all responses. Then, this quotient was multiplied by 100 to get the relative percent time spent for each task. This procedure allowed a comparison of percent members performing and relative percent time spent on tasks and groups of tasks.

Survey Sample

The JI booklets mailed to participants in the survey were monitored to ensure the final survey sample would be representative of MAJCOM and paygrade groups. Table 1 lists the percentage distribution by MAJCOM of assigned personnel in the career ladder as of June 1997. Also shown

in Table 1 is the percentage distribution by MAJCOM of the final population. Table 2 shows the survey sample representation across paygrades. These tables reflect that the sample is a true representation of the career ladder population. The 1,082 respondents included in the survey are from 2 component groups (Active Duty and National Guard) and represent 54 percent of the total 1,997 AFSC 1C5X1 personnel assigned to the career ladder (as of June 1997).

Task Factor Administration

Job descriptions alone do not provide sufficient data for making decisions about career ladder documents or training programs. Task factor information is needed for a complete analysis of the career ladder. To obtain the needed task factor data, selected senior AFSC 1C5X1 personnel (generally E-6 or E-7 craftsmen) also completed a second disk for either Training Emphasis (TE) or Task Difficulty (TD). These disks were processed separately from the JIs. This information is used in a number of different analyses discussed in more detail in the report.

Training Emphasis. TE is a rating of the amount of emphasis that should be placed on tasks in entry level training. The 49 senior AFSC 1C5X1 NCOs who completed disks were asked to select tasks they felt should be taught to entry-level personnel in some sort of structured training and then indicate how much training emphasis these tasks should receive, from 1 (extremely low emphasis) to 9 (extremely high emphasis). Structured training is defined as training provided at resident technical schools, field training detachments, mobile training teams, OJT, or any other organized training method. In this survey, the average TE rating is 1.89 with a standard deviation of 1.48. As such, any rating of 3.37 or above is considered to have high training emphasis.

Task Difficulty. TD is an estimate of the amount of time needed to learn how to do each task satisfactorily. The 41 senior NCOs who completed TD disks were asked to rate the difficulty of each task using a 9-point scale (extremely low to extremely high). Interrater reliability was high. Ratings were standardized so tasks have an average difficulty of 5.00 and a standard deviation of 1.00. Any task with a TD rating of 6.00 or above is considered difficult to learn.

TABLE 1

COMMAND REPRESENTATION OF AFSC 1C5X1 SURVEY SAMPLE

<u>COMMAND</u>	<u>PERCENT OF ASSIGNED*</u>	<u>PERCENT OF SAMPLE</u>
ACC	35	30
AETC	7	10
LANTCOM	less than 1%	1
NORAD	1	1
PACAF	13	16
USAFE	4	5
ANG	36	34
ANG UNIT	less than 1%	1
OTHER	2	2

TOTAL ASSIGNED-1,997

TOTAL NUMBER ELIGIBLE- 1,784

TOTAL IN SAMPLE- 1,082

PERCENT OF ASSIGNED- 54%

PERCENT OF ELIGIBLE- 61%

*As of June 1997

NOTE: AFSC 1C5X1 personnel not eligible for survey include those members with discharge, retirement, PCS, or hospital status, and those having less than 6 weeks in their present job

TABLE 2

PAYGRADE REPRESENTATION OF AFSC 1C5X1 SURVEY SAMPLE

<u>PAYGRADE</u>	<u>PERCENT OF ASSIGNED*</u>	<u>PERCENT OF SAMPLE</u>
E-1 through E-3	12	11
E-4	21	21
E-5	32	35
E-6	19	17
E-7	12	12
E-8	3	3
E-9	1	1

*As of June 1997

TABLE 3

PERCENT TIME SPENT ON DUTY BY JOB*

	ATO AUTOMATION JOB (N=6)	AIR SURVEILLANCE CLUSTER (N=377)	IDENTIFICATION JOB (N=65)	DATA LINK CLUSTER (N=82)	BATTLE MANAGEMENT CLUSTER (N=55)
A General Operations Activities	46	39	36	43	40
B Command and Control Activities	28	8	6	6	19
C Data Link Activities	-	4	3	25	-
D Data Quality Activities	1	4	2	2	-
E Identification or Surveillance Activities	4	16	37	8	4
F Range Control Activities	-	-	-	-	1
G Evaluating Radar Systems	-	1	1	-	-
H Weapons Director Activities	1	4	3	1	2
I Mobility and Contingency Activities	4	6	1	3	2
J Management and Supervisory Activities	3	8	4	5	13
K Training Activities	4	5	4	2	5
L General Administrative Activities	6	3	3	3	10
M General Supply Activities	3	1	1	1	2

* Columns may not add to 100 percent due to rounding

- Indicates less than 1 percent

TABLE 3 (CONTINUED)

PERCENT TIME SPENT ON DUTY BY JOB*

	WEAPONS DIRECTOR CLUSTER (N=195)	MOBILITY JOB (N=5)	MANAGERIAL JOB (N=78)	ACTION OFFICER JOB (N=6)	RADAR EVALUATION JOB (N=12)	TRAINING JOB (N=11)
A General Operations Activities	31	22	13	11	19	18
B Command and Control Activities	7	3	5	8	3	4
C Data Link Activities	1	-	1	1	-	1
D Data Quality Activities	1	3	1	2	8	-
E Identification or Surveillance Activities	6	3	1	1	8	3
F Range Control Activities	1	-	-	1	-	-
G Evaluating Radar Systems	-	1	-	5	29	-
H Weapons Director Activities	36	9	1	1	1	1
I Mobility and Contingency Activities	2	32	7	-	1	4
J Management and Supervisory Activities	8	14	53	31	16	13
K Training Activities	5	3	8	-	9	52
L General Administrative Activities	2	7	7	27	4	3
M General Supply Activities	1	1	3	11	1	2

* Columns may not add to 100 percent due to rounding

- Indicates less than 1 percent

TABLE 4

SELECTED BACKGROUND DATA FOR 1C5X1 CAREER LADDER JOBS

	ATO JOB (N=6)	AIR SURVEILLANCE CLUSTER (N=377)	IDENTIFICATION JOB (N=65)	DATA LINK CLUSTER (N=82)	BATTLE MANAGEMENT CLUSTER (N=55)
PERCENT OF TOTAL SAMPLE	less than 1	35	6	8	5
PERCENT CONUS	100	71	57	73	44
DAFSC DISTRIBUTION (AS A PERCENTAGE)					
1C531B	0	4	10	16	0
1C531C	67	7	4	7	4
1C551	33	51	71	59	40
1C551D	0	3	0	0	0
1C571	0	29	14	18	49
1C571D	0	1	0	0	0
1C591/00	0	4	2	0	7
COMPONENT STATUS					
PERCENT ACTIVE DUTY	100	51	34	65	76
PERCENT NATIONAL GUARD	0	49	66	35	24
PREDOMINATE PAYGRADES	E-2 - E-4	E-4 - E-7	E-3 - E-6	E-3 - E-6	E-4 - E-7
AVERAGE T1CF (IN MONTHS)*	26	109	72	90	127
AVERAGE TAFMS (IN MONTHS)*	27	115	77	98	142
PERCENT IN FIRST ENLISTMENT*	83	30	50	45	15
AVERAGE NUMBER TASKS PERFORMED	17	131	63	66	70
PERCENT SUPERVISING	17	46	28	32	51

* T1CF, TAFMS, and first-enlistment data reflect Active Duty members only

TABLE 4 (CONTINUED)

SELECTED BACKGROUND DATA FOR IC5X1 CAREER LADDER JOBS

	WEAPONS DIRECTOR CLUSTER (N=195)	MOBILITY JOB (N=5)	MANAGERIAL JOB (N=78)	ACTION OFFICER JOB (N=6)	RADAR EVALUATION JOB (N=12)	TRAINING JOB (N=11)
PERCENT OF TOTAL SAMPLE	18	less than 1	7	less than 1	1	1
PERCENT CONUS	58	40	72	83	100	64
DAFSC DISTRIBUTION (AS A PERCENTAGE)						
IC531B	4	0	0	0	0	0
IC531C	1	0	0	0	0	9
IC551	38	80	18	0	67	64
IC551D	36	0	0	0	0	0
IC571	11	20	46	67	33	27
IC571D	10	0	1	17	0	0
IC591/00	1	0	34	17	0	0
COMPONENT STATUS						
ACTIVE DUTY	79	100	83	83	100	91
NATIONAL GUARD	21	0	17	17	0	9
PREDOMINATE PAYGRADES	E-4 - E-5	E-4 - E-6	E-5 - E-9	E-6 - E-7	E-4 - E-6	E-5 - E-6
AVERAGE TICF (IN MONTHS)*	109	139	201	201	126	106
AVERAGE TAFMS (IN MONTHS)*	125	156	217	192	136	125
PERCENT IN FIRST ENLISTMENT	11	0	2	0	8	30
AVERAGE NUMBER TASKS PERFORMED	137	96	103	46	80	58
PERCENT SUPERVISING	51	40	79	0	58	55

* TICF, TAFMS, and first-enlistment data reflect Active Duty members only

SPECIALTY JOBS (Career Ladder Structure)

The first step in the analysis process is to identify the structure of the career ladder in terms of the jobs performed by respondents. Comprehensive Occupational Data Analysis Programs assist by creating an individual job description for each respondent based on the tasks performed and relative amount of time spent on those tasks. A hierarchical clustering program compares all the individual job descriptions, locates those with the most similar tasks performed and time spent on tasks, and combines them to form a group in the clustering sequence. The computer program then finds all other individuals that are similar and adds them to the group. The program continues until all members of the survey are grouped. The result is a pattern of jobs that makes up the AFSC 1C5X1 career ladder.

The basic group used in the hierarchical clustering process is the Job. When two or more jobs have a substantial degree of similarity in tasks performed and time spent performing tasks, they are grouped together and identified as a Cluster. The structure of the career ladder is then defined in terms of jobs and clusters of jobs.

Structure Overview

In this survey, seven jobs and four clusters were identified. These are listed and the descriptions of each are provided. The stage number (ST) or group number (GP) beside each job title is a computer-generated code number, and the letter N within parentheses corresponds to the number of personnel in each group.

- I. AIR TASKING ORDER (ATO) AUTOMATION JOB (ST154, N=6)
- II. AIR SURVEILLANCE CLUSTER (GP075, N=377)
 - A. Base-Level Air Surveillance
 - B. Senior-Level Air Surveillance
 - C. Tracking
 - D. Search Scope
 - E. Electronic Protection
- III. IDENTIFICATION JOB (ST147, N=65)
- IV. DATA LINK CLUSTER (ST124, N=82)
 - A. Data Link
 - B. First-Line Supervisor

- V. BATTLE MANAGEMENT CLUSTER (ST083, N=55)
 - A. Battle Management Administration
 - B. Battle Management
- VI. WEAPONS DIRECTOR CLUSTER (ST133, N=195)
 - A. Weapons Director
 - B. First-Line Supervisor
- VII. MOBILITY JOB (ST125, N=5)
- VIII. MANAGERIAL JOB (ST122, N=78)
- IX. ACTION OFFICER JOB (ST145, N=6)
- X. RADAR EVALUATION JOB (ST197, N=12)
- XI. TRAINING JOB (ST276, N=11)

The AFSC 1C5X1 personnel forming these jobs and clusters account for 83 percent of the survey sample (see Figure 1). The remaining 17 percent are listed as "not grouped." These 190 personnel perform sets of tasks that differ from those tasks performed by the identified groups. Examples of job titles identified by these survey respondents include Defense Duty Technician, Facility Manager, Reconnaissance Mission Director, and Test Bed Manager. Because of the differences in tasks performed, these personnel could not be grouped into any identifiable job.

Two tables in this section provide background information about the jobs and clusters mentioned. Table 3 displays the relative amount of time spent across each of the eight duties for the identified groups. The data in Table 4 detail background information, such as DAFSC distributions across each group, average time in career field (TICF), average number of tasks performed, and the percentage of group members currently supervising others. Also included in this report is an Appendix A, listing tasks performed by members in each of the job groups identified.

Job Descriptions

I. AIR TASKING ORDER (ATO) AUTOMATION JOB (ST154, N=6). There are 6 persons making this job, accounting for less than 1 percent of the survey population. These members are identified by their specialization in tasks relating to ATOs. No other job group is found placing similar emphasis on ATO tasks. Representative tasks that epitomize work performed by members of this job include:

- build ATOs or ACOs
- disseminate ATOs or ACOs
- extract data from automated ATOs
- download or upload automated ATOs
- analyze or post air tasking orders (ATOs) or airspace control orders (ACOs)
- interpret ATOs or ACOs
- load ATOs

These 6 members perform only 17 tasks on average, nearly 3 times less than any other job group (see Table 4). The performance of such few tasks indicates this is a limited job. This group is the most junior of any identified as members average just over 2 years TAFMS. Five of the six members are in their first enlistment, and only one member currently supervises others. Four of the six members are located at Barksdale AFB LA, the others are located at Shaw AFB SC and Davis-Monthan AFB AZ.

II. AIR SURVEILLANCE CLUSTER (GP075, N=377). The Air Surveillance Cluster represents the core job of the career ladder. This cluster consists of 377 members, accounting for 35 percent of the survey population. This cluster is nearly twice as large as any other job or cluster identified. Members are found performing air surveillance tracking duties including determining target existence, tracking the identified target, and ensuring track continuity. Members spend 39 percent of their time performing tasks in Duty A, *General Operations Activities* (see Table 3). Representative tasks performed by members of this cluster include:

- conduct shift change positional briefings
- perform console or equipment setup or adjustment procedures
- perform radio or telephone (RT) procedures
- respond to alerts or warnings, such as defense conditions (DEFCONs) or weather alerts
- perform console or equipment shutdown procedures
- brief relieving crews on changes in policies, procedures, or operational status
- interpret radar returns on displays

These 377 members perform 131 tasks on average, the second most of any group. Personnel average just short of 10 years TAFMS, with only 30 percent of all members in their first-enlistment. Members are largely in the paygrades of E-4 through E-7. Forty-nine percent of all members in this cluster are from the National Guard component. Forty-six percent of all members are currently supervising others.

Within this cluster there are five separate jobs. There are **Base-Level Air Surveillance** members who are found performing general operational activities, such as performing console or equipment setup or adjustment procedures, completing equipment performance checks, and interpreting radar returns or displays. These members perform 57 tasks on average. Personnel are largely in the paygrades of E-3 through E-6, and most members hold the 5-skill level.

There are also **Senior-Level Air Surveillance** members. These personnel are also found performing general operational activities, such as performing RT procedures, interpreting radar returns on displays, and performing console or equipment setup or adjustment procedures. However, these members are distinguished from other jobs within the Air Surveillance Cluster due to their senior status and high average number of tasks performed. These members are primarily in the paygrades of E-5 and E-6, and hold the 5- and 7-skill levels. They average 177 tasks performed, which indicates their increased responsibilities. These members, though still performing technical tasks, are exhibiting supervisory roles as 62 percent of all Senior-Level Air Surveillance members are supervising others.

A third job within this cluster consists of **Tracking** members. These Tracking members are clearly distinguished from other jobs within the cluster by their dual emphasis on both general operational activities and identification and surveillance activities. These members are found performing drop or extrapolation procedures, performing passive tracking, performing lost track procedures, and conducting shift change positional briefings. Group personnel perform 36 tasks on average. Personnel are predominately E-4s and E-5s, and the majority of members hold a 5-skill level.

Within this cluster there are also **Search Scope** members. These members are identified in the cluster by their performance of mobility tasks. Though these members still perform Air Surveillance tasks as their core job, they are differentiated from other Air Surveillance jobs through mobility functions. Tasks performed that distinguish these members from others in the cluster include erecting camouflage nettings, erecting tents, loading or offloading vehicles, and setting up or tearing down shelters. These members perform 69 tasks on average. They are largely in the paygrades of E-3 through E-5, and most members hold the 5-skill level. Twelve percent of all Search Scope members supervise others.

The final job within this cluster consists of **Electronic Protection (EP)** members. These members are unique from all others within the cluster due to their emphasis on EP tasks. These members avoid or reduce the effects of enemy attack through their relocation of electronic equipment and performance of anti-jamming techniques. Common tasks performed by these members include performing EP procedures, such as scope adjustments or voice procedures, analyzing or identifying jamming or interference, and performing height accuracy checks. These members perform 58 tasks on average. They are in the paygrades of E-3 through E-5 and hold the 3C- and 5-skill levels. No EP member supervises others.

III. IDENTIFICATION JOB (ST147, N=65). There are 65 members who make up the Identification Job, accounting for 6 percent of the survey population. These members are distinct from all others because of their concentration in Duty E, *Identification or Surveillance Activities*. Members spend 37 percent of their duty time performing tasks within this duty category, more than twice as much as any other job group (see Table 3). These personnel are found identifying a detected target, interpreting flight plan information, and maintaining track continuity. Representative tasks performed by members of the Identification Job include:

- identify aircraft using IFF/SIF procedures
- determine track classifications or identifications
- identify aircraft using methods other than IFF/SIF procedures
- correlate targets with known flight plans
- obtain identification information from other agencies
- perform radio or telephone (RT) procedures

Sixty-six percent of all members of this job are from the National Guard component. Members are largely in the paygrades of E-3 through E-6. They perform an average of 63 tasks. These personnel average a little more than 6 years TAFMS, of which the majority of that time has been spent in the career ladder. Only 28 percent of all members are supervising others (see Table 4).

IV. DATA LINK CLUSTER (ST124, N=82). There are 82 members who make up the Data Link Cluster, accounting for 8 percent of the survey sample. These members are identified by their specialization in Duty C, *Data Link Activities*. Members spend 25 percent of their time performing data link activities, over 6 times more than any other group (see Table 3). Group incumbents' core responsibilities are to exchange information with ground based and airborne stations. As such, representative tasks include:

- maintain data links
- monitor data link displays
- establish data links
- conduct shift change positional briefings
- identify data link malfunctions during digital link interface
- change radio frequencies on communications panels

Members of this cluster are largely in the paygrades of E-3 through E-6. These personnel average 8 years TAFMS, of which all but 8 months have been spent in the career ladder. Forty-five percent of these members are in their first enlistment. Fifty-nine percent of all members in this cluster hold a 5-skill level. Only 32 percent of all members supervise others (see Table 4).

Within this cluster there are two job groups. There are **Data Link** members whose job is technical in nature as they devote their time to data link and general operational tasks, such as monitoring data link displays, maintaining data links, and establishing data links. They are primarily in the paygrades of E-3 through E-5 and hold the 5-skill level. Only 24 percent of Data Link members supervise others.

There are also **First-Line Supervisors**. These members are still performing technical tasks indicative of the Data Link Cluster, such as interpreting radar returns on displays, conducting shift change positional briefings, and performing secure communications procedures. However, these members are also performing many supervisory tasks that the Data Link members are not, thereby identifying them as a separate job within the cluster. These tasks include conducting supervisory performance feedback sessions, writing performance reports or supervisory appraisals, and supervising military personnel. These members hold higher paygrades than the Data Link members as they are in the paygrades of E-5 through E-7. All members are found supervising others.

V. BATTLE MANAGEMENT CLUSTER (ST083, N=55). *CDC IC551 Aerospace Control and Warning Systems* describes battle management as "the provision of command and control of air operations by managing, disseminating, and assigning mission tasks defined in appropriate training orders." The 55 members of this cluster (who account for 5 percent of the survey population) conduct work that epitomizes the definition of battle management as they perform a mixture of both operational and command and control functions, including loading crypto variables, performing emergency action procedures, and receiving or recording intelligence information. Personnel spend 19 percent of their time performing tasks within duty B, *Command and Control Activities*, the second most time spent of any job group (see Table 3). Representative tasks performed by these members include:

- conduct shift change positional briefings
- brief relieving crews on changes in policies, procedures, or operational status
- respond to alerts or warnings, such as defense conditions (DEFCONs) or weather alerts
- perform authentication procedures
- perform secure communications procedures
- destroy classified materials

Members of this cluster largely hold paygrades of E-4 through E-7 and primarily hold 5- and 7-skill levels. They have an average of almost 14 years TAFMS, of which slightly over 12 years have been spent in the career ladder. Only 15 percent of these members are in their first enlistment, and 51 percent of all members are supervising others. Group members perform an average of 70 tasks (see Table 4).

Within this cluster there are two jobs. There are **Battle Management Administration** members who are found performing a mixture of battle management activities as well as general administrative activities, such as safeguarding and destroying classified materials. Performance of these general administrative activities identifies these members as a separate job within the cluster. These members hold paygrades of E-4 through E-7 and hold either a 5- or 7-skill level. They perform 32 tasks on average, and 57 percent of all members supervise others.

There are also **Battle Management** members. Common tasks performed by these members include briefing relieving crews on changes in policies, procedures, or operational status, performing RT procedures, and performing secure communications procedures. These members are largely in the paygrades of E-6 and E-7 and most hold the 7-skill level. They perform 77 tasks on average, and 70 percent supervise others.

VI. WEAPONS DIRECTOR CLUSTER (ST133, N=195). The 195 members of the Weapons Director Cluster account for 18 percent of the survey population, the second largest group identified. These personnel perform tasks that ensure mission completeness, including accepting control of aircraft from other control agencies, deconflicting aircraft with respect to routes, altitudes, or headings, and performing aircraft-declared emergency procedures. These members are identified by their emphasis on tasks in Duty H, *Weapons Director Activities*. They spend 36 percent of their time performing tasks in this duty, greater than 4 times more than any other group (see Table 3). Representative tasks performed by these members include:

- perform radio or telephone (RT) procedures
- change radio frequencies on communications panels
- perform console or equipment setup or adjustment procedures
- determine aircraft positions during dissimilar or aerial combat tactics (DACT or ACT) exercises
- study enemy tactics, formations, or aircraft and equipment capabilities
- assist in conducting or conduct air refueling operations

Members of this cluster are primarily E-4s and E-5s holding either the 5- or 5D-skill level. These group incumbents average just over 10 years TAFMS, of which 9 have been spent in the career ladder. Eleven percent of all members are in their first enlistment. Members of this cluster perform an average of 137 tasks, more than any other identified group. High task performance indicates a wide scope of responsibility is associated with the job. Fifty-one percent of all members supervise others.

Within this cluster there are two jobs. There are **Weapons Director** members who concentrate on technical tasks associated with the job. These persons can be found performing RT procedures, determining aircraft positions during dissimilar or aerial combat tactics (DACT or

ACT) exercises, and coordinating handoffs with other agencies. These personnel are primarily in the paygrades of E-4 through E-6 and hold the 5- and 5D-skill level. They perform an average of 149 tasks. Fifty-one percent of these members supervise others.

There are also **First-Line Supervisors**. These members perform technical work common to the Weapons Director Cluster, but are differentiated due to their heavy emphasis on managerial tasks as well as those technical tasks. First-Line Supervisors are commonly found supervising military personnel, establishing performance standards for subordinates, and inspecting personnel for compliance with military standards. These members are generally higher in paygrade than the Weapons Director members as they are in the paygrades of E-5 through E-7. They hold either the 5- or 7-skill level and perform 108 tasks on average. As the job title implies, all First-Line Supervisors supervise others.

VII. MOBILITY JOB (ST125, N=5). There are 5 members of the mobility job who account for less than 1 percent of the survey sample. These members are identified by their performance of mobility tasks. They spend 32 percent of their time performing tasks in Duty I, *Mobility and Contingency Activities*, nearly 5 times greater than any other job group (see Table 3). These personnel can be found developing personnel recall and accounting procedures, conducting mobility or contingency procedure orientations or briefings, and developing workcenter pyramid recall plans. Representative tasks performed by these members include:

- don or doff chemical warfare personal protective clothing
- request weather information
- interpret radar returns on displays
- coordinate specific source of personnel requirements with appropriate agencies
- participate in mobility exercise planning meetings
- maintain disaster preparedness checklists

These personnel are in the paygrades of E-4 through E-6 and most hold the 5-skill level. They average 13 years TAFMS, of which nearly 12 have been spent in the career ladder. None of the members of this job are in their first-enlistment. All members are from the Active Duty component. These personnel perform an average of 96 tasks, and 40 percent supervise others (see Table 4).

VIII. MANAGERIAL JOB (ST122, N=78). As with most specialties, there are non-technical jobs performed by senior-level personnel. The 78 members of the Managerial Job spend 53 percent of their duty time performing tasks in Duty J, *Management and Supervisory Activities*, close to twice as much as any other job group (see Table 3). Managers are found performing such work as planning briefings, conferences, or workshops, conducting supervisory performance

feedback sessions, and evaluating workload requirements. Members of this job are identified by their performance of many managerial tasks and few, if any, technical tasks. Representative tasks performed by members of this job include:

- supervise military personnel
- write recommendations for awards or decorations
- inspect personnel for compliance with military standards
- write performance reports or supervisory appraisals
- counsel subordinates concerning personal matters
- schedule work assignments or priorities

Managerial personnel are the most senior of any identified group. These members average 18 years TAFMS, with just under 17 of those being spent in the career ladder. Only 2 percent of all managers are in their first enlistment. They largely hold the 7- and 9/00-skill levels. These 78 personnel average 103 tasks and 79 percent are supervising others (see Table 4).

IX. ACTION OFFICER JOB (ST145, N=6). The 6 members of the Action Officer Job account for less than 1 percent of the survey population. These members are identified by their general administrative duties. Personnel focus their attention on tasks in Duty J (*Management and Supervisory Activities*, 31 percent time spent) and L (*General Administrative Activities*, 27 percent time spent), respectively (see Table 3). These personnel initiate requests for TDY orders, draft agenda for general meetings, and prepare administrative or classified materials for mailing, transporting, or issue. Representative tasks performed by members of this group include:

- compile data for records, reports, logs, or trend analyses
- write staff studies, surveys, or routine reports, other than training or inspection reports
- plan briefings, conferences, or workshops
- coordinate requests for TDY orders with appropriate agencies
- annotate security forms for facilities or security containers
- initiate classified reports, messages, or documents

These members are found primarily at the headquarters (HQ) level, with members being assigned to HQ 1 AF, HQ USSPACECOM, HQ NORAD, and HQ AFOTEC. These members average 16 years TAFMS, second only to the Managerial Job. They are mostly in the paygrades of E-6 and E-7, and most hold the 7-skill level. These personnel perform only 46 tasks on average (second lowest of any group) and none supervise others, indicating the specialized nature of this job.

X. RADAR EVALUATION JOB (ST197, N=12). There are 12 members who make up the Radar Evaluation Job, accounting for 1 percent of the survey population. These members are identified by their focus on tasks in Duty G, *Evaluating Radar Systems*. Members spend 29 percent of their time performing tasks in this duty category, over 6 times more than any other group (see Table 3). These personnel upload evaluation data into computers, develop and justify radar evaluation computerized products, and monitor and evaluate equipment performance. Representative tasks performed by members of this job include:

- interpret effects of weather on radar
- analyze radar data to determine trends
- evaluate radar coverage
- conduct periodic radar evaluation programs (PREPs)
- determine standard deviations from acceptable search, beacon, and height tolerances
- perform or assess data reductions

Nine of the 12 members are located at Hill AFB UT, the others are found at McChord AFB WA, Tyndall AFB FL, and Langley AFB VA. All members are in the Active Duty component. These members are mostly in the paygrades of E-4 through E-6 and hold either a 5- or 7-skill level. Members perform 80 tasks on average and 58 percent supervise others (see Table 4).

XI. TRAINING JOB (ST276, N=11). In almost all career fields there exists the need for a cadre of training personnel to provide quality entry-level classroom and hands-on training. These 11 members of the Training Job are found dedicating 52 percent of their time to tasks in Duty K, *Training Activities*, nearly 6 times more than any other group (see Table 3). Members can be found conducting training conferences, briefings, or debriefings, administering or scoring tests, and counseling trainees on training progress. Representative tasks performed by members of this job include:

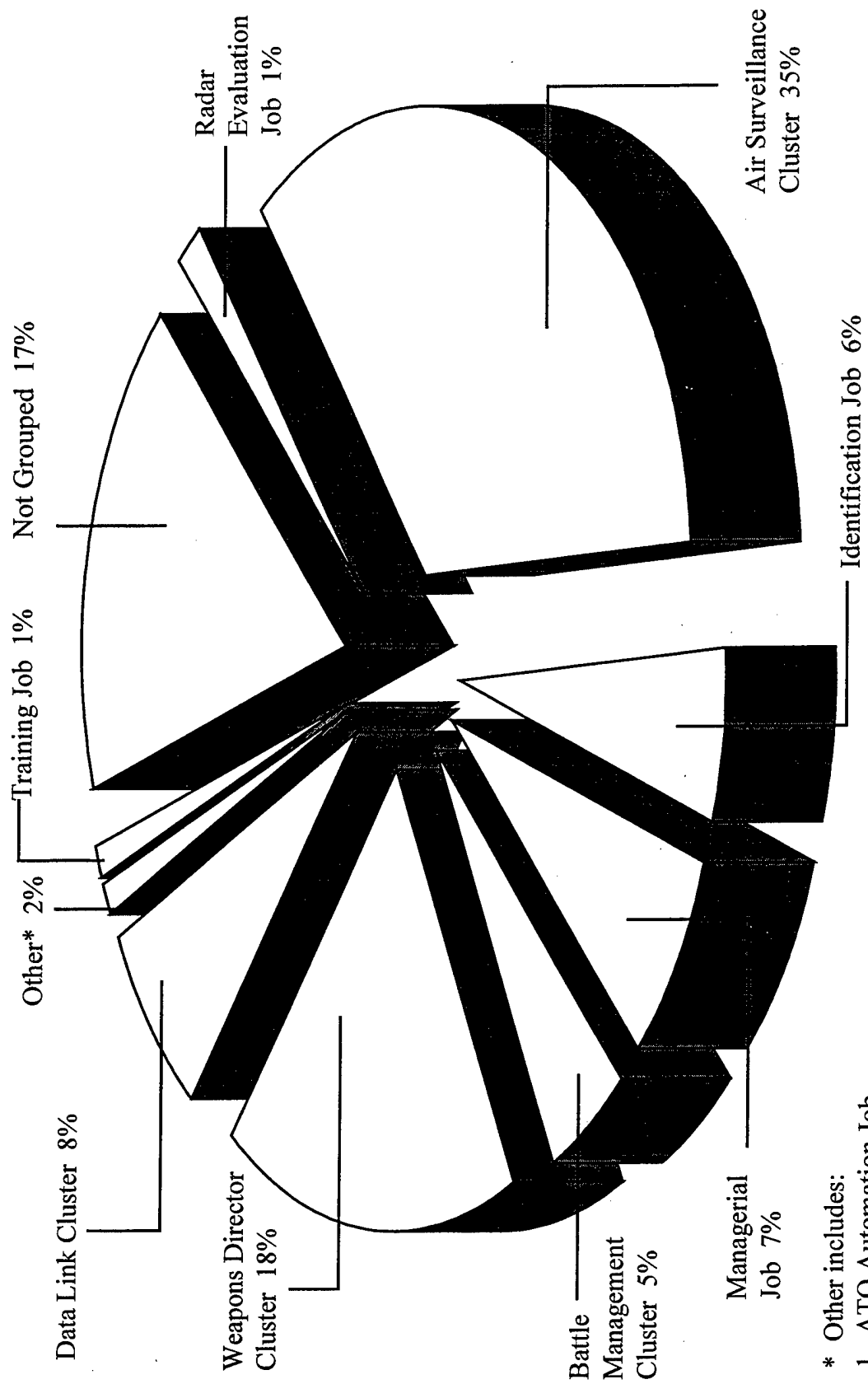
- develop training programs, plans, or procedures
- develop training materials or aids
- evaluate personnel to determine training needs
- evaluate progress of trainees
- establish or maintain study reference files
- evaluate training materials or aids for operation or suitability

Members perform an average of 58 tasks during their duty time. They are primarily in the paygrades of E-5 and E-6 and the most hold a 5-skill level. These members average over 10 years TAFMS, of which nearly 9 were in the career ladder. Thirty percent of all members are in their first enlistment, and 55 percent supervise others.

Comparison to Previous Study

The work performed by members of the 1998 survey sample was compared to that of the work performed by members in the 1994 survey sample. The jobs and functions of these members have remained stable compared to the last survey (see Table 5). Job structure has changed only slightly as nine core jobs identified in the current survey are consistent with core jobs identified in the previous survey. Though some jobs identified in the 1994 survey are not present in the 1998 survey, work performed by those members is still performed by jobs within clusters. For example, the 1994 survey identified a Tracking Job; members within the 1998 Air Surveillance Cluster are found performing similar tasks to those of the 1994 job. As such, the career ladder, as a whole, has changed little since the previous study. Two unique jobs, the ATO Automation and Mobility, were not identified in any previous survey. Furthermore, the Air Defense, Tracking, Search Scope Operator, ECCM, Standardization/Evaluation, and Range Control jobs were identified in previous surveys, but were not identified in the current survey.

AFSC 1C5X1 SPECIALTY JOBS



- * Other includes:
1. ATO Automation Job
 2. Mobility Job
 3. Action Officer Job

FIGURE 1

TABLE 5

COMPARISON OF CURRENT JOBS TO 1994 SURVEY JOBS

<u>1998 JOBS</u>	<u>1994 JOBS</u>
Air Tasking Order (ATO) Automation	No similar job identified
Air Surveillance	Air Surveillance
Identification	Identification
Data Link	Interface Control
Battle Management	Battle Management
Weapons Director	Weapons Director
Mobility	No similar job identified
Managerial	Supervisory
Action Officer	Action Officer
Radar Evaluation	Radar Evaluation
Training	Training
No similar job identified	Air Defense
No similar job identified	Tracking
No similar job identified	Search Scope Operator
No similar job identified	Electronic Counter-Countermeasure (ECCM)
No similar job identified	Standardization/Evaluation
No similar job identified	Range Control

ANALYSIS OF CAREER LADDER PROGRESSION

An analysis of DAFSC groups, along with a study of the career ladder structure, is an integral aspect in analyzing each occupational survey. DAFSC analysis helps to identify both similarities and differences in task and duty performance at the skill levels. All this information may then be used to evaluate how well AFMAN 36-2108 *Specialty Descriptions* and the Specialty Training Standard (STS) reflect what is being accomplished in the career ladder.

The comparison of DAFSCs has been divided into an Active Duty and National Guard sample. The Active Duty group contains members holding 3B-, 3C-, 5-, 5D-, 7-, 7D-, and 9/00-skill levels (personnel holding either a 9- or 00-skill level were placed into one group because of the similarity of work performed). The National Guard sample contains members holding 5-, 7-, and 9/00-skill levels. In some instances, there were DAFSC groups with few members. Due to small representation, these DAFSC groups were omitted from analysis (for example, there was only one ANG DAFSC 1C551D member).

Active Duty

DAFSC 1C531B. Representing 5 percent of the survey sample, these 53 members perform 52 tasks on average, the lowest of any DAFSC group. The majority of DAFSC 1C531B members (72 percent, cumulatively) are found in core technical jobs, which include the Air Surveillance Cluster, the Identification Job, the Data Link Cluster, and the Weapons Director Cluster (see Table 6). These members perform technical tasks as they dedicate 44 percent of their time performing general operational activities and another 19 percent of their time performing identification and surveillance activities (see Table 7). Common tasks performed by these members include performing RT procedures, performing drop or extrapolation procedures, performing console or equipment setup or adjustment procedures, and updating tracks (see Table 8). These 53 personnel average 1 1/2 years TAFMS, of which all but 1 month has been spent in the career ladder.

DAFSC 1C531C. There are 69 members who make up this DAFSC group, accounting for 6 percent of the survey sample. Similar to the DAFSC 1C531B members, these personnel perform mostly technical work. They, too, perform relatively few tasks on average (60), a trend indicative of entry-level personnel. The members are found largely in the Air Surveillance Cluster, with a handful of others found scattered in other technical jobs (see Table 6). These members spend 44 percent of their time performing general operational activities, as well as 12 percent of their time performing mobility and contingency activities, and 11 percent of their time performing identification or surveillance activities (see Table 7). Common tasks performed by these members include performing RT procedures, performing console or equipment shutdown procedures, and performing console or equipment setup or adjustment procedures (see Table 9). Members of this group average 1 year, 3 months TAFMS, of which all but 1 month has been spent in the career ladder.

DAFSC 1C551. There are 319 members who make up the Active Duty DAFSC 1C551 group, accounting for 29 percent of the survey sample, the largest DAFSC group. They perform an average of 82 tasks during their duty time. Thirty percent of all members are found in the Air Surveillance Cluster, as well as another 15 percent in the Weapons Director Cluster (see Table 6). These members spend 37 percent of their time performing general operations activities and another 11 percent of their time performing management and supervisory activities (see Table 7), illustrating their preliminary transition to a managerial role. However, these 5-skill level members' core responsibilities are still technical as they perform RT procedures, conduct shift change positional briefings, and perform console or equipment setup or adjustment procedures (see Table 10). These personnel average nearly 10 years TAFMS, 9 of those having been spent in the career ladder.

DAFSC 1C551D. There are 82 members in the Active Duty DAFSC 1C551D group, representing 8 percent of the survey sample. Eighty-five percent of these members are found in the Weapons Director Cluster, with others being found only in the Air Surveillance Cluster (see Table 6). These personnel dedicate 40 percent of their time performing weapons director activities (see Table 7). They perform 169 tasks on average, the most of any DAFSC group. Members of this group commonly perform RT procedures, transmit operational brevity codes, and determine aircraft positions during DACT or ACT exercises (see Table 11). These members average 10 years TAFMS and 9 years TICF.

DAFSC 1C571. The Active Duty DAFSC 1C571 group consists of 135 members and represents 12 percent of the survey sample. They perform 114 tasks on average. Though the majority of members are found performing technical work in the Air Surveillance and Battle Management clusters, members begin to see a transition into supervisory positions, as another 26 percent of members are found in the Managerial Cluster (see Table 6). These members show transition from technical work to supervisory as they spend 28 percent of their time on management and supervisory activities (see Table 7). Progression is further illustrated by Table 12. It can be seen that there is an increase in managerial tasks performed by 7-skill level members, as they are found participating in general meetings, such as staff meetings, briefings, conferences, or workshops, safeguarding classified materials, and supervising military personnel. Table 13 illustrates the tasks which best differentiate Active Duty DAFSC 1C551 members from DAFSC 1C571 members. This table shows that fewer 7-skill level members are performing technical work, while many are performing supervisory tasks. They average nearly 17 years TAFMS and 15 years TICF.

DAFSC 1C571D Twenty-three members make up the 7D-skill level group, accounting for 2 percent of the survey sample. These members perform 159 tasks on average, second only to the 5D-skill level members. Similar to the 5D-skill level members, these personnel are found largely in the Weapons Director Cluster (see Table 6). They perform technical work as 34 percent of their time is spent performing weapons director activities and another 25 percent of their time is

spent performing general operational activities (see Table 7). These members perform such tasks as expanding, contracting, or offsetting radar video displays, establishing radio contact with aircrews, and determining aircraft positions during DACT or ACT exercises (see Table 14). Table 15 displays tasks that best differentiate Active Duty DAFSC 1C551D members from DAFSC 1C571D members. This table illustrates 7D-skill level members' increased supervisory responsibilities as few 7D-skill level members perform technical tasks while many perform supervisory tasks. These personnel average 14 1/2 years TAFMS, of which just over 13 have been spent in the career ladder.

DAFSC 1C591/00. There are 23 members who make up the Active Duty DAFSC 1C591/00 group, representing 2 percent of the survey sample. They perform 90 tasks on average. The majority of members are found in the Managerial Cluster, with others found only in the Air Surveillance Cluster (see Table 6). They spend 62 percent of their time performing management and supervisory activities (see Table 7). Work performed is supervisory in nature as they supervise military personnel, write recommendations for awards or decorations, plan briefings or workshops, and write job or position descriptions (see Table 16). Table 17 lists tasks that differentiate 7-skill level members from 9/00-skill level members. It can be seen that few 9/00-skill level members are performing technical tasks while many are performing supervisory tasks. Members of the 9/00-skill level group average just over 22 years TAFMS, having spent nearly 21 of those in the career ladder.

TABLE 6

DISTRIBUTION OF ACTIVE DUTY GROUP MEMBERS ACROSS
CAREER LADDER JOB GROUPS*
(PERCENT IN JOB)

	DAFSC 1C531B (N=53)	DAFSC 1C531C (N=69)	DAFSC 1C551 (N=319)	DAFSC 1C551D (N=82)	DAFSC 1C571 (N=135)	DAFSC 1C571D (N=23)	DAFSC 1C591/00 (N=23)
I Air Tasking Order Automation	0	6	1	0	0	0	0
II Air Surveillance	26	39	30	13	27	9	4
III Identification	11	3	4	0	1	0	0
IV Data Link	22	7	9	0	4	0	0
V Battle Management	0	3	7	0	13	0	0
VI Weapons Director	13	3	15	85	6	82	0
VII Mobility	0	0	1	0	1	0	0
VIII Managerial	0	0	4	0	26	4	70
IX Action Officer	0	0	0	0	2	4	4
X Radar Evaluation	0	0	3	0	3	0	0
XI Training	0	1	2	0	1	0	0
XII Not Grouped	26	38	25	1	16	0	22

* Columns may not add to 100 percent due to rounding

TABLE 7

AVERAGE TIME SPENT ON DUTIES BY ACTIVE DUTY DAFSC GROUPS*
(PERCENT TIME SPENT)

	DAFSC 1C531B (N=53)	DAFSC 1C531C (N=69)	DAFSC 1C551 (N=319)	DAFSC 1C551D (N=82)	DAFSC 1C571 (N=135)	DAFSC 1C571D (N=23)	DAFSC 1C591/00 (N=23)
A General Operations Activities	44	44	37	28	26	25	9
B Command and Control Activities	6	6	7	6	10	4	4
C Data Link Activities	7	7	5	less than 1%	3	1	1
D Data Quality Activities	1	3	3	1	1	1	1
E Identification or Surveillance Activities	19	11	10	5	4	3	1
F Range Control Activities	2	less than 1%	1	1	less than 1%	1	less than 1%
G Evaluating Radar Systems	1	less than 1%	2	1	2	1	less than 1%
H Weapons Director Activities	12	4	8	40	3	34	2
I Mobility and Contingency Activities	1	12	4	4	4	1	8
J Management and Supervisory Activities	2	2	11	7	28	17	62
K Training Activities	3	6	7	5	8	7	4
L General Administrative Activities	3	4	5	2	7	5	7
M General Supply Activities	1	1	2	1	3	less than 1%	1

* Columns may not add to 100 percent due to rounding

TABLE 8

REPRESENTATIVE TASKS PERFORMED BY DAFSC 1C531B PERSONNEL

TASKS	PERCENT MEMBERS PERFORMING (N=53)
A68 Perform radio or telephone (RT) procedures	81
E218 Perform drop or extrapolation procedures	62
A61 Perform console or equipment setup or adjustment procedures	62
A85 Update tracks	62
A1 Accept assigned tracks	60
A2 Accept simulated tracks	57
A16 Conduct shift change positional briefings	57
E210 Maintain track continuity	55
A80 Respond to alerts or warnings, such as defense conditions (DEFCONs) or weather alerts	55
A62 Perform console or equipment shutdown procedures	51
A76 Report equipment malfunctions or substandard performance to appropriate agencies	51
A66 Perform lost track procedures	49
A38 Expand, contract, or offset radar video displays	47
A11 Change radio frequencies on communications panels	47
E217 Perform correlation checks	47
E219 Perform passive tracking	45
E197 Detect targets and initiate track symbology on present position of data	43
A37 Evaluate track data	43
A45 Interpret radar returns or displays	43
A84 Update console displays	43
A70 Perform secure communications procedures	42
A74 Report airspace violations	42
A52 Monitor air-to-ground or air-to-air communications	40
E213 Monitor forward, lateral, or backtell operations	38
A79 Request weather information	34
E203 Identify aircraft using IFF/SIF procedures	32
A81 Study enemy tactics, formations, or aircraft and equipment capabilities	30
A53 Monitor defense areas or zones	26

TABLE 9
REPRESENTATIVE TASKS PERFORMED BY DAFSC 1C531C PERSONNEL

TASKS	PERCENT MEMBERS PERFORMING (N=69)
A68 Perform radio or telephone (RT) procedures	67
A62 Perform console or equipment shutdown procedures	62
A61 Perform console or equipment setup or adjustment procedures	61
A16 Conduct shift change positional briefings	59
A12 Complete equipment performance checks	57
A11 Change radio frequencies on communications panels	57
A40 Extract data from automated ATOs	54
A44 Interpret ATOs or ACOs	54
A70 Perform secure communications procedures	51
A85 Update tracks	48
A37 Evaluate track data	48
A2 Accept simulated tracks	46
E207 Load ATOs	46
A9 Analyze or post air tasking orders (ATOs) or airspace control orders (ACOs)	46
I392 Erect tents	45
I391 Erect camouflage nettings	45
A67 Perform modular control equipment (MCE) computer initial program load procedures	42
A48 Load crypto variables	42
L552 Destroy classified materials	42
I404 Load or offload vehicles	42

TABLE 10

REPRESENTATIVE TASKS PERFORMED BY ACTIVE DUTY DAFSC 1C551 PERSONNEL

TASKS	PERCENT MEMBERS PERFORMING (N=319)
A68 Perform radio or telephone (RT) procedures	72
A16 Conduct shift change positional briefings	72
A61 Perform console or equipment setup or adjustment procedures	70
A62 Perform console or equipment shutdown procedures	64
A12 Complete equipment performance checks	64
A11 Change radio frequencies on communications panels	64
A10 Brief relieving crews on changes in policies, procedures, or operational status	59
A38 Expand, contract, or offset radar video displays	56
A76 Report equipment malfunctions or substandard performance to appropriate agencies	55
A45 Interpret radar returns or displays	54
A70 Perform secure communications procedures	52
A18 Configure console displays to depict operational information, such as coastlines, air bases, or training areas	52
A85 Update tracks	51
A84 Update console displays	51
L552 Destroy classified materials	51
A37 Evaluate track data	50
L574 Safeguard classified materials	48
A41 Identify computer malfunctions	47
A52 Monitor air-to-ground or air-to-air communications	47
A6 Analyze mission information on schedules, status boards, or displays	43
L561 Inventory classified materials	41
A1 Accept assigned tracks	40
E203 Identify aircraft using IFF/SIF procedures	38

TABLE 11

REPRESENTATIVE TASKS PERFORMED BY ACTIVE DUTY DAFSC 1C551D PERSONNEL

TASKS		PERCENT MEMBERS PERFORMING (N=82)
A68	Perform radio or telephone (RT) procedures	99
A15	Conduct radio checks with aircraft	98
H309	Determine aircraft positions during dissimilar or aerial combat tactics (DACT or ACT) exercises	96
H366	Transmit weapons safe checks to aircraft	96
A11	Change radio frequencies on communications panels	96
A36	Establish radio contact with aircrews	94
H362	Transmit operational brevity codes	93
A61	Perform console or equipment setup or adjustment procedures	93
H367	Vector aircraft manually or by using computer-generated solutions	93
A38	Expand, contract, or offset radar video displays	93
A45	Interpret radar returns or displays	91
H308	Deconflict aircraft with respect to routes, altitudes, or headings	91
H310	Determine geometries	91
H302	Commit fighter aircraft to targets	91
H364	Transmit target information, such as bearings, ranges, altitudes, or navigational references	90
H357	Transmit airspace information to aircraft	90
H300	Assist in conducting or conduct tactical intercepts	90
A81	Study enemy tactics, formations, or aircraft and equipment capabilities	90
H341	Monitor flying safety	88
H299	Assist in conducting or conduct offensive or defensive missions	88
H290	Accept control of aircraft from other control agencies	88
H311	Determine relative heights between targets and interceptors	87
A52	Monitor air-to-ground or air-to-air communications	85

TABLE 12

REPRESENTATIVE TASKS PERFORMED BY ACTIVE DUTY DAFSC 1C771 PERSONNEL

TASKS		PERCENT MEMBERS PERFORMING (N=135)
J500	Participate in general meetings, such as staff meetings, briefings, conferences, or workshops, other than conducting	74
J518	Write recommendations for awards or decorations	73
J516	Write performance reports or supervisory appraisals	72
A16	Conduct shift change positional briefings	71
A10	Brief relieving crews on changes in policies, procedures, or operational status	71
L574	Safeguard classified materials	69
J449	Conduct supervisory performance feedback sessions	68
J513	Supervise military personnel	67
L552	Destroy classified materials	67
J453	Counsel subordinates concerning personal matters	65
A68	Perform radio or telephone (RT) procedures	64
A70	Perform secure communications procedures	61
A4	Analyze impacts of equipment malfunctions	61
J451	Conduct supervisory orientations for newly assigned personnel	59
A6	Analyze mission information on schedules, status boards, or displays	59
J496	Inspect personnel for compliance with military standards	58
J484	Evaluate personnel for compliance with performance standards	57
J457	Determine or establish work assignments or priorities	57
J474	Establish performance standards for subordinates	57
A12	Complete equipment performance checks	56
J462	Develop or establish work methods or procedures	56
J501	Plan briefings, conferences, or workshops	55
J497	Interpret policies, directives, or procedures for subordinates	53
A48	Load crypto variables	53

TABLE 13

TASKS WHICH BEST DIFFERENTIATE ACTIVE DUTY
DAFSC 1C551 AND DAFSC 1C571 PERSONNEL
(PERCENT MEMBERS PERFORMING)

<u>TASKS</u>	<u>DAFSC 1C551 (N=319)</u>	<u>DAFSC 1C571 (N=135)</u>	<u>DIFFERENCE</u>
A85 Update tracks	51	20	31
A1 Accept assigned tracks	40	20	20
E210 Maintain track continuity	31	15	16
E197 Detect targets and initiate track symbology on present position of data	28	12	16
A66 Perform lost track procedures	32	16	16
A2 Accept simulated tracks	38	22	16
E217 Perform correlation checks	33	18	15
E218 Perform drop or extrapolation procedures	32	18	14
J518 Write recommendations for awards or decorations	27	73	-46
J451 Conduct supervisory orientations for newly assigned personnel	15	59	-44
J449 Conduct supervisory performance feedback sessions	27	68	-41
J516 Write performance reports or supervisory appraisals	31	72	-41
J501 Plan briefings, conferences, or workshops	17	55	-38
J500 Participate in general meetings, such as staff meetings, briefings, conferences, or workshops, other than conducting	36	74	-38
J457 Determine or establish work assignments or priorities	16	53	-37
J511 Schedule work assignments or priorities	16	53	-37

TABLE 14

REPRESENTATIVE TASKS PERFORMED BY ACTIVE DUTY DAFSC 1C571D PERSONNEL

TASKS	PERCENT MEMBERS PERFORMING (N=23)
A38 Expand, contract, or offset radar video displays	91
A36 Establish radio contact with aircrews	91
J500 Participate in general meetings, such as staff meetings, briefings, conferences, or workshops, other than conducting	87
A68 Perform radio or telephone (RT) procedures	87
H309 Determine aircraft positions during dissimilar or aerial combat tactics (DACT or ACT) exercises	87
A52 Monitor air-to-ground or air-to-air communications	87
H311 Determine relative heights between targets and interceptors	87
A15 Conduct radio checks with aircraft	87
A61 Perform console or equipment setup or adjustment procedures	87
H315 Direct aircraft to make IFF/SIF changes	87
H364 Transmit target information, such as bearings, ranges, altitudes, or navigational references	83
H362 Transmit operational brevity codes	83
A81 Study enemy tactics, formations, or aircraft and equipment capabilities	83
H326 Evaluate adversary aircraft maneuvers during DACT or ACT exercises	83
H367 Vector aircraft manually or by using computer-generated solutions	83
H290 Accept control of aircraft from other control agencies	83
A45 Interpret radar returns or displays	83
H341 Monitor flying safety	83
H310 Determine geometries	83
H317 Direct aircraft flow to assigned targets, tankers, or airspace	83
H299 Assist in conducting or conduct offensive or defensive missions	83
H297 Assist in conducting or conduct aircrew mission prebriefings or debriefings	78

TABLE 15

TASKS WHICH BEST DIFFERENTIATE ACTIVE DUTY
DAFSC 1C551D AND DAFSC 1C571D PERSONNEL
(PERCENT MEMBERS PERFORMING)

<u>TASKS</u>	<u>DAFSC 1C551D (N=82)</u>	<u>DAFSC 1C571D (N=23)</u>	<u>DIFFERENCE</u>
B125 Perform emergency action procedures	55	22	33
A59 Perform authentication procedures	83	52	31
E202 Evaluate radar coverage	41	13	28
H361 Transmit mission support information, such as fuel or armament expenditures, to aircraft	65	39	26
H307 Coordinate high-valued airborne asset (HVAA) flight safety or security actions	68	43	25
H353 Relay tactical actions	68	43	25
A28 Develop sector maps or charts	28	4	24
H318 Direct buffer zone operations	40	17	23
J464 Direct administrative functions	11	52	-41
J463 Develop or establish work schedules	30	70	-40
J511 Schedule work assignments or priorities	22	61	-39
J500 Participate in general meetings, such as staff meetings, briefings, conferences, or workshops, other than conducting	51	87	-36
J487 Evaluate work schedules	26	61	-35
J488 Evaluate workload requirements	16	48	-32
J443 Assign personnel to work areas or duty positions	21	52	-31
J446 Conduct general meetings, such as staff meetings, briefings, conferences, or workshops	34	65	-31

TABLE 16

REPRESENTATIVE TASKS PERFORMED BY ACTIVE DUTY DAFSC 1C591/00 PERSONNEL

TASKS	PERCENT MEMBERS PERFORMING (N=23)
J500 Participate in general meetings, such as staff meetings, briefings, conferences, or workshops, other than conducting	100
J518 Write recommendations for awards or decorations	87
J501 Plan briefings, conferences, or workshops	83
J446 Conduct general meetings, such as staff meetings, briefings, conferences, or workshops	83
J515 Write job or position descriptions	83
J485 Evaluate personnel for promotion, demotion, reclassification, or special awards	78
J516 Write performance reports or supervisory appraisals	78
J496 Inspect personnel for compliance with military standards	78
J480 Evaluate job or position descriptions	78
J513 Supervise military personnel	74
J484 Evaluate personnel for compliance with performance standards	74
J508 Review drafts of policy directives, instructions, or manuals	70
J453 Counsel subordinates concerning personal matters	70
J451 Conduct supervisory orientations for newly assigned personnel	70
J481 Evaluate job-related suggestions	70
J509 Schedule personnel for temporary duty (TDY) assignments, leaves, or passes	70
J511 Schedule work assignments or priorities	65
J464 Direct administrative functions	65
J488 Evaluate workload requirements	65
J466 Draft budget requirements	65
J457 Determine or establish work assignments or priorities	61
J444 Assign sponsors for newly assigned personnel	61
J477 Evaluate budget requirements	57
J517 Write staff studies, surveys, or routine reports, other than training or inspection reports	52

TABLE 17

TASKS WHICH BEST DIFFERENTIATE ACTIVE DUTY
DAFSC 1C571 AND DAFSC 1C591/00 PERSONNEL
(PERCENT MEMBERS PERFORMING)

<u>TASKS</u>	DAFSC 1C571 (N=135)	DAFSC 1C591/00 (N=23)	<u>DIFFERENCE</u>
A61 Perform console or equipment setup or adjustment procedures	59	13	46
K525 Conduct OJT	47	4	43
A11 Change radio frequencies on communications panels	56	13	43
A10 Brief relieving crews on changes in policies, procedures, or operational status	71	30	41
A16 Conduct shift change positional briefings	71	30	41
A18 Configure console displays to depict operational information, such as coastlines, air bases, or training areas	53	13	40
A12 Complete equipment performance checks	56	17	39
A13 Conduct emergency evacuation procedures	60	22	38
J466 Draft budget requirements	13	65	-52
J477 Evaluate budget requirements	13	57	-44
J515 Write job or position descriptions	40	83	-43
J510 Schedule staff assistance visits, inspections, or audits	16	57	-41
J480 Evaluate job or position descriptions	38	78	-40
J458 Develop organizational or functional charts	30	70	-40
J467 Draft agenda for general meetings, such as staff meetings, briefings, conferences, or workshops	34	70	-36
L551 Coordinate requests for TDY orders with appropriate agencies	27	61	-34

National Guard

DAFSC 1C551. The 194 members of the National Guard DAFSC 1C551 group represent 18 percent of the survey population. These members average 85 tasks performed. Forty-nine percent of group members are found in the Air Surveillance Cluster (see Table 18). Work performed by National Guard 5-skill level members is technical, as personnel spend 42 percent of their duty time performing general operational activities (see Table 19), such as conducting shift change positional briefings, performing RT procedures, and updating tracks (see Table 20).

DAFSC 1C571. There are 130 members in the National Guard DAFSC 1C571 group, accounting for 12 percent of the survey population. They perform 115 tasks on average. These members perform technical work indicative of work performed by Air Surveillance personnel, as evidenced in Table 19, where it is seen that 37 percent of their duty time is devoted to general operational activities. They perform such tasks as responding to alerts or warnings, such as DEFCONs or weather alerts, conducting shift change positional briefings, and performing RT procedures (see Table 21). Table 22 lists tasks which best differentiate National Guard 5-skill level personnel from 7-skill level personnel. It can be seen that the 7-skill level members are more concentrated in managerial and supervisory tasks as they take on supervisory roles.

DAFSC 1C591/00. There are 35 members in the 9/00-skill level group, representing 3 percent of the survey population. These members perform 141 tasks on average, the highest of any National Guard skill level group. These members show a transition from technical roles to supervisory ones as 31 percent of all members are in the Managerial Job (see Table 18). The transition to managerial responsibilities is further illustrated by their emphasis on managerial duties as they spend 30 percent of their time performing management and supervisory tasks (see Table 19). Tasks performed by these group members include supervising military personnel, inspecting personnel for compliance with military standards, and writing recommendations for awards or decorations (see Table 23). Table 24 lists tasks that best differentiate National Guard 7-skill level members from 9/00-skill level members. This table shows that few 7-skill level members are performing specific supervisory tasks, while many 9/00-skill level members are performing those same tasks.

TABLE 18

DISTRIBUTION OF NATIONAL GUARD GROUP MEMBERS ACROSS
CAREER LADDER JOB GROUPS*
(PERCENT IN JOB)

	DAFSC 1C551 (N=194)	DAFSC 1C571 (N=130)	DAFSC 1C591 (N=35)
I Air Tasking Order Automation	0	0	0
II Air Surveillance	49	57	40
III Identification	18	6	3
IV Data Link	10	7	0
V Battle Management	0	7	11
VI Weapons Director	13	10	3
VII Mobility	0	0	0
VIII Managerial	1	1	31
IX Action Officer	0	1	0
X Radar Evaluation	0	0	0
XI Training	0	1	0
XII Not Grouped	9	10	11

* Columns may not add to 100 percent due to rounding

TABLE 19

AVERAGE TIME SPENT ON DUTIES BY NATIONAL GUARD DAFSC GROUPS*
(PERCENT TIME SPENT)

	DAFSC 1C551 (N=194)	DAFSC 1C571 (N=130)	DAFSC 1C591/00 (N=35)
A General Operations Activities	42	37	25
B Command and Control Activities	6	10	11
C Data Link Activities	5	4	2
D Data Quality Activities	3	3	2
E Identification or Surveillance Activities	21	13	5
F Range Control Activities	less than 1%	less than 1%	less than 1%
G Evaluating Radar Systems	1	1	1
H Weapons Director Activities	8	7	4
I Mobility and Contingency Activities	3	4	7
J Management and Supervisory Activities	4	10	30
K Training Activities	3	5	6
L General Administrative Activities	3	4	6
M General Supply Activities	1	1	1

* Columns may not add to 100 percent due to rounding

TABLE 20

REPRESENTATIVE TASKS PERFORMED BY AIR NATIONAL GUARD
DAFSC 1C551 PERSONNEL

TASKS		PERCENT MEMBERS PERFORMING (N=194)
A16	Conduct shift change positional briefings	87
A68	Perform radio or telephone (RT) procedures	82
A61	Perform console or equipment setup or adjustment procedures	79
A85	Update tracks	75
A80	Respond to alerts or warnings, such as defense conditions (DEFCONs) or weather alerts	74
A1	Accept assigned tracks	72
A10	Brief relieving crews on changes in policies, procedures, or operational status	69
A66	Perform lost track procedures	68
A70	Perform secure communications procedures	68
A11	Change radio frequencies on communications panels	67
A45	Interpret radar returns or displays	62
A18	Configure console displays to depict operational information, such as coastlines, air bases, or training areas	62
A82	Switch console function modes	62
A2	Accept simulated tracks	62
A38	Expand, contract, or offset radar video displays	61
E197	Detect targets and initiate track symbology on present position of data	60
E218	Perform drop or extrapolation procedures	60
E210	Maintain track continuity	59
A84	Update console displays	59
A37	Evaluate track data	58
A12	Complete equipment performance checks	58
E203	Identify aircraft using IFF/SIF procedures	56
E204	Identify aircraft using methods other than IFF/SIF procedures	52
E231	Report unknown aircraft	52
A53	Monitor defense areas or zones	47
E199	Determine track classifications or identifications	44
E198	Determine flight sizes	43

TABLE 21

REPRESENTATIVE TASKS PERFORMED BY AIR NATIONAL GUARD
DAFSC 1C571 PERSONNEL

TASKS	PERCENT MEMBERS PERFORMING (N=130)
A61 Perform console or equipment setup or adjustment procedures	87
A80 Respond to alerts or warnings, such as defense conditions (DEFCONs) or weather alerts	87
A16 Conduct shift change positional briefings	86
A68 Perform radio or telephone (RT) procedures	85
A10 Brief relieving crews on changes in policies, procedures, or operational status	81
A70 Perform secure communications procedures	77
A45 Interpret radar returns or displays	76
A82 Switch console function modes	76
A62 Perform console or equipment shutdown procedures	76
A38 Expand, contract, or offset radar video displays	72
A12 Complete equipment performance checks	72
A59 Perform authentication procedures	72
A76 Report equipment malfunctions or substandard performance to appropriate agencies	71
A57 Monitor or evaluate display console activities	68
A84 Update console displays	68
A85 Update tracks	65
A6 Analyze mission information on schedules, status boards, or displays	64
A58 Monitor or evaluate equipment performance	63
A37 Evaluate track data	61
A53 Monitor defense areas or zones	55
E203 Identify aircraft using IFF/SIF procedures	52
L574 Safeguard classified materials	52
J513 Supervise military personnel	48
J500 Participate in general meetings, such as staff meetings, briefings, conferences, or workshops, other than conducting	44
E210 Maintain track continuity	44
E218 Perform drop or extrapolation procedures	43
E219 Perform passive tracking	32

TABLE 22

TASKS WHICH BEST DIFFERENTIATE BETWEEN NATIONAL GUARD
DAFSC 1C551 AND DAFSC 1C571 PERSONNEL
(PERCENT MEMBERS PERFORMING)

<u>TASK</u>	<u>DAFSC 1C551 (N=194)</u>	<u>DAFSC 1C571 (N=130)</u>	<u>DIFFERENCE</u>
A66 Perform lost track procedures	68	42	26
E219 Perform passive tracking	53	32	21
E197 Detect targets and initiate track symbology on present position of data	60	42	18
E218 Perform drop or extrapolation procedures	60	43	17
E210 Maintain track continuity	59	44	15
A1 Accept assigned tracks	72	58	14
A2 Accept simulated tracks	62	50	12
E204 Identify aircraft using methods other than IFF/SIF procedures	52	40	12
E199 Determine track classifications or identifications	44	33	11
J513 Supervise military personnel	17	48	-31
A57 Monitor or evaluate display console activities	40	68	-28
J453 Counsel subordinates concerning personal matters	12	40	-28
J518 Write recommendations for awards or decorations	12	38	-26
J457 Determine or establish work assignments or priorities	14	39	-25
J443 Assign personnel to work areas or duty positions	16	41	-25
J484 Evaluate personnel for compliance with performance standards	11	35	-24
B105 Coordinate equipment downtimes with maintenance personnel	28	52	-24
B97 Conduct mission or exercise crew briefings or crew debriefings	29	53	-24

TABLE 23

REPRESENTATIVE TASKS PERFORMED BY AIR NATIONAL GUARD
DAFSC 1C591/00 PERSONNEL

TASKS	PERCENT MEMBERS PERFORMING (N=35)
J500 Participate in general meetings, such as staff meetings, briefings, conferences, or workshops, other than conducting	86
A10 Brief relieving crews on changes in policies, procedures, or operational status	80
J513 Supervise military personnel	77
J496 Inspect personnel for compliance with military standards	77
A16 Conduct shift change positional briefings	74
J518 Write recommendations for awards or decorations	74
J453 Counsel subordinates concerning personal matters	71
J446 Conduct general meetings, such as staff meetings, briefings, conferences, or workshops	71
J485 Evaluate personnel for promotion, demotion, reclassification, or special awards	69
J511 Schedule work assignments or priorities	69
J487 Evaluate work schedules	69
J497 Interpret policies, directives, or procedures for subordinates	66
J474 Establish performance standards for subordinates	66
A14 Conduct facility or site tours	63
J443 Assign personnel to work areas or duty positions	63
L574 Safeguard classified materials	63
J484 Evaluate personnel for compliance with performance standards	63
J488 Evaluate workload requirements	63
J457 Determine or establish work assignments or priorities	63
L561 Inventory classified materials	60
J501 Plan briefings, conferences, or workshops	57
A45 Interpret radar returns or displays	54
J464 Direct administrative functions	54
B125 Perform emergency action procedures	51
J471 Establish administrative files, such as correspondence files or classified files	49

TABLE 24

TASKS WHICH BEST DIFFERENTIATE BETWEEN NATIONAL GUARD
DAFSC 1C571 AND DAFSC 1C591/00 PERSONNEL
(PERCENT MEMBERS PERFORMING)

<u>TASK</u>	DAFSC 1C571 (N=130)	DAFSC 1C591/00 (N=35)	<u>DIFFERENCE</u>
A61 Perform console or equipment setup or adjustment procedures	87	57	30
E218 Perform drop or extrapolation procedures	43	14	29
A2 Accept simulated tracks	50	23	27
A1 Accept assigned tracks	58	31	27
A50 Maintain equipment status records	44	17	27
E229 Record tracks	39	14	25
A85 Update tracks	65	40	25
A37 Evaluate track data	61	37	24
A53 Monitor defense areas or zones	55	31	24
D160 Analyze or identify jamming or interference	52	29	23
A58 Monitor or evaluate equipment performance	63	40	23
J496 Inspect personnel for compliance with military standards	32	77	-45
J474 Establish performance standards for subordinates	23	66	-43
J500 Participate in general meetings, such as staff meetings, briefings, conferences, or workshops, other than conducting	44	86	-42
J485 Evaluate personnel for promotion, demotion, reclassification, or special awards	28	69	-41
J446 Conduct general meetings, such as staff meetings, briefings, conferences, or workshops	32	71	-39
J501 Plan briefings, conferences, or workshops	18	57	-39
L562 Maintain administrative files	19	57	-38

Summary

The jobs performed by the Active Duty 3B-, 3C-, 5-, 5D-, and 7D-skill level members are almost solely technical. Most members of the 3B-, 3C-, 5-, and 7-skill level groups are found in the Air Surveillance Cluster, which epitomizes the core job of the career ladder. Members of the 5D- and 7D-skill level groups are found almost solely in the Weapons Director Cluster. Active Duty members move from the Air Surveillance Cluster to the Managerial Cluster as they attain the higher 7- and 9/00-skill levels.

National Guard members are more technical in nature than are Active Duty members. However, the National Guard sample is similar to the Active Duty sample as members take on managerial roles as they gain higher skill level rankings. Most of the National Guard 5- and 7-skill level members are in the Air Surveillance Cluster serving a technical role. Though numerous 9-skill level members are found in the Air Surveillance Cluster, they are performing managerial tasks indicative of a first-line supervisor.

ANALYSIS OF MAJCOM GROUPS

In this survey, the various MAJCOMs were cross-referenced for differences in tasks performed by members or differences in equipment used and/or maintained to perform duties. The ATO Automation, Mobility, and Radar Evaluation jobs all consisted of Active Duty personnel. Equipment usage was relatively standard across MAJCOMs (though there were some MAJCOMs with higher percentages of personnel using certain equipment items, the differences between other MAJCOMs were insubstantial). There were also MAJCOM groups that performed slightly different or fewer tasks than other MAJCOM groups. For example, NORAD and ANG Unit members perform very few weapons director tasks, while all other MAJCOM members perform weapons director tasks with regularity. However, in general, differences in tasks performed by MAJCOM groups were small, indicating a homogeneous career ladder.

TRAINING ANALYSIS

Occupational survey data can be an integral source of information used to modify training programs. Modification of these training programs can assist first-enlistment personnel in many ways (content easier to understand, more relevant, etc.). Factors that are useful in evaluating training can be jobs performed by first-enlistment personnel, distribution of first-enlistment personnel across the career ladder, percentages of first-enlistment personnel performing specific tasks, and TE and TD ratings provided by experienced personnel in the AFSC 1C5X1 career ladder (see **SURVEY METHODOLOGY**). To assist in the examination of the AFSC 1C5X1

STS, technical training personnel from Keesler AFB TX matched tasks from the AFSC JI to appropriate sections of the STS document. The following information reports on first-enlistment personnel who are on Active Duty status.

First-Enlistment Personnel

There were 184 personnel in their first-enlistment (personnel considered to be in their first enlistment are Active Duty members who have 1-48 months TAFMS), 17 percent of the survey population. Thirty percent of all first-enlistment members are found in the Air Surveillance Cluster. First-enlistment members are also found in other core jobs, such as the Weapons Director Cluster, the Data Link Cluster, and the Identification Job (see Figure 2). Representative tasks performed by first-enlistment personnel include performing RT procedures, performing console or equipment setup or adjustment procedures, and conducting shift change positional briefings (see Table 25).

Examining equipment items used by first-enlistment members may also assist training personnel in paramount training decisions. In this study, there were only a small handful of equipment items that were used with regularity by first-enlistment personnel. For example, there was only 1 equipment item in which more than 50 percent of all first-enlistment members were using. This was a digital secure voice terminal, either a KY-65, KY-68, KY-99, or STU-III.

Training Emphasis (TE) and Task Difficulty (TD) Data

TE and TD ratings, coupled with percentages of first-enlistment personnel performing tasks, serve as good tools when determining changes or adjustments in training. When combined with data on the percentages of first-enlistment personnel performing tasks, comparisons can be made to determine if training adjustments are necessary. TE and TD ratings reflect opinions from numerous AFSC 1C5X1 personnel who perform these tasks on a daily basis. As such, training personnel may examine these ratings to determine difficult tasks and provide more comprehensive training on them. For a more complete description of TE and TD ratings, see the Task Factor Administration section in **SURVEY METHODOLOGY**.

The tasks with the highest TE ratings were largely from Duty A, *General Operations Activities*, and Duty E, *Identification or Surveillance Activities*. Many of these tasks are performed by personnel found in the Air Surveillance Cluster and Identification Job, two core work areas of the career ladder. Examples of these tasks with high TE ratings include performing console or equipment setup or adjustment procedures, detecting targets and initiating track symbology on present position of data, and updating tracks. High percentages of first-enlistment personnel performing these tasks, coupled with these high TE ratings, suggest a need for these tasks to be taught in the entry-level classes. Training experts should review these TE ratings for training decision support. A more thorough listing of tasks rated high in TE can be found in Table 26.

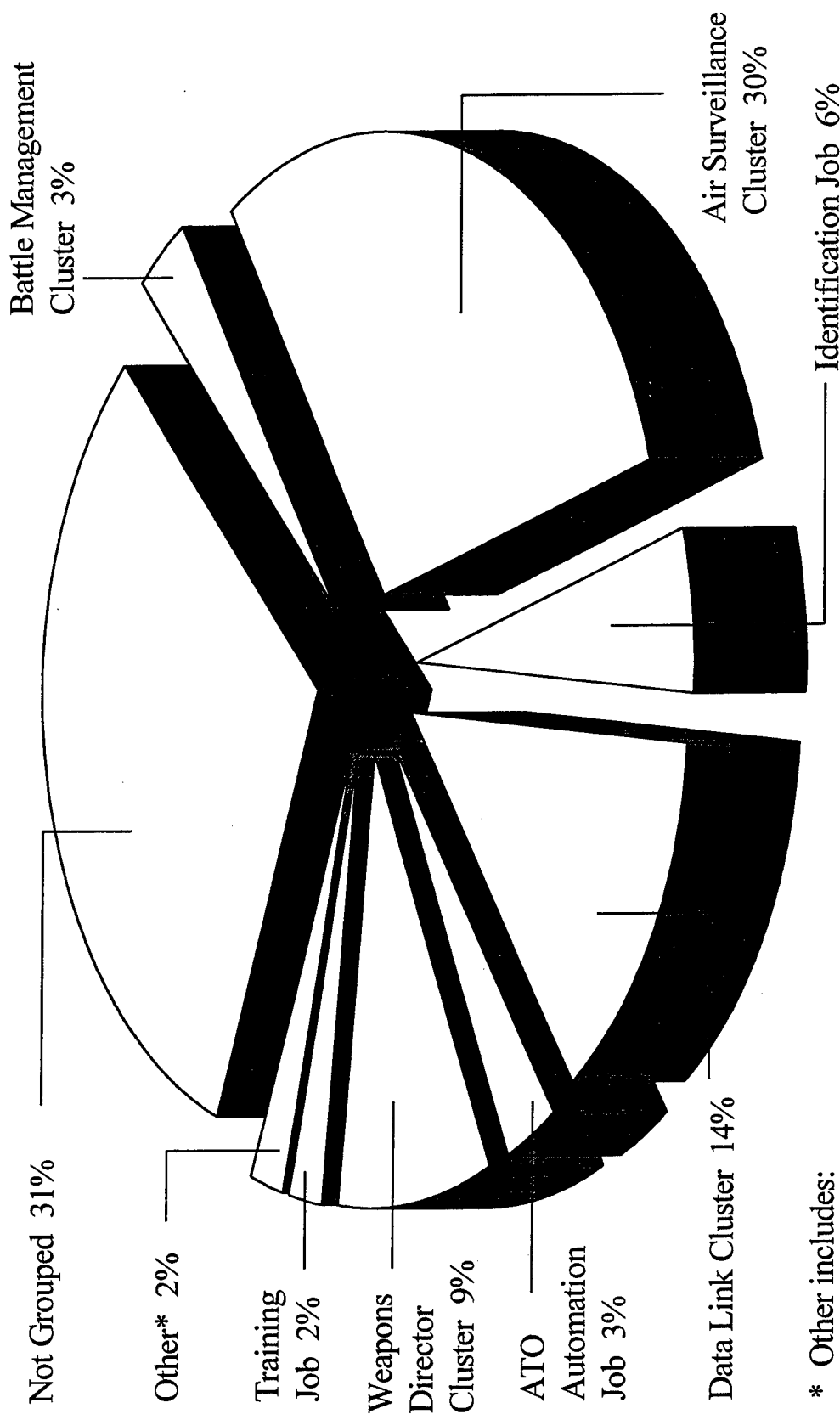
The tasks with the highest TD ratings were largely from Duty G, *Evaluating Radar Systems*, Duty H, *Weapons Director Activities*, and Duty K, *Training Activities*. Examples of these tasks with high TD ratings include studying enemy tactics, formations, or aircraft and equipment capabilities, performing mathematical computations to determine radar performances or characteristics, and developing formal course curricula, Plans of Instruction, or STSs. A more thorough listing of tasks with high TD ratings can be found in Table 27.

To assist training personnel focus on tasks which are most appropriate for entry-level training, an additional factor, the Automated Training Indicator (ATI), was assigned to all 591 tasks in the inventory. A computer program considered percent first-enlistment members performing tasks, TE and TD ratings, and the Course Training Decision Table found in AETCI 36-2601 to determine the ATI. Numbered on an 18-point scale (with 1 being the lowest level of training indicated) an ATI reading of 8 or less leads to a training decision of OJT only. For example, if a task has low TE and TD ratings and a low percentage of first-enlistment members performing, then a low ATI is assigned to that task. Training personnel should focus on tasks with an ATI of 18, suggesting these tasks should be in the entry-level course. Table 28 lists tasks with the highest ATI ratings. Tasks with high ATI ratings are from numerous duty areas and many have high TE ratings. Because large percentages of first-enlistment personnel are performing these tasks and skilled TE raters have placed emphasis on these tasks, it is recommended that these be considered for training in the entry-level course.

Specialty Training Standard (STS)

AETCI 36-2601 states that "tasks performed by 20 percent or more of any criterion group should be considered for inclusion in the STS." Normally, STS sections and subsections matched to tasks which have high TE and/or TD ratings and are performed by at least 20 percent of personnel in appropriate experience or skill-level groups (such as first-job, first-enlistment and 5- and 7-skill level groups) are considered to be supported and should be recognized for inclusion in the STS (see Table 29). Likewise, paragraphs having tasks with less than 20 percent members performing across all the criterion groups should be considered for deletion from the STS. Using this standard, only one paragraph of the STS went unsupported. This was paragraph 1.3, *Skill Level Duties of AFSCs 1C531/51/71*. However, this non-technical paragraph describes the duties of AFSC 1C5X1 members, and is paramount to the STS. As such, this paragraph should be retained in the STS. Training personnel should carefully review all areas of the STS to determine which areas, if any, are suitable for deletion.

FIRST-ENLISTMENT SPECIALTY JOBS



* Other includes:
 1. Managerial Job
 2. Radar Evaluation Job

FIGURE 2

TABLE 25
REPRESENTATIVE TASKS PERFORMED BY
FIRST-ENLISTMENT PERSONNEL*

<u>TASKS</u>	PERCENT MEMBERS PERFORMING (N=184)
A68 Perform radio or telephone (RT) procedures	71
A61 Perform console or equipment setup or adjustment procedures	60
A16 Conduct shift change positional briefings	60
A62 Perform console or equipment shutdown procedures	56
A85 Update tracks	54
A11 Change radio frequencies on communications panels	54
A2 Accept simulated tracks	50
A1 Accept assigned tracks	50
A37 Evaluate track data	48
A12 Complete equipment performance checks	46
A45 Interpret radar returns on displays	44
A70 Perform secure communications procedures	44
E210 Maintain track continuity	42
A38 Expand, contract, or offset radar video displays	41
A84 Update console displays	41
A66 Perform lost track procedures	39
A40 Extract data from ATOs	34
E197 Detect targets and initiate track symbology on present position of data	33
L574 Safeguard classified materials	32
A81 Study enemy tactics, formations, or aircraft and equipment capabilities	32
E218 Perform drop or extrapolation procedures	30
C154 Maintain data links	28

* First-enlistment data reflect Active Duty members only

TABLE 26

TASKS RATED HIGHEST IN TRAINING EMPHASIS (TE)

TASK	TRAINING EMPHASIS*	PERCENT PERFORMING		TASK DIFFICULTY†
		FIRST- JOB** (N=47)	FIRST- ENLISTMENT** (N=184)	
A61	Perform console or equipment setup or adjustment procedures	6.76	55	60
E197	Detect targets and initiate track symbology on present position of data	6.47	36	34
A85	Update tracks	6.33	47	54
A45	Interpret radar returns or displays	6.27	38	44
A62	Perform console or equipment shutdown procedures	6.24	53	57
E210	Maintain track continuity	6.16	30	42
A68	Perform radio or telephone (RT) procedures	6.02	55	71
A12	Complete equipment performance checks	5.96	40	47
E198	Determine flight sizes	5.86	26	22
A1	Accept assigned tracks	5.84	34	51
E203	Identify aircraft using IFF/SIF procedures	5.82	40	34
A59	Perform authentication procedures	5.71	40	39
E199	Determine track classifications or identifications	5.53	28	26
E204	Identify aircraft using methods other than IFF/SIF procedures	5.51	30	32
A37	Evaluate track data	5.47	43	48
A2	Accept simulated tracks	5.45	49	50

* TE has an average of 1.89 and a standard deviation of 1.48 (high TE ratings are 3.37 and above)

** First-enlistment data reflect Active Duty members only

† TD has an average of 5.00 and a standard deviation of 1.00 (high TD ratings are 6.00 and above)

TABLE 27

TASKS RATED HIGHEST IN TASK DIFFICULTY (TD)

TASK	TASK DIFFICULTY*	PERCENT PERFORMING			TRAINING EMPHASIS†
		FIRST- JOB** (N=47)	FIRST- ENLISTMENT** (N=184)		
A81	Study enemy tactics, formations, or aircraft and equipment capabilities	38	32		2.06
G282	Perform mathematical computations to determine radar performances or characteristics	6	3		1.08
K529	Develop formal course curricula, plans of instruction (POIs), or specialty training standards (STSs)	2	3		.41
H326	Evaluate adversary aircraft maneuvers during DACT or ACT exercises	2	4		1.14
H314	Direct aircraft in precise timing holding patterns to achieve critical timing positional parameters	0	1		.73
G273	Develop test plans for new radar systems	0	1		.49
G274	Develop and justify radar evaluation computerized products	0	0		.45
I382	Determine specific source of personnel requirements for deployment manning documents	0	1		.41
H310	Determine geometries				
G275	Establish radar evaluation or quality control (QC) programs, such as PREPs	2	4		1.08
		0	1		.53
G279	Monitor evaluation flight patterns to interpret adverse environmental effects on aircraft cross-sections	0	1		1.14
K543	Prepare job qualification standards (JQSs)	0	3		.61
G284	Perform or assess data reductions	2	1		1.18

* TD has an average of 5.00 and a standard deviation of 1.00 (high TD ratings are 6.00 and above)

** First-enlistment data reflect Active Duty members only

† TE has an average of 1.89 and a standard deviation of 1.48 (high TE ratings are 3.37 and above)

TABLE 28

TASKS RATED HIGHEST AUTOMATED TRAINING INDICATOR RATINGS

TASKS	PERCENT PERFORMING				ATT†
	TASK DIFFICULTY*	FIRST ENLISTMENT** (N=184)	TRAINING EMPHASIS†		
L561	4.40	24	3.80	18	
A42	4.42	30	5.04	18	
A59	4.20	39	5.71	18	
A44	5.58	35	3.49	18	
A37	4.15	48	5.47	18	
A6	4.11	32	4.31	18	
Inventory classified materials					
Insert operational data into computers					
Perform authentication procedures					
Interpret ATOs or ACOs					
Evaluate track data					
Analyze mission information on schedules, status boards, or displays					
A41	4.81	31	4.43	18	
L552	4.50	35	4.41	18	
A45	4.00	44	6.27	18	
L574	4.81	32	4.96	18	
A80	4.27	52	5.43	18	
Respond to alerts or warnings, such as defense conditions (DEFCONs) or weather alerts					
A70	4.82	45	5.10	18	
A4	5.31	20	3.29	17	
J513	5.86	2	.73	16	
Perform secure communications procedures					
Analyze impacts of equipment malfunctions					
Supervise military personnel					

* TD has an average of 5.00 and a standard deviation of 1.00 (high TD ratings are 6.00 and above)

** First-enlistment data reflect Active Duty members only

† TE has an average of 1.89 and a standard deviation of 1.48 (high TE ratings are 3.37 and above)

‡ ATI ratings are based on high percent members performing for first-enlistment members, high TE, and sufficient TD

TABLE 29

EXAMPLE TASKS WITH MORE THAN 20 PERCENT MEMBERS PERFORMING NOT
MATCHED TO STS ELEMENTS

TASKS NOT REFERENCED	FIRST JOB* (N=47)	PERCENT MEMBERS PERFORMING				TASK DIFF**
		FIRST ENLIST* (N=184)	DAFSC 1C531B&C (N=122)	DAFSC 1C551&D (N=401)	DAFSC 1C571&D (N=158)	
I389 Don or doff chemical warfare personal protective clothing	30	32	21	29	24	3.15
L574 Safeguard classified materials	60	66	29	49	70	4.81
I397 Identify chemical warfare agents	17	17	15	17	17	6.03
L552 Destroy classified materials	58	69	33	51	67	4.50
I419 Perform chemical warfare agent decontamination procedures	13	16	15	13	14	5.88
I438 Tear down, inspect, clean, and reassemble weapons, such as M-16 rifles	21	23	23	21	18	4.26
L561 Inventory classified materials	45	54	23	39	54	4.40
I392 Erect tents	18	21	26	20	15	3.08
I426 Perform site security	13	18	23	15	11	4.66
I391 Erect camouflage nettings	19	22	26	20	15	3.35
I424 Perform personal camouflage procedures	13	15	13	14	11	3.62
I428 Prepare equipment for deployments	20	23	18	21	20	4.59
I437 Set up or tear down shelters	17	20	20	18	15	4.45
I420 Perform disease or pestilence countermeasures	4	4	1	2	5	6.11

* First-enlistment data reflect Active Duty members only

** TD has an average of 5.00 and a standard deviation of 1.00 (high TD ratings are 6.00 and above)

JOB SATISFACTION ANALYSIS

A critical tool in examining any career ladder's success is personal job satisfaction. Data from job satisfaction studies can be used by career ladder managers to gain a better understanding of what factors affect job performance. This OSR examined five job satisfaction variables: job interest, utilization of talents, utilization of training, sense of accomplishment, and reenlistment intentions.

Table 30 displays job satisfaction indicators for AFSC 1C5X1 TAFMS groups and a comparative sample group consisting of similar AFSC personnel interviewed in 1997. Data indicate first-enlistment personnel in the AFSC 1C5X1 career ladder are discontent with their current jobs. All job satisfaction ratings are lower for the AFSC 1C5X1 first-enlistment members than are those for the comparative sample first-enlistment members. The AFSC 1C5X1 49-96 month TAFMS group members' job satisfaction ratings were closer to those of the comparative sample; however, they were still consistently lower. Only the 97+ month TAFMS group had higher job satisfaction ratings than those of the comparative sample group.

Table 31 compares job satisfaction among the jobs and clusters. The data are useful in examining the career ladder for any deficiencies in training or job placement. By locating these deficiencies, if any, career ladder experts can make necessary adjustments to training or job placement. Members of the Air Surveillance and Weapons Director clusters, the two largest groups of the survey sample, expressed relatively high job satisfaction, particularly in perceived utilization of training. However, other core job groups expressed low job satisfaction. Members from the Data Link and Battle Management clusters expressed low job interest and sense of accomplishment. Low job satisfaction by these clusters is further reflected in reenlistment intentions, where only 58 percent of all Air Surveillance Cluster members and 49 percent of all Data Link Cluster members plan to reenlist.

Table 32 compares job satisfaction among the Active Duty and National Guard samples. The National Guard members expressed much higher job satisfaction in all response categories, particularly in perceived utilization of talents and perceived utilization of training. Reenlistment intentions were moderate for those not retiring at the end of their current enlistment. These data indicate members from both component groups perceive they are generally well trained and are relatively satisfied with their current duties.

TABLE 30

COMPARISON OF JOB SATISFACTION INDICATORS FOR AFSC 1C5X1 AND
COMPARATIVE SAMPLE GROUP**†
(PERCENT MEMBERS RESPONDING)

	<u>1-48 MONTHS TAFMS</u>		<u>49-96 MONTHS TAFMS</u>		<u>97+ MONTHS TAFMS</u>	
	1998 (N=184)	COMP SAMPLE (N=269)	1998 (N=105)	COMP SAMPLE (N=242)	1998 (N=430)	COMP SAMPLE (N=585)
<u>EXPRESSED JOB INTEREST:</u>						
INTERESTING	39	64	49	54	69	72
SO-SO	25	17	22	25	15	13
DULL	36	19	30	21	16	15
<u>PERCEIVED UTILIZATION OF TALENTS:</u>						
FAIRLY WELL TO PERFECTLY	42	69	60	60	77	74
LITTLE OR NOT AT ALL	58	31	40	40	23	26
<u>PERCEIVED UTILIZATION OF TRAINING:</u>						
FAIRLY WELL TO PERFECTLY	74	90	72	80	78	74
LITTLE OR NOT AT ALL	26	10	28	20	22	24
<u>SENSE OF ACCOMPLISHMENT:</u>						
SATISFIED	38	65	46	54	64	64
NEUTRAL	21	16	14	13	10	10
DISSATISFIED	41	19	40	33	25	26
<u>REENLISTMENT INTENTIONS:</u>						
YES, OR PROBABLY YES	42	47	48	56	70	68
NO, OR PROBABLY NO	58	52	52	44	10	11
PLAN TO RETIRE	0	0	0	0	20	21

* Comparative sample consists of similar Mission Equipment Operations AFSCs (e.g., Space Systems Operations and Tactical Air Command and Control)

† Job satisfaction columns may not add to 100 percent due to rounding

TABLE 31

COMPARISON OF JOB SATISFACTION DATA FOR CLUSTERS AND JOB TYPES
(PERCENT MEMBERS RESPONDING)

	ATO AUTOMATION JOB (N=6)	AIR SURVEILLANCE CLUSTER (N=377)	IDENTIFI- CATION JOB (N=65)	DATA LINK CLUSTER (N=82)	BATTLE MANAGEMENT CLUSTER (N=55)	WEAPONS DIRECTOR CLUSTER (N=195)
<u>EXPRESSED JOB INTEREST:</u>						
INTERESTING	67	69	74	55	49	72
SO-SO	17	16	17	12	31	16
DULL	17	15	9	33	18	11
<u>PERCEIVED UTILIZATION OF TALENTS:</u>						
FAIRLY WELL TO PERFECTLY	67	76	71	62	62	78
LITTLE OR NOT AT ALL	33	24	29	38	38	22
<u>PERCEIVED UTILIZATION OF TRAINING:</u>						
FAIRLY WELL TO PERFECTLY	33	90	89	80	67	91
LITTLE OR NOT AT ALL	67	10	11	20	33	9
<u>SENSE OF ACCOMPLISHMENT:</u>						
SATISFIED	67	63	60	54	53	71
NEUTRAL	17	14	15	12	16	9
DISSATISFIED	17	23	25	34	29	21
<u>REENLISTMENT INTENTIONS*:</u>						
YES, OR PROBABLY YES	83	58	68	49	71	69
NO, OR PROBABLY NO	17	32	27	36	12	24
PLAN TO RETIRE	0	10	5	15	14	7

* Reenlistment intentions reflect Active Duty personnel only

TABLE 31 (CONTINUED)

COMPARISON OF JOB SATISFACTION DATA FOR CLUSTERS AND JOB TYPES
(PERCENT MEMBERS RESPONDING)

	MOBILITY JOB (N=5)	MANAGERIAL JOB (N=78)	ACTION OFFICER JOB (N=6)	RADAR EVALUATION JOB (N=12)	TRAINING JOB (N=11)
<u>EXPRESSED JOB INTEREST:</u>					
INTERESTING	100	83	100	83	82
SO-SO	0	8	0	8	0
DULL	0	9	0	8	18
<u>PERCEIVED UTILIZATION OF TALENTS:</u>					
FAIRLY WELL TO PERFECTLY	100	82	84	92	91
LITTLE OR NOT AT ALL	0	18	17	8	9
<u>PERCEIVED UTILIZATION OF TRAINING:</u>					
FAIRLY WELL TO PERFECTLY	100	67	50	75	73
LITTLE OR NOT AT ALL	0	33	50	25	27
<u>SENSE OF ACCOMPLISHMENT:</u>					
SATISFIED	100	71	100	75	73
NEUTRAL	0	8	0	17	18
DISSATISFIED	0	22	0	8	9
<u>REENLISTMENT INTENTIONS*:</u>					
YES, OR PROBABLY YES	60	55	40	67	80
NO, OR PROBABLY NO	20	5	20	17	10
PLAN TO RETIRE	20	40	40	17	10

* Reenlistment intentions reflect Active Duty personnel only

TABLE 32

COMPARISON OF JOB SATISFACTION DATA FOR AFSC IC5X1
ACTIVE DUTY, NATIONAL GUARD, AND RESERVE GROUPS
(PERCENT MEMBERS RESPONDING)

	ACTIVE DUTY (N=719)	NATIONAL GUARD (N=363)
<u>EXPRESSED JOB INTEREST:</u>		
INTERESTING	58	83
SO-SO	19	10
DULL	23	6
<u>PERCEIVED UTILIZATION OF TALENTS:</u>		
FAIRLY WELL TO PERFECTLY	65	85
LITTLE OR NOT AT ALL	35	15
<u>PERCEIVED UTILIZATION OF TRAINING:</u>		
FAIRLY WELL TO PERFECTLY	76	94
LITTLE OR NOT AT ALL	24	6
<u>SENSE OF ACCOMPLISHMENT:</u>		
SATISFIED	55	77
NEUTRAL	13	10
DISSATISFIED	31	13
<u>REENLISTMENT INTENTIONS:</u>		
YES, OR PROBABLY YES	60	77
NO, OR PROBABLY NO	28	12
PLAN TO RETIRE	12	11

IMPLICATIONS

In terms of tasks performed and relative time spent on duties, the Aerospace Control and Warning Systems structure appears to have changed very little since the previous study conducted in 1994 (see Table 5), as core jobs remain similar. DAFSC 1C531B, 1C531C, and 1C551 members are performing technical tasks in their duty time as they are found in the Air Surveillance Cluster, Identification Job, Data Link Cluster, and Battle Management Cluster. DAFSC 1C551D and 1C571D members also perform technical work in the Weapons Director Cluster. Members advancing to the 7-skill level begin to take on supervisory roles. Though members are still found in the Air Surveillance Cluster as well as the Battle Management Cluster, they are performing the work of a first-line supervisor and are also making the transition to the Managerial Job. The 9/00-skill level personnel are managerial in nature and spend their time performing supervisory activities.

Analysis of the AFSC 1C5X1 STS reflected support for all but one element with matched tasks. Those tasks with high percent members performing not matched to STS elements had only moderate attached TD ratings, further illustrating a well-supported STS document. The STS document should be thoroughly examined to determine if elements should be retained, deleted, or revised in the next Career Field Education and Training Plan (CFETP). Some training elements may be critical to retain due to certain safety or mission essential functions though performance indicators are low. The tasks with high percentages of members performing should be examined for inclusion into the CFETP document.

The personnel of the AFSC 1C5X1 career ladder expressed moderate job satisfaction. Reenlistment intentions were moderate throughout most job and component groups. This indicates members feel they are generally well trained and their skills are properly applied to their jobs.

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APPENDIX A

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

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TABLE A1

REPRESENTATIVE TASKS PERFORMED BY ATO AUTOMATION JOB

TASKS	PERCENT MEMBERS PERFORMING (N=6)
B89 Build ATOs or ACOs	100
B117 Disseminate ATOs or ACOs	100
A40 Extract data from automated ATOs	83
A32 Download or upload automated ATOs	83
A9 Analyze or post air tasking orders (ATOs) or airspace control orders (ACOs)	67
A44 Interpret ATOs or ACOs	67
A31 Disseminate computer-generated data	67
B123 Monitor execution of ATOs or ACOs	50
E207 Load ATOs	50
A42 Insert operational data into computers	50
A39 Extract mission data from computer systems	33
K525 Conduct OJT	33
L574 Safeguard classified materials	33
B101 Coordinate allocations of IFF/SIF codes with other agencies	33
L552 Destroy classified materials	33
I426 Perform site security	33
L548 Annotate security forms for facilities or security containers	33
A70 Perform secure communications procedures	33
J500 Participate in general meetings, such as staff meetings, briefings, conferences, or workshops, other than conducting	33
A68 Perform radio or telephone (RT) procedures	17
A80 Respond to alerts or warnings, such as defense conditions (DEFCONs) or weather alerts	17
D168 Control quality or quantity of data inputs or outputs	17
M590 Pick up or deliver equipment, tools, parts, or supplies	17
H347 Plan training tactics	17
J465 Direct training functions	17
M578 Develop equipment checklists	17
A81 Study enemy tactics, formations, or aircraft and equipment capabilities	17
A21 Coordinate aircraft requests for information or actions with ground agencies	17
L561 Inventory classified materials	17

TABLE A2

REPRESENTATIVE TASKS PERFORMED BY AIR SURVEILLANCE CLUSTER

TASKS		PERCENT MEMBERS PERFORMING (N=377)
A16	Conduct shift change positional briefings	91
A61	Perform console or equipment setup or adjustment procedures	91
A68	Perform radio or telephone (RT) procedures	89
A80	Respond to alerts or warnings, such as defense conditions (DEFCONs) or weather alerts	86
A62	Perform console or equipment shutdown procedures	84
A10	Brief relieving crews on changes in policies, procedures, or operational status	81
A45	Interpret radar returns or displays	80
A12	Complete equipment performance checks	80
A11	Change radio frequencies on communications panels	78
A37	Evaluate track data	77
A85	Update tracks	77
A38	Expand, contract, or offset radar video displays	77
A70	Perform secure communications procedures	75
A76	Report equipment malfunctions or substandard performance to appropriate agencies	75
A84	Update console displays	73
A82	Switch console function modes	72
A18	Configure console displays to depict operational information, such as coastlines, air bases, or training areas	71
A13	Conduct emergency evacuation procedures	71
A1	Accept assigned tracks	68
A59	Perform authentication procedures	68
A57	Monitor or evaluate display console activities	66
A58	Monitor or evaluate equipment performance	66
A41	Identify computer malfunctions	65
D160	Analyze or identify jamming or interference	64
A66	Perform lost track procedures	63
A2	Accept simulated tracks	63
A56	Monitor weather, tactical, or operational data	61
A53	Monitor defense areas or zones	60
B125	Perform emergency action procedures	60
E231	Report unknown aircraft	59
A72	Recognize and report electromagnetic interferences (EMIs) or electronic attacks	59
A48	Load crypto variables	58
L552	Destroy classified materials	58
E210	Maintain track continuity	58

TABLE A3

REPRESENTATIVE TASKS PERFORMED BY IDENTIFICATION JOB

TASKS	PERCENT MEMBERS PERFORMING (N=65)
E203 Identify aircraft using IFF/SIF procedures	95
E199 Determine track classifications or identifications	92
E204 Identify aircraft using methods other than IFF/SIF procedures	91
E196 Correlate targets with known flight plans	86
E214 Obtain identification information from other agencies	85
A68 Perform radio or telephone (RT) procedures	82
E231 Report unknown aircraft	82
A16 Conduct shift change positional briefings	77
A70 Perform secure communications procedures	77
A69 Perform safe passage procedures	75
A59 Perform authentication procedures	75
E206 Interpret flight plan information	74
A80 Respond to alerts or warnings, such as defense conditions (DEFCONs) or weather alerts	71
E197 Detect targets and initiate track symbology on present position of data	69
A66 Perform lost track procedures	69
A61 Perform console or equipment setup or adjustment procedures	69
E218 Perform drop or extrapolation procedures	68
A85 Update tracks	66
A82 Switch console function modes	66
E210 Maintain track continuity	63
E217 Perform correlation checks	62
A38 Expand, contract, or offset radar video displays	60
A22 Coordinate identification friend or foe (IFF)/selective identification feature (SIF) problems with Federal Aviation Administration (FAA) control centers or foreign agencies	60
A10 Brief relieving crews on changes in policies, procedures, or operational status	57
A37 Evaluate track data	54
A53 Monitor defense areas or zones	52
B101 Coordinate allocations of IFF/SIF codes with other agencies	52
E200 Direct identification coordination or communication actions	51
E198 Determine flight sizes	51
A84 Update console displays	49
E208 Maintain computerized flight plan data	48
A45 Interpret radar returns or displays	43
L574 Safeguard classified materials	42
E188 Assign numbers and amplify data to tracks	40

TABLE A4

REPRESENTATIVE TASKS PERFORMED BY DATA LINK CLUSTER

TASKS		PERCENT MEMBERS PERFORMING (N=82)
C154	Maintain data links	96
C155	Monitor data link displays	95
C150	Establish data links	95
A16	Conduct shift change positional briefings	93
C151	Identify data link malfunctions during digital data link interface operations	90
A11	Change radio frequencies on communications panels	90
A68	Perform radio or telephone (RT) procedures	88
C141	Build data link filters	88
C159	Resolve data link conflicts	85
A61	Perform console or equipment setup or adjustment procedures	80
C156	Perform digital information link procedures	79
A70	Perform secure communications procedures	76
A48	Load crypto variables	76
A12	Complete equipment performance checks	76
C144	Coordinate data link filters with other agencies	74
A62	Perform console or equipment shutdown procedures	74
C149	Establish data link equipment operation parameters	73
A10	Brief relieving crews on changes in policies, procedures, or operational status	73
A15	Conduct radio checks with aircraft	72
A18	Configure console displays to depict operational information, such as coastlines, air bases, or training areas	67
C145	Coordinate operations tasking links with other agencies	61
A45	Interpret radar returns or displays	61
A13	Conduct emergency evacuation procedures	61
A85	Update tracks	59
A52	Monitor air-to-ground or air-to-air communications	57
A76	Report equipment malfunctions or substandard performance to appropriate agencies	57
A36	Establish radio contact with aircrews	56
A80	Respond to alerts or warnings, such as defense conditions (DEFCONs) or weather alerts	56
A37	Evaluate track data	55
C152	Interpret operations tasking links	55
A59	Perform authentication procedures	54
A41	Identify computer malfunctions	51
A84	Update console displays	50
A38	Expand, contract, or offset radar video displays	50
A1	Accept assigned tracks	49

TABLE A5

REPRESENTATIVE TASKS PERFORMED BY BATTLE MANAGEMENT CLUSTER

TASKS	PERCENT MEMBERS PERFORMING (N=55)
A16 Conduct shift change positional briefings	95
A10 Brief relieving crews on changes in policies, procedures, or operational status	89
A80 Respond to alerts or warnings, such as defense conditions (DEFCONs) or weather alerts	89
A59 Perform authentication procedures	87
A70 Perform secure communications procedures	82
L552 Destroy classified materials	80
A13 Conduct emergency evacuation procedures	76
A24 Coordinate search and rescue actions with other agencies	71
A68 Perform radio or telephone (RT) procedures	69
L561 Inventory classified materials	69
L574 Safeguard classified materials	67
A48 Load crypto variables	67
B125 Perform emergency action procedures	65
B126 Receive or record intelligence information	64
B133 Report hijacked aircraft to higher authorities	64
A6 Analyze mission information on schedules, status boards, or displays	62
A12 Complete equipment performance checks	60
B104 Coordinate emergency actions with command and control agencies	60
B97 Conduct mission or exercise crew briefings or crew debriefings	58
A75 Report authentication compromises	58
A11 Change radio frequencies on communications panels	56
B118 Inform higher echelons of operational conditions affecting mission accomplishment	55
A23 Coordinate scramble actions with other agencies	55
B100 Coordinate alerts or warnings with other positions or agencies	55
A54 Monitor search and rescue operations	55
A52 Monitor air-to-ground or air-to-air communications	51
A56 Monitor weather, tactical, or operational data	51
A61 Perform console or equipment setup or adjustment procedures	51
A4 Analyze impacts of equipment malfunctions	51
B105 Coordinate equipment downtimes with maintenance personnel	49
A18 Configure console displays to depict operational information, such as coastlines, air bases, or training areas	49
A76 Report equipment malfunctions or substandard performance to appropriate agencies	49
A62 Perform console or equipment shutdown procedures	49
B134 Report or disseminate intelligence information	47

TABLE A6

REPRESENTATIVE TASKS PERFORMED BY WEAPONS DIRECTOR CLUSTER

TASKS		PERCENT MEMBERS PERFORMING (N=195)
A68	Perform radio or telephone (RT) procedures	96
A11	Change radio frequencies on communications panels	92
A61	Perform console or equipment setup or adjustment procedures	91
H309	Determine aircraft positions during dissimilar or aerial combat tactics (DACT or ACT) exercises	88
A81	Study enemy tactics, formations, or aircraft and equipment capabilities	88
A25	Coordinate or direct aircraft radio frequency changes with aircraft or ground agencies	88
A38	Expand, contract, or offset radar video displays	87
H341	Monitor flying safety	87
H304	Coordinate aircraft recoveries with other agencies	87
A15	Conduct radio checks with aircraft	86
H296	Assist in conducting or conduct air refueling operations	86
A79	Request weather information	86
A45	Interpret radar returns or displays	85
A21	Coordinate aircraft requests for information or actions with ground agencies	85
A52	Monitor air-to-ground or air-to-air communications	85
H300	Assist in conducting or conduct tactical intercepts	85
H335	Hand off aircraft to other controlling agencies	85
H306	Coordinate handoffs with other agencies	84
H342	Monitor or update status of aircraft fuel, armament, or recovery base information	83
H290	Accept control of aircraft from other control agencies	83
H308	Deconflict aircraft with respect to routes, altitudes, or headings	83
A36	Establish radio contact with aircrews	82
H344	Perform aircraft-declared emergency procedures	81
H299	Assist in conducting or conduct offensive or defensive missions	79
A16	Conduct shift change positional briefings	79
A62	Perform console or equipment shutdown procedures	78
A80	Respond to alerts or warnings, such as defense conditions (DEFCONs) or weather alerts	77
A18	Configure console displays to depict operational information, such as coastlines, air bases, or training areas	77
A6	Analyze mission information on schedules, status boards, or displays	76
H351	Relay aircraft status	75
A84	Update console displays	74
A83	Transmit weather information to aircraft	74
A74	Report airspace violations	74

TABLE A7

REPRESENTATIVE TASKS PERFORMED BY MOBILITY JOB

TASKS		PERCENT MEMBERS PERFORMING (N=5)
A68	Perform radio or telephone (RT) procedures	100
L574	Safeguard classified materials	100
A79	Request weather information	100
A45	Interpret radar returns or displays	100
I389	Don or doff chemical warfare personal protective clothing	100
I380	Coordinate specific source of personnel requirements with appropriate agencies	80
I417	Participate in mobility exercise planning meetings	80
I379	Coordinate mobility exercise or contingency requirements with appropriate agencies	80
J483	Evaluate mobility, contingency, disaster preparedness, or unit emergency or alert plans	80
I406	Maintain disaster preparedness checklists	80
I433	Review OPLANs to determine unit or personnel responsibilities	80
I404	Load or offload vehicles	80
I410	Monitor mobility deployment kits	80
J447	Conduct self-inspections or self-assessments	80
I428	Prepare equipment for deployments	80
I384	Develop personnel recall and accounting procedures	80
I374	Conduct mobility or contingency procedure orientations or briefings	80
I385	Develop workcenter pyramid recall plans	80
A81	Study enemy tactics, formations, or aircraft and equipment capabilities	80
I398	Identify equipment or personnel requirements for mobility exercises or deployments	80
A80	Respond to alerts or warnings, such as defense conditions (DEFCONs) or weather alerts	80
J500	Participate in general meetings, such as staff meetings, briefings, conferences, or workshops, other than conducting	60
H341	Monitor flying safety	60
I377	Coordinate deployment of personnel with other MAJCOMs or joint service commands	60
E203	Identify aircraft using IFF/SIF procedures	60
L552	Destroy classified materials	60
J499	Maintain or update contingency plans, mobility plans, or base support plans	60
L561	Inventory classified materials	60
I390	Draft or write mobility exercise or deployment after-action reports	60

TABLE A8

REPRESENTATIVE TASKS PERFORMED BY MANAGERIAL JOB

TASKS		PERCENT MEMBERS PERFORMING (N=78)
J500	Participate in general meetings, such as staff meetings, briefings, conferences, or workshops, other than conducting	97
J513	Supervise military personnel	90
J518	Write recommendations for awards or decorations	88
J496	Inspect personnel for compliance with military standards	87
J516	Write performance reports or supervisory appraisals	85
J453	Counsel subordinates concerning personal matters	83
J511	Schedule work assignments or priorities	82
J457	Determine or establish work assignments or priorities	82
J446	Conduct general meetings, such as staff meetings, briefings, conferences, or workshops	81
J501	Plan briefings, conferences, or workshops	78
J449	Conduct supervisory performance feedback sessions	78
J485	Evaluate personnel for promotion, demotion, reclassification, or special awards	77
J488	Evaluate workload requirements	77
J464	Direct administrative functions	77
J484	Evaluate personnel for compliance with performance standards	76
J451	Conduct supervisory orientations for newly assigned personnel	76
J463	Develop or establish work schedules	76
J487	Evaluate work schedules	74
J509	Schedule personnel for temporary duty (TDY) assignments, leaves, or passes	74
J474	Establish performance standards for subordinates	74
J515	Write job or position descriptions	74
J497	Interpret policies, directives, or procedures for subordinates	73
J443	Assign personnel to work areas or duty positions	72
J462	Develop or establish work methods or procedures	72
J495	Initiate actions required due to substandard performance of personnel	72
J447	Conduct self-inspections or self-assessments	69
J480	Evaluate job or position descriptions	68
J481	Evaluate job-related suggestions	67
J465	Direct training functions	67
L574	Safeguard classified materials	64
J508	Review drafts of policy directives, instructions, or manuals	63
J467	Draft agenda for general meetings, such as staff meetings, briefings, conferences, or workshops	63
J492	Indorse performance reports or supervisory appraisals	62
J517	Write staff studies, surveys, or routine reports, other than training or inspection reports	45

TABLE A9

REPRESENTATIVE TASKS PERFORMED BY ACTION OFFICER JOB

TASKS	PERCENT MEMBERS PERFORMING (N=6)
J500 Participate in general meetings, such as staff meetings, briefings, conferences, or workshops, other than conducting	100
L549 Compile data for records, reports, logs, or trend analyses	100
J517 Write staff studies, surveys, or routine reports, other than training or inspection reports	100
J501 Plan briefings, conferences, or workshops	100
L551 Coordinate requests for TDY orders with appropriate agencies	100
L548 Annotate security forms for facilities or security containers	100
L556 Initiate classified reports, messages, or documents	100
L575 Write minutes of briefings, conferences, or meetings	83
L560 Initiate requests for TDY orders	83
J467 Draft agenda for general meetings, such as staff meetings, briefings, conferences, or workshops	83
L574 Safeguard classified materials	67
L571 Prepare administrative or classified materials for mailing, transporting, or issue	67
G267 Analyze radar data to determine trends	67
L552 Destroy classified materials	67
J446 Conduct general meetings, such as staff meetings, briefings, conferences, or workshops	67
L555 Identify and report suspected security compromises	67
J471 Establish administrative files, such as correspondence files or classified files	67
A58 Monitor or evaluate equipment performance	50
J508 Review drafts of policy directives, instructions, or manuals	50
M589 Maintain organizational equipment or supply records, such as custodian authorization/custody receipt listings (CA/CRLs)	50
J462 Develop or establish work methods or procedures	50
J473 Establish organizational policies, such as operating instructions (OIs) or standard operating procedures (SOPs)	50
M581 Initiate documentation to turn in excess or surplus property	50
L561 Inventory classified materials	50
A37 Evaluate track data	50
M585 Issue or log turn-ins of equipment, tools, parts, or supplies	33
M583 Initiate requisitions for equipment, tools, parts, or supplies	33

TABLE A10

REPRESENTATIVE TASKS PERFORMED BY RADAR EVALUATION JOB

TASKS		PERCENT MEMBERS PERFORMING (N=12)
G277	Interpret effects of weather on radar	100
G267	Analyze radar data to determine trends	92
E202	Evaluate radar coverage	92
G271	Conduct periodic radar evaluation programs (PREPs)	92
G272	Determine standard deviations from acceptable search, beacon, and height tolerances	92
G284	Perform or assess data reductions	83
A37	Evaluate track data	83
G282	Perform mathematical computations to determine radar performances or characteristics	83
G289	Upload evaluation data into computers	83
A45	Interpret radar returns or displays	83
D181	Monitor radar evaluation flights	75
G274	Develop and justify radar evaluation computerized products	75
D183	Perform height accuracy checks	75
G281	Perform integration or adaptation checks between site or user locations	75
G279	Monitor evaluation flight patterns to interpret adverse environmental effects on aircraft cross-sections	75
A58	Monitor or evaluate equipment performance	75
G280	Organize evaluation tracks into specific categories or groups	67
G287	Recommend or plot evaluation flight routes	67
D182	Obtain height correction factors from weather agencies	67
G278	Investigate system degradations	67
G268	Brief operations personnel or pilots on evaluation flight parameters	67
G269	Collect weather data for determining D-values and height refraction indexes	67
K528	Determine training requirements	67
E229	Record tracks	58
A57	Monitor or evaluate display console activities	58
G288	Score radar evaluation flights	58
G270	Compile measurements of radar display presentations	58
L549	Compile data for records, reports, logs, or trend analyses	58
K525	Conduct OJT	58
J474	Establish performance standards for subordinates	58
K538	Evaluate progress of trainees	58
G276	Identify unique radar characteristics for optimum performance	50
A31	Disseminate computer-generated data	50

TABLE A11

REPRESENTATIVE TASKS PERFORMED BY TRAINING JOB

TASKS	PERCENT MEMBERS PERFORMING (N=11)
K532 Develop training programs, plans, or procedures	100
K531 Develop training materials or aids	100
K534 Evaluate personnel to determine training needs	100
K538 Evaluate progress of trainees	100
K533 Establish or maintain study reference files	100
K535 Evaluate training methods or techniques of instructors	100
K539 Inspect training materials or aids for operation or suitability	100
K528 Determine training requirements	100
K537 Evaluate effectiveness of training programs, plans, or procedures	100
K540 Maintain training records or files	91
K530 Develop performance tests	91
K527 Counsel trainees on training progress	91
K546 Write test questions	91
K529 Develop formal course curricula, plans of instruction (POI), or specialty training standards (STSs)	91
K536 Evaluate training requirements for instructors	91
K520 Administer or score tests	91
K541 Personalize lesson plans	82
K525 Conduct OJT	82
K524 Conduct formal course classroom training	73
K526 Conduct training conferences, briefings, or debriefings	73
K545 Schedule training	73
K522 Brief organizational personnel concerning training programs or matters	73
K547 Write training reports	64
K544 Procure training aids, space, or equipment	64
J513 Supervise military personnel	55
K523 Complete student entry or withdrawal forms	55
K521 Assign formal course instructors or on-the-job training (OJT) trainers or certifiers	55
A41 Identify computer malfunctions	55
A61 Perform console or equipment setup or adjustment procedures	55
A12 Complete equipment performance checks	45
J465 Direct training functions	36
K542 Prepare command standard training packages	36

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