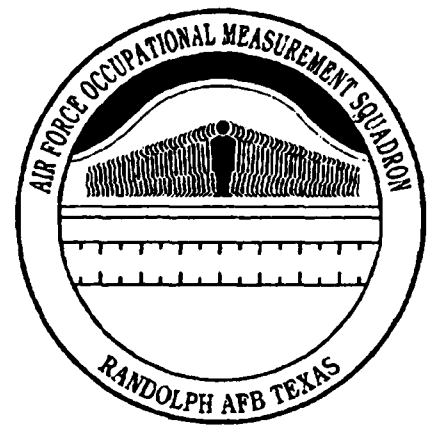


OTIC

AD-A285 284



UNITED STATES  
AIR FORCE



# OCCUPATIONAL SURVEY REPORT

OTIC  
SEP 27 1994

AIRBORNE COMMUNICATIONS SYSTEMS AND  
AIRBORNE COMMAND AND CONTROL COMMUNICATIONS EQUIPMENT

AFSCs 1A3X1/1A5X2

AFPTs 90-116-999 AND 90-118-001

SEPTEMBER 1994

94-31808



126A

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

APPROVED FOR PUBLIC RELEASE; DISTRIBUTION UNLIMITED

**DISTRIBUTION FOR AFSCs 1A3X1/1A5X2 OSR**

	<u>OSR</u>	<u>ANL EXT</u>	<u>TNG EXT</u>	<u>JOB INV</u>
AFOMS/OMDQ	1			
AFOMS/OMYXL	10		*5	10
AL/HRMM	2			
AL/HRTE	1		*1	
ARMY OCCUPATIONAL SURVEY BRANCH	1			
CCAF/AYX	1			
DEFENSE TECHNICAL INFORMATION CENTER	2			
HQ ACC/DPTTF	3		*3	
HQ AFMPC/DPMRAD3	1			
HQ AFMPC/DPMYCO3	2			
HQ AFSOC/DPAPT	3		*3	
HQ AMC/DPAET	1			
HQ PACAF/DPAET	3		*3	
HQ USAF/XOOT	1		1	
HQ USAFE/DPATTJ	3		*3	
NODAC	1			
STANDARDS BRANCH	1			
335 TRS/TTOT	3		3	3
600 HANGAR ROAD, ROOM 123				
KEESLER AFB MS 39534-2235				
332 TRS/TTOT	3		3	3
613 HANGAR ROAD				
KEESLER AFB MS 39534-2237				
81 TRG/CCVT	1		1	
825 HERCULES STREET, STE 101				
KEESLER AFB MS 39534-2037				

\* Includes copies of each TNG EXT (Both AFSCs are in one OSR but there are separate TNG Extracts)

## TABLE OF CONTENTS

	<b><u>PAGE NUMBER</u></b>
<b>PREFACE</b> .....	viii
<b>SUMMARY OF RESULTS</b> .....	x-xi
<b>INTRODUCTION</b> .....	1
Background.....	1
AFSC 1A3X1 Career Ladder.....	1
AFSC 1A5X2 Career Ladder.....	2
Organization of This Report.....	2
<b>SURVEY METHODOLOGY</b> .....	3
Inventory Development.....	3
Survey Administration.....	4
Survey Sample.....	4
Task Factor Administration.....	7
<b>SPECIALTY JOBS (Career Ladder Structure)</b> .....	7
Overview of Specialty Jobs.....	8
Group Descriptions.....	9
Summary.....	29
Comparison to Previous Survey.....	32
Specialty Job Satisfaction Analysis.....	32
<b>AFSC 1A3X1</b> .....	34
Analysis of DAFSC Groups.....	34
Skill-Level Descriptions and Comparisons.....	34
AFMAN 36-2108 <i>Specialty Descriptions</i> Analysis.....	45
Training Analysis.....	45
First-Enlistment Personnel Analysis.....	45
TE and TD Data.....	48
Training Documents.....	53
AFSC 1A3X1 STS.....	53
AFSC 1A3X1 POI.....	56
Job Satisfaction Analysis.....	56

**TABLE OF CONTENTS (CONTINUED)**

	<b><u>PAGE NUMBER</u></b>
<b>AFSC 1A5X2</b> .....	61
Analysis of DAFSC Groups.....	61
Skill-Level Descriptions and Comparisons .....	67
AFMAN 36-2108 <i>Specialty Descriptions</i> Analysis .....	72
Training Analysis .....	72
First-Enlistment Personnel Analysis .....	72
TD Data .....	74
Training Documents .....	79
Job Satisfaction Analysis .....	83
Comparison of AFSC 1A3X1 to AFSC 1A5X2 .....	93
<b>IMPLICATIONS</b> .....	94

Accession For	
NTIS CRA&I	<input checked="" type="checkbox"/>
DTIC TAB	<input type="checkbox"/>
Unannounced	<input type="checkbox"/>
Justification .....	
By .....	
Distribution / .....	
Availability Codes	
Dist	Availability and/or Special
<b>A-1</b>	

**TABLE OF CONTENTS**  
(Tables, Figures, Appendices)

	<u>PAGE NUMBER</u>
TABLE 1 - MAJCOM REPRESENTATION OF SAMPLE AFSCs 1A3X1/1A5X2 .....	5
TABLE 2 - PAYGRADE DISTRIBUTION OF SAMPLE AFSCs 1A3X1/1A5X2 .....	6
TABLE 3 - TIME SPENT ACROSS DUTIES BY CAREER LADDER JOBS (RELATIVE PERCENT OF TIME SPENT) .....	10-11
TABLE 4 - SELECTED BACKGROUND DATA ON PERSONNEL IN CAREER LADDER JOBS .....	12-13
TABLE 5 - JOB SPECIALTY COMPARISON BETWEEN CURRENT AND PREVIOUS AFSC 1A3X1 OCCUPATIONAL SURVEYS .....	30
TABLE 6 - JOB SPECIALTY COMPARISON BETWEEN CURRENT AND PREVIOUS AFSC 1A5X2 OCCUPATIONAL SURVEYS .....	31
TABLE 7 - COMPARISON OF JOB SATISFACTION INDICATORS FOR SPECIALTY JOB MEMBERS (PERCENT MEMBERS RESPONDING) .....	33
TABLE 8 - DISTRIBUTION OF DAFSC 1A3X1 GROUP MEMBERS ACROSS CAREER LADDER JOBS .....	35
TABLE 9 - TIME SPENT ON DUTIES BY MEMBERS OF AFSC 1A3X1 SKILL-LEVEL GROUPS (RELATIVE PERCENT OF JOB TIME) .....	36
TABLE 10 - REPRESENTATIVE TASKS PERFORMED BY 1A331 PERSONNEL .....	37
TABLE 11 - REPRESENTATIVE TASKS PERFORMED BY 1A351 PERSONNEL .....	39
TABLE 12 - TASKS WHICH BEST DIFFERENTIATE BETWEEN DAFSC 1A331 AND DAFSC 1A351 PERSONNEL (PERCENT MEMBERS PERFORMING) .....	40
TABLE 13 - REPRESENTATIVE TASKS PERFORMED BY 1A371 PERSONNEL .....	41
TABLE 14 - TASKS WHICH BEST DIFFERENTIATE BETWEEN DAFSC 1A351 AND DAFSC 1A371 PERSONNEL (PERCENT MEMBERS PERFORMING) .....	42
TABLE 15 - REPRESENTATIVE TASKS PERFORMED BY 1A391 PERSONNEL .....	43
TABLE 16 - TASKS WHICH BEST DIFFERENTIATE BETWEEN DAFSC 1A371 AND DAFSC 1A391 PERSONNEL (PERCENT MEMBERS PERFORMING) .....	44
TABLE 17 - REPRESENTATIVE TASKS PERFORMED BY 1A300 PERSONNEL .....	46
TABLE 18 - TASKS WHICH BEST DIFFERENTIATE BETWEEN DAFSC 1A391 AND DAFSC 1A300 PERSONNEL (PERCENT MEMBERS PERFORMING) .....	47
TABLE 19 - RELATIVE PERCENT OF TIME SPENT ACROSS DUTIES BY FIRST-ENLISTMENT AFSC 1A3X1 PERSONNEL .....	49
TABLE 20 - REPRESENTATIVE TASKS PERFORMED BY FIRST-ENLISTMENT AFSC 1A3X1 PERSONNEL .....	50
TABLE 21 - EMERGENCY EQUIPMENT USED BY MORE THAN 50 PERCENT OF AFSC 1A3X1 FIRST-ENLISTMENT PERSONNEL .....	51

**TABLE OF CONTENTS (CONTINUED)**  
(Tables, Figures, Appendices)

		<u>PAGE NUMBER</u>
TABLE 22	- COMMUNICATION AND AVIONICS EQUIPMENT USED BY MORE THAN 40 PERCENT OF AFSC 1A3X1 FIRST-ENLISTMENT PERSONNEL .....	52
TABLE 23	- SAMPLE TASKS WITH HIGHEST TASK DIFFICULTY RATINGS .....	54-55
TABLE 24	- EXAMPLES OF AFSC 1A3X1 STS ELEMENTS NOT SUPPORTED BY SURVEY DATA (AFSC 1A3X1) .....	57
TABLE 25	- EXAMPLES OF TECHNICAL TASKS NOT REFERENCED TO THE STS (AFSC 1A3X1) .....	58
TABLE 26	- EXAMPLES OF POI E3ABR1A331 ELEMENTS NOT SUPPORTED BY SURVEY DATA .....	59
TABLE 27	- EXAMPLES OF TECHNICAL TASKS NOT REFERENCED TO POI E3ABR1A331 .....	60
TABLE 28	- COMPARISON OF JOB SATISFACTION INDICATORS FOR AFSC 1A3X1 TAFMS GROUPS IN CURRENT STUDY TO A COMPARATIVE SAMPLE (Percent Members Responding) .....	62-63
TABLE 29	- COMPARISON OF AFSC 1A3X1 JOB SATISFACTION INDICATORS FOR CURRENT AND PREVIOUS SURVEY (Percent Members Responding) .....	64
TABLE 30	- DISTRIBUTION OF DAFSC 1A5X2 GROUP MEMBERS ACROSS CAREER LADDER JOBS (Percent) .....	65
TABLE 31	- TIME SPENT ON DUTIES BY MEMBERS OF AFSC 1A5X2 SKILL-LEVEL GROUPS (RELATIVE PERCENT OF JOB TIME) .....	66
TABLE 32	- REPRESENTATIVE TASKS PERFORMED BY 1A532 PERSONNEL .....	68
TABLE 33	- REPRESENTATIVE TASKS PERFORMED BY 1A552 PERSONNEL .....	69
TABLE 34	- TASKS WHICH BEST DIFFERENTIATE BETWEEN DAFSC 1A532 AND DAFSC 1A552 PERSONNEL (PERCENT MEMBERS PERFORMING) .....	70
TABLE 35	- REPRESENTATIVE TASKS PERFORMED BY 1A572 PERSONNEL .....	71
TABLE 36	- TASKS WHICH BEST DIFFERENTIATE BETWEEN DAFSC 1A552 AND DAFSC 1A572 PERSONNEL (PERCENT MEMBERS PERFORMING) .....	73
TABLE 37	- RELATIVE PERCENT OF TIME SPENT ACROSS DUTIES BY FIRST-ENLISTMENT AFSC 1A5X2 PERSONNEL .....	75
TABLE 38	- REPRESENTATIVE TASKS PERFORMED BY FIRST-ENLISTMENT AFSC 1A5X2 PERSONNEL .....	76
TABLE 39	- EMERGENCY EQUIPMENT USED BY MORE THAN 50 PERCENT OF AFSC 1A5X2 FIRST-ENLISTMENT PERSONNEL .....	77
TABLE 40	- COMMUNICATION AND AVIONICS EQUIPMENT USED BY MORE THAN 40 PERCENT OF AFSC 1A5X2 FIRST-ENLISTMENT PERSONNEL .....	78
TABLE 41	- EXAMPLE TASKS WITH HIGHEST TRAINING DIFFICULTY RATINGS .....	80-81

**TABLE OF CONTENTS (CONTINUED)**  
**(Tables, Figures, Appendices)**

	<u>PAGE NUMBER</u>
TABLE 42 - EXAMPLES OF AFSC 1A3X1 STS ELEMENTS NOT SUPPORTED BY SURVEY DATA (AFSC 1A5X2) .....	82
TABLE 43 - EXAMPLES OF TECHNICAL TASKS NOT REFERENCED TO THE STS (AFSC 1A5X2) .....	84
TABLE 44 - EXAMPLES OF POI E3000BQOTX ELEMENTS NOT SUPPORTED BY SURVEY DATA.....	85
TABLE 45 - EXAMPLES OF TECHNICAL TASKS NOT REFERENCED TO POI E000BQOTX.....	86
TABLE 46 - EXAMPLES OF TECHNICAL TASKS NOT REFERENCED TO POI ERAQR11831.....	87
TABLE 47 - COMPARISON OF JOB SATISFACTION INDICATORS FOR AFSC 1A5X2 TAFMS GROUPS IN CURRENT STUDY TO A COMPARATIVE SAMPLE (Percent Members Responding).....	89-90
TABLE 48 - COMPARISON OF AFSC 1A5X2 JOB SATISFACTION INDICATORS FOR CURRENT AND PREVIOUS SURVEY (Percent Members Responding) .....	91-92
FIGURE 1 - .....	8
FIGURE 2 - .....	48
FIGURE 3 - .....	74
APPENDIX A -SELECTED REPRESENTATIVE TASKS PERFORMED BY MEMBERS OF CAREER LADDER JOBS .....	95
APPENDIX B - EXPANDED LIST OF TASK MODULE STATEMENTS .....	97

INTENTIONALLY LEFT BLANK



## PREFACE

This report presents the results of an Air Force Occupational Survey of the Airborne Communication Systems Operator (AFSC 1A3X1, formerly AFSC 116X0) and Airborne Command and Control Communications Equipment (AFSC 1A5X2, formerly AFSC 118X1) career ladders. These career ladders are in the process of a merger, with an effective completion date of 1 November 1995. Authority to conduct occupational surveys is contained in AFI 36-2623. Computer products used in this report are available for use by operations and training officials.

Captain Ty K. Sills, Occupational Analyst, developed the survey instrument, analyzed the data, and wrote the final report. Ms. Rebecca R. Hernandez provided computer programming support, and Ms. Tamme Lambert provided administrative support. Major Randall C. Agee, Chief, Airman Analysis Section, Occupational Analysis Flight, Air Force Occupational Measurement Squadron (AFOMS), reviewed and approved this report for release.

Copies of this report are distributed to Air Staff sections, major commands, and other interested training and management personnel. Additional copies are available upon request to the AFOMS, Attention: Chief, Occupational Analysis Flight (OMY), 1550 5th Street East, Randolph AFB, Texas 78150-4449 (DSN 487-6623).

RICHARD C. OURAND, JR., Lt Col, USAF  
Commander  
Air Force Occupational Measurement Sq

JOSEPH S. TARTELL  
Chief, Occupational Analysis Flight  
Air Force Occupational Measurement Sq

**INTENTIONALLY LEFT BLANK**

## SUMMARY OF RESULTS

1. Survey Coverage: The Airborne Communications Systems (AFSC 1A3X1, formerly AFSC 116X0) and Airborne Command and Control Communications Equipment (AFSC 1A5X2, formerly AFSC 118X1) career ladders were surveyed to obtain current task and equipment data for use in examining training programs. Survey results are based on responses from 318 AFSC 1A3X1 personnel (54 percent of the assigned population) and 51 AFSC 1A5X2 personnel (38 percent of the assigned population).

2. Career Ladder Structure: Structure analysis identified 10 jobs: VIP Support Communications Operator, European Theater VIP Support Communications Operator, Special Air Missions Communications Operator, Worldwide Airborne Resources (WABRES) Voice Communications Operator, WABRES Data Communications Operator, Air Deployment Control (ADC) Communications Operator, AWACS Communications Operator, Special Operations Communications Operator, Communications Technician, and Headquarters Staff. This analysis reveals a clear distinction between the two specialties, as nearly all AFSC 1A5X2 respondents grouped in the Communications Technician job.

3. Career Ladder Progression:

a. AFSC 1A3X1 Career Ladder: Members of the AFSC 1A3X1 career ladder follow somewhat of an atypical career ladder progression. The majority of personnel across all jobs, with the exception of the Headquarters Staff job, perform mission-oriented technical functions. Even 9-skill level personnel spend over 70 percent of their time performing technical tasks. Analysis reveals, however, that more advanced personnel are generally assigned to high visibility VIP Support jobs, while junior personnel are more often linked to WABRES and AWACS duties. AFMAN 36-2108 *Specialty Descriptions* are accurate.

b. AFSC 1A5X2 Career Ladder: Personnel in the AFSC 1A5X2 career ladder also follow an atypical career ladder progression pattern. Since this is a small, highly specialized career field, incumbents across all skill levels spend the majority of their time performing technical functions. Supervisory functions increase slightly with skill-level progression, but even the most senior personnel spend over 80 percent of their time performing technical duties. AFMAN 36-2108 *Specialty Descriptions* are accurate.

4. Training Analysis: Survey data were matched to the proposed new 1A3X1 STS. Because this document contained a myriad of both operator and maintenance technician functions, numerous areas were unsupported by criterion group survey data, and numerous tasks went unreferenced. For these reasons, the training extracts associated with this study should be carefully examined to determine the effectiveness of the proposed training document. The POIs for both career fields were analyzed and proved to be somewhat general in nature, but nevertheless sound.

5. *Job Satisfaction Analysis*: For the most part, members of both career ladders appear relatively satisfied with their jobs, although job satisfaction ratings were lower than those of comparison groups. First-enlistment personnel in both career fields exhibited much lower levels of satisfaction than their counterparts, as did members of the WABRES Voice Communications Operator and Headquarters Staff jobs. Career ladder managers should review these areas to determine possible causes and corrections.

6. *Implications*: The AFSC 1A3X1 and 1A5X2 career ladders are in the process of a merger, expected to be completed by 1 November 1995. Training personnel and career field managers should examine the data presented in this report, along with accompanying training documents, and use them to aid in the merger process.

**OCCUPATIONAL SURVEY REPORT (OSR)  
AIRBORNE COMMUNICATIONS SYSTEMS OPERATOR CAREER LADDER  
AFSC 1A3X1 (FORMERLY AFSC 116X0)  
AND  
AIRBORNE COMMAND AND CONTROL COMMUNICATIONS  
EQUIPMENT CAREER LADDER  
AFSC 1A5X2 (FORMERLY AFSC 118X1)**

**INTRODUCTION**

This is a report of an occupational survey of the Airborne Communications Systems Operator (AFSC 1A3X1) and Airborne Command and Control Communications Equipment (AFSC 1A5X2) career ladders conducted by the Occupational Analysis Flight, Air Force Occupational Measurement Squadron (AFOMS). These career ladders are currently undergoing a merger. This survey will ensure current data for use in updating career ladder documents and training programs associated with the pending merger.

Background

AFSC 1A3X1 Career Ladder

The Airborne Communications Systems Operator career ladder 3- and 5-skill level members operate and perform preflight, in-flight, and postflight inspections of various airborne communications systems. Several of these systems include data link, satellite communications, and encryption systems. Their primary function is to ensure that optimum in-flight communications are available in a variety of missions from VIP support to surveillance operations. In addition to performing technical airborne communications duties, 7-skill level members perform an increased number of training duties to include evaluating and determining training requirements.

Personnel at the 9-skill level, along with Chief Enlisted Managers (CEM code), manage the career field and act as primary supervisors. Along with these upper level functions, however, they perform many technically oriented tasks.

**APPROVED FOR PUBLIC RELEASE; DISTRIBUTION UNLIMITED**

Entrants into the AFSC 1A3X1 career ladder must complete two resident training courses, located at different bases. First, they attend the Enlisted Aircrew Undergraduate J3AQR11010-000 course at Sheppard AFB TX. This is a 2-week, 4-day course that provides an introduction to responsibilities of aircrew members.

The second course is the 6-week, 5-day Apprentice Airborne Communications Systems Operator course at Keesler AFB MS (E3ABR1A3X1-000). This course teaches the operation of airborne radio and teletype systems and the transcription of radio messages, as well as the theory and operation of airborne communications systems. Entry into this career ladder currently requires a General Armed Forces Vocational Aptitude Test Battery (ASVAB) score of 43 and a Strength Factor of "G" (weight lift of 40 lbs).

### AFSC 1A5X2 Career Ladder

The Airborne Command and Control Communications career ladder 3- and 5-skill level members are responsible for maintaining airborne communications systems to include operating, monitoring, testing, troubleshooting, and repairing high frequency (HF), ultra-high frequency (UHF), very high frequency (VHF), and secure data and voice systems. Troubleshooting these, and other communications systems, often requires the use of built-in test equipment or other special support equipment. In addition to the above, 7-skill level members develop, supervise, and conduct training, as well as perform staff duties at the squadron level and above where aircrew experience is required.

Entrants into the AFSC 1A5X2 career ladder must complete three resident training courses, located at three different bases. First, they attend the Enlisted Aircrew Undergraduate J3AQR11010-000 course at Sheppard AFB TX. This is a 2-week, 4-day course that provides an introduction to responsibilities of aircrew members. The second course is the 15-week, 4-day Apprentice Airborne Command and Control Communications Equipment Specialist course at Keesler AFB MS (E3AQR1A5X2-001). This course teaches basic skills and knowledge of electronic principles, as well as specific E-3 airborne warning and control systems (AWACS) equipment fundamentals. The final course is an 11-week Communications Technician course located at Tinker AFB OK (E3000BQOTX-000). It is designed to train airborne communications technicians to perform maintenance of E-3 flight and mission crew communications and cryptographic equipment in an airborne environment. Entry into this career ladder currently requires an ASVAB score of 67 in Electronics and a Strength Factor of "G" (weight lift of 40 lbs).

### Organization of This Report

The remainder of this OSR is organized into five major sections. The first will discuss survey methodology and information about the sample. Next, there is a section describing the job structure of the combined sample. That section is followed by two sections which address a number of issues separately for the two specialties included in this survey. Each section describes

progression through skill levels with implications for the AFM 36-2108 *Specialty Descriptions*, data relevant to training developers, and job satisfaction analyses. Finally, the **IMPLICATIONS** will draw inferences and highlight issues addressed in previous sections of the report.

## **SURVEY METHODOLOGY**

### Inventory Development

The data collection instrument for this occupational survey was USAF Job Inventory (JI) Air Force Personnel Test (AFPT) 90-116-999 and AFPT 90-118-001, dated January 1993. A tentative task list was prepared after reviewing pertinent career ladder publications and directives, and tasks from previous applicable OSRs. The preliminary task list was refined and validated through personal interviews with 58 subject-matter experts (SMEs) at the following locations:

<u>BASE</u>	<u>ORGANIZATION VISITED</u>
Andrews AFB MD	89 OPG
Hurlburt AFB FL	HQ AFSOC
Keesler AFB MS	3400 TCHTS 3405 TCHTS 7 ACCS
Offutt AFB NE	1850 ACSQ
Tinker AFB OK	552 OSS 966 AWACTS

Others contacted included Air Force Military Personnel Center (AFMPC) classification personnel, functional and resource managers, and the Air Force Career Field Manager (AFCFM).

The resulting JI contains a comprehensive listing of 986 tasks grouped under 21 duty headings, with a background section requesting grade, job title, time in present job, time in service, job satisfaction, equipment maintained, and forms used.

### Survey Administration

From June through November 1993, Military Personnel Flights at operational bases worldwide administered the inventory to all eligible DAFSC 1A3X1 and 1A5X2 personnel. Members eligible for the survey consisted of the total assigned population of both career fields, excluding the following: (1) hospitalized personnel; (2) personnel in transition for a permanent change of station; (3) personnel retiring within the time the inventories were administered to the field; and (4) personnel in their jobs less than 6 weeks. Participants were selected from a computer-generated mailing list obtained from personnel data tapes maintained by the AFMPC, Randolph AFB TX.

Each individual who completed the inventory first filled in an identification and biographical information section and then checked each task performed in his or her current job. After checking tasks performed, each individual rated the tasks checked on a 9-point scale showing relative time spent on that task, compared to other tasks performed. The ratings ranged from 1 (very small amount time spent) to 9 (very large amount time spent).

To determine relative time spent for each task, all of the incumbent's ratings are assumed to account for 100 percent of time spent on the job and are summed. Each task rating is then divided by the total task ratings and multiplied by 100 to provide a relative percentage of time spent on each task.

### Survey Sample

Personnel were selected to participate in this study so as to ensure an accurate representation across MAJCOMs and paygrades. Table 1 reflects the percentage distribution, by MAJCOM, of assigned and sampled individuals in AFSCs 1A3X1 and 1A5X2 as of June 1993. Survey results are based on responses from 318 AFSC 1A3X1 personnel (54 percent of the assigned population) and 51 AFSC 1A5X2 personnel (38 percent of the assigned population). The data show the assigned and sampled populations, based on the MAJCOM structures in place at the time of administration. The relatively low percentage of assigned personnel in the final sample is due to the heavy TDY workload of both career ladders at the time of the survey. Both career fields require extensive amounts of TDY, and, hence, a large sample is difficult to obtain. Despite the small percentages, however, Table 1 shows that the sample accurately represents the MAJCOM distribution. Table 2 reflects the percentage distribution by paygrade groups. The percentages show the sample accurately reflects the population at the E-4, E-6, and E-8 paygrade levels. The E-5 population, however, appears to be over sampled, while the E-1 to E-3 group has been under represented. The key factor to keep in mind is that the percentages are more sensitive because of the small population of both career fields. It is possible that junior personnel in both career fields spend more time TDY than their senior counterparts, and, hence, were not available to sample. The discrepancy between the paygrade sample representation and that of the population should be noted, but it does not seriously affect the validity or reliability of survey results.



**TABLE 1**  
**MAJCOM REPRESENTATION OF SAMPLE**  
**AFSCs 1A3X1/1A5X2**

<u>COMMAND</u>	<u>PERCENT ASSIGNED (N=717)*</u>	<u>PERCENT OF SAMPLE (N=369)</u>
ACC	66	67
AFSOC	11	10
AMC	10	7
EUR	4	5
PACAF	4	3
OTHER	5	8

Total Assigned = 717  
 Total in Survey Sample = 369  
 Percent of Assigned in Sample = 51%

\* Assigned strength as of June 1993

**TABLE 2**  
**PAYGRADE DISTRIBUTION OF SAMPLE**  
**AFSCs 1A3X1/1A5X2**

<u>PAYGRADE</u>	<u>PERCENT ASSIGNED (N=717)*</u>	<u>PERCENT OF SAMPLE (N=369)</u>
E-1 to E-3	38	11
E-4	27	28
E-5	19	30
E-6	13	15
E-7	3	12
E-8	-	4

- Denotes less than 1 percent

\* Assigned strength as of June 1993

## Task Factor Administration

Job descriptions alone do not provide sufficient data for making decisions about career ladder documents or training programs. Task factor information helps to complete analysis of the career ladder. To obtain the needed task factor data, selected senior AFSC 1A3X1 and AFSC 1A5X2 personnel (generally E-6 or E-7 craftsmen) also completed a second booklet for either training emphasis (TE) or task difficulty (TD). The TE and TD booklets were processed separately from the JIs. This information is used in a number of analyses discussed in more detail within this report.

Training Emphasis (TE). TE is defined as the degree of emphasis that should be placed on a task when first-enlistment personnel receive structured training on that task. Structured training is defined as resident technical schools, field training detachments, mobile training teams, formal on-the-job training (OJT), or any other organized training method. Forty-five experienced AFSC 1A3X1 and AFSC 1A5X2 NCOs rated the tasks in the inventory on a 10-point scale ranging from 0 (not important to train) to 9 (extremely important to train). In order for TE data to be reliable, sufficient rater agreement must exist. In this study, TE rater agreement wasn't obtained. In an attempt to obtain reliable data, each career ladder's rater responses were examined separately. The resultant groups still failed to yield sufficient agreement, and, hence, no TE data are reported in this survey. The lack of TE data is not a poor reflection of the reliability of the survey. It is quite common to obtain inadequate rater agreement in broad, mission oriented career ladders such as these.

Task Difficulty (TD). TD is defined as an estimate of how much time the average airmen needs to learn to perform each task satisfactorily. Thirty-six experienced AFSC 1A3X1 and AFSC 1A5X2 supervisors rated each task's difficulty using a 9-point scale ranging from 1 (easy to learn) to 9 (very difficult to learn). Interrater agreement among these respondents was sufficiently high to combine TD ratings of both specialties. TD ratings are normally adjusted so tasks of average difficulty have a value of 5.00 and a standard deviation of 1.00. Any task with a difficulty of 6.00 or greater is considered difficult to learn.

When used in conjunction with the primary criterion of percent members performing, TD can provide insight into first-enlistment personnel training requirements. Such insights may suggest a need for lengthening or shortening portions of instruction supporting Air Force specialty entry-level jobs.

## **SPECIALTY JOBS (Career Ladder Structure)**

The first step in the analysis process is to identify the structure of career ladders in terms of jobs performed by respondents. The Comprehensive Occupational Data Analysis Programs (CODAP) assists by creating an individual job description for each respondent based on tasks

performed and relative amount of time spent on these tasks. The CODAP automated job clustering program then compares all the individual job descriptions, locates the two descriptions with the most similar tasks and time spent ratings, and combines them to form a composite job description. In successive stages, CODAP either adds new members to this initial group or forms new groups based on the similarity of tasks and time spent ratings.

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 on 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.

### Overview of Specialty Jobs

Based on the analysis of tasks performed and the amount of time spent performing each task, 10 jobs were identified within the surveyed career ladders. Figure 1 illustrates the jobs performed by AFSC 1A3X1 and AFSC 1A5X2 personnel.

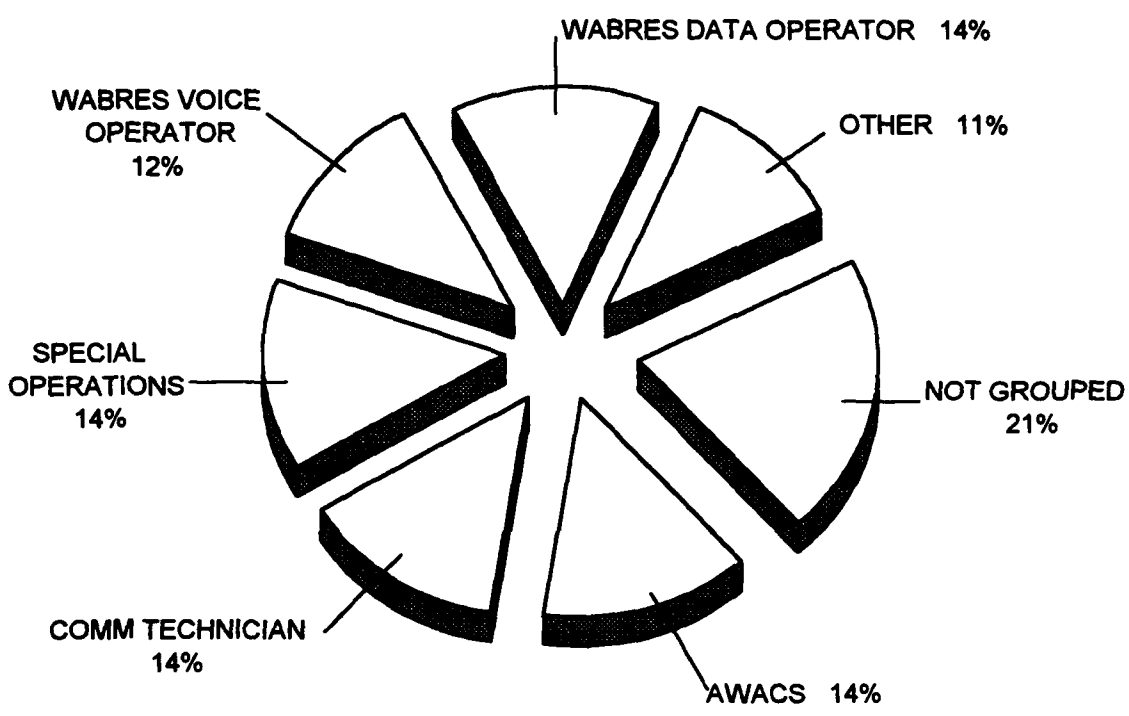


Figure 1

- Other includes:
- VIP Support - 4%
  - Special Air Missions - 3%
  - Air Deployment Control - 2%
  - Headquarters Staff - 2%

A listing of these jobs and job clusters is provided below. The stage (STG) number shown beside each title references computer-printed information, the letter "N" represents the number of personnel in each group.

- I. VIP SUPPORT COMMUNICATIONS OPERATOR (STG99, N=12)
- II. EUROPEAN THEATER VIP SUPPORT COMMUNICATIONS OPERATOR (STG54, N=5)
- III. SPECIAL AIR MISSIONS COMMUNICATIONS OPERATOR (STG117, N=11)
- IV. WABRES VOICE COMMUNICATIONS OPERATOR (STG60, N=44)
- V. WABRES DATA COMMUNICATIONS OPERATOR (STG66, N=50)
- VI. AIR DEPLOYMENT CONTROL (ADC) COMMUNICATIONS OPERATOR (STG67, N=7)
- VII. AWACS COMMUNICATIONS OPERATOR (STG80, N=51)
- VIII. SPECIAL OPERATIONS COMMUNICATIONS OPERATOR (STG127, N=50)
- IX. COMMUNICATIONS TECHNICIAN (STG63, N=52)
- X. HEADQUARTERS STAFF (STG34, N=7)

The respondents forming these groups account for 79 percent of the survey sample. The remaining 21 percent were performing tasks which did not group with any of the other defined jobs. Many of these respondents have been in the career field for a short amount of time and perform only a limited number of tasks. It is anticipated that, with more experience, these personnel would group with one of the identified jobs.

#### Group Descriptions

The following paragraphs contain brief descriptions of the 10 jobs identified through career ladder structure analysis. Appendix A lists representative tasks performed by identified job groups. Table 3 displays time spent on duties, while Table 4 provides demographic information for each job discussed within this report.

TABLE 3

TIME SPENT ACROSS DUTIES BY CAREER LADDER JOBS  
(RELATIVE PERCENT OF TIME SPENT)

DUTIES	VIP (N=12)		EURO THIR VIP SUPPORT (N=5)		SPEC AIR MISSIONS (N=11)		WABRES VOICE COMM (N=44)		WABRES DATA COMM (N=50)	
	SUPPORT COMM OPERATOR	OPERATOR	THIR SUPPORT COMM OPERATOR	VIP COMM OPERATOR	MISSIONS COMM OPERATOR	AIR COMM OPERATOR	VOICE COMM OPERATOR	WABRES COMM OPERATOR	DATA COMM OPERATOR	
A ORGANIZING AND PLANNING	5		8		4		3		3	
B DIRECTING AND IMPLEMENTING	2		5		2		2		2	
C INSPECTING AND EVALUATING	2		4		3		2		2	
D TRAINING	3		2		4		3		3	
E PERFORMING ADMINISTRATIVE AND SUPPLY ACTIVITIES	7		8		4		8		9	
F PERFORMING PREMISSION TASKS	10		11		7		8		6	
G PERFORMING PREFLIGHT AND ENROUTE OUTBOUND TASKS	15		13		17		13		11	
H PERFORMING ON STATION ACTIVITIES	15		12		12		22		17	
I PERFORMING THROUGHFLIGHT INSPECTIONS	4		2		6		3		3	
J PERFORMING ENROUTE INBOUND, BEFORE LEAVING AIRCRAFT, AND POSTMISSION ACTIVITIES	9		7		6		10		8	
K PERFORMING GENERAL AIRBORNE MAINTENANCE ACTIVITIES	6		7		15		4		3	
L PERFORMING AIR FORCE SATELLITE COMMUNICATIONS (AFSATCOM)	*		*		*		2		14	
M MAINTAINING COMMUNICATION DISTRIBUTION SYSTEM/INTERPHONE SYSTEMS	*		*		*		*		*	
N MAINTAINING HIGH FREQUENCY (HF), VERY HIGH FREQUENCY (VHF) AND ULTRA HIGH FREQUENCY (UHF) SYSTEMS	6		9		7		5		1	
O MAINTAINING SECURE VOICE SYSTEMS	3		3		3		4		1	
P MAINTAINING DIGITAL INFORMATION LINKS	0		0		0		0		*	
Q PERFORMING TACTICAL BATTLE MANAGEMENT SYSTEMS (TBMS) AND AN/USC-48 CAPSULE MAINTENANCE	1		*		*		*		1	
R MAINTAINING MISCELLANEOUS COMMUNICATIONS	2		*		3		*		3	
S PERFORMING CREW DUTIES	7		7		5		4		4	
T PERFORMING MOBILITY ACTIVITIES	1		1		*		1		1	
U PERFORMING ALERT DUTY ACTIVITIES	1		0		*		6		7	

\* Denotes less than 1 percent

NOTE: Columns may total less than 100 percent due to rounding

TABLE 3 (CONTINUED)

TIME SPENT ACROSS DUTIES BY CAREER LADDER JOBS  
(RELATIVE PERCENT OF TIME SPENT)

DUTIES	AIR DPLMT CONTROL COMM OPERATOR (N=7)		AWACS COMM OPERATOR (N=51)		SPECIAL OPS COMM OPERATOR (N=50)		COMM TECH (N=52)		HQ STAFF (N=7)	
A ORGANIZING AND PLANNING	4		2		4		3		30	
B DIRECTING AND IMPLEMENTING	3		2		2		2		20	
C INSPECTING AND EVALUATING	2		1		2		2		22	
D TRAINING	3		3		3		3		7	
E PERFORMING ADMINISTRATIVE AND SUPPLY ACTIVITIES	6		4		6		3		12	
F PERFORMING PERMISSION TASKS	10		7		9		4		5	
G PERFORMING PREFLIGHT AND ENROUTE OUTBOUND TASKS	16		17		19		16		*	
H PERFORMING ON STATION ACTIVITIES	14		19		16		11		2	
I PERFORMING THRUFLIGHT INSPECTIONS	3		2		3		2		0	
J PERFORMING ENROUTE INBOUND, BEFORE LEAVING AIRCRAFT, AND POSTMISSION ACTIVITIES	14		8		10		10		*	
K PERFORMING GENERAL AIRBORNE MAINTENANCE ACTIVITIES	3		4		4		12		*	
L PERFORMING AIR FORCE SATELLITE COMMUNICATIONS (AFSATCOM)	1		1		*		*		0	
M MAINTAINING COMMUNICATION DISTRIBUTION SYSTEM/INTERPHONE SYSTEMS	1		1		*		2		0	
N MAINTAINING HIGH FREQUENCY (HF), VERY HIGH FREQUENCY (VHF) AND ULTRA HIGH FREQUENCY (UHF) SYSTEMS	6		7		7		12		0	
O MAINTAINING SECURE VOICE SYSTEMS	2		4		3		3		0	
P MAINTAINING DIGITAL INFORMATION LINKS	0		6		*		4		0	
Q PERFORMING TACTICAL BATTLE MANAGEMENT SYSTEMS (TBMS) AND AN/USC-48 CAPSULE MAINTENANCE	*		1		1		1		0	
R MAINTAINING MISCELLANEOUS COMMUNICATIONS	0		1		1		5		*	
S PERFORMING CREW DUTIES	10		7		7		4		0	
T PERFORMING MOBILITY ACTIVITIES	2		1		2		1		*	
U PERFORMING ALERT DUTY ACTIVITIES	*		1		1		*		0	

\* Denotes less than 1 percent

NOTE: Columns may total less than 100 percent due to rounding

TABLE 4

SELECTED BACKGROUND DATA ON PERSONNEL IN CAREER LADDER JOBS

	VIP		EURO		SPEC		WABRES		WABRES	
	SUPPORT COMM OPERATOR	VIP SUPPORT COMM OPERATOR	THTR SUPPORT COMM OPERATOR	VIP SUPPORT COMM OPERATOR	AIR MISS COMM OPERATOR	AIR MISS COMM OPERATOR	VOICE COMM OPERATOR	VOICE COMM OPERATOR	DATA COMM OPERATOR	DATA COMM OPERATOR
NUMBER IN GROUP	12	5	11	50	11	44	50			
PERCENT OF TOTAL SAMPLE	3%	1%	3%	14%	3%	12%	14%			
PERCENT IN CONUS	75%	0%	100%	100%						

DAFSC DISTRIBUTION:

1A331	0%	0%	0%	0%	0%	0%	0%	10%
1A351	33%	0%	0%	0%	0%	68%	60%	60%
1A371	50%	80%	73%	26%	0%	32%	2%	2%
1A391	17%	20%	18%	2%	0%	0%	2%	2%
1A300	0%	0%	9%	0%	0%	0%	0%	0%
1A532	0%	0%	0%	0%	0%	0%	0%	0%
1A552	0%	0%	0%	0%	0%	0%	0%	0%
1A572	0%	0%	0%	0%	0%	0%	0%	0%

PAYGRADE DISTRIBUTION:

AIRMAN	0%	0%	0%	16%	10%
E-4	0%	0%	0%	34%	44%
E-5	33%	60%	9%	27%	32%
E-6	25%	20%	27%	20%	8%
E-7	42%	20%	55%	2%	2%
E-8	0%	0%	9%	0%	4%
E-9	0%	0%	0%	0%	0%

AVERAGE MONTHS IN PRESENT JOB	54	40	45	43	46
AVERAGE MONTHS TAFMS	132	113	144	70	75
PERCENT FIRST ENLISTMENT	0%	20%	0%	23%	24%
AVERAGE NUMBER OF TASKS PERFORMED	225	121	375	157	176



SELECTED BACKGROUND DATA ON PERSONNEL IN CAREER LADDER JOBS

	AIR		SPECIAL		COMM		HQ	
	DPLMT CONTROL COMM OPERATOR	AWACS COMM OPERATOR	OPS COM,M OPERATOR	TECH	STAFF			
NUMBER IN GROUP	7	51	50	52	7			
PERCENT OF TOTAL SAMPLE	2%	14%	14%	14%	2%			
PERCENT IN CONUS	100%	78%	72%	85%	100%			

DAFSC DISTRIBUTION:

1A331	0%	6%	0%	4%	0%		
1A351	43%	57%	36%	4%	0%		
1A371	57%	29%	54%	2%	43%		
1A391	0%	8%	6%	0%	14%		
1A300	0%	0%	2%	0%	29%		
1A532	0%	0%	0%	21%	0%		
1A552	0%	0%	0%	33%	0%		
1A572	0%	0%	2%	37%	14%		

PAYGRADE DISTRIBUTION:

AIRMAN	10%		0%		19%		0%	
E-4	14%	22%	14%	23%	0%	0%	0%	0%
E-5	43%	42%	40%	31%	0%	0%	0%	0%
E-6	29%	14%	26%	15%	0%	0%	0%	0%
E-7	14%	8%	14%	10%	71%	14%	14%	14%
E-8	0%	4%	6%	2%	14%	14%	14%	14%
E-9	0%	0%	0%	0%	0%	0%	0%	0%
AVERAGE MONTHS IN PRESENT JOB	33	41	43	32	30			
AVERAGE MONTHS TAFMS	92	85	116	76	212			
PERCENT FIRST ENLISTMENT	14%	18%	4%	29%	0%			
PERCENT SUPERVISING	57%	43%	34%	29%	43%			
AVERAGE NUMBER OF TASKS PERFORMED	148	190	294	269	44			

Another way to illustrate these jobs is to summarize tasks performed into groups of tasks (task modules (TMs)). This allows for a concise display of tasks where job incumbents spend most of their time and develops a comprehensive overview of each job. The display shows the number of tasks included in a module, the average percent time spent on that module, a cumulative amount of time spent on the listed modules, and finally, an average percent members performing the particular TM. These modules were identified through CODAP copformance clustering, which calculates the probability that members who perform one task will also perform a second task or group of related tasks. Representative TMs are listed as part of the job description. The list of modules, with respective tasks, is presented in Appendix B.

**I. VIP SUPPORT COMMUNICATIONS OPERATOR (STG99).** The 12 members of this job represent only 3 percent of the survey sample. This is one of three jobs that involves VIP support functions. Members of these jobs are responsible for ensuring continuous air-ground communications links, including clear or secure record communications and phone patches, are available to any person or agency anywhere in the world at all times while airborne. These communications are provided via HF, UHF-FM satellite, and VHF-FM with ground or airborne facilities. The majority of members are assigned to Andrews AFB MD and perform duties aboard C-20 aircraft. The work related to the job involves performing routine communications operator functions, as well as working with SATCOM systems and handling classified material.

VIP SUPPORT COMMUNICATIONS OPERATOR	
Number of members	12
Percent of total sample	3%
Average number of tasks performed	225
Average TAFMS	132 mos
Predominant DAFSC	1A371
Predominant paygrade	E-7

Representative tasks performed by members of this job include:

- initiate or process phone patches
- operate airborne communications transceivers
- maintain listening watches
- inventory COMSEC material
- operationally check aircraft HF transceivers
- document destruction of classified materials or documents
- perform preflight inspections of secure voice systems
- coordinate flight information with Mystic Star HF networks

Representative TMs also show personnel in this job perform general operator duties, along with HF/UHF, classified, and SATCOM functions. Representative TMs include:

<u>TM</u>	<u>Module Title</u>	<u>No. of Tsks</u>	<u>Percent Time Spent (Sum)</u>	<u>Percent Time Spent (Cumulative)</u>	<u>Average Percent Members Performing</u>
0007	Routine on station duties	4	3	3	88
0003	Ops check/preflight comm equipment	2	1	4	96
0002	Operating comm equipment	3	2	6	86
0001	Handling classified material	4	4	10	93
0004	Ops check HF/UHF equipment	6	3	13	90
0013	Information coordination	6	3	16	89
0010	Permission duties	5	2	18	83
0016	Maintaining SATCOM equipment	10	4	22	88
0008	Handling COMSEC	5	2	24	83
0009	Preflight/postflight duties	4	2	26	73
0005	Power down HF/UHF equipment	2	1	27	88

The VIP Support Communications Operator job members have slightly more experience than the European Theater VIP Support Communications Operator personnel and perform an average of 104 more tasks. They are not, however, as experienced as the Special Air Missions job incumbents, who average 1 more year experience and perform a broader range of duties (see Table 4).

**II. EUROPEAN THEATER VIP SUPPORT COMMUNICATIONS OPERATOR (STG54).** The five members of this job represent only 1 percent of the survey sample, the smallest of the three VIP support jobs. Like their VIP support counterparts, personnel in this job provide distinguished visitor (DV) aircraft with continuous communications links anywhere in the world at all times. This includes controlling all communications to and from the airplane, as well as all intraplane communications. All five members are assigned to Ramstein AB GE and perform duties aboard C-20 aircraft. The work related to this job is comprised of basic communications operator duties. Specific duties relate to handling classified material and working with cryptographic systems.

<b>EUROPEAN THEATER VIP SUPPORT COMMUNICATIONS OPERATOR</b>	
Number of members	5
Percent of total sample	1%
Average number of tasks performed	121
Average TAFMS	113 mos
Predominant DAFSC	1A371
Predominant paygrade	E-5

Representative tasks performed by members of this job include:

- maintain listening watches
- maintain mission narrative logs
- perform preflight inspections of secure voice systems
- arrange for lodging or transportation of crewmembers
- operationally check KY-58 cryptographic systems
- load codes in KY-58 cryptographic systems
- load identification friend or foe (IFF) codes
- operationally check SATCOM systems

Representative TMs show members work primarily with HF/UHF equipment and are likely to work with cryptographic systems and handle classified materials. Representative TMs include:

<u>TM</u>	<u>Module Title</u>	<u>No. of Tsk</u>	<u>Percent (Sum)</u>	<u>Time Spent (Cumulative)</u>	<u>Average Percent Members Performing</u>
0004	Ops check HF/UHF equipment	6	4	4	80
0007	Routine on station tasks	4	2	6	60
0006	Cryptographic systems duties	5	3	9	60
0001	Handling classified material	7	4	13	66
0011	Maintaining HF/UHF equipment	4	2	15	55
0003	Ops check/preflight comm equipment	2	1	16	60
0005	Power down HF/UHF equipment	2	1	17	50
0016	Maintaining SATCOM equipment	10	5	22	54
0010	Permission duties	5	2	24	56
0023	Maintaining support materials	10	4	28	46

This is the most specialized of the 3 VIP support jobs, as members perform an average of only 121 tasks, 104 fewer than the VIP Support Communications Operator job and 254 fewer than the Special Air Missions personnel. The members of this job are also the most junior of the three groups, as they average only 113 months' TAFMS and carry a predominant paygrade of E-5.

**III. SPECIAL AIR MISSIONS COMMUNICATIONS OPERATOR STG117).** The 11 members of this job represent 3 percent of the survey sample. They differ from their VIP support counterparts as they all perform duties aboard VC-137 aircraft rather than C-20 aircraft. These incumbents are responsible for the preflight and en route maintenance of all avionics systems, and communications systems in the aircraft and, hence, perform an average of 375 tasks. This is a high visibility job, as members support missions involving the President, Vice President, Cabinet Members, and other high ranking dignitaries. While en route, they are responsible to the aircraft commander for all oceanic position reports, en route weather information, departure and arrival reports, and phone patches to various command agencies.

SPECIAL AIR MISSIONS COMMUNICATIONS OPERATOR	
Number of members	11
Percent of total sample	3%
Average number of tasks performed	375
Average TAFMS	144 mos
Predominant DAFSCs	1A371
Predominant paygrade	E-7

Representative tasks performed by members of this job include.

- coordinate flight information with White House communications center
- provide physical security for classified material
- coordinate flight information with Mystic Star HF networks
- operationally check aircraft HF transceivers
- operationally check radio teletype equipment
- prepare messages using White House format
- prepare AETC radio communications procedures
- perform preflight inspections of secure data systems
- operationally check aircraft radio compasses

Representative TMs show members perform maintenance as well as operator duties, as they maintain SATCOM equipment, facsimile systems, teletype equipment, and HF/UHF equipment.

Representative TMs include:

<u>TM</u>	<u>Module Title</u>	<u>No. of Tsk</u>	<u>Percent Time Spent</u>		<u>Average Percent Members Performing</u>
			<u>(Sum)</u>	<u>(Cumulative)</u>	
0004	Ops check HF/UHF equipment	6	2	2	94
0002	Operating comm equipment	3	1	3	97
0008	Handling COMSEC	5	2	5	87
0003	Ops check/preflight comm equipment	2	1	6	82
0016	Maintaining SATCOM equipment	10	3	9	95
0069	Preflight flight equipment	10	3	12	94
0029	Coordinating inflight information	9	2	14	86
0065	Maintaining facsimile systems	5	1	15	89
0051	Operating/maintaining teletype equipment	11	3	18	80
0001	Handling classified material	7	2	20	83
0013	Information coordination	6	1	21	80
0011	Maintaining HF/UHF equipment	4	1	22	75
0007	Routine on station duties	4	1	23	70
0017	Operationally checking VHF equipment	10	2	25	82
0067	Coordinating with diplomatic agencies	6	1	26	70

In addition to performing communications operator duties, Special Air Missions personnel are required to perform numerous communications maintenance duties. Table 3 shows they spend 15 percent of their time performing General Airborne maintenance duties, far more than any other Communications Operator job group. Next to the HQ Staff personnel, they are the most experienced group of incumbents in the sample.

**IV. WABRES VOICE COMMUNICATIONS OPERATOR (STG60).** The 44 members of this job represent 12 percent of the survey sample and comprise 1 of 2 jobs relating to Worldwide Airborne Resources (WABRES). WABRES personnel provide national command authorities (NCA), the Joint Chiefs of Staff (JCS), and the Commanders in Chief (CINC) of appropriate unified commands with command, control, and communications capability during the pre-, trans-, and post-attack phases of war. WABRES incumbents perform either voice or data operator functions aboard a fleet of EC-135 and E-4 aircraft. The Voice Operator incumbents set up and maintain the HF, VHF, UHF, and secure voice air-to-air/air-to-ground circuits used by the airborne battlestaff to exercise command and control functions. Some representative tasks performed by members of this job group are:

WABRES VOICE COMMUNICATIONS OPERATOR	
Number of members	44
Percent of total sample	12%
Average number of tasks performed	157
Average TAFMS	70 mos
Predominant DAFSC	1A351
Predominant paygrades	E-4/E-5

- maintain radio operations logs
- operationally check aircraft HF transceivers
- inventory COMSEC material
- monitor scheduled voice broadcasts
- operate airborne communications transceivers
- perform preflight inspections of secure voice systems
- authenticate stations using challenge and reply systems
- operate airborne communications receivers

Representative TMs show emphasis on HF/UHF systems duties. They also indicate that members are likely to perform cryptographic systems duties and handle classified material.

Representative TMs include:

<u>TM</u>	<u>Module Title</u>	<u>No. of Tsk</u> s	<u>Percent Time Spent (Sum)</u>	<u>Percent Time Spent (Cumulative)</u>	<u>Average Percent Members Performing</u>
0002	Operating comm equipment	3	2	2	84
0006	Cryptographic systems duties	5	3	5	90
0007	Routine on station duties	4	3	8	85
0025	Maintaining stations on net	4	3	11	83
0004	Ops check HF/UHF equipment	6	4	15	81
0001	Handling classified material	7	4	19	79
0005	Power down HF/UHF equipment	2	1	20	81
0003	Ops check/preflight comm equipment	2	1	21	73
0024	General operator duties	7	4	25	78
0009	Preflight/postflight duties	4	2	27	66

The WABRES Voice Operators are the most junior members of the career ladder with an average of only 70 months' TAFMS and predominant paygrade of E-5. Most members hold the 5-skill level.

**V. WABRES DATA COMMUNICATIONS OPERATOR (STG66).** The 50 members of this job represent 14 percent of the survey sample and comprise the remainder of the WABRES support personnel. These members also perform work aboard EC-135 and E-4 aircraft. Data Communications Operators, however, deal with links used to originate and relay emergency action messages (EAMs) and other operational traffic. These links include low frequency (LF), very low frequency (VLF), HF, VHF, and UHF satellite circuits. In addition, members perform work in coordination with Air Force Satellite Communications (AFSATCOM) Systems.

<b>WABRES DATA COMMUNICATIONS OPERATOR</b>	
Number of members	50
Percent of total sample	14%
Average number of tasks performed	176
Average TAFMS	75 mos
Predominant DAFSCs	1A351
Predominant paygrades	E-4/E-5



Representative tasks performed by members of this job include:

- inventory COMSEC material
- log incoming or outgoing messages
- transmit AFSATCOM messages
- prepare AFSATCOM messages for transmission
- maintain AFSATCOM wideband operations
- prepare messages using automated digital information network (AUTODIN) format
- perform AFSATCOM operation equipment checks

Representative TMs include:

<u>TM</u>	<u>Module Title</u>	<u>No. of Tsks</u>	<u>Percent Time Spent (Sum)</u>	<u>Percent Time Spent (Cumulative)</u>	<u>Average Percent Members Performing</u>
0001	Handling classified material	7	4	4	81
0010	Prepermission duties	5	3	7	73
0052	Performing AFSATCOM duties	22	11	18	86
0023	Maintaining support materials	10	5	23	71
0002	Operating comm equipment	3	1	24	74
0051	Operating/maintaining teletype equipment	11	5	29	74

The strong emphasis on AFSATCOM duties can be easily seen through the representative tasks and TMs. Table 3 shows the WABRES Data Operators perform far more AFSATCOM duties than any other job group. WABRES Data Operators are the second most junior members of the career field next to the WABRES Voice Operators, and they predominantly hold paygrades E-4/E-5.

**VI. AIR DEPLOYMENT CONTROL (ADC) COMMUNICATIONS OPERATOR (STG67).**

The seven members of this job group account for 2 percent of the survey sample. Six of the seven members are assigned to the 8 ADCS at Tinker AFB OK and work aboard EC-135 aircraft. The primary mission of ADC personnel is to provide the ACC Commander with the capability to exercise command and control of ACC, Air Force Readiness Command, and Air Force Atlantic forces during deployment, redeployment, and emergency operations. The work involved with this job includes dealing extensively with HF and UHF radio equipment. Incumbents establish and maintain HF and UHF voice links with fighter and tanker cells, command posts, and command and control stations. Members also transmit position reports, obtain clearances and weather reports, and initiate phone patches.

AIR DEPLOYMENT CONTROL (ADC) COMMUNICATIONS OPERATOR	
Number of members	7
Percent of total sample	2%
Average number of tasks performed	148
Average time in present job	33 mos
Average TAFMS	92 mos
Predominant DAFSC	1A371
Predominant paygrade	E-5

Representative tasks performed by perscnnel in this job include:

- operationally check aircraft HF transceivers
- provide physical security for COMSEC
- inventory COMSEC material
- maintain COMSEC material
- power down HF equipment
- power down UHF equipment
- provide physical security for classified material
- request time-of-landing weather forecasts

Representative TMs show a strong emphasis on HF/UHF systems functions, as well as COMSEC functions. Representative TMs include:

<u>TM</u>	<u>Module Title</u>	<u>No. of Tsks</u>	<u>Percent Time Spent (Sum)</u>	<u>Percent Time Spent (Cumulative)</u>	<u>Average Percent Members Performing</u>
0005	Power down HF/UHF equipment	2	2	2	100
0008	Handling COMSEC	5	3	5	86
0004	Ops check HF/UHF equipment	6	4	9	74
0002	Operating comm equipment	3	2	11	71
0014	Debriefing activities	4	2	13	75
0009	Preflight/postflight duties	4	2	15	68
0007	Routine on station tasks	4	2	17	54
0001	Handling classified material	7	3	20	67
0010	Permission duties	5	2	22	60
0013	Information coordination	6	3	25	60
0003	Ops check/preflight comm equipment	2	1	26	57

Table 4 shows that incumbents perform an average of 148 tasks and average 92 months' TAFMS. Four of the seven members hold the 7-skill level, while the remaining three hold the 3-skill level.

**VII. AWACS COMMUNICATIONS OPERATOR (STG80).** The 51 members of the AWACS Communications Operator job represent 14 percent of the career ladder. The majority of incumbents are assigned to Tinker AFB OK, and all perform work aboard E-3 aircraft. The AWACS mission is to provide all-altitude surveillance, warning, and aircraft control in tactical or air defense roles. AWACS Communications Operators configure, monitor, and troubleshoot TADIL-A/Link 11 systems and perform a number of duties related to cryptographic systems.

AWACS COMMUNICATIONS OPERATOR	
Number of members	51
Percent of total sample	14%
Average number of tasks performed	190
Average TAFMS	85 mos
Predominant DAFSC	1A351
Predominant paygrade	E-5

Representative tasks performed by members of this job include:

- load codes in KY-58 cryptographic systems
- operationally check KY-58 cryptographic systems
- identify malfunctions within TADIL A/Link 11 systems
- operationally check KY-75 cryptographic systems

load codes in KY-75 cryptographic systems  
 zeroize cryptographic equipment  
 verify TADIL A/Link 11 system configurations  
 load codes in KG-40 cryptographic systems

Representative tasks and TMs show a **strong** emphasis on cryptographic systems duties.  
 Representative TMs include:

<u>TM</u>	<u>Module Title</u>	<u>No. of Tsks</u>	<u>Percent Time Spent</u>		<u>Average Percent Members Performing</u>
			<u>(Sum)</u>	<u>(Cumulative)</u>	
0006	Cryptographic systems duties	5	3	3	96
0003	Ops check/preflight comm equipment	2	1	4	91
0005	Power down HF/UHF equipment	2	1	5	90
0002	Operating comm equipment	3	2	7	84
0001	Handling classified material	7	4	11	82
0004	Ops check HF/UHF equipment	6	3	14	81
0012	Monitoring comm equipment	4	2	16	74
0039	Maintaining digital information systems	22	10	26	80

AWACS Communications Operators are relatively junior to the career ladder as they average only 85 months' TAFMS and predominantly hold the E-5 paygrade. They perform an average of 190 tasks, and the majority of incumbents hold the 5-skill level.

**VIII. SPECIAL OPERATIONS COMMUNICATIONS OPERATOR (STG127).** The 50 members of this job represent 14 percent of the survey sample. The majority of incumbents are assigned to Hurlburt FLD FL and Eglin AFB FL and perform duties aboard C-130 aircraft. Four members are assigned to Patrick AFB FL and perform Air Rescue duties. The mission of Special Operations is long-range infiltration, resupply, and exfiltration of unconventional warfare forces and equipment. The Special Operations Communications Operator is responsible for providing rapid and secure air-to-air, and air-to-ground communications in a high-threat, covert environment. To accomplish this, incumbents work extensively with HF, UHF/VHF, and cryptographic systems.

SPECIAL OPERATIONS COMMUNICATIONS OPERATOR	
Number of members	50
Percent of total sample	14%
Average number of tasks performed	294
Average TAFMS	116 mos
Predominant DAFSC	1A371
Predominant paygrade	E-5

Representative tasks performed by personnel in this job are:

- perform preflight inspections of secure voice systems
- operationally check aircraft HF transceivers
- inventory COMSEC material
- maintain radio operations logs
- load codes in KY-58 cryptographic systems
- operationally check aircraft VHF transceivers
- operationally check UHF transceivers
- operationally check secure communications equipment

The large number of representative TMs shows the broad nature of this job. Members are likely to work with classified material and perform many functions with HF/UHF and VHF communications equipment.

**Representative TMs include:**

<u>TM</u>	<u>Module Title</u>	<u>No. of Tsk</u> s	<u>Percent Time Spent</u>		<u>Average Percent Members Performing</u>
			<u>(Sum)</u>	<u>(Cumulative)</u>	
0006	Cryptographic systems duties	5	2	2	97
0004	Ops check HF/UHF equipment	6	2	4	94
0003	Ops check/preflight comm equipment	2	1	5	88
0001	Handling classified material	7	3	8	91
0007	Routine on station duties	4	1	9	89
0008	Handling COMSEC	5	2	11	91
0005	Power down HF/UHF equipment	2	1	12	92
0017	Operationally check VHF equipment	10	3	15	89
0009	Preflight/postflight duties	4	1	16	83
0002	Operating comm equipment	3	1	17	75
0011	Maintaining HF/UHF equipment	4	1	18	87
0029	Coordinating inflight information	9	3	21	80
0010	Prepermission duties	5	2	23	74
0015	Inspecting comm equipment	4	1	24	76
0034	Inspecting aircraft systems	5	1	25	76

Members show a moderate level of experience as they average 114 months' TAFMS. Table 4 shows they have a broad job, performing an average of 294 tasks. They predominantly hold the 7-skill level, and the majority of members are in paygrade E-5.

**IX. COMMUNICATIONS TECHNICIAN (STG63).**

The 52 members of this group represent the AFSC 1A5X2 population of the survey sample. Communications Technicians provide maintenance support for selected communications operations. The majority of job incumbents perform maintenance functions aboard E-3 aircraft at Tinker AFB OK. A select group of NATO Communication Technicians assigned to Geilenkirchen AB GE also performs functions aboard the E-3, while another small group assigned to the 7 ACCS at Keesler AFB MS performs maintenance functions aboard C-130 aircraft. Communications Technicians spend a great deal of time maintaining HF, VHF, and UHF communications systems. Much of this

COMMUNICATIONS TECHNICIAN	
Number of members	52
Percent of total sample	14%
Average number of tasks performed	269
Average TAFMS	76 mos
Predominant DAFSC	1A552/1A572
Predominant paygrades	E-4/E-5

maintenance activity is spent troubleshooting components to the line replaceable unit (LRU) and removing and replacing faulty system components. NATO Communications Technicians spend more time associated with cryptographic systems and COMSEC than their maintenance counterparts. Communications Technicians assigned to the 7 ACCS work on equipment located within the AN/USC-48 ABCCC Capsule. Some of this equipment, such as optical disk drives, is unique to the Capsule, but incumbents still only spend 1 percent of their time working on capsule-unique tasks (see Table 3). Representative tasks performed by personnel in the job are:

- perform joint tactical information data systems (JTIDS) initialization procedures
- operate JTIDS communications links
- operationally check UHF transceivers
- operationally check aircraft UHF transmitters
- perform checkouts of UHF equipment
- perform checkouts of HF equipment
- operationally check aircraft HF transceivers
- perform JTIDS equipment checkouts

The maintenance nature of this work is clearly shown through representative TMs, such as maintaining HF/UHF, JTIDS, SATCOM, and other general communications systems. Representative TMs include:

<u>TM</u>	<u>Module Title</u>	<u>No. of Tsks</u>	<u>Percent Time Spent (Sum)</u>	<u>Percent Time Spent (Cumulative)</u>	<u>Average Percent Members Performing</u>
0004	Ops check HF/UHF equipment	6	3	3	95
0043	Operating/maintaining JTIDS equipment	8	3	6	90
0011	Maintaining HF/UHF equipment	4	2	8	97
0005	Power down HF/UHF equipment	2	1	9	88
0003	Ops check/preflight comm equipment	2	1	10	86
0034	Inspecting aircraft systems	5	2	12	84
0035	Operating/maintaining Have Quick systems	16	6	18	81
0002	Operating comm equipment	3	1	19	84
0016	Maintaining SATCOM equipment	10	3	22	85
0012	Monitoring comm equipment	4	1	23	73
0020	General airborne maintenance duties	5	2	25	76
0017	Operationally checking VHF equipment	10	3	28	83

Communications Technicians generally perform maintenance functions; however, they also perform some Communications Operator duties and, hence, perform an average of 269 tasks. They average only 76 months' TAFMS and predominantly hold paygrades of E-4/E-5. It isn't surprising they are junior to most of their operator counterparts as they are in a smaller career field that merges with other aircrew specialties at the 9-skill level.

#### X. HEADQUARTERS STAFF (STG34).

The seven members of this job account for 2 percent of the survey sample. The work performed in this job is narrow in scope, as incumbents spend 91 percent of their time performing supervisory, administrative, and training duties (see Table 3). Furthermore, they perform an average of only 44 tasks, the fewest of any group in the survey. Three respondents are assigned to Langley AFB VA, while the others are scattered in various HQ jobs.

HEADQUARTERS STAFF	
Number of members	7
Percent of total sample	2%
Average number of tasks performed	44
Average TAFMS	212 mos
Predominant DAFSC	1A371
Predominant paygrade	E-7



**Representative tasks performed by personnel in this job are:**

- plan or prepare briefings
- determine work priorities
- compile data for reports
- conduct staff meetings or briefings
- review publications, correspondence, or reports
- establish performance standards for subordinates
- participate in upgrade or modifications of communications systems equipment
- evaluate communications operations

Representative TMs show the work is almost exclusively supervisory and administrative in nature, as 68 percent of incumbent's time is spent in the following two TMs:

<u>TM</u>	<u>Module Title</u>	<u>No. of Tsks</u>	<u>Percent Time Spent (Sum)</u>	<u>(Cumulative)</u>	<u>Average Percent Members Performing</u>
0046	Admin/supervisory duties	47	60	60	46
0057	Evaluating duties	9	8	68	37

As expected, this is the most senior group in the career ladder, as incumbents average 212 months' TAFMS. One of the five incumbents that holds the 7-skill level is a member of AFSC 1A5X2. The other two job members hold the 9- and 00-skill levels respectively.

Summary

In summary, career ladder structure analysis identified 10 mission-oriented jobs: VIP Support Communications Operator, European Theater VIP Support Communications Operator, Special Air Missions Communications Operator, WABRES Voice Communications Operator, WABRES Data Communications Operator, Air Deployment Control (ADC) Communications Operator, AWACS Communications Operator, Special Operations Communications Operator, Communications Technician, and Headquarters Staff. The AFSC 1A5X2 respondents are represented by the Communications Technician job.

TABLE 5

JOB SPECIALTY COMPARISON BETWEEN CURRENT AND PREVIOUS  
AFSC 1A3X1 OCCUPATIONAL SURVEYS

CURRENT (N=369)	PERCENT IN GROUP	1986 (N=529)	PERCENT IN GROUP
I. VIP Support	4	I. VIP Support	2
II. Special Air Missions	3	II. Special Air Missions	5
III. Not Identified	-	III. Aerospace Rescue and Recovery Service	8
IV. WABRES Voice Operator	12	IV. Worldwide Airborne Command Post Voice and Data Operator Cluster	47
WABRES Data Operator	14		
V. Air Deployment Control	2	V. Tactical Deployment Control	2
VI. Not Identified	-	VI. Technical Training	1
VII. AWACS Comm Operator	14	VII. Command and Control Personnel	25
VIII. Special Operations	14	VIII. Not Identified	-
IX. Headquarters Staff	2	IX. Not Identified	-
X. Communications Technician	14	X. Not Surveyed	-
XI. Not Grouped	21	XI. Not Grouped	10

TABLE 6

JOB SPECIALTY COMPARISON BETWEEN CURRENT AND PREVIOUS  
AFSC 1A5X2 OCCUPATIONAL SURVEYS

CURRENT (N=369)	PERCENT IN GROUP	1988 (N=99)	PERCENT IN GROUP
I.-II. Communications Technician	14	I. E-3A Communications Maintenance Personnel Cluster	84
		II. EC-130 Airborne Communications Technician	10
III. Not Identified	-	III. EC-135 Airborne Communications Technician	4
IV. AFSC 1A3X1 Jobs	65	IV. Not Surveyed	-
IV. Not Grouped	21	II. Not Grouped	2

### Comparison to Previous Survey

There are several differences between the jobs identified in the current and previous studies. For AFSC 1A3X1, these differences are listed in Table 5, and for AFSC 1A5X2, they are listed in Table 6. The previous AFSC 1A3X1 survey was published in 1988. The current study may appear different on the surface, but the results are actually quite similar. First of all, the job of Aerospace Rescue and Recovery Service (ARRS) was not identified in the current study. Several members of the Air Rescue job were identified, but were subsumed within the Special Operations job, which was not identified in the last survey. Members of both job groups work aboard C-130 aircraft and hence perform tasks similar enough to allow them to be grouped together. Furthermore, the ARRS job is not as widespread as it was in 1988. A small job that was identified in the last survey which didn't surface in the current analysis is the Technical School Instructor job. The technical school, located at Keesler, was sampled, but patterns of responses from incumbents were not distinct enough to establish a job. This was probably due to instructors marking tasks performed by a number of jobs, and thus, having job descriptions dissimilar to any identified job or to each other. A similar situation may have occurred with the previous survey as the Headquarters Staff personnel were not singled out.

The final difference involves the inclusion of AFSC 1A5X2 personnel in the current study. As anticipated, nearly all perform the Communications Technician job. Table 6 shows a comparison of the current AFSC 1A5X2 survey with the previous study published in 1988. The E-3A and EC-130 jobs were currently identified in the Communications Technician job. The EC-135 job no longer exists.

### Specialty Job Satisfaction Analysis

An examination of job satisfaction indicators can give career managers a better understanding of factors that may affect job performance of career ladder airmen. Therefore, the survey booklet included questions about job interest, perceived utilization of talents and training, sense of accomplishment from work, and reenlistment intentions.

Table 7 presents job satisfaction responses for clusters and job groups within the survey sample. All respondents, with the exception of the Headquarters Staff group, found their jobs interesting. HQ Staff personnel probably exhibit considerably less job interest, because they are assigned to a desk rather than an aircraft. WABRES Voice Operators don't feel their talents are utilized as well as their counterparts, but they, like all other job groups, feel that their training has been well utilized. The WABRES Voice and Data Operators, along with the HQ Staff incumbents, exhibit low senses of accomplishment reactions. Despite showing positive job satisfaction in all areas, the Special Air Missions personnel are the least likely to reenlist.

TABLE 7

COMPARISON OF JOB SATISFACTION INDICATORS FOR SPECIALTY JOB MEMBERS  
(PERCENT MEMBERS RESPONDING)

	VIP SUPPORT COMM (N=12)		EURO THTR VIP SUPPORT COMM (N=5)		SPEC AIR MISS COMM (N=11)		WABRES VOICE COMM (N=44)		WABRES DATA COMM (N=50)		AIR DPLMT CONTROL COMM (N=7)		AWACS COMM OPR (N=51)		SPECIAL OPS COMM OPR (N=50)		COMM TECH STAFF (N=52)		HQ (N=7)			
	OPR	COMM	OPR	COMM	OPR	COMM	OPR	COMM	OPR	COMM	OPR	COMM	OPR	COMM	OPR	COMM	OPR	COMM	OPR	COMM	OPR	COMM
Interesting	100	0	80	0	100	0	68	80	86	92	90	81	57	81	13	43	0	0	0	0	0	0
So-So	0	0	0	0	0	0	20	8	14	4	8	13	43	13	8	43	0	0	0	0	0	0
Dull	0	0	20	0	0	0	11	12	0	4	2	6	0	4	2	0	0	0	0	0	0	0
Fairly Well to Excellent Little or Not at All	100 0	80 20	100 0	100 0	100 0	64 36	74 26	85 14	94 6	90 10	88 12	92 8	71 29	90 10	88 12	92 8	81 19	71 29	81 19	71 29	81 19	57 43
Fairly Well to Excellent Little or Not At All	100 0	80 20	100 0	100 0	100 0	100 0	100 0	94 6	71 29	90 10	88 12	92 8	71 29	90 10	88 12	92 8	81 19	71 29	81 19	71 29	81 19	57 43
Satisfied	100	0	100	0	100	48	56	71	82	88	81	57	81	88	6	8	0	0	0	0	0	0
Neutral	0	0	0	0	0	27	8	14	6	6	6	8	0	6	6	8	0	0	0	0	0	0
Dissatisfied	0	0	0	0	0	25	36	14	12	6	6	12	43	6	6	12	43	43	43	43	43	43
Plan to Reenlist	75	0	100	0	55	70	80	86	76	84	75	71	71	84	2	17	0	0	0	0	0	0
Plan Not to Reenlist	0	0	0	9	9	20	10	14	16	2	17	0	2	2	17	0	0	0	0	0	0	0
Plan to Retire	17	0	0	36	36	9	10	0	8	14	8	29	14	14	8	29	29	29	29	29	29	29
No Response	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

EXPRESSED JOB INTEREST:

PERCEIVED USE OF TALENTS:

PERCEIVED USE OF TRAINING:

SENSE OF ACCOMPLISHMENT:

REENLISTMENT INTENTIONS:

## AFSC 1A3X1

### Analysis of DAFSC Groups

An analysis of DAFSC groups, in conjunction with the analysis of the career ladder structure, is an important part of each occupational survey. The DAFSC analysis examines differences in tasks performed between skill levels. This information may then be used to evaluate how well career ladder documents, such as AFMAN 36-2108 *Specialty Descriptions*, reflect what career ladder personnel are actually doing in the field.

The distribution of AFSC 1A3X1 skill-level groups across career ladder clusters and jobs is displayed in Table 8. As can be seen, personnel across skill levels perform a wide variety of jobs. This is a common pattern for AFSCs that exhibit breadth due to mission orientation and the requirement to support several different aircraft.

Table 9 offers another perspective by displaying relative time spent on duties across skill-level groups. These data point to a somewhat atypical career ladder progression. Members across all skill levels, except the CEM code personnel, spend the majority of their time performing the routine technical tasks in duties G and H. At the 7- and 9-skill levels, personnel begin to perform slightly more supervisory duties. Personnel at the DAFSC 1A391 level spend the majority of their time performing supervisory duties; however, they still spend a moderate amount of time performing tasks in technical duties G and H.

### Skill-Level Descriptions and Comparisons

DAFSC 1A533. Three-skill level personnel tend to be assigned to the WABRES Data Communications Operator job and the AWACS Communications Operator job. The reason 11 of the 21 3-skill level personnel are not grouped is they are relatively inexperienced, performing basic tasks that will not allow them to group with their more experienced counterparts. They spend the majority of their time performing the routine technical tasks exhibited in duties G and H (see Table 9) and also spend considerably more time performing alert duties. This is probably due to the fact that they must participate in many practice alert exercises while learning a more advanced job. They average only 49 months' TAFMS and perform roughly 103 tasks on their jobs. Examples of tasks DAFSC 1A331 airmen are likely to perform include operating airborne communications receivers, destroying classified material, and performing alert crew changeovers. Other examples of common tasks performed by a majority of these airmen are shown in Table 10.

DAFSC 1A553. Five-skill level members perform a wide variety of jobs. The majority work in the WABRES or AWACS jobs (see Table 8). They spend the majority of their time performing technical tasks; however, they perform slightly more training functions and fewer alert duties than their junior counterparts. They average 88 months' TAFMS and an average of 157 tasks.

TABLE 8

DISTRIBUTION OF DAFSC 1A3X1 GROUP MEMBERS ACROSS CAREER LADDER JOBS  
(Percent)

CAREER LADDER JOBS	1A331 (N=21)	1A351 (N=163)	1A371 (N=113)	1A391 (N=16)	1A300 (N=5)
I. VIP Support Comm Operator	0	2	5	13	0
II. European Theater VIP Support Comm Operator	0	0	4	6	0
III. Special Air Missions Comm Operator	0	0	7	13	0
IV. WABRES Voice Comm Operator	0	18	12	0	0
V. WABRES Data Comm Operator	24	18	12	6	20
VI. Air Deployment Control Comm Operator	0	2	4	0	0
VII. AWACS Comm Operator	14	18	13	25	0
VIII. Special Operations Comm Operator	0	11	24	19	20
IX. Comm Technician	10	1	*	0	0
X. Headquarters Staff	0	0	3	6	60
Not Grouped	52	30	16	12	0

\* Denotes less than 1 percent

TABLE 9

TIME SPENT ON DUTIES BY MEMBERS OF AFSC 1A3X1 SKILL-LEVEL GROUPS  
(RELATIVE PERCENT OF JOB TIME)

DUTIES	1A331 (N=21)	1A351 (N=163)	1A371 (N=113)	1A391 (N=16)	1A300 (N=5)
A ORGANIZING AND PLANNING	3	2	5	9	16
B DIRECTING AND IMPLEMENTING	3	2	4	6	11
C INSPECTING AND EVALUATING	1	1	3	7	13
D TRAINING	1	4	4	4	6
E PERFORMING ADMINISTRATIVE AND SUPPLY ACTIVITIES	9	8	7	6	7
F PERFORMING PREMISSION TASKS	9	7	8	8	5
G PERFORMING PREFLIGHT AND ENROUTE OUTBOUND TASKS	12	15	15	13	8
H PERFORMING ON STATION ACTIVITIES	14	18	16	14	9
I PERFORMING THRUFLIGHT INSPECTIONS	3	3	3	3	2
J PERFORMING ENROUTE, INBOUND, BEFORE LEAVING AIRCRAFT, AND POSTMISSION ACTIVITIES	8	9	8	6	4
K PERFORMING GENERAL AIRBORNE MAINTENANCE ACTIVITIES	2	3	5	6	4
L PERFORMING AIR FORCE SATELLITE COMMUNICATIONS (AFSATCOM)	5	5	2	1	2
M MAINTAINING COMMUNICATION DISTRIBUTION SYSTEM/ INTERPHONE SYSTEMS	1	*	*	1	*
N MAINTAINING HIGH FREQUENCY (HF), VERY HIGH FREQUENCY (VHF) AND ULTRA HIGH FREQUENCY (UHF) SYSTEMS	4	5	5	4	2
O MAINTAINING SECURE VOICE SYSTEMS	1	3	3	3	2
P MAINTAINING DIGITAL INFORMATION LINKS	*	1	*	1	0
Q PERFORMING TACTICAL BATTLE MANAGEMENT SYSTEMS (TBMS) AND AN/USC-48 CAPSULE MAINTENANCE	*	*	*	*	*
R MAINTAINING MISCELLANEOUS COMMUNICATIONS	2	2	1	2	2
S PERFORMING CREW DUTIES	7	6	5	5	3
T PERFORMING MOBILITY ACTIVITIES	2	1	1	*	*
U PERFORMING ALERT DUTY ACTIVITIES	10	4	1	*	1

\* Denotes less than 1 percent



**TABLE 10**  
**REPRESENTATIVE TASKS PERFORMED**  
**BY 1A331 PERSONNEL**

<b>TASKS</b>	<b>PERCENT MEMBERS PERFORMING (N=21)</b>
H409 Operate airborne communications receivers	61
J542 Destroy classified materials or documents	61
U978 Identify Klaxon testing procedures	57
U980 Perform alert crew changeovers	57
J606 Zeroize cryptographic equipment	57
F243 Review FCIFs or mission crew information files (MCIFs)	52
U977 Identify Klaxon out procedures	52
U982 Practice alert force exercises	52
H411 Operate airborne communications transmitters	52
E176 Maintain mission narrative logs	52
E165 Maintain aircrew currency requirements	52
U979 Perform alert aircraft changeovers	52
F222 Inventory COMSEC material	52
J547 Perform before landing procedures	52
G321 Perform preflight inspections of circuit breaker panels	52
G322 Perform preflight inspections of communications consoles	52
U983 Practice alert reaction procedures	47
H410 Operate airborne communications transceivers	47
F199 Assemble professional or personal flight gear	47
E172 Maintain flight crew information files (FCIFs)	47
U972 Identify alert response routes	47
F231 Participate in premission briefings, other than conducting	47
G349 Perform preflight inspections of secure data systems	47
E174 Maintain logs of aircraft transmissions and receptions	47
J548 Perform before leaving aircraft procedures	47
E169 Maintain COMSEC materials	42
E168 Maintain communication kits	42
E164 Log incoming or outgoing messages	42
E167 Maintain circuit logs	42
S946 Stow crewmember gear on aircraft	42

Examples of tasks these airmen are likely to perform are found in Table 11. Some of the functions they perform include taking inventory of COMSEC material, zeroizing cryptographic equipment, and signing out classified material.

The tasks which best distinguish 5-skill level personnel from their junior counterparts are listed in Table 12. It is not surprising that only one task, identifying Klaxon testing procedures, is more often performed by 3-skill level personnel. The remaining technical tasks, more commonly performed by 5-skill level personnel, demonstrate the increased breadth of their jobs.

DAFSC 1A573. Seven-skill level personnel are much more likely to hold high visibility positions, such as VIP support jobs, than their junior counterparts. Table 8 shows that these members perform a wide variety of jobs across the career field to include a Headquarters Staff position. Personnel at this skill level still demonstrate a propensity to perform routine technical duties; however, they also perform slightly more supervisory duties than 5-skill level personnel. A clear distinction, however, does not appear to exist between the 7-skill level members and their junior counterparts. They average 176 months' TAFMS and perform an average of 221 tasks, 64 more than 5-skill level personnel.

Examples of tasks 7-skill level airmen are likely to perform are listed in Table 13. These tasks are primarily technical and involve duties such as operating and operationally checking airborne communications transceivers and transmitters.

The tasks which best differentiate 5- and 7-skill level airmen are listed in Table 14. Five-skill level airmen have much higher percentage performing alert duties, while 7-skill level airmen perform supervisory tasks.

DAFSC 1A391: Nine-skill level members, like their junior counterparts, perform a wide variety of jobs. They are more likely to perform high visibility jobs than WABRES jobs (see Table 8). This appears to be the main semblance of career ladder progression, as 9-skill level members still spend the majority of their time performing technical functions (see Table 9). They average 220 tasks on their job, roughly the same as 7-skill level personnel.

Members in the 9-skill level group participate in staff meetings, establish organizational policies, and evaluate common operations. Examples of other tasks they perform are listed in Table 15, while Table 16 shows the tasks which best differentiate these airmen from their junior counterparts are primarily administrative and supervisory in nature. It also shows that 7-skill level airmen are much more likely to perform duties associated with Have Quick systems.

DAFSC 1A300: The final skill-level group to examine is the DAFSC 1A300 personnel group. Table 8 shows that all five of these respondents, as expected, grouped in the Headquarters Staff job. These senior members of the career field primarily perform supervisory duties. Members still, however, spend approximately 44 percent of their time performing technical tasks (see Table 9). On average, they perform 233 tasks, more than any other DAFSC group.

TABLE 11  
**REPRESENTATIVE TASKS PERFORMED  
 BY 1A351 PERSONNEL**

<b>TASKS</b>	<b>PERCENT MEMBERS PERFORMING (N=163)</b>
F222 Inventory COMSEC material	84
J606 Zeroize cryptographic equipment	78
G367 Sign out classified material	75
H410 Operate airborne communications transceivers	72
G322 Perform preflight inspections of communications consoles	69
F221 Inventory communications kits	69
H409 Operate airborne communications receivers	69
J604 Turn in classified materials or documents	69
H411 Operate airborne communications transmitters	68
E169 Maintain COMSEC materials	66
F243 Review FCIFs or mission crew information files (MCIFs)	65
H483 Transmit and receive messages using secure communications equipment	65
J542 Destroy classified materials or documents	64
G288 Operationally check aircraft UHF transmitters	63
G299 Operationally check secure communications equipment	63
G351 Perform preflight inspections of secure voice systems	63
E163 Inventory lists of classified materials or documents	63
J596 Power down HF equipment	62
O790 Load codes in KY-75 cryptographic systems	62
H373 Authenticate stations using challenge and reply systems	62
J599 Power down UHF equipment	61
G283 Operationally check aircraft HF transceivers	61
O789 Load codes in KY-58 cryptographic systems	61
S941 Review aircraft flight or maintenance records, such as AFTO Forms 781 series forms	61
H400 Maintain radio operations logs	60
S939 Provide physical security for classified material	60
S943 Review normal or emergency destruction plans of COMSEC material	60
S940 Provide physical security for COMSEC	59
O794 Operationally check KY-75 cryptographic systems	58
G289 Operationally check aircraft ultra high frequency (UHF) receivers	58

TABLE 12

TASKS WHICH BEST DIFFERENTIATE BETWEEN  
DAFSC 1A331 AND DAFSC 1A351 PERSONNEL  
(PERCENT MEMBERS PERFORMING)

TASKS	1A331 (N=21)	1A351 (N=163)	DIFFERENCE
U978 Identify Klaxon testing procedures	57	37	20
H373 Authenticate stations using challenge and reply systems	14	63	-49
G351 Perform preflight inspections of secure voice systems	19	64	-45
H381 Encode messages manually	10	50	-40
F221 Inventory communications kits	29	69	-40
G299 Operationally check secure communications equipment	24	64	-40
H380 Decode messages manually	10	49	-39
H496 Transmit voice communications traffic through HF equipment	14	53	-39
J596 Power down HF equipment	24	63	-38
H464 Set codes on cryptographic equipment	10	48	-38
O793 Operationally check KY-58 cryptographic systems	19	57	-38
O789 Load codes in KY-58 cryptographic systems	24	61	-37
G367 Sign out classified material	38	75	-37
J552 Perform checkouts of HF equipment	19	55	-36
O794 Operationally check KY-75 cryptographic systems	24	59	-35
J590 Perform postflight security checks	10	44	-34

TABLE 13

**REPRESENTATIVE TASKS PERFORMED  
BY 1A371 PERSONNEL**

<b>TASKS</b>	<b>PERCENT MEMBERS PERFORMING (N=113)</b>
H410 Operate airborne communications transceivers	85
G283 Operationally check aircraft HF transceivers	84
G367 Sign out classified material	83
G288 Operationally check aircraft UHF transmitters	82
O789 Load codes in KY-58 cryptographic systems	82
F222 Inventory COMSEC material	81
G351 Perform preflight inspections of secure voice systems	80
J606 Zeroize cryptographic equipment	78
O793 Operationally check KY-58 cryptographic systems	77
G321 Perform preflight inspections of circuit breaker panels	76
G299 Operationally check secure communications equipment	76
G322 Perform preflight inspections of communications consoles	76
H483 Transmit and receive messages using secure communications equipment	75
N763 Operationally check HF radio systems	74
J542 Destroy classified materials or documents	74
S940 Provide physical security for COMSEC	74
N765 Operationally check UHF radio systems	73
G289 Operationally check aircraft ultra high frequency (UHF) receivers	72
S939 Provide physical security for classified material	72
E150 Annotate cabinet, safe, or room security forms	71
E169 Maintain COMSEC materials	71
H409 Operate airborne communications receivers	71
G301 Operationally check UHF transceivers	71
J596 Power down HF equipment	71
E165 Maintain aircrew currency requirements	70
H411 Operate airborne communications transmitters	70
J604 Turn in classified materials or documents	70
F243 Review FCIFs or mission crew information files (MCIFs)	70
J552 Perform checkouts of HF equipment	70
E155 Document destruction of classified materials or documents	69

TABLE 14

TASKS WHICH BEST DIFFERENTIATE BETWEEN  
DAFSC 1A351 AND DAFSC 1A371 PERSONNEL  
(PERCENT MEMBERS PERFORMING)

TASKS	1A351 (N=163)	1A371 (N=113)	DIFFERENCE
U979 Perform alert aircraft changeovers	53	31	22
U978 Identify Klaxon testing procedures	37	17	20
U977 Identify Klaxon out procedures	37	19	18
U982 Practice alert force exercises	48	31	17
U972 Identify alert response routes	37	21	16
U983 Practice alert reaction procedures	42	27	15
<hr/>			
A4 Compile data for reports	18	57	-39
A16 Establish organizational policies, such as operating instructions (OIs) or standard operating procedures (SOPs)	9	43	-34
B60 Interpret policies, directives, or procedures for subordinates	15	49	-34
E187 Participate in staff meetings, other than conducting	28	61	-33
A17 Establish performance standards for subordinates	15	47	-32
F213 Coordinate mission requirements with appropriate agencies	33	65	-32
A23 Plan communications support for special missions	27	58	-31
E197 Review publications, correspondence, or reports	11	42	-31
D132 Evaluate effectiveness of upgrade training	5	35	-30
B58 Initiate actions required due to substandard performance of personnel	14	44	-30
A8 Determine work priorities	28	58	-30
B44 Direct operations of airborne communications platforms	13	42	-29
G284 Operationally check aircraft VFF systems	13	42	-29
F220 Identify Flight Information Regions (FIRs) to be traversed	12	40	-28
N766 Operationally check VHF/AM radio systems	28	56	-28

**TABLE 15**  
**REPRESENTATIVE TASKS PERFORMED**  
**BY 1A391 PERSONNEL**

<b>TASKS</b>	<b>PERCENT MEMBERS PERFORMING (N=16)</b>
E187 Participate in staff meetings, other than conducting	87
G367 Sign out classified material	87
J606 Zeroize cryptographic equipment	87
F243 Review FCIFs or mission crew information files (MCIFs)	87
A16 Establish organizational policies, such as operating instructions (OIs) or standard operating procedures (SOPs)	81
C78 Evaluate communications operations	81
C104 Participate in upgrade or modifications of communications systems equipment	81
B68 Supervise airborne communications systems personnel (AFSC 116X0)	81
H483 Transmit and receive messages using secure communications equipment	81
F222 Inventory COMSEC material	81
G351 Perform preflight inspections of secure voice systems	81
O789 Load codes in KY-58 cryptographic systems	81
A17 Establish performance standards for subordinates	75
A23 Plan communications support for special missions	75
A4 Compile data for reports	75
G288 Operationally check aircraft UHF transmitters	75
F240 Review communications or general information files	75
H410 Operate airborne communications transceivers	75
H496 Transmit voice communications traffic through HF equipment	75
E169 Maintain COMSEC materials	75
G301 Operationally check UHF transceivers	75
B38 Counsel personnel	75
H459 Request time-of-landing weather forecasts	75
E155 Document destruction of classified materials or documents	75
G322 Perform preflight inspections of communications consoles	75
J604 Turn in classified materials or documents	75
S939 Provide physical security for classified material	75
O793 Operationally check KY-58 cryptographic systems	75
N765 Operationally check UHF radio systems	75
G333 Perform preflight inspections of flight interphone systems	75

TABLE 16

TASKS WHICH BEST DIFFERENTIATE BETWEEN  
DAFSC 1A371 AND DAFSC 1A391 PERSONNEL  
(PERCENT MEMBERS PERFORMING)

TASKS	1A371 (N=113)	1A391 (N=16)	DIFFERENCE
E164 Log incoming or outgoing messages	40	6	34
H463 Send Have Quick TODs	32	0	32
T952 Fire weapons for proficiency	48	19	29
G289 Operationally check aircraft ultra high frequency (UHF) receivers	73	44	29
N787 Verify VHF/FM radio system configurations	47	19	28
H377 Coordinate air-to-ground message traffic with appropriate agencies	52	25	27
K622 Identify malfunctions within Have Quick systems	27	0	27
H415 Operate Have Quick systems in antijam mode	39	13	26
F234 Prepare communications kits	58	31	26
G365 Set Have-Quick system word-of-day (WOD) codes	38	13	25
<hr/>			
C104 Participate in upgrade or modification of communications systems equipment	33	81	-48
C75 Determine causes of mission operational discrepancies	22	63	-41
A16 Establish organizational policies, such as operating instructions (OIs) or standard operating procedures (SOPs)	43	81	-38
C103 Participate in Transient Electromagnetic Pulse Standards (TEMPEST) certification	13	50	-37
A33 Schedule personnel for schools, temporary duty (TDY) assignments, or nontechnical training	27	63	-34
G254 Configure communication switching systems (CSSs)	18	50	-32
C97 Indorse enlisted performance reports (EPRs)	18	50	-32
N771 Remove or replace UHF radio systems	12	44	-32
A6 Determine or establish logistical requirements, such as personnel, equipment, space, tools, or supplies	31	63	-32
C79 Evaluate data for modification of equipment	20	50	-30



The tasks they perform, listed in Table 17, show a distinct supervisory nature and involve functions such as planning briefings, preparing reports, and determining work priorities. Table 18 shows that DAFSC 1A300 personnel differ from their junior counterparts in the increased supervisory nature of their jobs.

#### AFMAN 36-2108 Specialty Descriptions Analysis

Survey data were compared to the AFMAN 36-2108 *Specialty Descriptions* for Airborne Communications Systems Personnel, dated 30 April 1991. The descriptions for the 3-, 5-, 7-, 9-, and 0-skill level were accurate, depicting the highly technical aspects of the jobs, as well as the general increase in supervisory responsibilities previously described in the DAFSC analysis. The descriptions also capture the primary responsibilities of AFSC 1A3X1 members in the applicable jobs identified in the job structure analysis process.

#### Training Analysis

Occupational surveys provide information which can be useful in the development and revision of relevant training programs. Factors used to evaluate entry-level AFSC 1A3X1 training include jobs being performed by first-enlistment personnel across career ladder jobs, percent first-job (1-24 months' TAFMS) and first-enlistment (1-48 months' TAFMS) members performing specific tasks, ratings of how much training emphasis tasks should receive in formal training, and relative TD ratings.

#### First-Enlistment Personnel Analysis

In this study, there are 65 AFSC 1A3X1 members in their first enlistment (1-48 months' TAFMS), representing 20 percent of all surveyed AFSC 1A3X1 personnel. The majority of these are members of the WABRES and AWACS Communications Operator jobs (see Figure 2). A large number of first-enlistment personnel did not group with any of the identified job members. These members are generally inexperienced and perform basic, technical tasks. Due to the diverse nature of the career field, members must complete specific mission-oriented OJT programs. A large number of the not grouped respondents are learning specific duties and will eventually group within jobs such as the WABRES Voice and Data Operator job and the AWACS Communications Operator job.

**TABLE 17**  
**REPRESENTATIVE TASKS PERFORMED**  
**BY 1A300 PERSONNEL**

<b>TASKS</b>	<b>PERCENT MEMBERS PERFORMING (N=5)</b>
E187 Participate in staff meetings, other than conducting	100
A27 Plan or prepare briefings	100
A4 Compile data for reports	100
A8 Determine work priorities	100
A5 Coordinate obtaining orders, passports, or visas with appropriate agencies	100
A17 Establish performance standards for subordinates	100
A33 Schedule personnel for schools, temporary duty (TDY) assignment, or nontechnical training	80
C110 Write staff studies, surveys, or special reports, other than training reports	80
B52 Implement personnel recognition programs	80
B36 Conduct staff meetings or briefings	80
A15 Draft budget requirements	80
C80 Evaluate individuals for promotion, demotion, reclassification, or special awards	80
B60 Interpret policies, directives, or procedures for subordinates	80
C104 Participate in upgrade or modifications of communications systems equipment	80
C78 Evaluate communications operations	80
A16 Establish organizational policies, such as operating instructions (OIs) or standard operating procedures (SOPs)	80
E150 Annotate cabinet, safe, or room security forms	80
F241 Review communications requirements from OPS plans	80
B38 Counsel personnel	80
B69 Supervise military personnel with AFSCs other than 116X0 or 118X1	60
D121 Conduct training conferences or briefings	60
E197 Review publications, correspondence, or reports	60
A1 Assign personnel to duty positions	60
B68 Supervise airborne communications systems personnel (AFSC 116X0)	60
A24 Plan equipment replacement programs	60
D124 Determine training requirements, such as OJT or resident course training requirements	60
C79 Evaluate data for modification of equipment	60
C108 Write EPRs	60
A6 Determine or establish logistical requirements, such as personnel, equipment, space, tools, or supplies	60
A14 Develop work methods or procedures	60

TABLE 18

TASKS WHICH BEST DIFFERENTIATE BETWEEN  
DAFSC 1A391 AND DAFSC 1A300 PERSONNEL  
(PERCENT MEMBERS PERFORMING)

TASKS	1A391 (N=16)	1A300 (N=5)	DIFFERENCE
F237 Request COMSEC material	75	20	55
B57 Implement work methods	50	0	50
Q826 Operationally check lighting systems	44	0	44
D113 Assign instructors	44	0	44
F245 Review publications boards	44	0	44
A28 Plan or schedule work assignments or priorities	63	20	43
G351 Perform preflight inspections of secure voice systems	81	40	41
O789 Load codes in KY-58 cryptographic systems	81	40	41
N752 Adjust HF radio systems	38	0	38
J556 Perform engine shutdown procedures	38	0	38
<hr/>			
A5 Coordinate obtaining orders, passports, or visas with appropriate agencies	31	100	-69
A15 Draft budget requirements	13	80	-67
H389 Implement interference countermeasures	13	60	-47
A8 Determine work priorities	56	100	-44
B52 Implement personnel recognition programs	38	80	-42
C90 Evaluate suggestions	19	60	-41
E154 Develop worksheets or logs	19	60	-41
C99 Inspect condition and appearance of facilities	19	60	-41
D124 Determine training requirements, such as OJT or resident course training requirements	19	60	-41
C71 Analyze technical reports	19	60	-41

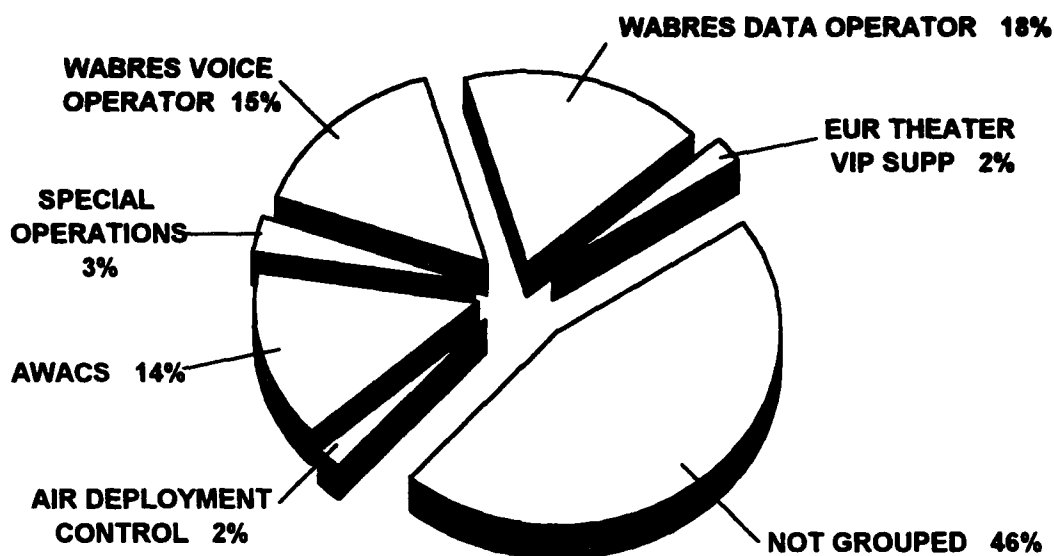


Figure 2

Table 19 shows first-enlistment personnel spend approximately 89 percent of their time performing technical duties such as preflight and routine on station communications operations. Table 20 displays representative tasks performed by first-enlistment AFSC 1A3X1 personnel. The technical nature of their jobs is shown through commonly performed tasks such as zeroizing cryptographic equipment, operating communications receivers and transceivers, and operating and checking UHF transmitters.

Table 21 lists emergency equipment used by members in their first enlistment, while Table 22 depicts communications and avionics equipment often used by this criterion group. Examples of each include NOMEX gloves, first-aid kits, and portable oxygen units; and operator interphones, HF communications equipment, and circuit breaker panels.

#### TE and TD Data

TE and TD data are secondary task factors that can help training development personnel decide which tasks to emphasize for entry-level training. These ratings, based on the judgments of senior career ladder NCOs at operational units, provide a rank-ordering of those tasks considered important for first-enlistment airmen training (TE) and a measure of the relative difficulty of those tasks (TD). When combined with data on the percentages of first-enlistment personnel performing tasks, comparisons can be made to determine if training adjustments are necessary. For example, tasks receiving high ratings on both task factors (TE and TD), accompanied by moderate to high percentages performing, may warrant resident training. Those tasks receiving high task factor ratings, but low percentages performing, may be more

TABLE 19

RELATIVE PERCENT OF TIME SPENT ACROSS DUTIES BY  
FIRST-ENLISTMENT AFSC 1A3X1 PERSONNEL

DUTIES	PERCENT TIME SPENT (N=65)
A ORGANIZING AND PLANNING	2
B DIRECTING AND IMPLEMENTING	1
C INSPECTING AND EVALUATING	*
D TRAINING	*
E PERFORMING ADMINISTRATIVE AND SUPPLY ACTIVITIES	8
F PERFORMING PERMISSION TASKS	8
G PERFORMING PREFLIGHT AND ENROUTE OUTBOUND TASKS	15
H PERFORMING ON STATION ACTIVITIES	18
I PERFORMING THRUFLIGHT INSPECTIONS	3
J PERFORMING ENROUTE INBOUND, BEFORE LEAVING AIRCRAFT, AND POSTMISSION ACTIVITIES	9
K PERFORMING GENERAL AIRBORNE MAINTENANCE ACTIVITIES	3
L PERFORMING AIR FORCE SATELLITE COMMUNICATIONS (AFSATCOM)	5
M MAINTAINING COMMUNICATION DISTRIBUTION SYSTEM/INTERPHONE SYSTEMS	*
N MAINTAINING HIGH FREQUENCY (HF), VERY HIGH FREQUENCY (VHF) AND ULTRA HIGH FREQUENCY (UHF) SYSTEMS	5
O MAINTAINING SECURE VOICE SYSTEMS	2
P MAINTAINING DIGITAL INFORMATION LINKS	2
Q PERFORMING TACTICAL BATTLE MANAGEMENT SYSTEMS (TBMS) AND AN/USC-48 CAPSULE MAINTENANCE	*
R MAINTAINING MISCELLANEOUS COMMUNICATIONS	2
S PERFORMING CREW DUTIES	6
T PERFORMING MOBILITY ACTIVITIES	1
U PERFORMING ALERT DUTY ACTIVITIES	6

\* Denotes less than 1 percent

TABLE 20

**REPRESENTATIVE TASKS PERFORMED BY FIRST-ENLISTMENT  
AFSC 1A3X1 PERSONNEL**

<b>TASKS</b>		<b>PERCENT MEMBERS PERFORMING (N=65)</b>
J606	Zeroize cryptographic equipment	76
F222	Inventory COMSEC material	75
H409	Operate airborne communications receivers	67
H411	Operate airborne communications transmitters	66
G288	Operationally check aircraft UHF transmitters	60
H483	Transmit and receive messages using secure communications equipment	60
F243	Review FCIFs or mission crew information files (MCIFs)	58
J599	Power down UHF equipment	58
H410	Operate airborne communications transceivers	58
E169	Maintain COMSEC materials	56
J604	Turn in classified materials or documents	56
G367	Sign out classified material	56
G351	Perform preflight inspections of secure voice systems	55
G322	Perform preflight inspections of communications consoles	55
J542	Destroy classified materials or documents	53
U979	Perform alert aircraft changeovers	53
E163	Inventory lists of classified materials or documents	53
G370	Tune frequencies manually	53
G289	Operationally check aircraft ultra high frequency (UHF) receivers	53
U982	Practice alert force exercises	52
O790	Load codes in KY-75 cryptographic systems	52
F221	Inventory communications kits	50
E176	Maintain mission narrative logs	50
E165	Maintain aircrew currency requirements	50
H400	Maintain radio operations logs	50
H477	Transmit and receive messages using current call sign lists	50
J596	Power down HF equipment	49
E168	Maintain communication kits	49
J547	Perform before landing procedures	49
H391	Initiate or process phone patches	49

TABLE 21

EMERGENCY EQUIPMENT USED BY MORE THAN  
50 PERCENT OF AFSC 1A3X1 FIRST-ENLISTMENT PERSONNEL

<u>EQUIPMENT</u>	<u>PERCENT MEMBERS RESPONDING</u>
NOMEX Gloves	94
First Aid Kits	86
Portable Oxygen Units	86
Crash Axes	85
Fire Extinguishers	83
Life Rafts	83
Escape Slides	80
Escape Ropes	77
Life Preserver Units (LPUs)	77
Crew Knives	62
Smoke Masks	60
Emergency Radios	57

TABLE 22

COMMUNICATION AND AVIONICS EQUIPMENT USED  
BY MORE THAN 40 PERCENT OF AFSC 1A3X1  
FIRST-ENLISTMENT PERSONNEL

<b>EQUIPMENT</b>	<b>PERCENT MEMBERS RESPONDING</b>
Operator Interphones	82
High Frequency (HF) Comm Equipment	75
Circuit Breaker Panels	69
Ultra High Frequency Comm Equipment	63
Wideband Encryption Devices	54
Frequency Modulation (FM) Radios	51
Communications Security Control Panels	49
Voice Cryptographic Units	46
UHF Nationwide Radio Systems	45
Staff Interphones	43
Public Address Systems	43
Emergency Action Message Alarm Controls	42
UHF SATCOM Equipment	42



appropriately planned for OJT programs. Low task factor ratings may highlight tasks best omitted from training for first-enlistment personnel. These decisions must be weighed against percentages of personnel performing the tasks, command concerns, and criticality of the tasks.

As explained in the introduction, no TE data are reported in this survey due to insufficient rater agreement. The Airborne Communication Systems career field is extremely diverse and mission oriented, and, consequently, training needs are highly dependent upon specific mission needs.

Table 23 lists the tasks with the highest TD ratings. The majority of these tasks deal with supervisory and common maintenance functions. Advanced skill-level personnel are more likely to perform supervisory tasks. Since communications operators do not perform a great deal of maintenance activities, it is not surprising that the majority of these tasks are performed by low percentages of first-job, first-enlistment, 5-, and 7-skill level members.

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

### Training Documents

Information needed to evaluate the Specialty Training Standard (STS) and entry-level Plan of Instruction (POI) was provided by training personnel at the 335 Technical Training Squadron at Keesler AFB. They matched tasks on the JI to appropriate sections of the STS and ABR1A331 POI. Listings of the STS and POI were then produced, showing each STS paragraph and POI learning objective, tasks that were matched, percent criterion group members performing, and TD ratings. These listings are included in the Training Extract sent to the school for review. Criteria set forth in AETCR 52-1 and AETCR 52-22, paragraph 3, were used to review the relevance of each STS paragraph and POI learning objective matched with tasks in the job inventory.

Any STS paragraph with matched tasks performed by 20 percent or more of first-job (1-24 months' TAFMS), first-enlistment (1-48 months' TAFMS), 5-, or 7-skill level members is considered to be supported and should be retained in the STS. Likewise, any learning objective with tasks matched performed by fewer than 20 percent of first-job or first-enlistment personnel is considered to be unsupported by survey data and subject to review by training personnel.

### AFSC 1A3X1 STS

The match was conducted on the draft AFSC 1A3X1 STS. This proposed STS, drafted by technical school personnel and career field functional managers, was designed to combine Communications Operators (AFSC 1A3X1) and Maintenance Technicians (AFSC 1A5X2)

TABLE 23

## SAMPLE TASKS WITH HIGHEST TASK DIFFICULTY RATINGS

TASKS	TSK DIFF	PERCENT MEMBERS PERFORMING					
		AFSC IA3XI IST JOB	AFSC IA3XI IST ENL	IA351	IA371		
A15 Draft budget requirements	8.45	0	3	5		10	
D125 Develop career development courses (CDCs)	8.27	0	2	1		3	
C91 Evaluate system designs	8.18	0	2	1		13	
D127 Develop new equipment training programs	7.74	0	5	9		23	
K684 Troubleshoot flight director systems	7.71	0	2	1		10	
A24 Plan equipment replacement programs	7.67	0	2	3		14	
K661 Remove or replace equipment cooling systems	7.67	0	2	1		4	
D129 Develop resident courses	7.64	0	2	1		3	
D126 Develop IQT syllabus or related training material	7.62	0	3	8		19	
K679 Troubleshoot autopilot systems	7.57	0	2	1		5	
C104 Participate in upgrade or modifications of communications systems equipment	7.55	0	11	15		33	
C102 Investigate accidents or incidents	7.54	0	3	1		8	
B42 Direct implementation of emergency procedures to support contingency plans	7.52	0	9	5		15	
A10 Develop cost-reduction programs	7.47	0	3	4		6	
C79 Evaluate data for modification reports	7.47	0	3	4		20	
K686 Troubleshoot GYRO systems	7.36	0	2	1		7	
H489 Transmit information using IMC	7.34	0	3	4		13	
A16 Establish organizational policies, such as operating instructions (OIs) or standard operating procedures (SOPs)	7.29	0	3	9		43	

TD MEAN = 5.00 S.D. = 1.00

TABLE 23 (CONTINUED)

SAMPLE TASKS WITH HIGHEST TASK DIFFICULTY RATINGS

TASKS	TSK DIFF	PERCENT MEMBERS PERFORMING					
		AFSC IA3X1 1ST JOB	AFSC IA3X1 1ST ENL	IA351	IA371		
C76 Evaluate budget requirements	7.27	0	2	1	7		
H436 Perform standardization and evaluation checks	7.26	0	2	7	26		
A21 Maintain communications security (COMSEC) accounts	7.25	50	15	18	40		
K695 Troubleshoot navigation systems	7.17	0	3	2	10		
K685 Troubleshoot ground proximity warning systems	7.15	0	2	1	7		
R890 Troubleshoot JTIDS	7.14	0	3	3	3		
T964 Practice demolition techniques	7.13	0	0	1	1		

TD MEAN = 5.00 S.D. = 1.00

functions in order to prepare the training community for the impending merger. Consequently, the document contains numerous elements pertaining to maintenance functions. For this reason, many of the items are not supported by AFSC 1A3X1 criterion group data. Table 24 displays a small sample of unsupported elements. All five of these areas involve maintenance activities, some of which are as detailed as repairing components to the line replaceable unit (LRU) level.

Due to the diverse nature of the career field, many areas of the STS are written in a general manner. The JI, on the other hand, was written to specifically cover every detailed aspect of the career field. For this reason, over 400 tasks were not referenced to the STS. Samples of these tasks that satisfy the STS support criterion are in Table 25. The majority of tasks concentrate on performing AFSATCOM functions. Training personnel should review these and other tasks not referenced, listed in the training extract, to determine if they merit inclusion in future STS documents.

#### AFSC 1A3X1 POI

The POI, unlike the STS, was written specifically for Communications Operator (AFSC 1A3X1) personnel. Consequently, only two objectives, listed in Table 26, were not supported by survey data. The first objective relates to teletype servicing procedures and its matched task exhibits a below average TD rating, while the other unmatched objective relating to meaconing, intrusion, jamming, and interference (MIJI) reports is matched with a task considered slightly more difficult to perform than the average task.

Numerous tasks were not referenced to the POI, largely because the POI was not written to include maintenance functions. Table 27 lists tasks supported by criterion members not referenced to the POI. The majority of these tasks deal with general airborne maintenance activities, suggesting that Communications Operators perform some maintenance functions. Training personnel should review these and other unmatched tasks, listed in the training extract, to determine their impact on future POI development.

#### Job Satisfaction Analysis

As stated in the Specialty Job Satisfaction Analysis section of this report, an examination of job satisfaction indicators can be very useful for career ladder managers as they attempt to determine possible factors affecting job performance of career ladder airmen. In addition to the previously discussed job satisfaction results for identified jobs, job satisfaction data can be expanded to provide indications of general attitudes within specific DAFSC groups.

With this in mind, job satisfaction responses for AFSC 1A3X1 members were analyzed and provide the following comparisons: (1) among TAFMS groups of the AFSC 1A3X1 career ladder and a comparative sample of other aircrew specialists surveyed in 1993 and (2) between current and previous AFSC 1A3X1 TAFMS groups.

TABLE 24

EXAMPLES OF AFSC 1A3X1 STS ELEMENTS NOT SUPPORTED BY SURVEY DATA  
(AFSC 1A3X1)

STS ELEMENTS/TASKS	PERCENT MEMBERS PERFORMING						TASK DIF
	1ST JOB	1ST ENL	5-LVL	5-LVL	7-LVL	7-LVL	
10a(2). Replace multi-pin connectors	0	5	1	5	5	6.13	
K665 Remove or replace multi-pin connectors							
10c(5). VHF Systems - Replace LRUs							
N775 Remove or replace VHF/FM system LRUs	0	6	3	11	5.27		
N774 Remove or replace VHF/AM system LRUs	0	6	2	8	5.04		
10e(1)(e). Audio Distribution Systems- Replace LRUs							
M745 Remove or replace interphone system LRUs	0	3	1	5	5.19		
10f(4). Emergency Recorder/Locator System - Isolate Malfunctions							
R889 Troubleshoot emergency locator recorder systems	0	2	1	2	6.37		
10g(5). Have Quick Systems - Replace LRUs							
K663 Remove or replace Have Quick system LRUs	0	5	2	0	5.23		

TD MEAN = 5.00 S.D. = 1.00

TABLE 25

EXAMPLES OF TECHNICAL TASKS NOT REFERENCED TO THE STS  
(AFSC 1A3X1)

TASKS	PERCENT MEMBERS PERFORMING						TASK DIF
	1ST JOB	1ST ENL	5-LVL	7-LVL			
K615	50	14	25	35		6.45	
S938	50	38	39	47		5.80	
L733	0	23	23	14		5.62	
L727	0	29	26	14		5.56	
H390	0	28	22	12		5.39	
H481	0	22	21	14		5.28	
L713	0	25	37	46		5.28	
L723	0	20	21	12		5.27	
L714	0	22	19	12		5.27	
L721	0	20	18	11		5.27	
L735	0	25	25	16		5.26	
L716	0	23	21	17		5.20	
H381	50	37	50	58		5.18	
H380	50	34	49	59		5.15	
N784	50	28	37	51		5.12	
L736	0	26	27	17		4.99	
L717	0	25	35	31		4.97	
I532	0	22	21	17		4.96	
L718	0	28	24	20		4.92	
H448	0	26	37	38		4.91	
H483	0	60	66	75		4.77	

TD MEAN = 5.00 S.D. = 1.00

TABLE 26

EXAMPLES OF POI E3ABR/A331 ELEMENTS NOT SUPPORTED BY SURVEY DATA

POI OBJECTIVE/TASKS	PERCENT MEMBERS PERFORMING				TASK DIF
	IST	IST	ENL		
	JOB				
II 2a. Identify airborne teletype servicing procedures					
H388 Identify missent or misrouted messages	0	11			4.73
<hr style="border-top: 1px dashed black;"/>					
III 5a. Prepare MIJI reports					
E191 Prepare MIJI reports	0	6			5.04

TD MEAN = 5.00 S.D. = 1.00

TABLE 27

## EXAMPLES OF TECHNICAL TASKS NOT REFERENCED TO POI E3ABRIA331

TASKS	PERCENT MEMBERS PERFORMING			TASK DIF
	IST JOB	IST ENL		
A21	50	15		7.25
K699	50	18		6.48
K615	50	14		6.45
K614	50	5		6.17
K629	50	25		6.02
S923	50	12		5.93
O801	50	22		5.93
M739	50	6		5.87
K623	50	8		5.82
S938	50	38		5.80
K689	50	11		5.77
K660	50	6		5.61
N771	50	9		5.56
L728	0	31		5.53
F203	0	32		5.53
F210	50	11		5.51
K612	50	32		5.51

TD MEAN = 5.00 S.D. = 1.00



Table 28 shows the comparison of TAFMS group data of AFSC 1A3X1 personnel to a comparative sample of other aircrew AFSCs surveyed the previous calendar year. These data give a relative measure of how AFSC 1A3X1 personnel job satisfaction responses compare with similar Air Force specialties. Overall, job satisfaction for all three TAFMS groups is positive, although somewhat lower than most of the comparative sample's ratings. First-enlistment personnel related particularly lower ratings in every area, except perceived use of training. They feel that their talents are not as well utilized and that they do not gain as great a sense of accomplishment from their jobs as their counterparts. Previous analyses showed that entry-level personnel perform more alert duties than senior personnel, which may account for some of their dissatisfaction.

An indication of changes in job satisfaction perceptions within the career ladder is provided in Table 29, which presents TAFMS group data for current survey respondents and data from respondents to the last AFSC 1A3X1 OSR published in 1988 (then AFSC 116X0). Job satisfaction perceptions appear to have dropped in several areas since the last survey. First-enlistment personnel do not find their jobs as interesting and feel they are not being utilized effectively. They also show much less desire to reenlist than their predecessors. Personnel in their second enlistment are generally satisfied with their jobs; however, they don't feel their talents are utilized as properly, and they are also less likely to reenlist. Personnel in the 97+ TAFMS sample appear to be just as satisfied as personnel in the previous survey sample.

## AFSC 1A5X2

### Analysis of DAFSC Groups

An analysis of DAFSC groups, in conjunction with the analysis of the career ladder structure, is an important part of each occupational survey. The DAFSC analysis examines differences in tasks performed between skill levels. This information may then be used to evaluate how well career ladder documents, such as AFMAN 36-2108 *Specialty Descriptions*, reflect what career ladder personnel are actually doing in the field.

The distribution of AFSC 1A5X2 skill-level groups across career ladder clusters and jobs is displayed in Table 30. As can be seen, personnel across skill levels primarily perform the Communications Technician job. All 11 of the 3-skill level members grouped into this job, and only 1 member of the 5-skill level community remained ungrouped. All but three of the 7-skill level personnel grouped in this job.

Table 31 offers another perspective by displaying relative time spent on duties across skill level groups. These data point to the fact this AFSC also experiences atypical career ladder progression. Members across all skill levels spend the majority of their time performing routine technical duties. At the 7-skill level, personnel begin to perform only slightly more supervisory duties, but their main thrust is still overwhelmingly technical in nature.

TABLE 28

COMPARISON OF JOB SATISFACTION INDICATORS FOR AFSC 1A3X1  
TAFMS GROUPS IN CURRENT STUDY TO A COMPARATIVE SAMPLE  
(Percent Members Responding)

	1-48 MOS TAFMS (N=65)		49-96 MOS TAFMS (N=66)		97+ MOS TAFMS (N=187)	
	CURRENT	SAMPLE (N=233)	CURRENT	SAMPLE (N=214)	CURRENT	SAMPLE (N=565)
Interesting	74	85	82	91	84	87
So-So	12	9	9	6	11	8
Dull	14	6	8	3	5	5
Fairly Well to Excellent	67	85	78	90	87	89
Little or Not at All	33	15	22	10	13	11
Fairly Well to Excellent	93	94	92	94	91	89
Little or Not at All	7	6	8	6	9	11

EXPRESSED JOB INTEREST:

Interesting  
So-So  
Dull

92

PERCEIVED USE OF TALENTS:

Fairly Well to Excellent  
Little or Not at All

PERCEIVED USE OF TRAINING:

Fairly Well to Excellent  
Little or Not at All

Comparative data are from Aircrew AFSCs 1T2X1, 1A4X1, 1A5X3, and 1A0X1 surveyed in 1993.

TABLE 28 (CONTINUED)

COMPARISON OF JOB SATISFACTION INDICATORS FOR AFSC 1A3X1 TAFMS GROUPS IN CURRENT STUDY TO A COMPARATIVE SAMPLE (Percent Members Responding)

	1-48 MOS TAFMS		49-96 MOS TAFMS		97+ MOS TAFMS	
	CURRENT (N=65)	SAMPLE (N=233)	CURRENT (N=66)	SAMPLE (N=214)	CURRENT (N=187)	SAMPLE (N=565)
Satisfied	54	84	68	86	78	81
Neutral	15	5	11	4	7	7
Dissatisfied	31	11	20	10	14	12

SENSE OF ACCOMPLISHMENT:

REENLISTMENT INTENTIONS:

Plan to Reenlist  
 Plan Not to Reenlist  
 Plan to Retire

Comparative data are from Aircrew AFSCs 1T2X1, 1A4X1, 1A5X3, and 1A0X1 surveyed in 1993.

TABLE 29

COMPARISON OF AFSC 1A3X1 JOB SATISFACTION INDICATORS  
FOR CURRENT AND PREVIOUS SURVEY  
(Percent Members Responding)

	1-48 MOS TAFMS (N=65)		49-96 MOS TAFMS (N=66)		97+ MOS TAFMS (N=187)	
	CURRENT STUDY	1987 STUDY	CURRENT STUDY	1987 STUDY	CURRENT STUDY	1987 STUDY
<u>EXPRESSED JOB INTEREST:</u>						
Interesting	74	91	82	85	84	86
So-So	12	6	9	11	11	10
Dull	14	2	8	3	5	5
<u>PERCEIVED USE OF TALENTS:</u>						
Fairly Well to Excellent	67	85	78	90	87	86
Little or Not at All	33	15	22	9	13	14
<u>PERCEIVED USE OF TRAINING:</u>						
Fairly Well to Excellent	93	94	92	90	91	88
Little or Not at All	7	5	8	9	9	11
<u>REENLISTMENT INTENTIONS:</u>						
Plan to Reenlist	63	78	80	90	76	82
Plan Not to Reenlist	37	19	18	8	4	4
Plan to Retire	0	0	0	0	19	11

TABLE 30

DISTRIBUTION OF DAFSC 1A5X2 GROUP MEMBERS ACROSS  
CAREER LADDER JOBS  
(Percent)

CAREER LADDER JOBS	1A532 (N=11)	1A552 (N=18)	1A572 (N=22)
I. VIP Support Comm Operator	0	0	0
II. European Theater VIP Support Comm Operator	0	0	0
III. Special Air Missions Comm Operator	0	0	0
IV. WABRES Voice Comm Operator	0	0	0
V. WABRES Data Comm Operator	0	0	0
VI. Air Deployment Control Comm Operator	0	0	0
VII. AWACS Comm Operator	0	0	0
VIII. Special Operations Comm Operator	0	0	4
IX. Comm Technician	100	94	88
X. Headquarters Staff	0	0	4
Not Grouped	0	6	4

TABLE 31

TIME SPENT ON DUTIES BY MEMBERS OF AFSC 1A5X2 SKILL-LEVEL GROUPS  
(RELATIVE PERCENT OF JOB TIME)

DUTIES	1A532 (N=11)	1A552 (N=18)	1A572 (N=22)
A ORGANIZING AND PLANNING	*	2	5
B DIRECTING AND IMPLEMENTING	*	2	4
C INSPECTING AND EVALUATING	*	2	4
D TRAINING	0	4	5
E PERFORMING ADMINISTRATIVE AND SUPPLY ACTIVITIES	1	3	3
F PERFORMING PERMISSION TASKS	2	4	4
G PERFORMING PREFLIGHT AND ENROUTE OUTBOUND TASKS	18	17	14
H PERFORMING ON STATION ACTIVITIES	10	11	11
I PERFORMING THROUGH INSPECTIONS	3	2	1
J PERFORMING ENROUTE INBOUND, BEFORE LEAVING AIRCRAFT, AND POSTMISSION ACTIVITIES	11	9	8
K PERFORMING GENERAL AIRBORNE MAINTENANCE ACTIVITIES	14	12	11
L PERFORMING AIR FORCE SATELLITE COMMUNICATIONS (AFSATCOM)	*	*	*
M MAINTAINING COMMUNICATION DISTRIBUTION SYSTEM/INTERPHONE SYSTEMS	3	2	2
N MAINTAINING HIGH FREQUENCY (HF), VERY HIGH FREQUENCY (VHF), AND ULTRA HIGH FREQUENCY (UHF) SYSTEMS	16	11	9
O MAINTAINING SECURE VOICE SYSTEMS	4	3	3
P MAINTAINING DIGITAL INFORMATION LINKS	4	5	4
Q PERFORMING TACTICAL BATTLE MANAGEMENT SYSTEMS (TBMS) AND AN/USC-48 CAPSULE MAINTENANCE	2	1	*
R MAINTAINING MISCELLANEOUS COMMUNICATIONS	6	5	5
S PERFORMING CREW DUTIES	3	3	4
T PERFORMING MOBILITY ACTIVITIES	*	1	1
U PERFORMING ALERT DUTY ACTIVITIES	*	*	*

\* Denotes less than 1 percent

### Skill-Level Descriptions and Comparisons

DAFSC 1A531. Three-skill level personnel are all assigned to the Communications Technician job. They spend the majority of their time performing routine preflight and on station technical tasks exhibited in duties G and H (see Table 31). They also spend a considerable amount of time maintaining HF, VHF, and UHF systems, as well as performing general airborne maintenance activities. In total, they spend over 97 percent of their time performing technical functions. They average only 39 months' TAFMS and perform roughly 202 tasks on their jobs.

Examples of tasks DAFSC 1A532 airmen are likely to perform include verifying Have Quick system configurations, performing mission maintenance checks of intercoms, and verifying various system configurations. Other examples of common tasks performed by a majority of these airmen are shown in Table 32.

DAFSC 1A552. Five-skill level members also predominantly perform the Communications Technician job (see Table 30). Only one member, based on task performance, was not grouped. They also spend the majority of their time performing technical tasks; however, they perform slightly more supervisory functions than their junior counterparts. They average 84 months of service, more than twice that of the junior members, and have much broader jobs as they average 274 tasks, 72 more than 3-skill level personnel.

Examples of tasks these airmen are likely to perform are found in Table 33. Some of the functions they perform include operationally checking HF and SATCOM systems and performing JTIDS initialization procedures.

The tasks which best distinguish 5-skill level personnel from their junior counterparts are listed in Table 34. Since both skill-level personnel tend to perform many technical functions, the main difference between the groups appears to be the greater tendency of 5-skill level personnel to perform training duties and handle classified material.

DAFSC 1A572. All but three of the 7-skill level personnel perform the Communications Technician job. Based on task performance, one member was grouped in the Special Operations job, while another member was in the not grouped category. The final member of the DAFSC group performs duties in a Headquarters Staff job (see Table 30). Seven-skill level personnel spend 21 percent of their time performing supervisory duties, more than any other skill-level group. They still spend the vast majority of their time performing technical duties and therefore emphasize the atypical career ladder progression that exists within the AFSC. They average 175 months' TAFMS and perform an average of 286 tasks.

Examples of tasks 7-skill level airmen are likely to perform are listed in Table 35. These tasks are primarily technical and involve duties such as operationally checking transceivers and performing checkouts of HF and UHF equipment.

**TABLE 32**  
**REPRESENTATIVE TASKS PERFORMED**  
**BY 1A532 PERSONNEL**

<b>TASKS</b>	<b>PERCENT MEMBERS PERFORMING (N=11)</b>
N782 Verify Have Quick system configurations	100
G307 Perform mission maintenance checks of intercom or galley chimes	100
N785 Verify UHF radio system configurations	100
N784 Verify SATCOM system configurations	100
N783 Verify HF radio system configurations	100
N777 Troubleshoot HF radio systems	100
N778 Troubleshoot UHF radio systems	100
N772 Remove or replace UHF system LRUs	100
N770 Remove or replace HF system LRUs	100
N779 Troubleshoot VHF radio systems	100
N774 Remove or replace VHF/AM system LRUs	100
N765 Operationally check UHF radio systems	100
N786 Verify VHF/AM radio system configurations	100
N763 Operationally check HF radio systems	100
O801 Troubleshoot KY-58 cryptographic systems	100
N764 Operationally check SATCOM systems	100
O802 Troubleshoot KY-75 cryptographic systems	100
N775 Remove or replace VHF/FM system LRUs	100
N787 Verify VHF/FM radio system configurations	100
N766 Operationally check VHF/AM radio systems	100
N767 Operationally check VHF/FM radio systems	100
G365 Set have-quick system times-of-day (TODs)	90
G366 Set have-quick system word-of-day (WOD) codes	90
J594 Power down ESS equipment	90
J597 Power down JTIDS equipment	90
R890 Troubleshoot JTIDS	90
H463 Send Have Quick TODs	90
K699 Troubleshoot SATCOM systems	90
J558 Perform JTIDS equipment checkouts	90
G327 Perform preflight inspections of emergency equipment	90



TABLE 33

**REPRESENTATIVE TASKS PERFORMED  
BY 1A552 PERSONNEL**

<b>TASKS</b>	<b>PERCENT MEMBERS PERFORMING (N=18)</b>
G307 Perform mission maintenance checks of intercom or galley chimes	100
J598 Power down mission equipment	100
N764 Operationally check SATCOM systems	100
N763 Operationally check HF radio systems	100
G306 Perform joint tactical information data systems (JTIDS) initialization procedures	94
R872 Operationally check SATCOM systems	94
G301 Operationally check UHF transceivers	94
J597 Power down JTIDS equipment	94
G288 Operationally check aircraft UHF transmitters	94
N765 Operationally check UHF radio systems	94
G370 Tune frequencies manually	94
N784 Verify SATCOM system configurations	94
N757 Identify malfunctions within UHF radio systems	94
J553 Perform checkouts of UHF equipment	94
H466 Set codes on Mode II	94
N785 Verify UHF radio system configurations	94
J552 Perform checkouts of HF equipment	94
N756 Identify malfunctions within HF radio systems	94
N766 Operationally check VHF/AM radio systems	94
N786 Verify VHF/AM radio system configurations	94
N783 Verify HF radio system configurations	94
G292 Operationally check aircraft VHF transceivers	94
K624 Identify malfunctions within interphone systems	94
N758 Identify malfunctions within VHF/AM radio systems	94
G321 Perform preflight inspections of circuit breaker panels	88
G256 Configure programming display panels	88
G327 Perform preflight inspections of emergency equipment	88
G283 Operationally check aircraft HF transceivers	88
J599 Power down UHF equipment	88
F243 Review FCIFs or mission crew information files (MCIFs)	88

TABLE 34

TASKS WHICH BEST DIFFERENTIATE BETWEEN  
DAFSC 1A532 AND DAFSC 1A552 PERSONNEL  
(PERCENT MEMBERS PERFORMING)

TASKS	1A532 (N=11)	1A552 (N=18)	DIFFERENCE
N775 Remove or replace VHF/FM system LRUs	100	67	33
H400 Maintain radio operations logs	36	6	30
N773 Remove or replace VHF radio systems	91	61	30
J594 Power down ESS equipment	91	61	30
I535 Perform thruflight inspections of VHF radios	73	44	28
O802 Troubleshoot KY-75 cryptographic systems	100	72	28
O801 Troubleshoot KY-58 cryptographic systems	100	72	28
N779 Troubleshoot VHF radio systems	100	72	28
S947 Transport test equipment or units to or from flightiness	27	0	27
G313 Perform preflight inspections of aircraft flight publications	64	38	25

---

A32 Schedule personnel for leaves	0	56	-56
D135 Evaluate progress of trainees	0	56	-56
D116 Conduct in-flight maintenance (IFM) training	0	56	-56
J598 Power down mission equipment	45	100	-55
F199 Assemble professional or personal flight gear	18	72	-54
J542 Destroy classified materials or documents	18	72	-54
H376 Configure radios for tactical digital information link (TADIL-C) or Link-4 operations	36	89	-53
J546 Participate in postmission debriefings, other than conducting	27	78	-51
E155 Document destruction of classified materials or documents	0	50	-50
G347 Perform preflight inspections of public address (PA) systems	18	67	-49

TABLE 35

**REPRESENTATIVE TASKS PERFORMED  
BY IA572 PERSONNEL**

<b>TASKS</b>	<b>PERCENT MEMBERS PERFORMING (N=22)</b>
G283 Operationally check aircraft HF transceivers	95
J553 Perform checkouts of UHF equipment	95
J552 Perform checkouts of HF equipment	95
H410 Operate airborne communications transceivers	95
G262 Inspect aircraft exterior for physical integrity	95
J541 Debrief ground maintenance personnel	95
R872 Operationally check SATCOM systems	95
G327 Perform preflight inspections of emergency equipment	95
G321 Perform preflight inspections of circuit breaker panels	95
O793 Operationally check KY-58 cryptographic systems	95
O789 Load codes in KY-58 cryptographic systems	95
H417 Operate JTIDS communications links	90
E165 Maintain aircrew currency requirements	90
J558 Perform JTIDS equipment checkouts	90
G301 Operationally check UHF transceivers	90
R869 Operationally check JTIDS	90
K630 Inspect avionics equipment, such as bonding straps, communications cabinets, and connectors	90
R874 Operationally check TADIL A/ Link 11 systems	90
N763 Operationally check HF radio systems	90
N765 Operationally check UHF radio systems	90
J599 Power down UHF equipment	90
N757 Identify malfunctions within UHF radio systems	90
J547 Perform before landing procedures	90
P806 Identify malfunctions within TADIL A/Link 11 systems	90
N784 Verify SATCOM system configurations	90
P810 Operationally check TADIL A/Link 11 systems	90
P809 Operationally check KG-40 cryptographic systems	90
P808 Load codes in KG-40 cryptographic systems	90
O794 Operationally check KY-75 cryptographic systems	90
O790 Load codes in KY-75 cryptographic systems	90

The tasks which best differentiate 5- and 7-skill level airmen are listed in Table 36. Once again, the main distinction between these groups is the greater percentage of 7-skill level airmen performing supervisory tasks, such as establishing operating instructions (OIs) and determining logistical requirements.

#### AFMAN 36-2108 Specialty Descriptions Analysis

Survey data were compared to the AFMAN 36-2108 *Specialty Descriptions* for Airborne Command and Control personnel, dated 30 April 1991. The descriptions for the 3-, 5-, and 7-skill levels were accurate, depicting the highly technical aspects of the jobs, as well as the general increase in supervisory responsibilities previously described in the DAFSC analysis. The descriptions also capture the primary responsibilities of AFSC 1A5X2 members in the applicable jobs identified in the job structure analysis process.

#### Training Analysis

Occupational surveys provide information which can be useful in the development and revision of relevant training programs. Factors used to evaluate entry-level AFSC 1A5X2 training include jobs being performed by first-enlistment personnel across career ladder jobs, percent first-job (1-24 months' TAFMS) and first-enlistment (1-48 months' TAFMS) members performing specific tasks, ratings of how much training emphasis tasks should receive in formal training, and relative TD ratings.

#### First-Enlistment Personnel Analysis

In this study, there are 14 AFSC 1A5X2 members in their first enlistment (1-48 months' TAFMS), representing 27 percent of all surveyed AFSC 1A5X2 personnel. All of these grouped members perform work in the Communications Technician job (see Figure 3).

TABLE 36

**TASKS WHICH BEST DIFFERENTIATE BETWEEN  
DAFSC 1A552 AND DAFSC 1A572 PERSONNEL  
(PERCENT MEMBERS PERFORMING)**

TASKS	1A552 (N=18)	1A572 (N=22)	DIFFERENCE
G225 Configure crewmember communications selectors (CCSs)	44	9	35
G254 Configure communication switching systems (CSSs)	39	5	34
I500 Perform thruflight inspections of AFTO Forms 781	61	27	34
N768 Remove or replace assemblies of HF auxiliary receivers	56	23	33
G312 Perform preflight inspections of aircraft emergency radios	44	14	30
F241 Review communications requirements from OPS plans	61	32	29
M747 Troubleshoot communication distribution systems	61	32	29
I526 Perform thruflight inspections of SATCOM systems	61	32	29
G291 Operationally check aircraft VHF omnidirectional receivers (VORs)	33	5	28
U980 Perform alert crew changeovers	50	23	27
<hr/>			
A16 Establish organizational policies, such as operating instructions (OIs) or standard operating procedures (SOPs)	22	68	-46
A6 Determine or establish logistical requirements, such as personnel, equipment, space, tools, or supplies	17	59	-42
A27 Plan or prepare briefings	44	86	-42
A3 Classify information into categories, such as TOP SECRET, SECRET, or CONFIDENTIAL	11	50	-39
E197 Review publications, correspondence, or reports	17	55	-38
E187 Participate in staff meetings, other than conducting	44	82	-38
G355 Perform preflight inspections of static dischargers	6	41	-35
C104 Participate in upgrade or modifications of communications systems equipment	17	50	-33
S939 Provide physical security for classified material	44	77	-33
A14 Develop work methods or procedures	22	55	-33

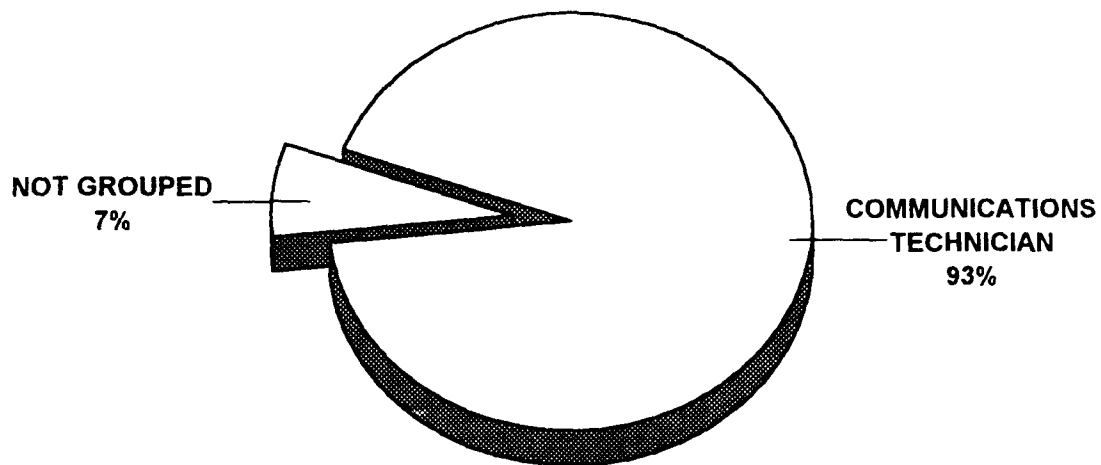


Figure 3

Table 37 shows first-enlistment personnel spend virtually all of their time on technical duties, such as performing preflight tasks and maintaining HF, VHF, and UHF communications equipment. Table 38 displays representative tasks performed by first-enlistment AFSC 1A5X2 personnel. The technical nature of their jobs is shown through commonly performed tasks such as powering down UHF and JTIDS equipment and verifying SATCOM system configurations. Table 39 shows that they are likely to use emergency equipment, such as NOMEX gloves, crash axes, and escape slides, while Table 40 depicts communications and avionics equipment, such as operator interphones and circuit breaker panels, often used by first-enlistment personnel.

#### TD Data

TD is a secondary task factor that can help training development personnel decide which tasks to emphasize for entry-level training. These ratings, based on the judgments of senior career ladder NCOs at operational units, and a measure of the relative difficulty of those tasks (TD). When combined with data on the percentages of first-enlistment personnel performing tasks, comparisons can be made to determine if training adjustments are necessary. For example, tasks receiving high ratings on TD, accompanied by moderate to high percentages performing, may warrant resident training. Those tasks receiving high task factor ratings, but low percentages performing, may be more appropriately planned for OJT programs within the career ladder. Low task factor ratings may highlight tasks best omitted from training for first-enlistment personnel. These decisions must be weighed against percentages of personnel performing the tasks, command concerns, and criticality of the tasks.

TABLE 37

RELATIVE PERCENT OF TIME SPENT ACROSS DUTIES BY  
FIRST-ENLISTMENT AFSC 1A5X2 PERSONNEL

DUTIES	PERCENT TIME SPENT
A ORGANIZING AND PLANNING	*
B DIRECTING AND IMPLEMENTING	*
C INSPECTING AND EVALUATING	*
D TRAINING	*
E PERFORMING ADMINISTRATIVE AND SUPPLY ACTIVITIES	*
F PERFORMING PERMISSION TASKS	2
G PERFORMING PREFLIGHT AND ENROUTE OUTBOUND TASKS	18
H PERFORMING ON STATION ACTIVITIES	11
I PERFORMING THRUFLIGHT INSPECTIONS	3
J PERFORMING ENROUTE INBOUND, BEFORE LEAVING AIRCRAFT, AND POSTMISSION ACTIVITIES	10
K PERFORMING GENERAL AIRBORNE MAINTENANCE ACTIVITIES	13
L PERFORMING AIR FORCE SATELLITE COMMUNICATIONS (AFSATCOM)	*
M MAINTAINING COMMUNICATION DISTRIBUTION SYSTEM/INTERPHONE SYSTEMS	2
N MAINTAINING HIGH FREQUENCY (HF), VERY HIGH FREQUENCY (VHF) AND ULTRA HIGH FREQUENCY (UHF) SYSTEMS	17
O MAINTAINING SECURE VOICE SYSTEMS	4
P MAINTAINING DIGITAL INFORMATION LINKS	6
Q PERFORMING TACTICAL BATTLE MANAGEMENT SYSTEMS (TBMS) AND AN/USC-48 CAPSULE MAINTENANCE	*
R MAINTAINING MISCELLANEOUS COMMUNICATIONS	5
S PERFORMING CREW DUTIES	3
T PERFORMING MOBILITY ACTIVITIES	*
U PERFORMING ALERT DUTY ACTIVITIES	*

\* Denotes less than 1 percent

TABLE 38

REPRESENTATIVE TASKS PERFORMED BY FIRST-ENLISTMENT  
AFSC 1A5X2 PERSONNEL

TASKS	PERCENT MEMBERS PERFORMING (N=14)
J599 Power down UHF equipment	100
J597 Power down JTIDS equipment	100
G307 Perform mission maintenance checks of intercom or galley chimes	100
N784 Verify SATCOM system configurations	100
N765 Operationally check UHF radio systems	100
J600 Power down VHF equipment	100
J596 Power down HF equipment	100
N764 Operationally check SATCOM systems	100
N763 Operationally check HF radio systems	100
N766 Operationally check VHF/AM radio systems	100
N786 Verify VHF/AM radio system configurations	100
P805 Identify malfunctions within KG-40 cryptographic systems	100
K699 Troubleshoot SATCOM systems	92
N762 Operationally check ESSs	92
G301 Operationally check UHF transceivers	92
N782 Verify Have Quick system configurations	92
G288 Operationally check aircraft UHF transmitters	92
N785 Verify UHF radio system configurations	92
N783 Verify HF radio system configurations	92
N778 Troubleshoot UHF radio systems	92
G292 Operationally check aircraft VHF transceivers	92
J553 Perform checkouts of UHF equipment	92
J552 Perform checkouts of HF equipment	92
N772 Remove or replace UHF system LRUs	92
N777 Troubleshoot HF radio systems	92
J554 Perform checkouts of VHF equipment	92
N770 Remove or replace HF system LRUs	92
O801 Troubleshoot KY-58 cryptographic systems	92
N774 Remove or replace VHF/AM system LRUs	92
N767 Operationally check VHF/FM radio systems	92



TABLE 39

EMERGENCY EQUIPMENT USED BY MORE THAN  
50 PERCENT OF AFSC 1A5X2 FIRST-ENLISTMENT PERSONNEL

<u>EQUIPMENT</u>	<u>PERCENT MEMBERS RESPONDING</u>
NOMEX Gloves	100
Crash Axes	100
Escape Slides	100
Fire Extinguishers	100
Life Preserver Units (LPUs)	100
Life Rafts	100
Portable Emergency Light Assemblies	100
Smoke Masks	100
First Aid Kits	86
Inertia Reels	79
Escape Ropes	71
Emergency Radios	64

TABLE 40

COMMUNICATION AND AVIONICS EQUIPMENT USED  
 BY MORE THAN 40 PERCENT OF AFSC 1A5X2  
 FIRST-ENLISTMENT PERSONNEL

EQUIPMENT	PERCENT MEMBERS RESPONDING
Operator Interphones	82
High Frequency (HF) Comm Equipment	75
Circuit Breaker Panels	69
UHF Comm Equipment	63
Wideband Encryption Devices	54
Frequency Modulation (FM) Radios	51
Communications Security Control Panels	49
Voice Cryptographic Units	46
UHF Nationwide Radio Systems	45
Staff Interphones	43
Public Address Systems	43
Emergency Action Message Alarm Controls	42
UHF SATCOM Equipment	42

As explained in the introduction, no TE data are reported in this survey due to insufficient rater agreement. The Airborne Communication Systems career field is extremely diverse and mission oriented, and, consequently, training needs are highly dependent upon specific mission needs.

Table 41 lists tasks with the highest TD ratings. The majority of these tasks deal with supervisory and maintenance functions. The majority of maintenance tasks relate to aircraft systems, such as flight director systems and autopilot systems, rather than specific communications systems. Therefore, it is not surprising that the majority of tasks are performed by low percentages of first-job, first-enlistment, 5-, and 7-skill level members.

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

#### Training Documents

Information needed to evaluate the STS and entry-level POI documents was provided by training personnel at the 332 Technical Training Squadron at Keesler AFB and the 552 Training Squadron at Tinker AFB. They matched tasks on the JI to appropriate sections of the STS and the AQR118331 and E3000BQOTX POIs, respectively. Listings of the STS and POIs were then produced, showing each STS paragraph and POI learning objective, tasks that were matched, percent criterion group members performing, and TD ratings. These listings are included in the Training Extract sent to the school for review. Criteria set forth in ATCR 52-1 and ATCR 52-22, paragraph 3, were used to review the relevance of each STS paragraph and POI learning objective matched with JI tasks.

Any STS paragraph with matched tasks performed by 20 percent or more of first-job (1-24 months' TAFMS), first-enlistment (1-48 months' TAFMS), 5-, or 7-skill level members is considered to be supported and should be retained in the STS. Likewise, any learning objective with tasks matched performed by fewer than 20 percent of these criterion personnel is considered to be unsupported by survey data and subject to review by training personnel.

**AFSC 1A5X2 STS:** The match was conducted on the draft AFSC 1A3X1 STS. This proposed STS, drafted by technical school personnel and career field functional managers, was designed to combine Communications Operators (AFSC 1A3X1) and Maintenance Technicians (AFSC 1A5X2) functions in order to prepare the training community for the impending merger. Consequently, the document contains numerous elements pertaining to communications operator functions. For this reason, many of the items are not supported by AFSC 1A5X2 criterion group data. Table 42 displays a small sample of unsupported elements. All of these elements involve maintenance activities, two of which pertain specifically to teletype systems. While it is not



TABLE 41 (CONTINUED)

SAMPLE TASKS WITH HIGHEST TRAINING DIFFICULTY RATINGS

TASKS	TSK DIFF	PERCENT MEMBERS PERFORMING					
		AFSC IA5X2	1ST JOB	AFSC IA5X2	1ST ENL	AFSC IA552	AFSC IA572
H436 Perform standardization and evaluation checks	7.26	0	0	7	11	32	
A21 Maintain communications security (COMSEC) accounts	7.25	0	14	11	23		
K695 Troubleshoot navigation systems	7.17	0	0	0	0	0	
K685 Troubleshoot ground proximity warning systems	7.15	0	0	0	0	0	
R890 Troubleshoot JTIDS	7.14	100	86	67	77		
T964 Practice demolition techniques	7.13	0	0	0	0	0	

TD MEAN = 5.00 S.D. = 1.00

TABLE 42

EXAMPLES OF AFSC 1A3X1 STS ELEMENTS NOT SUPPORTED BY SURVEY DATA  
(AFSC 1A5X2)

STS ELEMENT/TASKS	PERCENT MEMBERS PERFORMING						TASK DIF
	1ST JOB	1ST ENL	5- LVL	7- LVL	14	6.48	
10s(1)(d). Teletype - Isolate malfunctions	0	0	11	14		6.48	
K703 Troubleshoot teletype communications systems							
10s(1)(e). Teletype - Replace LRUs							
K644 Remove or replace assemblies of computerized teletype communications systems	0	0	6	9		5.52	
R885 Remove or replace teletype communications systems	0	0	11	5		5.12	
10s(3)(c). Audio/Video Recorders - Replace LRUs							
K640 Remove or replace assemblies of aircraft recording systems	0	0	0	9		6.02	
10y(2)(e). Radio Navigational Systems - Replace LRUs							
K653 Remove or replace assemblies of navigation systems	0	0	0	5		5.95	

TD MEAN = 5.00 S.D. = 1.00

surprising that many communications operator tasks are not supported, it is concerning that so many maintenance-oriented tasks are not supported. It is therefore recommended that training personnel review all unsupported STS elements to determine if training revisions are necessary.

Due to the diverse nature of the career field, many areas of the STS are written in a general manner. The JI, on the other hand, was written to specifically cover every detailed aspect of the career field. For this reason, over 400 tasks were not referenced to the STS. Samples of these tasks that satisfy the STS support criterion are in Table 43. These tasks cover a variety of maintenance functions and should be reviewed by training personnel to determine if they merit inclusion in future STS documents.

AFSC 1A3X1 POIs: The POIs, unlike the STS, were written specifically for AFSC 1A5X2 personnel. Consequently, only four POI 3000BQOTX objectives, listed in Table 44, were not supported by survey data. Two of the four objectives involve removing and installing and performing checkouts of the flight recorder locator system (FLRS). The removing and installing function is considered more difficult to perform than the average task. The other two objectives pertain to performing station handover procedures and participating in M-sortie air refueling procedures. Both of these areas are considered nearly average in difficulty.

Numerous tasks were not referenced to POI 3000BQOTX. Table 45 lists tasks supported by criterion members not referenced to the POI. The majority of these tasks deal with airborne maintenance activities rather than communications operator duties. Training personnel should review these and other unmatched tasks, listed in the training extract, to determine their impact on future POI development.

Every matched POI ERAQR11831 objective was supported by survey data, suggesting that it is an extremely sound training document. It is very general in nature, however, and therefore did not lend itself well to match with many specific JI tasks. Samples of tasks not referenced to this POI are in Table 46. These tasks cover a variety of maintenance functions; however, tasks pertaining to ESS and JTIDS systems dominate the list. Once again, training personnel should study the list of tasks not referenced, located in the training extract, to ensure that no important training areas are neglected.

### Job Satisfaction Analysis

As stated in the Specialty Job Satisfaction Analysis section of this report, an examination of job satisfaction indicators can be very useful for career ladder managers as they attempt to determine possible factors affecting job performance of career ladder airmen. In addition to the previously discussed job satisfaction results for identified jobs, job satisfaction data can be expanded to provide indications of general attitudes within specific DAFSC groups.

TABLE 43

EXAMPLES OF TECHNICAL TASKS NOT REFERENCED TO THE STS  
(AFSC 1A5X2)

TASKS	PERCENT MEMBERS PERFORMING							TASK DIF
	IST	IST	5-	7-				
	JOB	ENL	LVL	LVL	LVL	LVL		
K614	20	21	56	50	6.17			
C98	40	21	17	9	5.91			
S938	20	21	11	32	5.80			
H447	40	64	67	59	5.76			
T960	20	21	39	32	5.63			
K612	60	79	89	82	5.51			
K670	60	57	56	45	5.46			
M737	20	29	39	32	5.29			
L713	40	21	56	41	5.28			
N781	80	86	72	68	5.26			
N782	100	93	78	73	5.24			
R884	40	50	56	45	5.23			
O800	40	21	17	23	5.21			
N784	100	100	94	91	5.12			
N760	40	50	56	36	5.10			
G254	40	43	39	5	5.04			
L717	20	21	39	36	4.97			
H448	40	64	83	77	4.91			
K608	20	64	72	68	4.78			
H483	20	43	50	59	4.77			

TD MEAN = 5.00 S.D. = 1.00



TABLE 44

EXAMPLES OF POI E3000BQOTX ELEMENTS NOT SUPPORTED BY SURVEY DATA

POI OBJECTIVE/TASKS	PERCENT MEMBERS PERFORMING			TASK DIF
	1ST JOB	1ST ENL		
E5e. Master station handover				
H438 Perform transfer communications systems procedures	0	7		5.19
F1. Using CT checklist, perform M-sortie air refueling procedures - inbound				
H433 Perform in-flight air refueling procedures	20	14		4.49
J14b. Remove and install FRLS components				
K640 Remove or replace assemblies of aircraft recording systems	0	0		6.02
J14c. Perform FRLS checkout				
R866 Operationally check emergency locator recorder systems	0	0		4.84

TD MEAN = 5.00 S.D. = 1.00

TABLE 45

## EXAMPLES OF TECHNICAL TASKS NOT REFERENCED TO POI E00BQOTX

TASKS	PERCENT MEMBERS PERFORMING			TASK DIF
	1ST JOB	1ST ENL		
K672	60	50	6.94	
K635	20	36	6.68	
K671	60	71	6.55	
C75	40	21	6.42	
A22	40	36	6.33	
H413	60	71	6.24	
G306	100	86	6.15	
R877	40	43	6.05	
M747	40	57	6.01	
C98	40	21	5.91	
M739	60	36	5.87	
N776	60	57	5.85	
K689	40	57	5.77	
N771	100	86	5.56	
K624	40	57	5.49	
N762	80	93	5.49	
K670	60	57	5.46	
M744	60	57	5.43	
H418	60	36	5.33	
N768	80	64	5.30	

TD MEAN = 5.00 S.D. = 1.00

TABLE 46

## EXAMPLES OF TECHNICAL TASKS NOT REFERENCED TO POI ERAQR11831

TASKS	PERCENT MEMBERS PERFORMING				TASK DIF
	IST	JOB	IST	ENL	
R890		100	86		7.14
K672	Troubleshoot JTIDS				
K672	Research cabling diagrams	60	50		6.94
K682	Troubleshoot ESSs	80	79		6.67
K621	Identify malfunctions within ESSs	60	79		6.59
K671	Research block diagrams	60	71		6.55
K687	Troubleshoot Have Quick systems	80	86		6.51
K628	Identify malfunctions within SATCOM systems	60	71		6.48
K699	Troubleshoot SATCOM systems	80	93		6.48
R888	Troubleshoot electrical power distribution systems	20	7		6.41
K622	Identify malfunctions within Have Quick systems	60	79		6.39
H417	Operate JTIDS communication links	80	79		6.33
H413	Operate ESS equipment	60	71		6.24
G306	Perform joint tactical information data systems (JTIDS) initialization procedures	100	86		6.15
R877	Remove or install SATCOM systems	40	43		6.05
K620	Identify malfunctions within equipment cooling systems	40	64		6.04
O801	Troubleshoot KY-58 cryptographic systems	100	93		5.93
O802	Troubleshoot KY-75 cryptographic systems	100	93		5.89
R880	Remove or replace JTIDS LRUs receivers	100	86		5.76

TD MEAN = 5.00 S.D. = 1.00

With this in mind, job satisfaction responses for AFSC 1A5X2 members were analyzed and provide the following comparisons: (1) among TAFMS groups of the AFSC 1A5X2 career ladder and a comparative sample of other aircrew specialists surveyed in 1993, and (2) between current and previous AFSC 1A5X2 TAFMS groups.

Table 47 shows the comparison of TAFMS group data of AFSC 1A5X2 personnel to a comparative sample of other aircrew AFSCs surveyed the previous calendar year. These data give a relative measure of how AFSC 1A5X2 personnel job satisfaction responses compare with similar Air Force specialties. Overall, job satisfaction for all three TAFMS groups is positive, although somewhat lower than most of the comparative sample's ratings. First-enlistment personnel don't feel their jobs are as interesting as their counterparts. They feel their talents are not being as well utilized; however, they are more satisfied with their training. Personnel in their second enlistment are also much more dissatisfied with their utilization and are less likely to reenlist than their counterparts. Senior personnel are consistently less satisfied than their counterparts; however, they are more likely to reenlist.

An indication of changes in job satisfaction perceptions within the career ladder is provided in Table 48, which presents TAFMS group data for current survey respondents and data from respondents to the last OSR of the AFSC 1A5X2 career ladder in 1988 (then AFSC 118X1). Job satisfaction perceptions appear to have dropped in many areas since the last survey. First-enlistment personnel do not find their jobs as interesting and are currently less likely to enlist. Personnel in their second enlistment find their jobs only slightly less interesting, but are also much less likely to stay in the Service. Senior personnel are less satisfied in every area, but still more likely to reenlist.

TABLE 47

COMPARISON OF JOB SATISFACTION INDICATORS FOR AFSC 1A5X2  
TAFMS GROUPS IN CURRENT STUDY TO A COMPARATIVE SAMPLE  
(Percent Members Responding)

	1-48 MOS TAFMS (N=14)		49-96 MOS TAFMS (N=10)		97+ MOS TAFMS (N=27)		97+ MOS TAFMS SAMPLE (N=565)	
	CURRENT	SAMPLE	CURRENT	SAMPLE	CURRENT	SAMPLE	CURRENT	SAMPLE
Interested	71	85	80	91	74	87	74	87
So-So	29	9	10	6	15	8	15	8
Dull	0	6	10	3	11	5	11	5
Fairly Well to Excellent	79	85	70	90	74	89	74	89
Little or Not at All	21	15	30	10	26	11	26	11
Fairly Well to Excellent	100	94	90	94	81	89	81	89
Little or Not at All	0	6	10	6	19	11	19	11

EXPRESSED JOB INTEREST:

Interested  
So-So  
Dull

PERCEIVED USE OF TALENTS:

Fairly Well to Excellent  
Little or Not at All

PERCEIVED USE OF TRAINING:

Fairly Well to Excellent  
Little or Not at All

Comparative data are from Aircrew AFSCs 1T2X1, 1A4X1, 1A5X3, and 1A0X1 surveyed in 1993

TABLE 47 (CONTINUED)

COMPARISON OF JOB SATISFACTION INDICATORS FOR AFSC 1A5X2 TAFMS GROUPS IN CURRENT STUDY TO A COMPARATIVE SAMPLE (Percent Members Responding)

	1-48 MOS TAFMS (N=14)		49-96 MOS TAFMS (N=10)		97+ MOS TAFMS (N=27)	
	CURRENT	SAMPLE (N=233)	CURRENT	SAMPLE (N=214)	CURRENT	SAMPLE (N=565)
Satisfied	79	84	80	86	70	81
Neutral	14	5	10	4	7	7
Dissatisfied	7	11	10	10	23	12
Plan to Reenlist	64	70	70	82	81	75
Plan Not to Reenlist	36	30	30	18	4	7
Plan to Retire	0	0	0	0	15	18

SENSE OF ACCOMPLISHMENT:

REENLISTMENT INTENTIONS:

Comparative data are from Aircrew AFSCs 1T2X1, 1A4X1, 1A5X3, and 1A0X1 surveyed in 1993

TABLE 48

COMPARISON OF AFSC 1A5X2 JOB SATISFACTION INDICATORS  
FOR CURRENT AND PREVIOUS SURVEY  
(Percent Members Responding)

	1-48 MOS TAFMS (N=14)		49-96 MOS TAFMS (N=10)		97+ MOS TAFMS (N=27)	
	CURRENT STUDY	1987 STUDY	CURRENT STUDY	1987 STUDY	CURRENT STUDY	1987 STUDY
Interested	71	91	80	85	74	86
So-So	29	6	10	11	15	10
Dull	0	2	10	3	11	4
Fairly Well to Excellent Little or Not at All	79 21	85 15	70 30	90 9	74 26	86 14
Fairly Well to Excellent Little or Not at All	100 0	94 5	90 10	90 9	81 19	88 11

EXPRESSED JOB INTEREST:

PERCEIVED USE OF TALENTS:

PERCEIVED USE OF TRAINING:

TABLE 48 (CONTINUED)

COMPARISON OF AFSC 1A5X2 JOB SATISFACTION INDICATORS  
FOR CURRENT AND PREVIOUS SURVEY  
(Percent Members Responding)

	1-48 MOS TAFMS		49-96 MOS TAFMS		97+ MOS TAFMS	
	CURRENT STUDY (N=14)	1987 STUDY (N=101)	CURRENT STUDY (N=10)	1987 STUDY (N=158)	CURRENT STUDY (N=27)	1987 STUDY (N=270)
Plan to Reenlist	64	81	70	90	81	85
Plan Not to Reenlist	36	19	30	8	4	4
Plan to Retire	0	0	0	0	15	11

REENLISTMENT INTENTIONS:

Plan to Reenlist  
Plan Not to Reenlist  
Plan to Retire



Comparison of AFSC 1A3X1 to AFSC 1A5X2

SELECTED AFSC 1A3X1 SAMPLE MEMBERS	
Number of members	318
Percent of total sample	86%
Average number of tasks performed	181
Average TAFMS	127 mos
Predominant DAFSC	1A351
Predominant paygrades	E-4/E-5
ASVAB requirement	G-43

SELECTED AFSC 1A5X2 SAMPLE MEMBERS	
Number of members	51
Percent of total sample	14%
Average number of tasks performed	264
Average TAFMS	114 mos
Predominant DAFSC	1A572
Predominant paygrades	E-4/E-5
ASVAB requirement	E-67

The merger of AFSCs 1A3X1 and 1A5X2 has been an issue for several years. Members in the field have expressed mixed reactions towards this matrimonial relationship. A comparison of each AFSC's survey results provides insight into their compatibility. The 318 AFSC 1A3X1 personnel comprised 86 percent of the survey sample, while the 51 AFSC 1A5X2 incumbents formed the other 14 percent. All but three of the AFSC 1A5X2 personnel distinctly grouped in the Communications Technician job, while the AFSC 1A3X1 members were divided amongst nine mission-oriented jobs. Although the AFSC 1A5X2 members grouped in a unique job, they perform many of the same tasks as their Communications Operator counterparts. When compared to a sample of the Communications Operator respondents, similarity in performance amounted to a task overlap of 66 percent. The tasks which best differentiate the groups are listed in Table 49. This table shows the Communications Operators are more likely to handle COMSEC material and, as expected, perform operator duties such as maintaining radio operator logs, transmitting and receiving messages, and requesting weather forecasts. Communications Technicians, on the other hand, work more frequently with JTIDS equipment and perform maintenance duties, such as troubleshooting and removing and replacing faulty system components. Communications Technicians also perform a wider range of duties, as they perform an average of 264 tasks on their jobs, 83 more than Communication Operators. The AFSC 1A3X1 sample was comprised predominantly of 5-skill level airmen holding the E-4/E-5 paygrades, whereas the AFSC 1A5X2 sample was predominantly made up of 7-skill level airmen in paygrades E-4/E-5. AFSC 1A3X1 personnel were the more senior group in the sample with an average TAFMS of 127 months, slightly 1 more year of service time than their counterparts. Personnel in both AFSCs were predominantly assigned to ACC.

## IMPLICATIONS

This survey was conducted to update the data base for the AFSC 1A3X1 and 1A5X2 career ladders. The timing of the survey is excellent, as these specialties are currently preparing for a merger, which will be completed by 1 November 1995. Data compiled from this survey support the current structure of both career ladders. Specialty job analysis indicates a clear distinction between the AFSCs; however, many commonalities exist. Both career fields exhibit somewhat of an atypical career ladder progression, as senior level airmen continue to perform numerous technical tasks on their jobs. The AFMAN 36-2108 *Specialty Descriptions* accurately portray the work performed by members of both career ladders. Job satisfaction data, while generally positive, reveal that personnel from both career fields are not as satisfied with their jobs as members of a comparative sample of aircrew personnel. Furthermore, job satisfaction perceptions are on a downward swing, as members of this sample were not as satisfied as the 1988 sample personnel.

The final, and perhaps most important, implication involves the training evaluation section of this report. Survey data were matched to the proposed STS, which contains both Communications Operator and Maintenance Technician training elements. Many elements were unsupported by survey data, and numerous tasks remained unreferenced. It is suggested that training personnel examine the Training Analysis sections of this report and use the accompanied training extract to evaluate the STS and ensure it accurately represents the training needs of the career field.

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

**INTENTIONALLY LEFT BLANK**

TABLE A1

## VIP SUPPORT COMM OPERATOR

TASKS	PERCENT MEMBERS PERFORMING
H410 Operate airborne communications transceivers	100
F222 Inventory COMSEC material	100
G283 Operationally check aircraft HF transceivers	100
E155 Document destruction of classified materials or documents	100
G351 Perform preflight inspections of secure voice systems	100
G367 Sign out classified material	100
H459 Request time-of-landing weather forecasts	100
G348 Perform preflight inspections of SATCOM systems	100
G299 Operationally check secure communications equipment	100
J604 Turn in classified materials or documents	100
F237 Request COMSEC material	100
G321 Perform preflight inspections of circuit breaker panels	100
K628 Identify malfunctions within SATCOM systems	100
H482 Transmit and receive messages using SATCOM voice equipment	100
H483 Transmit and receive messages using secure communications equipment	100
K629 Identify malfunctions within secure voice systems	100
O789 Load codes in KY-58 cryptographic systems	100
N765 Operationally check UHF radio systems	100
H493 Transmit position reports	100
H391 Initiate or process phone patches	91
H399 Maintain listening watches	91
A23 Plan communications support for special missions	91
J552 Perform checkouts of HF equipment	91
E165 Maintain aircrew currency requirements	91
N763 Operationally check HF radio systems	91
F224 Maintain personal aircrew flight manuals or checklists	91
S939 Provide physical security for classified material	91
G322 Perform preflight inspections of communications consoles	91
G349 Perform preflight inspections of secure data systems	91
F203 Coordinate communications requirements with appropriate agencies	91

TABLE A2

## EUROPEAN THEATER VIP SUPPORT COMM OPERATOR

TASKS	PERCENT MEMBERS PERFORMING
H399 Maintain listening watches	100
E176 Maintain mission narrative logs	100
G351 Perform preflight inspections of secure voice systems	100
S907 Arrange for lodging or transportation for crewmembers	100
O793 Operationally check KY-58 cryptographic systems	100
O789 Load codes in KY-58 cryptographic systems	100
G273 Load identification friend or foe (IFF) codes	100
G276 Load or unload baggage, cargo, or food	100
F206 Coordinate flight information with Mystic Star HF networks	100
G288 Operationally check aircraft UHF transmitters	100
J606 Zeroize cryptographic equipment	100
E156 Establish communications kits	100
S908 Assist in refueling of aircraft	100
B54 Implement safety or security programs	80
A23 Plan communications support for special missions	80
N764 Operationally check SATCOM systems	80
N763 Operationally check HF radio systems	80
N765 Operationally check UHF radio systems	80
A21 Maintain communications security (COMSEC) accounts	80
G283 Operationally check aircraft HF transceivers	80
C78 Evaluate communications operations	80
S910 Coordinate communications configuration requirements with flight crews	80
K612 Conduct testing of aircraft communications equipment	80
H410 Operate airborne communications transceivers	80
S911 Coordinate communications traffic flow with distinguished visitors or contacts	80
F237 Request COMSEC material	80
F234 Prepare communications kits	80
K611 Comply with safety guidelines, such as when working with high voltage equipment or radio frequency radiation	80
D111 Administer ground training, such as communications security	80
H400 Maintain radio operations logs	80

TABLE A3

## SPECIAL AIR MISSIONS COMM OPERATOR

TASKS	PERCENT MEMBERS PERFORMING
F210 Coordinate flight information with White House communications center	100
S939 Provide physical security for classified material	100
F206 Coordinate flight information with Mystic Star HF networks	100
G283 Operationally check aircraft HF transceivers	100
G298 Operationally check radio teletype equipment	100
H442 Prepare messages using White House format	100
S922 Perform ATC radio communication procedures	100
G349 Perform preflight inspections of secure data systems	100
G285 Operationally check aircraft radio compasses	100
G351 Perform preflight inspections of secure voice systems	100
G348 Perform preflight inspections of SATCOM systems	100
H410 Operate airborne communications transceivers	100
K648 Remove or replace assemblies of flight director systems	100
G288 Operationally check aircraft UHF transmitters	100
G284 Operationally check aircraft IFF systems	100
G318 Perform preflight inspections of altitude alerting systems	100
G319 Perform preflight inspections of autopilot systems	100
G340 Perform preflight inspections of multiplexing equipment	100
G332 Perform preflight inspections of flight director systems	100
K683 Troubleshoot facsimile systems	100
G301 Operationally check UHF transceivers	100
G346 Perform preflight inspections of privatized voice systems	100
H409 Operate airborne communications receivers	100
K625 Identify malfunctions within multiplexing systems	100
O793 Operationally check KY-58 cryptographic systems	100
G292 Operationally check aircraft VHF transceivers	100
G290 Operationally check aircraft very high frequency (VHF) receivers	100
K647 Remove or replace assemblies of facsimile systems	100
G291 Operationally check aircraft VHF omnidirectional receivers (VORs)	100
K703 Troubleshoot teletype communications systems	100

TABLE A4

WABRES VOICE COMM OPERATOR

TASKS	PERCENT MEMBERS PERFORMING
G351 Perform preflight inspections of secure voice systems	100
G283 Operationally check aircraft HF transceivers	97
O790 Load codes in KY-75 cryptographic systems	97
H373 Authenticate stations using challenge and reply systems	95
H400 Maintain radio operations logs	90
F222 Inventory COMSEC material	90
H407 Monitor scheduled voice broadcasts	90
O794 Operationally check KY-75 cryptographic systems	90
H410 Operate airborne communications transceivers	88
F221 Inventory communications kits	88
O789 Load codes in KY-58 cryptographic systems	88
N763 Operationally check HF radio systems	88
H409 Operate airborne communications receivers	86
H399 Maintain listening watches	86
H403 Make scheduled voice broadcasts	86
H397 Maintain frequency discipline of stations on net	86
J596 Power down HF equipment	86
U979 Perform alert aircraft changeovers	86
H381 Encode messages manually	86
H496 Transmit voice communications traffic through HF equipment	84
G288 Operationally check aircraft UHF transmitters	84
U982 Practice alert force exercises	84
U980 Perform alert crew changeovers	81
H380 Decode messages manually	81
H386 Identify incoming calls using call sign lists	79
G322 Perform preflight inspections of communications consoles	79
G367 Sign out classified material	79
J547 Perform before landing procedures	79
N756 Identify malfunctions within HF radio systems	79
H411 Operate airborne communications transmitters	77



TABLE A5

## WABRES DATA COMM OPERATOR

TASKS	PERCENT MEMBERS PERFORMING
F222 Inventory COMSEC material	96
L735 Transmit AFSATCOM messages	96
L733 Prepare AFSATCOM messages for transmission	94
L728 Maintain AFSATCOM wideband operations	94
L730 Perform AFSATCOM operation equipment checks	94
L718 Establish wideband nets	94
H439 Prepare messages using automated digital information network (AUTODIN) format	92
L706 Assume AFSATCOM net control	92
L715 Enter codes into command post synchronizers	92
U982 Practice alert force exercises	92
E164 Log incoming or outgoing messages	90
R862 Load codes in KG-84 cryptographic systems	90
L727 Maintain AFSATCOM narrowband operations	90
R870 Operationally check KG-84 cryptographic systems	90
L716 Establish AFSATCOM links with ground stations	90
L719 Identify AFSATCOM faults	90
U979 Perform alert aircraft changeovers	90
G349 Perform preflight inspections of secure data systems	88
U980 Perform alert crew changeovers	88
L726 Initiate satellite commands	88
L731 Perform net control operations	88
L709 Configure AFSATCOM systems for TDM Mode I operations	88
H390 Initiate contingency alternate routing procedures (CARPs)	86
H495 Transmit teletype communications traffic through UHF equipment	84
H494 Transmit teletype communications traffic through HF equipment	84
L723 Initiate bypass mode of operations	84
U983 Practice alert reaction procedures	84
L734 Reconfigure AFSATCOM systems for operations in degraded conditions	84
L722 Initiate AFSATCOM line-of-sight operations	84
E169 Maintain COMSEC materials	82

TABLE A6

## AIR DEPLOYMENT CONTROL COMM OPERATOR

TASKS	PERCENT MEMBERS PERFORMING	
G283	Operationally check aircraft HF transceivers	100
G292	Operationally check aircraft VHF transceivers	100
J546	Participate in postmission debriefings, other than conducting	100
F231	Participate in premission briefings, other than conducting	100
S942	Review emergency communications procedures	100
J547	Perform before landing procedures	100
E169	Maintain COMSEC materials	100
H466	Set codes on Mode II	100
S940	Provide physical security for COMSEC	100
F237	Request COMSEC material	100
F222	Inventory COMSEC material	100
J600	Power down VHF equipment	100
J596	Power down HF equipment	100
J599	Power down UHF equipment	100
G367	Sign out classified material	100
J588	Perform postflight inspections of UHF radios	100
J589	Perform postflight inspections of VHF radios	100
O790	Load codes in KY-75 cryptographic systems	100
H496	Transmit voice communications traffic through HF equipment	83
S939	Provide physical security for classified material	83
H459	Request time-of-landing weather forecasts	83
F224	Maintain personal aircrew flight manuals or checklists	83
G288	Operationally check aircraft UHF transmitters	83
H422	Patch landline traffic through HF equipment	83
G301	Operationally check UHF transceivers	83
G268	Inspect communications systems for physical integrity	83
G273	Load identification friend or foe (IFF) codes	83
S946	Stow crewmember gear on aircraft	83
H410	Operate airborne communications transceivers	83
J553	Perform checkouts of UHF equipment	83

**TABLE A7**  
**AWACS COMM OPERATOR**

<b>TASKS</b>	<b>PERCENT MEMBERS PERFORMING</b>
J606 Zeroize cryptographic equipment	100
O789 Load codes in KY-58 cryptographic systems	98
O793 Operationally check KY-58 cryptographic systems	98
P806 Identify malfunctions within TADIL A/Link 11 systems	96
O794 Operationally check KY-75 cryptographic systems	96
O790 Load codes in KY-75 cryptographic systems	96
G252 Close or secure crew entry doors	96
J596 Power down HF equipment	96
G322 Perform preflight inspections of communications consoles	96
P809 Operationally check KG-40 cryptographic systems	96
G307 Perform mission maintenance checks of intercom or galley chimes	96
P818 Verify TADIL A/Link 11 system configurations	94
P808 Load codes in KG-40 cryptographic systems	94
P810 Operationally check TADIL A/Link 11 systems	94
H376 Configure radics for tactical digital information link (TADIL-C) or Link-4 operations	94
P819 Verify TADIL C/Link 4 system configurations	94
G367 Sign out classified material	92
G321 Perform preflight inspections of circuit breaker panels	92
F237 Request COMSEC material	92
H410 Operate airborne communications transceivers	90
G370 Tune frequencies manually	90
H451 Reconfigure wideband secure voice (WBSV) cryptographic systems	90
N785 Verify UHF radio system configurations	90
P805 Identify malfunctions within KG-40 cryptographic systems	90
H448 Reconfigure narrowband secure voice (NBSV) cryptographic systems	90
F222 Inventory COMSEC material	88
S935 Practice rapid decompression procedures	88
P807 Identify malfunctions within TADIL C/Link 4 systems	88
G253 Configure baseband distribution panels (BDPs)	86
G299 Operationally check secure communications equipment	86

TABLE A7

SPECIAL OPERATIONS COMM OPERATOR

TASKS	PERCENT MEMBERS PERFORMING
G351 Perform preflight inspections of secure voice systems	100
O789 Load codes in KY-58 cryptographic systems	100
G283 Operationally check aircraft HF transceivers	98
H400 Maintain radio operations logs	98
G292 Operationally check aircraft VHF transceivers	98
G321 Perform preflight inspections of circuit breaker panels	98
F222 Inventory COMSEC material	96
O793 Operationally check KY-58 cryptographic systems	96
S939 Provide physical security for classified material	96
O790 Load codes in KY-75 cryptographic systems	96
H485 Transmit and receive messages using VHF equipment	96
N765 Operationally check UHF radio systems	96
H468 Set codes on Mode IV	96
H380 Decode messages manually	96
H410 Operate airborne communications transceivers	94
G301 Operationally check UHF transceivers	94
G367 Sign out classified material	94
G288 Operationally check aircraft UHF transmitters	94
O794 Operationally check KY-75 cryptographic systems	94
S940 Provide physical security for COMSEC	94
H459 Request time-of-landing weather forecasts	94
J604 Turn in classified materials or documents	94
S941 Review aircraft flight or maintenance records, such as AFTO Forms 781-series forms	94
N763 Operationally check HF radio systems	94
J596 Power down HF equipment	94
N766 Operationally check VHF/AM radio systems	94
H381 Encode messages manually	94
F243 Review FCIFs or mission crew information files (MCIFs)	92
J606 Zeroize cryptographic equipment	92
G305 Perform initial setup of Have Quick systems	92

TABLE A8

## COMM TECHNICIAN

TASKS	PERCENT MEMBERS PERFORMING
J553 Perform checkouts of UHF equipment	98
J552 Perform checkouts of HF equipment	98
N785 Verify UHF radio system configurations	98
N783 Verify HF radio system configurations	98
N763 Operationally check HF radio systems	98
N784 Verify SATCOM system configurations	98
N764 Operationally check SATCOM systems	98
G301 Operationally check UHF transceivers	96
G288 Operationally check aircraft UHF transmitters	96
G283 Operationally check aircraft HF transceivers	96
N757 Identify malfunctions within UHF radio systems	96
N756 Identify malfunctions within HF radio systems	96
N765 Operationally check UHF radio systems	96
J558 Perform JTIDS equipment checkouts	94
G307 Perform mission maintenance checks of intercom or galley chimes	94
N772 Remove or replace UHF system LRUs	94
N786 Verify VHF/AM radio system configurations	94
G306 Perform joint tactical information data systems (JTIDS) initialization procedures	92
H417 Operate JTIDS communications links	92
J597 Power down JTIDS equipment	92
J599 Power down UHF equipment	92
H410 Operate airborne communications transceivers	92
G327 Perform preflight inspections of emergency equipment	92
K628 Identify malfunctions within SATCOM systems	92
G321 Perform preflight inspections of circuit breaker panels	92
G292 Operationally check aircraft VHF transceivers	92
R872 Operationally check SATCOM systems	92
N758 Identify malfunctions within VHF/AM radio systems	92
N766 Operationally check VHF/AM radio systems	92
G268 Inspect communications systems for physical integrity	90

**TABLE A9**  
**HEADQUARTERS STAFF**

<b>TASKS</b>	<b>PERCENT MEMBERS PERFORMING</b>
A27 Plan or prepare briefings	100
A8 Determine work priorities	100
A4 Compile data for reports	85
E187 Participate in staff meetings, other than conducting	85
B36 Conduct staff meetings or briefings	85
A17 Establish performance standards for subordinates	71
C104 Participate in upgrade or modifications of communications systems equipment	71
C110 Write staff studies, surveys, or special reports, other than training reports	71
A15 Draft budget requirements	71
E150 Annotate cabinet, safe, or room security forms	71
B35 Adjust daily schedules to meet operational commitments	71
E197 Review publications, correspondence, or reports	57
C78 Evaluate communications operations	57
B69 Supervise military personnel with AFSCs other than 116X0 or 118X1	57
A6 Determine or establish logistical requirements, such as personnel, equipment, space, tools, or supplies	57
A5 Coordinate obtaining orders, passports, or visas with appropriate agencies	57
B50 Draft recommended changes to communication publications	57
B37 Conduct supervisory orientations of newly assigned personnel	57
C76 Evaluate budget requirements	42
A33 Schedule personnel for schools, temporary duty (TDY) assignment, or nontechnical training	42
C79 Evaluate data for modification of equipment	42
A16 Establish organizational policies, such as operating instructions (OIs) or standard operating procedures (SOPs)	42
A14 Develop work methods or procedures	42
B60 Interpret policies, directives, or procedures for subordinates	42
C71 Analyze technical reports	42
A28 Plan or schedule work assignments or priorities	42
B51 Implement cost-reduction programs	42
A24 Plan equipment replacement programs	42
B52 Implement personnel recognition programs	42

**APPENDIX B**  
**EXPANDED LIST OF TASK**  
**MODULE STATEMENTS**

**INTENTIONALLY LEFT BLANK**



These task modules (TMs) were developed to organize and summarize the extensive task information for the specialty. The TMs were derived by statistical clustering of the tasks in terms of which tasks are performed by the same incumbents. For example, if an individual performs one spectacle-ordering task, the probability is very high that the individual will perform other spectacle-ordering tasks. Thus, each of the modules can be viewed as a "natural group" of associated or related tasks (see TM 0002 below). The statistical clustering generally approximates these "natural groupings."

The title of each TM is our best estimate as to the general subject content of the group of tasks. The TMs are useful for organizing the task data into meaningful units and as a way to concisely summarize the extensive job data. However, TMs are only one way to organize the information. Other strategies may also be valid.

---

0001 ST0700 HANDLING CLASSIFIED MATERIAL

---

F222 Inventory COMSEC material  
G367 Sign out classified material  
J604 Turn in classified materials or documents  
H483 Transmit and receive messages using secure communications equipment  
J542 Destroy classified materials or documents  
J606 Zeroize cryptographic equipment  
F221 Inventory communications kits

---

0002 ST0891 OPERATING COMM EQUIPMENT

---

H410 Operate airborne communications transceivers  
H411 Operate airborne communications transmitters  
H409 Operate airborne communications receivers

---

0003 ST0798 OPS CHECK/PREFLIGHT COMM EQUIPMENT

---

G299 Operationally check secure communications equipment  
G322 Perform preflight inspections of communications consoles

---

0004 ST0794 OPS CHECK HF/UHF EQUIPMENT

---

G283 Operationally check aircraft HF transceivers  
N763 Operationally check HF radio systems  
G288 Operationally check aircraft UHF transmitters  
N765 Operationally check UHF radio systems  
G301 Operationally check UHF transceivers  
G289 Operationally check aircraft ultra high frequency (UHF) receivers

---

0005 ST0916 POWER DOWN HF/UHF EQUIPMENT

---

- J596 Power down HF equipment
- J599 Power down UHF equipment

---

0006 ST0815 CRYPTOGRAPHIC SYSTEMS DUTIES

---

- G351 Perform preflight inspections of secure voice systems
- O793 Operationally check KY-58 cryptographic systems
- O789 Load codes in KY-58 cryptographic systems

---

0007 ST0683 ROUTINE ON STATION DUTIES

---

- H391 Initiate or process phone patches
- H399 Maintain listening watches
- H400 Maintain radio operations logs
- H496 Transmit voice communications traffic through HF equipment

---

0008 ST0705 HANDLING COMSEC

---

- S939 Provide physical security for classified material
- S940 Provide physical security for COMSEC
- S941 Review aircraft flight or maintenance records, such as AFTO Forms 781-series forms
- S942 Review emergency communications procedures
- S943 Review normal or emergency destruction plans of COMSEC material

---

0009 ST0635 PREFLIGHT/POSTFLIGHT DUTIES

---

- G363 Power up equipment in preparation for missions
- G333 Perform preflight inspections of flight interphone systems
- J548 Perform before leaving aircraft procedures
- J547 Perform before landing procedures

---

0010 ST0600 PREMISSION DUTIES

---

- E155 Document destruction of classified materials or documents
- E165 Maintain aircrew currency requirements
- E163 Inventory lists of classified materials or documents
- F231 Participate in premission briefings, other than conducting
- F199 Assemble professional or personal flight gear

---

0011 ST0778 MAINTAINING HF/UHF EQUIPMENT

---

- N756 Identify malfunctions within HF radio systems
- N783 Verify HF radio system configurations
- N785 Verify UHF radio system configurations
- N757 Identify malfunctions within UHF radio systems

---

0012 ST0492 MONITORING COMM EQUIPMENT

---

- J598 Power down mission equipment
- H405 Monitor displays or indicators for equipment status during operations
- H404 Monitor communications links for malfunctions
- H464 Set codes on cryptographic devices

---

0013 ST0489 INFORMATION COORDINATION

---

- H459 Request time-of-landing weather forecasts
- F237 Request COMSEC material
- F203 Coordinate communications requirements with appropriate agencies
- F213 Coordinate mission requirements with appropriate agencies
- H458 Request and receive weather reports for use, other than transmissions
- G252 Close or secure crew entry doors

---

0014 ST0470 DEBRIEFING ACTIVITIES

---

- M742 Operationally check interphone systems
- H412 Operate emergency equipment
- J546 Participate in postmission debriefings, other than conducting
- J545 Participate in operations debriefings

---

0015 ST0455 INSPECTING COMM EQUIPMENT

---

- F240 Review communications or general information files
- G268 Inspect communications systems for physical integrity
- G264 Inspect aircraft life support equipment
- G269 Inspect crew position lights

---

0016 ST0542 MAINTAINING SATCOM EQUIPMENT

---

- G348 Perform preflight inspections of SATCOM systems
- K628 Identify malfunctions within SATCOM systems
- H482 Transmit and receive messages using SATCOM voice equipment
- K629 Identify malfunctions within secure voice systems
- N764 Operationally check SATCOM systems
- N784 Verify SATCOM system configurations
- R872 Operationally check SATCOM systems
- K699 Troubleshoot SATCOM systems
- K674 Set circuit breakers
- K624 Identify malfunctions within interphone systems

---

0017 ST0663 OPERATIONALLY CHECKING VHF EQUIPMENT

---

- J554 Perform checkouts of VHF equipment
- H485 Transmit and receive messages using VHF equipment
- G290 Operationally check aircraft very high frequency (VHF) receivers
- G292 Operationally check aircraft VHF transceivers
- N767 Operationally check VHF/FM radio systems
- J600 Power down VHF equipment
- N766 Operationally check VHF/AM radio systems
- N787 Verify VHF/FM radio system configurations
- G293 Operationally check aircraft VHF transmitters
- N786 Verify VHF/AM radio system configurations

---

0020 ST0395 GENERAL AIRBORNE MAINTENANCE DUTIES

---

- K612 Conduct testing of aircraft communications equipment
- K633 Maintain safe work areas
- K611 Comply with safety guidelines, such as when working with high voltage equipment or radio frequency radiation
- K631 Maintain crew position logs
- K615 Identify faulty system components

---

0023 ST0474 MAINTAINING SUPPORT MATERIALS

---

- E169 Maintain COMSEC materials
- E176 Maintain mission narrative logs
- E164 Log incoming or outgoing messages
- F235 Prepare COMSEC kits
- E172 Maintain flight crew information files (FCIFs)
- E168 Maintain communication kits
- F234 Prepare communications kits
- E167 Maintain circuit logs
- E174 Maintain logs of aircraft transmissions and receptions
- E170 Maintain current call sign lists

---

0024 ST0436 GENERAL OPERATOR DUTIES

---

- H373 Authenticate stations using challenge and reply systems
- H386 Identify incoming calls using call sign lists
- H487 Transmit and receive telephone calls using airborne switchboards
- H377 Coordinate air-to-ground message traffic with appropriate agencies
- H381 Encode messages manually
- H477 Transmit and receive messages using current call sign lists
- H380 Decode messages manually

---

0025 ST0534 MAINTAINING STATIONS ON NET

---

- H397 Maintain frequency discipline of stations on net
- H398 Maintain frequency standards of stations on net
- H403 Make scheduled voice broadcasts
- H407 Monitor scheduled voice broadcasts

---

0029 ST0454 COORDINATING INFLIGHT INFORMATION

---

- H493 Transmit position reports
- S913 Coordinate flight information with the flight crews
- F216 Determine International Civil Aviation Organization (ICAO) HF radio stations or frequencies
- H479 Transmit and receive messages using ICAO procedures
- S922 Perform ATC radio communication procedures

- G284 Operationally check aircraft IFF systems
- F212 Coordinate flight routes with navigators or pilots
- H460 Request, receive and record aircraft clearances
- F220 Identify Flight Information Regions (FIRs) to be traversed

---

0034 ST0595 INSPECTING AIRCRAFT SYSTEMS

---

- J541 Debrief ground maintenance personnel
- G263 Inspect aircraft interior for physical integrity
- G331 Perform preflight inspections of fixed aircraft antennas
- G262 Inspect aircraft exterior for physical integrity
- F215 Determine aircraft status

---

0035 ST0594 OPERATING/MAINTAINING HAVE QUICK SYSTEMS

---

- H415 Operate Have Quick systems in antijam mode
- H463 Send Have Quick TODs
- N758 Identify malfunctions within VHF/AM radio systems
- H416 Operate Have Quick systems in bypass modes
- K627 Identify malfunctions within PA systems
- N759 Identify malfunctions within VHF/FM radio systems
- H401 Maintain UHF Have Quick system links
- H392 Initiate UHF Have Quick system links
- N782 Verify Have Quick system configurations
- G366 Set have-quick system word-of-day (WOD) codes
- G365 Set have-quick system times-of-day (TODs)
- K622 Identify malfunctions within Have Quick systems
- G305 Perform initial setup of Have Quick systems
- R868 Operationally check Have Quick systems
- J607 Zeroize Have Quick systems
- K687 Troubleshoot Have Quick systems

---

0039 ST0501 MAINTAINING DIGITAL INFORMATION SYSTEMS

---

- P806 Identify malfunctions within TADIL A/Link 11 systems
- P818 Verify TADIL A/Link 11 system configurations
- P808 Load codes in KG-40 cryptographic systems
- P810 Operationally check TADIL A/Link 11 systems
- P809 Operationally check KG-40 cryptographic systems
- G253 Configure baseband distribution panels (BDPs)
- G307 Perform mission maintenance checks of intercom or galley chimes
- G256 Configure programming display panels

- R874 Operationally check TADIL A/ Link 11 systems
- P805 Identify malfunctions within KG-40 cryptographic systems
- H394 Interpret digital displaying indicator (DDI) displays
- H428 Perform ADU or DDI switching actions
- H433 Perform in-flight air refueling procedures
- H376 Configure radios for tactical digital information link (TADIL-C) or Link-4 operations
- P819 Verify TADIL C/Link 4 system configurations
- P811 Operationally check TADIL C/Link 4 systems
- P807 Identify malfunctions within TADIL C/Link 4 systems
- H473 Transmit and receive information using TADIL C/Link 4
- P816 Troubleshoot TADIL A/Link 11 systems
- P815 Troubleshoot KG-40 cryptographic systems
- P817 Troubleshoot TADIL C/Link 4 systems
- P814 Reseat TADIL A/Link 11 system components

---

0043 ST0822 OPERATING/MAINTAINING JTIDS EQUIPMENT

---

- G306 Perform joint tactical information data systems (JTIDS) initialization procedures
- H417 Operate JTIDS communications links
- J558 Perform JTIDS equipment checkouts
- R904 Verify JTIDS status
- J597 Power down JTIDS equipment
- R869 Operationally check JTIDS
- R905 Verify JTIDS voice system configurations
- R890 Troubleshoot JTIDS

---

0046 ST0114 ADMIN/SUPERVISORY DUTIES

---

- A23 Plan communications support for special missions
- A8 Determine work priorities
- E150 Annotate cabinet, safe, or room security forms
- E187 Participate in staff meetings, other than conducting
- C104 Participate in upgrade or modifications of communications systems equipment
- A16 Establish organizational policies, such as operating instructions (OIs) or standing operating procedures (SOPs)
- B68 Supervise airborne communications systems personnel (AFSC 116X0)
- C108 Write EPRs
- B35 Adjust daily schedules to meet operational commitments
- A20 Initiate equipment maintenance actions with appropriate agencies
- C78 Evaluate communications operations
- B60 Interpret policies, directives, or procedures for subordinates
- A28 Plan or schedule work assignments or priorities
- A14 Develop work methods or procedures
- A6 Determine or establish logistical requirements, such as personnel, equipment, space, tools, or supplies

A7 Determine publication requirements  
A33 Schedule personnel for schools, temporary duty (TDY) assignment, or nontechnical training  
E197 Review publications, correspondence, or reports  
C77 Evaluate causes of mission operational discrepancies  
A27 Plan or prepare briefings  
C109 Write recommendations for awards or decorations  
B47 Direct utilization of equipment  
A22 Plan communications support for mission exercises  
B57 Implement work methods  
A4 Compile data for reports  
B69 Supervise military personnel with AFSCs other than 116X0 or 118X1  
A17 Establish performance standards for subordinates  
B38 Counsel personnel  
C80 Evaluate individuals for promotion, demotion, reclassification, or special awards  
B44 Direct operations of airborne communications platforms  
B58 Initiate actions required due to substandard performance of personnel  
C75 Determine causes of mission operational discrepancies  
A1 Assign personnel to duty positions  
C100 Inspect personnel for compliance with military standards  
A32 Schedule personnel for leaves  
B36 Conduct staff meetings or briefings  
A5 Coordinate obtaining orders, passports, or visas with appropriate agencies  
A3 Classify information into categories, such as TOP SECRET, SECRET, or CONFIDENTIAL  
C110 Write staff studies, surveys, or special reports, other than training reports  
E189 Prepare aircraft flight or maintenance records, such as AFTO Forms 781-series forms  
C97 Indorse enlisted performance reports (EPRs)  
A34 Write job descriptions  
B37 Conduct supervisory orientations of newly assigned personnel  
A2 Assign sponsors for newly assigned personnel

---

0051 ST0511 OPERATING/MAINTAINING TELETYPE EQUIPMENT

---

R862 Load codes in KG-84 cryptographic systems  
G298 Operationally check radio teletype equipment  
R870 Operationally check KG-84 cryptographic systems  
H475 Transmit and receive messages by radio teletype systems  
R875 Operationally check teletype communications systems  
R898 Verify configurations of KG-84 cryptographic systems  
H494 Transmit teletype communications traffic through HF equipment  
I532 Perform thruflight inspections of teletype communication systems  
H449 Reconfigure teletype equipment  
K703 Troubleshoot teletype communications systems  
H495 Transmit teletype communications traffic through UHF equipment



---

**0052 ST0686 PERFORMING AFSATCOM DUTIES**

---

- L735 Transmit AFSATCOM messages
- L733 Prepare AFSATCOM messages for transmission
- L728 Maintain AFSATCOM wideband operations
- L730 Perform AFSATCOM operation equipment checks
- L727 Maintain AFSATCOM narrowband operations
- L718 Establish wideband nets
- L716 Establish AFSATCOM links with ground stations
- L706 Assume AFSATCOM net control
- L715 Enter codes into command post synchronizers
- L726 Initiate satellite commands
- L719 Identify AFSATCOM faults
- L731 Perform net control operations
- L709 Configure AFSATCOM systems for TDM Mode I operations
- L723 Initiate bypass mode of operations
- L714 Edit AFSATCOM messages
- L732 Perform selective message routing procedures
- L734 Reconfigure AFSATCOM systems for operations in degraded conditions
- L729 Perform AFSATCOM alternate procedures
- L722 Initiate AFSATCOM line-of-sight operations
- L708 Configure AFSATCOM systems for random operations
- L721 Initiate AFSATCOM alternate procedures

---

**0057 ST0224 EVALUATING DUTIES**

---

- A24 Plan equipment replacement programs
- C79 Evaluate data for modification of equipment
- B50 Draft recommended changes to communication publications
- C103 Participate in Transient Electromagnetic Pulse Standard (TEMPEST) certification
- B49 Draft recommendations for changes in equipment
- E188 Prepare acceptance documentation for newly installed equipment

---

**0065 ST0431 MAINTAINING FACSIMILE SYSTEMS**

---

- G330 Perform preflight inspections of facsimile systems
- I515 Perform thruflight inspections of facsimile systems
- J571 Perform postflight inspections of facsimile systems
- K683 Troubleshoot facsimile systems
- K647 Remove or replace assemblies of facsimile systems

---

0067 ST0329 COORDINATING WITH DIPLOMATIC AGENCIES

---

- H431 Perform CSS actions
- H442 Prepare messages using White House format
- F208 Coordinate flight information with State Department communications center
- H440 Prepare messages using State Department format
- F209 Coordinate flight information with Treasury Department communications center
- H441 Prepare messages using Treasury format

---

0069 ST0713 PREFLIGHTING FLIGHT EQUIPMENT

---

- G318 Perform preflight inspections of altitude alerting systems
- G319 Perform preflight inspections of autopilot systems
- G334 Perform preflight inspections of ground proximity warning systems
- G344 Perform preflight inspections of polar pass compass systems
- G328 Perform preflight inspections of emergency gyroscopes (GYROs)
- G361 Perform preflight inspections of weather radar
- I522 Perform thruflight inspections of navigation systems
- I524 Perform thruflight inspections of polar pass compass systems
- G354 Perform preflight inspections of standby GYROs
- I536 Perform thruflight inspections of weather radar