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UNITED STATES AIR FORCE

OCCUPATIONAL SURVEY REPORT

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COMMUNICATION SYSTEMS RADIO OPERATOR

AFSC 492X1

AFPT 90-293-302

NOVEMBER 1988

OCCUPATIONAL ANALYSIS PROGRAM
USAF OCCUPATIONAL MEASUREMENT CENTER
AIR TRAINING COMMAND
RANDOLPH AFB, TEXAS 78150-5000

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PREFACE

This report presents the results of an Air Force occupational survey of the Communication Systems Radio Operator (AFSC 492X1) career ladder. Authority for conducting specialty surveys is contained in AFR 35-2. Computer products used in this report are available for use by operations and training officials.

Lieutenant Earl Nason developed the survey instrument, Ms Becky Hernandez provided computer programming support, and Ms Raquel A. Soliz provided administrative support. Lieutenant Mary A. Dom analyzed the data and wrote the final report. This report has been reviewed and approved for release by Lieutenant Colonel Charles D. Gorman, Chief, Airman Analysis Branch, Occupational Analysis Division, USAF Occupational Measurement Center.

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

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SUMMARY OF RESULTS

1. Survey Coverage: The survey sample includes 66 percent of all members assigned to the AFSC 492X1 career ladder. Most members (90 percent) are assigned to AFCC.
2. Career Ladder Structure: These individuals hold many different jobs, and each job has a separate mission. Twelve different job areas are identified within the career ladder, each performing very different tasks.
3. Career Ladder Progression: Progression through the skill levels is normal, with 3-5-skill level personnel performing a basically technical job, 7-skill level members performing some technical, but mostly managerial tasks, and 9-skill level members performing a purely administrative job.
4. Career Ladder Documents: The AFR 39-1 Specialty Description, STS, and POI were all basically supported. There are three areas of the POI that need review, and one area of the STS that should be examined.
5. Job Satisfaction: About half of this career ladder find their job interesting, two-thirds feel their training is utilized, 60 percent feel their talents are used, and 71 percent plan to reenlist. Mystic Star Radio Operators seem the most satisfied with their jobs. Reenlistment intentions are higher in this career ladder than in comparable Direct Support jobs.
6. Implications: Career ladder documents are basically supported. New jobs identified include Mystic Star Radio Operators, AFSATCOM Terminal Operators, Instructors, and Tactical Switchboard Operators.

OCCUPATIONAL SURVEY REPORT
COMMUNICATION SYSTEMS RADIO OPERATOR CAREER LADDER
(AFSC 492X1)

INTRODUCTION

→ This is a report of an occupational survey of the Communication Systems Radio Operator career ladder completed by the USAF Occupational Measurement Center in August 1988. The previous OSR for this career ladder was published in July 1981. The Operations Division of the 3300th Technical Training Wing at Keesler AFB MS requested the survey to gather data on equipment used in the field, to verify the current STS, and to update the resident training courses.

Key words: analysis, Personnel development,

Background

*Air Force training,
Air Force personnel, (SDO)*

AFSC 492X1 was created 30 April 1986 as part of a major realignment of the communications specialty career ladders. In this realignment, all former communications specialties were placed under AFSC 49XXX career field. AFSC 293X3, Ground Radio Operators, was converted to AFSC 492X1 and retitled Communication Systems Radio Operators. Personnel and functions, however, did not change.

As outlined in the AFR 39-1 Specialty Description, AFSC 492X1 personnel operate ground radio transmitting and receiving equipment to conduct point-to-point and ground-air-ground communications. They are assigned to fixed stations (such as satellite stations) or mobile units. They also perform administrative functions, such as maintaining codes, issuing classified documents, and briefing air crews on communications procedures.

There are four courses for this career ladder, all located at Keesler AFB MS. The first is the mandatory E3ABR49231 000, Communications Systems Radio Operator course, which has a maximum of 24 students per class and three classes running concurrently. The second course is E3AZR49251 000, Satellite Terminal Operations, which trains mostly Army and Navy personnel. The AFSATCOM Ground Terminal Operator course, E3AZR49251 002, is available to both Air Force and Navy personnel. Last is the Ground/Airborne International Morse Code Operation course, E3AZR49251 003, which is available to both Air National Guard members, who audit the course, and Air Force members. The following table lists some facts about each of these courses:

COURSE		LENGTH	TPR	
			1988	1989
E3ABR49231 000	Comm Sys Radio Opt	37 days	238	364
E3AZR49251 000	Satellite Term Ops	15 days	12	16
E3AZR49251 002	AFSATCOM Grnd Term	15 days	42	55
E3AZR49251 003	Grnd/Abn IMC Ops	40 days	70	70

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SURVEY METHOD

Inventory Development

Data for this survey were collected using USAF Job Inventory AFPT 90-293-302 (May 1987). The Inventory Developer reviewed pertinent career ladder documents, the previous OSR, and the previous job inventory, and prepared a tentative task list. The task list was then validated through personal interviews with 32 subject-matter experts in operational units at the following eight bases:

<u>LOCATION</u>	<u>MAJCOM</u>	<u>REASON FOR VISIT</u>
Keesler AFB	ATC	Technical Training School
Andrews AFB	AFCC (AISD)	Military Affiliated Radio System (MARS) Mystic Star
Brandywine MD	AFCC (AISD)	AF Satellite Communications (AFSATCOM)
Patrick AFB	AFCC	Mobility Unit - Special Applications
MacDill AFB	AFCC (TISD)	Global Command and Control
Offutt AFB	AFCC (SISD)	Combat Crew Communications
Elkhorn NE	AFCC (SISD)	Giant Talk
McClellan AFB	AFCC	Command and Control Personnel

The final job inventory listed 481 tasks grouped into 13 duty headings and a number of background questions asking for such information as duty title, duty AFSC, systems used, bands used, International Morse Code (IMC) proficiency, time in service, time in the career ladder, modes used, and ancillary equipment used.

Survey Administration

From August 1987 through March 1988, Consolidated Base Personnel Offices at operational bases worldwide administered the surveys to all eligible DAFSC 492X1 personnel at the 3-, 5-, 7-, and 9-skill levels. Participants were selected from a computer-generated mailing list provided by the Air Force Human Resources Laboratory (AFHRL). Personnel not considered eligible to fill out the inventory booklets were those in hospital status, those in PCS status, and those who had not been in their present job for at least 6 weeks.

All individuals who filled out a survey completed an identification and biographical information section first. Next, they went through the booklet and checked each task performed in their current job. Finally, they went back and rated each task they had checked on a 9-point scale reflecting relative time spent on each task compared to all other tasks. Ratings ranged from 1 (indicating a very small amount of time spent) to 9 (indicating a very large amount of time spent). The relative percent time spent on tasks for each inventory was computed by first totaling all rating values on the inventory, and then dividing each task's rating by this total and multiplying the result

by 100. The percent time spent ratings from all inventories were combined and used with percent member performing values to describe the various groups in the career ladder.

Survey Sample

Participants in the survey were carefully selected to ensure proportional representation across major commands (MAJCOM) and military paygrade groups. Tables 1 and 2 show how the final survey sample compared to the actual population of the career ladder in terms of the distribution across MAJCOMs and paygrades. As illustrated, the survey sample is representative of the overall AFSC 492X1 population. The final sample contained 1,198 members, which was 66 percent of those assigned (1,826) and 76 percent of those eligible to be surveyed (1,579). Seventy-seven percent of the sample were 3- and 5-skill level. Most of the members in the sample, about 90 percent, were assigned to AFCC, with the rest in USAFE, MAC, TAC, and AF Elements.

Data Processing and Analysis

Once the job inventories are received from the field, task responses and background information are optically scanned and become one computer file. Biographical data, such as name, duty AFSC, and time in career ladder, are manually entered to form another file. The two files are then merged to form one complete case record for each respondent. Comprehensive Occupational Data Analysis Programs (CODAP) are used to analyze the records and create a job description for each respondent, as well as composite job descriptions for particular groups of respondents.

Task Factor Administration

Job descriptions alone do not provide sufficient data for making decisions about career ladder documents or training programs. Task factor information is needed for a complete analysis of the career ladder. To obtain the needed task factor data, selected E-6 and E-7 supervisors completed either a training emphasis (TE) or task difficulty (TD) booklet. These booklets were processed separately from the job inventories and the TE and TD data were used in several analyses discussed later in this report.

Task Difficulty (TD). TD is defined as the length of time the average airman needs to learn how to perform a given task. Forty-seven experienced supervisors rated the difficulty of the tasks in the inventory on a 9-point scale ranging from 1 (easy to learn) to 9 (very difficult to learn). Ratings were standardized so tasks of average difficulty would have a value of 5.0. Interrater reliability (as assessed through components of variance of standard group means) was .95, indicating very high agreement among raters.

Training Emphasis (TE). TE is a rating of which tasks require structured training for first-term 492X1 personnel. Structured training is defined as training provided by resident technical schools, field training detachments (FTD), mobile training teams (MTT), formal OJT, or any other organized

TABLE 1
COMMAND REPRESENTATION OF AFSC 492X1
SURVEY SAMPLE

<u>COMMAND</u>	<u>PERCENT OF SAMPLE</u>	<u>PERCENT OF ASSIGNED*</u>
AFCC	90	89
MAC	3	3
USAFE	3	3
TAC	1	1
ATC	1	1
AF ELEMENTS EUROPE	1	1
AF ELEMENTS OTHER	1	1

TOTAL ASSIGNED*	1,826	
TOTAL NUMBER ELIGIBLE	1,579	
TOTAL IN SAMPLE	1,198	
PERCENT OF ASSIGNED	66%	
PERCENT OF ELIGIBLE	76%	

* As of June 1987

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

TABLE 2
PAYGRADE DISTRIBUTION OF SURVEY SAMPLE

<u>PAYGRADE</u>	<u>PERCENT OF ASSIGNED**</u>	<u>PERCENT OF SAMPLE</u>
AIRMAN	34	36
E-4	26	25
E-5	22	23
E-6	10	9
E-7	6	6
E-8	1	1
E-9	*	*

* Less than 1 percent

** As of June 1987

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

training method. Forty-nine experienced supervisors completed TE booklets. They rated the tasks in the inventory on a 10-point scale ranging from no training required (0) to much structured training required (9). Interrater reliability (as assessed through components of variance of standard group means) for these raters was .92, indicating good agreement among the raters.

When TE ratings are used with other information, such as percent members performing and TD, they can provide valuable insight into the training requirements for first-term 492X1 personnel and can help validate the need for organized training within the career ladder.

SPECIALTY JOBS (Career Ladder Structure)

A vital part of the USAF occupational analysis program is the examination of the career ladder job structure. Based on member responses to survey questions, the tasks performed by career ladder personnel are examined and jobs identified according to the similarity of tasks and the relative time they spent performing the tasks. The resulting job structure is then compared to official career ladder documents, such as the AFR 39-1 Specialty Descriptions and the Specialty Training Standards, to review for accuracy and completeness of those documents. This helps career ladder managers gain an understanding of current utilization patterns.

For this report, the career ladder structure is described in terms of job areas and independent job types. The job is the basic unit of job analysis, and represents a specific group of individuals performing basically the same tasks and spending similar amounts of time on those tasks. When job members perform tasks in common with other groups, they merge to form a larger unit of related jobs called a job area. Specialized jobs too unique to fit within a job area are called independent job types.

Overview

Overall, the AFSC 492X1 career ladder is very heterogeneous (i.e., contains many different types of jobs). The jobs have different missions and support different MAJCOMs, which accounts for the diversity of tasks performed by the members in this ladder. Overall, about 50 percent of this career ladder is assigned overseas; most are assigned to AFCC (90 percent). The average total active federal military service (TAFMS) for career ladder members is 81 months, but the average time in the career ladder is 70 months. Thirty-seven percent are supervising at least one person. Over half (58 percent) possess a 5-skill level, and the average amount of education is 13 years. Most (94 percent) have completed the entry-level Communications System Radio Operator course.

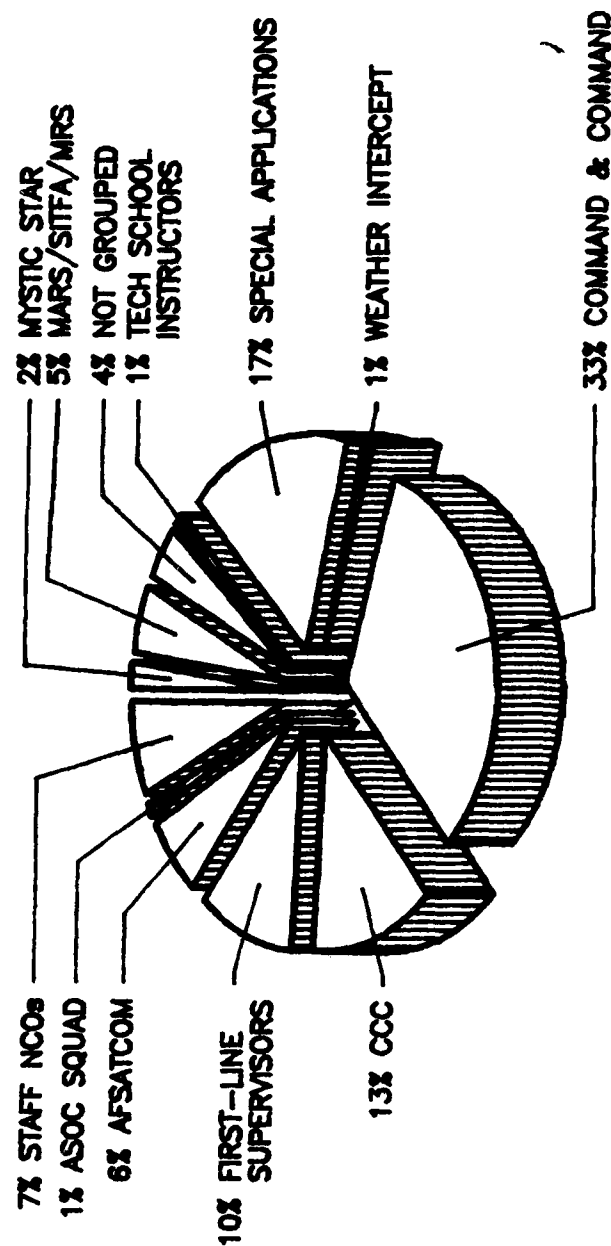
A common aspect that ties all 492X1 people together is the use of high frequency (HF) band and single sideband mode (SSB) equipment: 79 percent use the former and 72 percent use the latter. Some of the typical tasks performed by career ladder personnel include:

- receive radio checks
- inventory classified materials
- destroy classified materials
- make entries on DD Forms 1753 (Master Station Log)
- authenticate stations using challenge-and-reply systems
- look up call sign lists
- make entries on AF Communications Security (COMSEC)
Forms 16 (COMSEC Account-Daily Shift Inventory)

Five job areas and seven independent job types were identified within the AFSC 492X1 career ladder. These are illustrated in Figure 1. Within many of the job areas, job variations are noted in which people are doing unique tasks or are spending a large amount of time on a particular duty. The following list identifies the major job areas and the specific jobs that fall under those areas, the computer product number (ST or GP) and the number of people (N=).

- I. TECHNICAL SCHOOL INSTRUCTORS (ST0081, N=9)
- II. MYSTIC STAR (PRESIDENTIAL OR VIP) RADIO OPERATORS (ST0108, N=24)
- III. MILITARY AFFILIATED RADIO SYSTEM (MARS)/INTER-AMERICAN TELE-COMMUNICATIONS SYSTEM (SITFA) RADIO OPERATORS/USSOUTHCOM (MRS) (ST0118, N=56)
- IV. COMMAND AND CONTROL PERSONNEL (ST0066, N=395)
 - A. Command and Control Communications Systems Radio Operators (ST0136, N=118)
 - B. USAFE Command Control Radio Network Operators (INFORM) (ST0174, N=5)
 - C. Special Activities Squadron Radio Operators (ST0166, N=5)
 - D. PACAF Command Control Radio Network Operators (Commando Escort) (GP0034, N=52)
 - E. GIANT TALK Radio Operators (ST0266, N=95)
 - F. Global Command and Control System (GCCS) Radio Operators (ST0219, N=98)
 - G. GCCS Maintenance Personnel (ST0123, N=9)
- V. AIR FORCE SATELLITE COMMUNICATIONS (AFSATCOM) TERMINAL OPERATORS (ST0073, N=72)

AFSC 492X1 JOBS



NOTE: Tactical Switchboard Operators comprise less than 1 percent of the sample

Figure 1

- VI. FIRST-LINE SUPERVISORS (ST0124, N=122)
 - A. Communications Systems Radio Operator Supervisors (ST0138, N=104)
 - B. Communication Systems Radio Operator NCOICs (ST00144, N=18)
- VII. SPECIAL APPLICATIONS PERSONNEL (GP0033, N=199)
 - A. Combat Information Systems Group Radio Operators (GP0035, N=90)
 - B. MAC Airlift/Special Operations Squadron Radio Operators (ST0242, N=25)
 - C. Combat Information Systems Group Supervisors (ST0200, N=47)
 - D. Tactical Air Control Center Operators (ST0090, N=5)
 - E. Tactical Control Element Radio Operators (ST0132, N=6)
- VIII. COMBAT CREW COMMUNICATIONS (CCC) SPECIALISTS (ST0038, N=161)
 - A. Operations Center Controllers (ST0083, N=6)
 - B. CCC and Dispersal Communications Technicians (ST0227, N=14)
 - C. Combat Crew Communications Administrators (ST0170, N=131)
- IX. STAFF NCOS (ST0014, N=88)
 - A. Radio Operations Superintendents (ST0141, N=15)
 - B. Quality Assurance Evaluators (ST0149, N=13)
 - C. Radio Operations NCOICs (ST0168, N=29)
- X. WEATHER INTERCEPT OPERATORS (ST0097, N=6)
- XI. AIR SUPPORT OPERATIONS CENTER (ASOC) SQUAD PERSONNEL (ST0137, N=7)
- XII. TACTICAL SWITCHBOARD OPERATORS (ST0142, N=5)

Ninety-six percent of the survey respondents are represented in the above job areas and independent job types. The remaining 4 percent did not group with any of the job groups because of the uniqueness of their jobs. The job titles of those not grouped include CDC Writer, Programs Manager, Communications Controller, and Communications Computer Radio Operator.

Job Descriptions

The following paragraphs discuss the background and duties performed by the job areas, jobs, and independent job types. See Tables 3, 4, and 5 for a contrast of background information, duties performed, and equipment used.

I. TECHNICAL SCHOOL INSTRUCTORS (ST0081, N=9) are all located at Keesler AFB MS. They are teaching four courses for this career ladder: E3ABR49231 000, Communications Systems Radio Operator (mandatory); E3AZR49251 000, Satellite Terminal Operations; E3AZR49251 002, AFSATCOM Ground Terminal

TABLE 3

SELECTED BACKGROUND DATA FOR AFSC 492X1 CAREER LADDER JOB AREAS

JOB AREAS	TECH SCHOOL INSTRUCTOR	MYSTIC STAR	MARS/ SITFA/MRS	COMMAND CONTROL	AFSATCOM	1ST-LINE SUPERVISORS
NUMBER IN GROUP	9	24	56	395	72	122
PERCENT OF TOTAL SAMPLE	1%	2%	5%	33%	6%	10%
PERCENT IN CONUS	100%	100%	64%	30%	67%	28%
DAFSC DISTRIBUTION (PERCENT RESPONDING)						
49231	0	8%	36%	28%	13%	4%
49251	67%	71%	59%	68%	71%	49%
49271	33%	21%	5%	5%	17%	46%
49291	0	0	0	0	0	1%
PREDOMINANT PAYGRADE(S)						
AVERAGE MONTHS IN CAREER LADDER	E-5	E-3	E-3	E-3/4	E-5	E-5
AVERAGE MONTHS IN SERVICE	106	48	37	42	69	104
PERCENT FIRST ENLISTMENT	113	56	40	48	80	120
	0	50%	75%	65%	40%	10%
PERCENT SUPERVISING	0	8%	20%	28%	33%	77%

TABLE 3 (CONTINUED)

SELECTED BACKGROUND DATA FOR AFSC 492X1 CAREER LADDER JOB AREAS

JOB AREAS	SPECIAL APPLICATIONS	CCC	STAFF NCO	WEATHER INTERCEPT	ASOC	TACTICAL SWITCHBOARD
NUMBER IN GROUP	199	161	88	6	7	5
PERCENT OF TOTAL SAMPLE	17%	13%	7%	1%	1%	*
PERCENT IN CONUS	69%	71%	56%	0	57%	80%

DAFSC DISTRIBUTION (PERCENT RESPONDING)						
49231	22%	14%	0	0	57%	0
49251	58%	59%	15%	67%	43%	80%
49271	20%	27%	72%	33%	0	20%
49291	1%	0	14%	0	0	0

PREDOMINANT PAYGRADE(S)	E-3	E-4	E-7	E-3	E-2	E-4/5
AVERAGE MONTHS IN CAREER LADDER	61	85	176	86	37	50
AVERAGE MONTHS IN SERVICE	69	100	203	99	40	65
PERCENT FIRST ENLISTMENT	55%	36%	1%	33%	86%	20%

PERCENT SUPERVISING	35%	45%	52%	33%	14%	60%
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* Indicates less than 1 percent

TABLE 4

AVERAGE PERCENT TIME SPENT ON DUTIES BY CAREER LADDER JOB AREAS
(PERCENT MEMBERS RESPONDING)

DUTY	JOB AREAS					
	TECH SCHOOL INSTRUCTOR	MYSTIC STAR	MARS/ SITFA/MRS	COMMAND CONTROL	AFSATCOM	1ST-LINE SUPERVISORS
A. ORGANIZING AND PLANNING	4	1	2	2	2	12
B. DIRECTING AND IMPLEMENTING	7	1	2	2	2	9
C. INSPECTING AND EVALUATING	7	*	1	1	2	8
D. TRAINING	15	3	1	2	3	10
E. PERFORMING ADMINISTRATIVE FUNCTIONS	12	19	36	35	29	28
F. SETTING UP RADIO EQUIPMENT	5	13	15	8	4	7
G. ADJUSTING AND CONFIGURING RADIO EQUIPMENT	6	33	6	10	6	5
H. MAINTAINING GROUND RADIO EQUIPMENT	2	5	3	4	3	2
I. OPERATING GROUND RADIO EQUIPMENT	37	11	29	27	19	13
J. ISOLATING EQUIPMENT MALFUNCTIONS	3	11	3	4	4	2
K. PERFORMING MISSION PLANNING FUNCTIONS	*	*	1	1	1	1
L. PERFORMING AFSATCOM FUNCTIONS	*	1	1	*	25	2
M. OPERATING NONMOBILE TELEPHONE SWITCHBOARDS	1	2	1	2	1	*

* Indicates less than 1 percent

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

TABLE 4 (CONTINUED)

AVERAGE PERCENT TIME SPENT ON DUTIES BY CAREER LADDER JOB AREAS
(PERCENT MEMBERS RESPONDING)

DUTIES	JOB AREAS					
	SPECIAL APPLICATIONS	CCC	STAFF NCO	WEATHER INTERCEPT	ASOC	TACTICAL SWITCHBOARD
A. ORGANIZING AND PLANNING	4	7	27	4	0	8
B. DIRECTING AND IMPLEMENTING	3	4	20	5	0	8
C. INSPECTING AND EVALUATING	2	3	18	5	*	6
D. TRAINING	3	4	7	8	*	8
E. PERFORMING ADMINISTRATIVE FUNCTIONS	23	33	23	40	55	19
F. SETTING UP RADIO EQUIPMENT	29	5	1	18	4	*
G. ADJUSTING AND CONFIGURING RADIO EQUIPMENT	6	1	*	5	6	*
H. MAINTAINING GROUND RADIO EQUIPMENT	4	1	*	7	3	*
I. OPERATING GROUND RADIO EQUIPMENT	20	5	1	3	4	8
J. ISOLATING EQUIPMENT MALFUNCTIONS	2	*	*	4	*	*
K. PERFORMING MISSION PLANNING FUNCTIONS	3	37	1	*	2	*
L. PERFORMING AFSATCOM FUNCTIONS	*	*	*	*	*	*
M. OPERATING NONMOBILE TELEPHONE SWITCHBOARDS	*	*	*	*	26	44

* Indicates less than 1 percent

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

TABLE 5

EQUIPMENT USED ACROSS 492X1 JOB AREAS

BANDS USED	JOB AREAS					
	TECH SCHOOL INSTRUCTOR	MYSTIC STAR	MARS/ SITFA/MRS	COMMAND CONTROL	AFSATCOM	1ST-LINE SUPERVISORS
SUPER LOW FREQUENCY (SLF)	0	0	0	*	0	0
VERY LOW FREQUENCY (VLF)	0	0	0	2	3	2
LOW FREQUENCY (LF)	0	0	2	6	4	2
HIGH FREQUENCY (HF)	78	100	98	97	10	83
VERY HIGH FREQUENCY (VHF)	0	17	50	11	14	14
ULTRA HIGH FREQUENCY (UHF)	0	75	16	28	83	25
SUPER HIGH FREQUENCY (SHF)	0	0	2	1	6	1
NONE OF THE ABOVE	33	0	0	0	7	2
MODES USED						
	TECH SCHOOL INSTRUCTOR	MYSTIC STAR	MARS/ SITFA/MRS	COMMAND CONTROL	AFSATCOM	1ST-LINE SUPERVISORS
AMPLITUDE MODULATION (AM)	44	21	7	11	6	9
CONTINUOUS WAVE (CW)	33	17	29	12	0	13
DATA TRANSMISSION	0	75	16	24	71	28
FREQUENCY MODULATION (FM)	0	79	9	8	26	14
SINGLE SIDEBAND (SSB)	78	96	77	92	1	80
NONE OF THE ABOVE	44	0	4	2	18	2
OTHER	0	0	13	2	1	2

* Indicates less than 1 percent

TABLE 5 (CONTINUED)

EQUIPMENT USED BY JOB AREAS

SYSTEMS USED	JOB AREAS					
	TECH SCHOOL INSTRUCTOR	MYSTIC STAR	MARS/ SITFA/MRS	COMMAND CONTROL	AFSATCOM	1ST-LINE SUPERVISORS
PORTABLE TRANSCEIVERS	40	13	59	23	8	25
VEHICULAR TRANSCEIVERS	0	0	5	7	4	8
BACKPACK RADIOS	0	0	5	2	1	2
WALKIE-TALKIES	0	0	23	11	7	19
QUICK REACTION PACKAGES (QRPS)	0	0	2	1	1	2
NONE OF THE ABOVE	55	79	34	69	83	61
OTHER	0	0	9	3	10	7
ANCILLARY EQUIPMENT USED						
CRYPTOGRAPHIC EQUIPMENT	0	71	5	44	83	48
IONOSPHERIC SOUNDING EQUIPMENT	0	13	2	2	0	5
MOBILE ANTENNA SYSTEMS	0	0	41	9	8	19
PRINTERS	22	58	21	39	85	39
QRPS	0	0	0	1	1	2
RADIOTELETYPE EQUIPMENT	0	96	36	38	43	39
SWITCHBOARD EQUIPMENT	11	58	2	26	7	17
TAPE RECORDERS	56	83	2	65	3	35
NONE OF THE ABOVE	44	0	29	12	6	20
OTHER	0	0	0	1	0	1

TABLE 5 (CONTINUED)

EQUIPMENT USED ACROSS 492X1 JOB AREAS

BANDS USED	JOB AREA				
	SPECIAL APPLICATIONS	CCC	STAFF NCO	WEATHER INTERCEPT	ASOC
SUPER LOW FREQUENCY (SLF)	1	0	1	0	0
VERY LOW FREQUENCY (VLF)	2	0	5	0	14
LOW FREQUENCY (LF)	6	1	2	0	0
HIGH FREQUENCY (HF)	98	64	35	100	0
VERY HIGH FREQUENCY (VHF)	49	13	14	0	29
ULTRA HIGH FREQUENCY (UHF)	52	12	17	0	14
SUPER HIGH FREQUENCY (SHF)	7	0	2	0	0
NONE OF THE ABOVE	2	25	66	0	71
					100
MODES USED					
AMPLITUDE MODULATION (AM)	36	2	8	0	0
CONTINUOUS WAVE (CW)	58	1	6	83	0
DATA TRANSMISSION	24	6	13	50	0
FREQUENCY MODULATION (FM)	45	11	7	0	0
SINGLE SIDEBAND (SSB)	89	58	30	0	0
NONE OF THE ABOVE	2	28	66	0	57
OTHER	3	1	2	0	14
					80
					60

TABLE 5 (CONTINUED)

EQUIPMENT USED ACROSS 492X1 JOB AREAS

SYSTEMS USED	JOB AREA				
	SPECIAL APPLICATIONS	CCC	STAFF NCO	WEATHER INTERCEPT	ASOC
					TACTICAL SWITCHBOARD
PORTABLE TRANSCEIVERS	58	67	9	0	14
VEHICULAR TRANSCEIVERS	64	0	5	0	14
BACKPACK RADIOS	23	1	2	0	0
WALKIE-TALKIES	30	6	8	0	0
QUICK REACTION PACKAGES (QRPS)	46	0	0	0	0
NONE OF THE ABOVE	2	29	82	100	86
OTHER	10	1	2	0	20
ANCILLARY EQUIPMENT USED					
CRYPTOGRAPHIC EQUIPMENT	69	25	19	0	0
IONOSPHERIC SOUNDING EQUIPMENT	13	0	1	0	0
MOBILE ANTENNA SYSTEMS	83	47	10	0	0
PRINTERS	30	7	22	50	29
QRPS	45	1	3	0	0
RADIOTELETYPE EQUIPMENT	25	9	13	83	0
SWITCHBOARD EQUIPMENT	32	1	10	0	43
TAPE RECORDERS	7	0	15	0	0
NONE OF THE ABOVE	4	35	67	0	14
OTHER	3	0	3	0	0

Operator; and E3AZR49251 003, Ground/Airborne International Morse Code Operation. Most of their time is spent training the operation of ground radio equipment. They use the high frequency (HF) band, and the amplitude modulation (AM), continuous wave (CW), and single sideband (SSB) modes. Systems used include portable transceivers. In addition, they use printers, switchboards, and tape recorders. These are some of the more senior individuals in the sample, with an average of 113 months in service. Sixty-seven percent hold a 5-skill level. Some of the tasks they perform are:

- counsel personnel
- administer technical training resident course tests
- score tests
- authenticate message traffic using transmission authentication systems
- check stations into net
- instruct users to tune to your count

II. MYSTIC STAR RADIO OPERATORS (ST0108, N=24), also called VIP or Presidential Radio Operators, are all stationed at Andrews AFB MD. These people provide secure voice and teletype air/ground/air communications to special air mission aircraft, such as Air Force One and the National Emergency Airborne Command Post. Fifty percent of these people are in their first enlistment, so this is a relatively junior group. They spend the largest percentage (33 percent) of their time adjusting and configuring radio equipment; this is three times the amount of time spent by any other job area. Mystic Star personnel also spend more time than any other job area isolating equipment malfunctions. They use HF, ultra high frequency (UHF), and some very high frequency (VHF) bands. The modes they use include SSB, frequency modulation (FM), and data transmission. Radioteletype equipment, cryptographic equipment, tape recorders, printers, and switchboard equipment are some of the types of ancillary equipment used by this group. Common tasks performed by this group include:

- configure scope control consoles for phone patch operations
- configure scope control consoles for back-to-back operations
- configure equipment for simplex operations
- configure equipment for duplex operations
- maintain teletype data logs
- identify malfunctions within scope control consoles

III. MILITARY AFFILIATED RADIO SYSTEM (MARS)/INTER-AMERICAN TELECOMMUNICATIONS SYSTEM (SITFA)/USSOUTHCOM (MRS) RADIO OPERATORS (ST0118, N=56) perform point-to-point operations. MARS personnel provide emergency and contingency back-up for normal communications systems, support disaster preparedness, and provide morale and welfare message and phone patch service. This system

consists of military radio stations and affiliated civilian stations. SITFA is the HF voice and teletype network for communication between North, Central, and South American friendly armed forces. MRS operators provide high frequency/single sideband scheduled secure/unsecure point-to-point voice communications between units in Central and South America and the Caribbean. This group is 71 percent MARS, 18 percent SITFA, and 9 percent MRS (USSOUTHCOM). The largest portion of this group's time (36 percent) is spent performing administrative functions such as filling out logs and records. They spend 29 percent of their time operating ground radio equipment and 15 percent setting up this equipment. Sixty-four percent are in the CONUS and 75 percent are in their first enlistment. They use HF and VHF bands, SSB and CW modes, portable transceivers, walkie-talkies, mobile antenna systems, printers, and radioteletype equipment. Some of the tasks they perform are:

- list traffic with net control stations
- make phone patches manually
- instruct users to tune to your count
- check stations into net
- conduct net roll calls
- maintain position (circuit) logs with typewriters

IV. COMMAND AND CONTROL PERSONNEL (ST0066, N=395) are mostly overseas (70 percent). Command and Control Personnel perform air/ground/air (A/G/A) operations by sending, receiving, and relaying A/G/A messages and making phone patches. They also send, receive, and relay point-to-point messages, and transmit high precedence broadcasts. This group of 395 individuals makes up 33 percent of the total sample; it is the core job area of the career field. The following tasks are representative of those they perform:

- make entries on AFCC Forms 1459 (Emergency Action Message Form)
- look up call sign lists
- copy call sign lists
- transmit EAM
- receive emergency action messages (EAM)
- identify incoming calls using call sign list

Some of the unique tasks this group performs include:

- make entries on AFCC Forms 1462 (HF Facility FOXTROT Message Blank)
- make entries on AFCC Forms 1461 (HF Radio Facility contact and Phone Patch Record)

Specific jobs identified within this job area include GIANT TALK, INFORM, Cemetery Net, and Commando Escort systems, which are essentially MAJCOM-dedicated systems. These are discussed in the following paragraphs with other jobs comprising the Command and Control Personnel.

A. Command and Control Communications Systems Radio Operators (ST0136, N=118) make up 10 percent of the sample as the core job for Command and Control personnel. Most members are assigned overseas; 9 percent are in the continental United States. Seventy-three percent are in their first enlistment.

B. USAFE Command Control Radio Network Operators (INFORM) (ST0174, N=5) provide a dedicated (serves USAFE) point-to-point command and control (C2) network with limited A/G/A capability for phone patch service. They also support deployed units of MAC, AFCC (combat information systems groups), NATO, and emergency operations, as well as the US Commander-in-Chief Europe (USCINCEUR) Airborne Command Post (ABNCP). They share the same mission as Cemetery Net. This group spends more time than any other job operating ground radio equipment. They are all in their first enlistment, and all five are overseas. Sixty percent call themselves INFORM radio operators, and 40 percent are Cemetery Net radio operators.

C. Special Activities Squadron Radio Operators (ST0166, N=5) are in staff positions and are mobile. They are all assigned to the 1141st Special Activities Squadron (SAS) in Europe. They are spending less time performing administrative functions and divide their time between adjusting and configuring radio equipment and operating radio equipment. They spend the highest percent of time of all the jobs isolating equipment malfunctions. Four are assigned to AF Elements Europe; only one of the five is in the CONUS. All are 5- or 7- skill level. Two call themselves Special Operations Squadron personnel.

D. PACAF Command Control Radio Network Operators (Commando Escort) (GP0034, N=52) support the Commander in Chief for PAC and PACAF (CINCPAC and CINCPACAF). They provide a point-to-point tactical HF voice network for PACAF and Air/Ground/Air (A/G/A) support for the CINCPAC Airborne Command Post. These individuals spend more time performing administrative functions than any other group in this job area (44 percent time spent).

E. GIANT TALK Radio Operators (ST0266, N=95) provide SAC with worldwide 2-way voice communication for long-range control of SAC forces of tactical, reconnaissance, and special mission aircraft. They give national command authorities command and control of tactical and strategic aircraft. Their peacetime mission is to provide communication training for air crews, missile crews, and radio operators. Many are jointly assigned with GCCS stations and crews. Fifty-nine percent of these members are in the CONUS, which is more than the other jobs in this area. They all use tape recorders.

Unique tasks performed:

- configure scope signal III consoles for switchboard dial code operations
- identify malfunctions within electrical switching systems (ESS)
- configure scope signal III consoles for back-to-back operations
- configure electronic switching systems (ESS) for operations
- set time generators on recorders
- identify malfunctions within line printers
- perform three-way call procedures
- perform conference call procedures

F. Global Command and Control System (GCCS) Radio Operators (ST0219, N=98) focus on A/G/A operations. They provide combat crew communications for all DoD aircraft, and support DV/VIP aircraft. There are usually large numbers of personnel assigned at stations and they are often assigned at "super stations" with GIANT TALK personnel. The members in this job spend a large amount of time adjusting and configuring radio equipment and less time operating ground radio equipment than the other personnel in jobs in this job area. They, like GIANT TALK Radio Operators, also all use tape recorders.

Unique tasks performed:

- receive notice to airmen (NOTAM)
- check recording tapes for proper radio procedures
- transmit special weather broadcasts
- receive special weather broadcasts messages
- receive pilot reports (PIREP)
- degauss recording tapes

G. GCCS Maintenance Personnel (ST0123, N=9) are spending more time maintaining ground radio equipment and adjusting and configuring radio equipment than any other job. First-termers make up 100 percent of this job.

V. AIR FORCE SATELLITE COMMUNICATIONS (AFSATCOM) TERMINAL OPERATORS (ST0073, N=72) are responsible for monitoring and controlling access to AFSATCOM satellites. These personnel receive and transmit data and secure/unsecure voice traffic via satellite. This is a DoD common user system for high-priority users sending EAMs, force directing, or CINC netting. They make up 6 percent of the sample, with two-thirds in the CONUS. Most of these people have a 5-skill level (71 percent) and they average 80 months TAFMS. One-third are supervising. They spend 25 percent of their time performing AFSATCOM functions, with all other job groups spending less than 2 percent of their time in this duty.

- reset EAM alarm
- prepare messages using Air Force satellite communications (AFSATCOM) format
- transmit AFSATCOM messages
- focus status display units (SDU)
- enter AFSATCOM messages into storage
- configure AFSATCOM terminals for slave operations

The following are tasks unique to this job area:

- load SDU software
- configure AFSATCOM terminals for polling operations
- brief stations assuming net control
- configure AFSATCOM consolidated ground terminals (CGT) for back-to-back operations

VI. FIRST-LINE SUPERVISORS (ST0124, N=122) make up 10 percent of the sample. Seventy-seven percent are supervising and 72 percent are overseas. They have the second highest average TAFMS of all the job areas (Staff NCOs are first) with 120 months in service. They are located in virtually every job area and spend two-thirds of their time performing administrative functions, organizing, planning, directing, implementing, inspecting, evaluating, and training. Typical tasks performed include:

- develop operator's checklists
- resolve technical problems of subordinates
- schedule leaves
- check traffic records for errors
- evaluate OJT trainees
- administer on-the-job training (OJT) tests
- prepare APR

Some tasks uniquely performed by these members are:

- schedule OJT
- direct OJT programs
- endorse airman performance reports (APR)
- implement self-inspection programs

The two jobs found under this area are discussed below.

A. Communications Systems Radio Operator Supervisors (ST0138, N=104) spend the most time training (11 percent time spent) of all the jobs. As would be expected, 87 percent of the members are supervising personnel in most of the commands in this AFSC. They have a high average TAFMS of 124

months, and most are at the 5- or 7-skill level. Twenty-nine percent of this group are located in the CONUS, which seems to mesh with the numbers assigned to the CONUS for the Command and Control job area (33 percent in the CONUS). One-third say they are USAFE/Cemetery Net personnel; the others are spread across all jobs, but all have supervisory duties.

B. Communications Systems Radio Operators NCOICs (ST00144, N=18) spend less time training and more time setting up radio equipment and adjusting and configuring radio equipment than Communications Systems Radio Operators. They are assigned only to AFCC and only 29 percent are supervising. One-third name themselves as GCCS Radio Operators.

VII. SPECIAL APPLICATIONS PERSONNEL (GP0033, N=199) are located in Combat Communications units, Contingency Communications Elements, and other special systems. Sixty-one percent of this job area consists of Combat Information Systems Group Radio Operators. Ten percent call themselves Special Operations Personnel, and 8 percent call themselves Tactical Control Radio Operators. Making up 17 percent of our sample, two-thirds of these people are in the continental United States. They spend more time than any other job area setting up ground radio equipment (29 percent time spent). Twenty percent of their time is spent operating this equipment. A little over half of the 199 members are in their first enlistment, and 35 percent of Special Applications Personnel are supervising. Half or more of the members in this job area are using portable and vehicular transceivers and quick reaction packages (QRPs). Other systems used, but to a lesser extent, are walkie-talkies and backpack radios. The ancillary equipment heavily used includes mobile antenna systems, cryptographic equipment, and QRPs. Almost all use the HF band, but 50 percent are also using VHF and/or UHF bands. They are using all modes, and are one of the few job areas to employ AM and CW. The following tasks are indicative of this job area:

- handcopy position (circuit) logs
- load equipment on trucks
- pack pallets
- unpack pallets
- authenticate message traffic using transmission authentication systems
- authenticate stations using challenge-and-reply systems
- receive radio checks

The tasks performed by Special Applications Personnel usually require them to be mobile. The jobs performed by this area are discussed in the following paragraphs.

A. Combat Information Systems Group Radio Operators (GP0035, N=90) provide mobile communications and air traffic control equipment and services to support worldwide USAF requirements. They are spending roughly equal amounts of time between setting up radio equipment and operating ground radio

equipment. They spend 53 percent of their time between these two duties. Eighty-six percent are in the CONUS and 72 percent are first-termers. They are one of two jobs widely using the Quick Reaction Packages (QRPs).

B. MAC Airlift/Special Operations Squadron Radio Operators (ST0242, N=25) provide command and control communications between AF special operations components and combined command foreign elements. They use A/G/A, point-to-point, and satellite communications. Eighty-eight percent of the personnel in this job are assigned to MAC. Eighty percent of these 25 individuals are in their first enlistment. Forty percent call themselves Special Operations Squadron (SOS) personnel.

C. Combat Information Systems Group Supervisors (ST0200, N=47) are supervising (85 percent) Combat Information Systems Group Radio Operators. As to be expected with supervisors, they have a high TAFMS average of 126 months and most are E-5 or E-6 in grade. They are the second of the two jobs to use Quick Reaction Packages.

D. Tactical Air Control Center Operators (ST0090, N=5) are checking stations into and out of net, and encoding and decoding messages. They spend more time operating ground radio equipment and less time setting up radio equipment than any other job in this area. All five members are in the CONUS and four are assigned to TAC.

E. Tactical Control Element Radio Operators (ST0132, N=6) (TAC Air Request Net Operators) set up equipment. The members of this job spend 52 percent of their time setting up radio equipment, which is higher than any other job in this area and in the sample. They spend less time than any others performing administrative functions. Four of the six members are also assigned to TAC.

VIII. COMBAT CREW COMMUNICATIONS (CCC) SPECIALISTS (ST0038, N=161) support SAC. They train air and missile crews on radio procedures and construct communications kits and combat mission folders for SAC air and missile crews. They have limited HF radio operation; small groups of people are assigned in many different locations. This group is unique in the large amount of time spent on mission planning functions; over a third of their time is spent in this duty. This job area comprises 13 percent of the sample. Their TAFMS average is 100 months and 36 percent are in their first enlistment. They use portable transceivers, mobile antenna systems, and some cryptographic equipment with the HF band. Thirty percent use the SSB mode. Tasks performed in this job area include:

- issue communications kits
- issue FLIP
- breakdown communications kits
- assemble peacetime communications kits
- prepare classified materials for issue
- retrieve communications kits
- prepare communications kits

Unique tasks performed by this job area include:

- review SAC Forms 788 (Aircraft Communication Logs)
- prepare communications portion of CMF
- conduct EWO communications training
- brief aircrews before special missions

There are three jobs which make up CCC Specialists. The following paragraphs give information about each.

A. Operations Center Controllers (ST0083, N=6) are dealing with classified materials. These people spend three-fourths of their time performing administrative functions, almost twice the amount of time spent in this duty by any other job. They also have a high TAFMS (140 months) and no first-termers. They use very little radio equipment.

B. CCC and Dispersal Communications Technicians (ST0227, N=14) transmit EAM, weather broadcasts, and evaluate communication operations. These respondents also spend a lot of time performing administrative functions (37 percent time spent), as well as 17 percent of their time performing mission planning functions. Personnel in this job are also spending more time operating ground radio equipment than the other two jobs in this area. All 14 members are overseas and 13 of them are assigned to USAFE. They are using data transmission and frequency modulation modes instead of the SSB mode, and the very high frequency band versus the high frequency band used by other jobs.

C. Combat Crew Communications Administrators (ST0170, N=131) issue and prepare flight information packets and administer Emergency War Order (EWO) training. The unique aspect of this group is that they spend 43 percent of their time performing mission planning functions. This is almost three times the amount of time spent in this area by any other job. They are mostly 5- and 7-skill level personnel located in the continental U.S.

IX. STAFF NCOs (ST0014, N=88) manage at HQ AFCC or AFCC Divisions or In-Coming Groups. Comprising 7 percent of the sample, this group is strictly concerned with organizing and planning, directing and implementing, inspecting and evaluating, training, and performing administrative functions. Ninety-five percent of this group's time is spent in these five duties. Twelve of the fourteen 9-skill level members in the sample call themselves Staff NCOs. This job area has the highest TAFMS average of all the groups, with 203 months. Fifty-two percent are supervising. As a group, they are not using much ground radio equipment. Some of the tasks they perform are:

file forms, reports, or messages
write staff studies, surveys, or special reports
draft correspondence
conduct meetings
prepare briefings
determine work priorities

Included in this job area are three groups of senior NCOs performing the following distinctly different jobs.

A. Radio Operations Superintendents (ST0141, N=15) plan special missions and exercises, prepare briefings, and establish OIs. These Staff NCOs are spending less time inspecting and evaluating than the other two jobs in this area. They use this time performing administrative functions, a duty they spend more time on than the other two jobs.

B. Quality Assurance Evaluators (ST0149, N=13) inspect and evaluate communications procedures and stations. As is indicated by their title, this group spends more time than any other inspecting and evaluating.

C. Radio Operations NCOICs (ST0168, N=29) supervise personnel. They spend more time organizing, planning, directing, and implementing than any other job. They are also spending more time training than any other job, with the exception of Communications Systems Radio Operators Supervisors (ST0138). Ninety percent of the 29 members are supervising. Three of the four detachment chiefs are in this job.

X. WEATHER INTERCEPT OPERATORS (ST0097, N=6) are only stationed overseas. They monitor teletype and continuous wave (CW) weather signals, and tune receiving equipment for optimum signal reception. Four of the six people in this job are at the 5-skill level, and the other two hold the 7-skill level. They average 99 months TAFMS. Tasks they perform include:

change ribbon on radio teletype equipment
change paper on radio teletype equipment
change receiver frequencies manually
tune receivers to obtain readable signals
select back-up receivers
select antenna using patch panels

XI. AIR SUPPORT OPERATIONS CENTER (ASOC) SQUAD PERSONNEL (ST0137, N=7) are ground radio operators with the additional duty of switchboard operators. They do the following:

accept and connect calls according to their precedence
change receiver frequencies manually
set station clocks
report equipment problems
make entries on DD Forms 1753 (Master Station Log)
maintain master station logs

XII. TACTICAL SWITCHBOARD OPERATORS (STO142, N=5) are well-described by their name. They perform the following tasks:

supervise MINIMIZE condition actions
process telephone conference calls
place outgoing calls to distant stations using trunks
monitor high precedence or emergency calls
coordinate switchboard circuit or equipment problems with
maintenance, technical control, or support agencies
answer supervisory lights
accept and connect calls according to their precedence

Comparison To Previous Survey

Table 6 lists the jobs identified in the 1981 survey of AFSC 293X3 and how career ladder members were distributed among those jobs. All the jobs in the previous survey were identified in the 1987 respondent sample, but there were also jobs in the 1987 survey that were not reported previously. AFSATCOM functions have come on line since 1981, and 6 percent of the 1987 sample are identified as AFSATCOM personnel (N=74). Some of the other jobs unique to the 1987 survey are the Technical School Instructors (1 percent), Mystic Star Radio Operators (2 percent), and Tactical Switchboard Operators (less than 1 percent). The present analysis consolidated the survey population into larger groups of people doing similar tasks than in 1981. Therefore, many of the jobs in the 1987 sample are spread across several 1981 jobs. For example, Staff NCOs are spread across the previous survey jobs of Administrative Support Personnel, Intrabase Radio Personnel, Staff NCOs, and Supervisors and Managers.

ANALYSIS OF DAFSC GROUPS

An analysis of Duty AFSC groups is useful in identifying the tasks performed by the different skill levels. The distinctions made between DAFSCs are helpful for reviewing and assessing the completeness and accuracy of the AFR 39-1 Specialty Descriptions, the Specialty Training Standard (STS), and the Plan of Instruction (POI), as well as identifying training needs.

TABLE 6
COMPARISON OF 1981 OSR JOBS WITH PRESENT OSR JOBS**

PREVIOUS SURVEY JOB AREAS	PERCENT OF SAMPLE***	CURRENT SURVEY JOB AREAS	PERCENT OF SAMPLE***
POINT-TO-POINT RADIO OPERATORS	13	COMMAND AND CONTROL MARS/SITFA/MRS/	33 5
MOBILE COMMUNICATIONS RADIO OPERATORS	5	SPECIAL APPLICATIONS	17
GROUND-TO-AIR RADIO OPERATORS	27	COMMAND AND CONTROL	33
SHIFT SUPERVISORS AND NCOICs	13	FIRST-LINE SUPERVISORS	10
AIR SUPPORT REQUEST NET OPERATORS	*	ASOC SQUAD PERSONNEL	1
SPECIAL OPERATIONS SQUADRON OPERATORS	1	SPECIAL APPLICATIONS	17
ADMINISTRATIVE SUPPORT PERSONNEL	*	STAFF NCOs	7
WEATHER INTERCEPT OPERATORS	*	WEATHER INTERCEPT OPERATORS	1

* Indicates less than 1 percent

** Does not represent total samples; only those job areas that correspond are represented

*** Will not add to 100 percent due to overlapping job areas

TABLE 6 (CONTINUED)
COMPARISON OF 1981 OSR JOBS WITH PRESENT OSR JOBS**

PREVIOUS SURVEY JOB AREAS	PERCENT OF SAMPLE***	CURRENT SURVEY JOB AREAS	PERCENT OF SAMPLE***
SUPERVISORS AND MANAGERS	14	FIRST-LINE SUPERVISORS SPECIAL APPLICATIONS STAFF NCOs	10 17 7
INTRABASE RADIO PERSONNEL	1	STAFF NCOs	7
STAFF NCOs	1	STAFF NCOs	7
COMBAT CREW COMMUNICATIONS PERSONNEL	8	COMBAT CREW COMMUNICATIONS SPECIALISTS	13
NOT IDENTIFIED	0	AFSATCOM	6
NOT IDENTIFIED	0	MYSTIC STAR RADIO OPERATORS	2
NOT IDENTIFIED	0	TECHNICAL SCHOOL INSTRUCTORS	1
NOT IDENTIFIED	0	TACTICAL SWITCHBOARD OPERATORS	1

* Indicates less than 1 percent

** Does not represent total samples; only those job areas that correspond are represented

*** Will not add to 100 percent due to overlapping job areas

The average percent of time spent performing duties by each skill level appears in Table 7. Table 8 shows the jobs performed across each of the skill levels. These tables give a good picture of the career ladder progression as the skill level increases. Since there are very few differences between the 3- and 5-skill level personnel, these two groups were analyzed as one. As can be seen by Table 7, there is a progression from performing technical tasks by the 3- and 5-skill level personnel to performance of mostly managerial tasks by the 9-skill level personnel. These trends are most particularly observed in Duty I, Operating Ground Radio Equipment, which is a technical area, and in Duties A, Organizing and Planning; B, Directing and Implementing; and C, Inspecting and Evaluating, all managerial areas. The level of jobs (see Table 8) also shows a progression from the 3-and 5-skill level personnel performing technical jobs, such as Command and Control, to the 9-skill level, who are mostly Staff NCOs. Forty-seven percent of the 7-skill level members are First Line Supervisors or Staff NCOs, with the others located in many of the technical jobs.

Skill-Level Descriptions

DAFSC 49231/49251. Seventy-seven percent of the 1,198 members in this survey are in these skill levels. They spend 32 percent of their time performing administrative functions, which entails filling out logs and forms, as well as handling classified material, call sign lists, and access lists. Twenty-one percent of their time is also spent operating ground radio equipment. A list of representative tasks performed by these personnel is presented in Table 9.

DAFSC 49271. Seven-skill level personnel spend 41 percent of their time supervising and training. While most of the 7-skill level personnel are spending a large percent of their time (26 percent) performing administrative functions, they are spending less time in technical tasks and more time in managerial duties than their 3- and 5-skill level counterparts. They also spend more time training than either the 3-/5-skill level personnel or the 9-skill level members. Table 10 shows some common tasks performed, while Table 11 shows tasks which best differentiate between 7-skill and 3-/5-skill level personnel. Seven-skill level personnel make up 21 percent of the survey sample.

DAFSC 49291. This is a small group of 14 people; they make up only 1 percent of the sample. Overall, they are spending most of their time (68 percent) in the managerial duties (A through C). They also are spending a lot of time (19 percent) performing administrative functions, but these tasks are filing forms and reports and dealing with classified material. Table 12 presents a list of tasks commonly performed by 9-skill level personnel. Table 13 shows those tasks which best differentiate these members from DAFSC 49271 personnel.

TABLE 7
AVERAGE PERCENT TIME SPENT ON DUTIES BY DAFSC GROUPS

<u>DUTY</u>	<u>49231/ 49251 (N=927)</u>	<u>49271 (N=257)</u>	<u>49291 (N=14)</u>
A. ORGANIZING AND PLANNING	4	13	26
B. DIRECTING AND IMPLEMENTING	3	10	22
C. INSPECTING AND EVALUATING	2	10	20
D. TRAINING	3	8	7
E. PERFORMING ADMINISTRATIVE FUNCTIONS	32	26	19
F. SETTING UP RADIO EQUIPMENT	12	8	2
G. ADJUSTING AND CONFIGURING RADIO EQUIPMENT	8	4	1
H. MAINTAINING GROUND RADIO EQUIPMENT	4	2	*
I. OPERATING GROUND RADIO EQUIPMENT	21	10	2
J. ISOLATING EQUIPMENT MALFUNCTIONS	3	2	1
K. PERFORMING MISSION PLANNING FUNCTIONS	6	6	1
L. PERFORMING AFSATCOM FUNCTIONS	2	2	0
M. OPERATING NONMOBILE TELEPHONE SWITCHBOARDS	2	1	*

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

* Indicates less than 1 percent

TABLE 8

DISTRIBUTION OF DAFSC GROUP MEMBERS ACROSS CAREER LADDER JOB AREAS
(PERCENT MEMBERS)**

JOB GROUPS	49231/ 49251 (N=927)	49271 (N=257)	49291 (N=14)
TECHNICAL SCHOOL INSTRUCTORS (ST0081, N=9)	1	*	0
MYSTIC STAR RADIO OPERATORS (ST0108, N=24)	2	2	0
MARS/SITFA/MRS RADIO OPERATORS (ST0118, N=56)	6	1	0
COMMAND AND CONTROL PERSONNEL (ST0066, N=395)	41	8	0
AFSATCOM TERMINAL OPERATORS (ST0073, N=72)	7	5	0
FIRST LINE SUPERVISORS (ST0124, N=122)	7	22	7
SPECIAL APPLICATIONS PERSONNEL (GP0033, N=199)	17	16	7
COMBAT CREW COMMUNICATIONS (CCC) SPECIALISTS (ST0038, N=161)	13	17	0
STAFF NCOs (ST0014, N=88)	1	25	86
WEATHER INTERCEPT OPERATORS (ST0097, N=6)	*	1	0
AIR SUPPORT OPERATIONS CENTER (ASOC)	1	0	0
TACTICAL SWITCHBOARD OPERATORS (ST0142, N=5)	*	*	0
NOT GROUPED	4	4	0

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

* Indicates less than one percent of the DAFSC

TABLE 9

REPRESENTATIVE TASKS PERFORMED BY COMBINED DAFSC 49231 AND 49251 AIRMEN
(N=927)

TASK	PERCENT PERFORMING
I367 RECEIVE RADIO CHECKS	80
E98 INVENTORY CLASSIFIED MATERIALS	74
E100 LOOK UP CALL SIGN LISTS	73
I323 AUTHENTICATE STATIONS USING CHALLENGE-AND-REPLY SYSTEMS	73
E94 DESTROY CLASSIFIED MATERIALS	71
E140 REPORT EQUIPMENT PROBLEMS	70
E111 MAKE ENTRIES ON AF COMMUNICATIONS SECURITY COMSEC FORMS	69
E123 MAKE ENTRIES ON DD FORMS 1753 (MASTER STATION LOG)	68
E144 SET STATION CLOCKS	65
E101 MAINTAIN CLASSIFIED MATERIALS	64
E104 MAINTAIN MASTER STATION LOGS	63
E95 DOCUMENT DESTRUCTION OF CLASSIFIED MATERIALS	63
E96 FILE FORMS, REPORTS, OR MESSAGES	62
I322 AUTHENTICATE MESSAGE TRAFFIC USING TRANSMISSION	61
E113 MAKE ENTRIES ON AF FORMS 1109 (VISITOR REGISTER)	61
I353 PERFORM TIME HACKS	57
I337 IDENTIFY INCOMING CALLS USING CALL SIGN LIST	54
I345 MAKE PHONE PATCHES MANUALLY	52
E93 COPY CALL SIGN LISTS	52
E145 STORE CLASSIFIED MATERIALS	51
E131 POST CALL SIGN LISTS	51
I362 RECEIVE EMERGENCY ACTION MESSAGES (EAM)	49
K414 INVENTORY COMMUNICATIONS SECURITY (COMSEC) MATERIALS	49
E106 MAINTAIN POSITION (CIRCUIT) LOGS WITH TYPEWRITERS	46
I375 TRANSMIT EAM	42

TABLE 10
 REPRESENTATIVE TASKS PERFORMED BY DAFSC 49271 AIRMEN
 (N=257)

TASK	PERCENT PERFORMING
E94 DESTROY CLASSIFIED MATERIALS	79
B43 ORIENT NEW PERSONNEL	77
E96 FILE FORMS, REPORTS, OR MESSAGES	76
B28 COUNSEL PERSONNEL	76
E95 DOCUMENT DESTRUCTION OF CLASSIFIED MATERIALS	74
C63 PREPARE APR	73
E101 MAINTAIN CLASSIFIED MATERIALS	73
B34 DRAFT CORRESPONDENCE	69
E98 INVENTORY CLASSIFIED MATERIALS	68
D71 CONDUCT OJT	66
A6 DETERMINE WORK PRIORITIES	65
E145 STORE CLASSIFIED MATERIALS	65
E111 MAKE ENTRIES ON AF COMMUNICATIONS SECURITY (COMSEC) FORMS 16 (COMSEC ACCOUNT-DAILY SHIFT INVENTORY)	65
C45 ANALYZE LOGS	62
A24 PREPARE BRIEFINGS	60
B44 RESOLVE TECHNICAL PROBLEMS OF SUBORDINATES	60
E146 TRANSPORT CLASSIFIED MATERIALS	60

TABLE 11

TASKS WHICH BEST DIFFERENTIATE BETWEEN DAFSC 49231/49251
AND 49271 PERSONNEL
(PERCENT MEMBERS PERFORMING)

TASKS		49231/ 49251 (N=927)	49271 (N=257)
B43	ORIENT NEW PERSONNEL	44	77
B28	COUNSEL PERSONNEL	30	76
C63	PREPARE APR	24	73
B34	DRAFT CORRESPONDENCE	13	69
A6	DETERMINE WORK PRIORITIES	27	65
B44	RESOLVE TECHNICAL PROBLEMS OF SUBORDINATES		60
A24	PREPARE BRIEFINGS	25	60
C49	EVALUATE COMPLIANCE WITH PERFORMANCE STANDARDS	17	58
A11	DEVELOP WORK PROCEDURES	19	58
A26	SCHEDULE LEAVES	14	57
A23	PLAN WORK ASSIGNMENTS	19	57
A16	ESTABLISH POLICIES, OPERATING INSTRUCTIONS (OI), OR STANDARD OPERATING PROCEDURES (SOP)	17	56
B27	CONDUCT MEETINGS	11	55
C48	EVALUATE COMMUNICATIONS OPERATIONS	17	53
D80	EVALUATE OJT TRAINEES	22	52
A3	ASSIGN PERSONNEL TO DUTY POSITIONS	13	50
B39	IMPLEMENT SELF-INSPECTION PROGRAMS	9	47
C59	INDORSE AIRMAN PERFORMANCE REPORTS (APR)	10	46
A15	ESTABLISH PERFORMANCE STANDARDS	13	45
A13	ESTABLISH ACCESS LISTS	13	44

TABLE 12
 REPRESENTATIVE TASKS PERFORMED BY DAFSC 49291 AIRMEN
 (N=14)

TASK	PERCENT PERFORMING
B34 DRAFT CORRESPONDENCE	100
B27 CONDUCT MEETINGS	100
A16 ESTABLISH POLICIES, OPERATING INSTRUCTIONS (OI), OR STANDARD OPERATING PROCEDURES (SOP)	100
A6 DETERMINE WORK PRIORITIES	93
B43 ORIENT NEW PERSONNEL	93
C65 WRITE STAFF STUDIES, SURVEYS, OR SPECIAL REPORTS	86
E96 FILE FORMS, REPORTS, OR MESSAGES	86
C48 EVALUATE COMMUNICATIONS OPERATIONS	86
C63 PREPARE APR	86
A24 PREPARE BRIEFINGS	86
A11 DEVELOP WORK PROCEDURES	86
A15 ESTABLISH PERFORMANCE STANDARDS	86
C49 EVALUATE COMPLIANCE WITH PERFORMANCE STANDARDS	79
A18 PLAN COMMUNICATIONS SUPPORT FOR SPECIAL MISSIONS	79
B28 COUNSEL PERSONNEL	79
C59 INDORSE AIRMAN PERFORMANCE REPORTS (APR)	71

TABLE 13

TASKS WHICH BEST DIFFERENTIATE BETWEEN DAFSC 49271 AND
AND 49291 PERSONNEL
(PERCENT MEMBERS PERFORMING)

TASKS	49271 (N=257)	49291 (N=14)
D71 CONDUCT OJT	66	29
I323 AUTHENTICATE STATIONS USING CHALLENGE-AND-REPLY SYSTEMS	56	14
I367 RECEIVE RADIO CHECKS	55	4
E100 LOOK UP CALL SIGN LISTS	55	21
E127 MAKE ENTRIES ON SF FORMS 153 (COMSEC MATERIAL REPORT)	55	21
E123 MAKE ENTRIES ON DD FORMS 1753 (MASTER STATION LOG)	53	0
E140 REPORT EQUIPMENT PROBLEMS	52	14
E135 PREPARE MEACONING, INTRUSION, JAMMING, AND INTERFERENCE (MIJI) REPORTS	50	14
E104 MAINTAIN MASTER STATION LOGS	49	7
D85 WRITE TEST QUESTIONS	46	14
E130 POST ACCESS LISTS	43	7
E144 SET STATION CLOCKS	43	7
I332 DETERMINE TYPE OF MEACONING, INTRUSION, JAMMING AND INTERFERENCE (MIJI)	40	7

A16 ESTABLISH POLICIES, OPERATING INSTRUCTIONS (OI), OR STANDARD OPERATING PROCEDURES (SOP)	56	100
B27 CONDUCT MEETINGS	55	100
C65 WRITE STAFF STUDIES, SURVEYS, OR SPECIAL REPORTS	34	86
A15 ESTABLISH PERFORMANCE STANDARDS	45	86
C57 EVALUATE SUGGESTIONS	18	79
A18 PLAN COMMUNICATIONS SUPPORT FOR SPECIAL MISSIONS	29	79
A25 PREPARE JOB DESCRIPTIONS	36	79
C47 EVALUATE BUDGET REQUIREMENTS	22	71
A12 DRAFT BUDGET REQUIREMENTS	25	71
C51 EVALUATE JOB DESCRIPTIONS	31	71
A21 PLAN SELF-INSPECTION PROGRAMS	32	71
B35 IMPLEMENT COST REDUCTION PROGRAMS	12	64
B33 DRAFT CHANGES TO COMMUNICATIONS PUBLICATIONS	20	64
C61 INSPECT COMMUNICATIONS STATIONS	19	57

AFR 39-1 SPECIALTY DESCRIPTION ANALYSIS

Specialty Descriptions are used to give a broad overview of the duties of a career ladder at the different skill levels. AFR 39-1 documents were reviewed for DAFSC 49211/31/51, DAFSC 49271, and DAFSC 49291/00 (all dated 1 Feb 88). All accurately represent the jobs at each skill level; the DAFSC 49211/31/51 members are performing a technical job, the 7-skill level personnel are performing the supervisory role described, and the AFSC 49291 description depicts the superintendent level of duties being performed. There were no CEM-skill level personnel in this sample.

TRAINING ANALYSIS

Occupational survey data provide one of several sources of information which can be used to make training programs more relevant and meaningful to students. The four most commonly used types of occupational survey information are: (1) the percent of first-enlistment personnel performing tasks covered in the job inventory, (2) ratings of relative difficulty of tasks (TD), (3) the ratings of relative training emphasis (TE) placed on tasks for first-enlistment training, and (4) Automated Training Indicators (ATIs).

These data can be used to evaluate training documents such as the Specialty Training Standard (STS) and the Plan of Instruction (POI). To aid in the review of the 492X1 STS and POI, technical school personnel at Keesler Technical Training Center matched job inventory tasks to appropriate sections of the STS and POI. Comparisons to the training documents were made using these matches with a complete computer listing displaying percent members performing tasks, TE ratings, and TD ratings for each task. The STS and POI matches, along with other detailed computer products, are forwarded to the technical school for further evaluation of the training documents.

Training Emphasis, Task Difficulty, and Automated Training Indicators

Training Emphasis and Task Difficulty ratings are factors that can assist technical school personnel in deciding what tasks should be emphasized in entry-level training. TE ratings provided by career ladder subject-matter experts yielded an average rating of 2.37, with a standard deviation of 1.36. Therefore, tasks having a rating of 3.73 (average TE + 1 standard deviation) or higher should be strongly considered for structured training. TD ratings were adjusted so the average difficulty rating was 5.00, with a standard deviation of 1.00. Tasks with ratings of 3.00 or better are perceived as difficult enough to warrant consideration for centralized training. Table 14 lists those tasks rated highest in task difficulty, and Table 15 indicates tasks performed by first termers that have a high training emphasis. For a complete discussion of TE and TD, please refer to the Task Factor Administration section of this report.

TABLE 14

EXAMPLES OF TASKS RATED HIGH IN TASK DIFFICULTY

TASKS	TASK DIFF*	PERCENT PERFORMING		
		1ST ENL	5- LVL	7- LVL
A18 PLAN COMMUNICATIONS SUPPORT FOR SPECIAL MISSIONS	7.62	8	14	29
C65 WRITE STAFF STUDIES, SURVEYS, OR SPECIAL REPORTS	7.60	4	8	34
A17 PLAN COMMUNICATIONS SUPPORT FOR EXERCISES	7.48	8	14	37
A12 DRAFT BUDGET REQUIREMENTS	7.21	3	5	25
K415 INVESTIGATE SECURITY COMPROMISES	7.21	5	6	11
K422 PREPARE COMMUNICATIONS PORTION OF CMF	7.15	6	9	12
I372 TRANSCRIBE IMC BY HAND	7.09	17	13	12
K420 PREPARE CMF	6.97	6	8	11
K407 CONDUCT EMO COMMUNICATIONS TRAINING	6.97	6	12	13
D74 DEVELOP CAREER DEVELOPMENT COURSE (CDC) CURRICULA	6.96	3	4	5
J396 IDENTIFY MALFUNCTIONS WITHIN TITAN TERMINALS	6.93	1	2	1
D77 DEVELOP OJT PROGRAMS	6.92	6	14	37
A16 ESTABLISH POLICIES, OPERATING INSTRUCTIONS (OI), OR STANDARD OPERATING PROCEDURES (SOP)	6.89	10	20	56
B31 DIRECT OPERATION OF GROUND RADIO STATIONS	6.86	14	20	33
C61 INSPECT COMMUNICATIONS STATIONS	6.85	3	4	19
G281 CONFIGURE TITAN TERMINALS FOR BACK TO BACK OPERATIONS	6.81	1	1	0
G282 CONFIGURE TITAN TERMINALS FOR PHONE PATCH OPERATIONS	6.81	1	1	0
G283 CONFIGURE TITAN TERMINALS FOR SECURE RADIO TELETYPE OPERATIONS	6.81	1	1	0
G284 CONFIGURE TITAN TERMINALS FOR SECURE VOICE OPERATIONS	6.81	0	0	0
G285 CONFIGURE TITAN TERMINALS FOR SWITCHBOARD DIAL CODE OPERATIONS	6.81	1	1	0
B30 DIRECT OPERATION OF FIXED FIELD RADIO STATIONS	6.78	5	8	18
B28 COUNSEL PERSONNEL	6.71	11	38	76
I371 TRANSCRIBE INTERNATIONAL MORSE CODE (IMC) BY TYPEWRITER	6.68	1	2	2
I335 EVALUATE FOREIGN ELECTRONIC EQUIPMENT	6.66	1	1	1
C52 EVALUATE MAINTENANCE OF EQUIPMENT	6.59	7	7	18
D76 DEVELOP ELECTRONIC COMBAT TRAINING SCENARIOS	6.59	3	6	14

* Task difficulty average is 5.0, with a standard deviation of 1.0

TABLE 15
EXAMPLES OF TASKS RATED HIGH IN TRAINING EMPHASIS

TASKS	TNG EMPH*	PCT 1ST ENL	TASK DIFF**
E98 INVENTORY CLASSIFIED MATERIALS	6.61	73	4.40
I323 AUTHENTICATE STATIONS USING CHALLENGE-AND-REPLY SYSTEMS	6.29	75	4.47
I322 AUTHENTICATE MESSAGE TRAFFIC USING TRANSMISSION AUTHENTICATION SYSTEMS	6.16	63	4.62
E95 DOCUMENT DESTRUCTION OF CLASSIFIED MATERIALS	6.14	55	4.36
E111 MAKE ENTRIES ON AF COMMUNICATIONS SECURITY (COMSEC) FORMS 16 (COMSEC ACCOUNT- DAILY SHIFT INVENTORY)			
I334 ENCODE MESSAGES MANUALLY	6.08	66	3.72
E101 MAINTAIN CLASSIFIED MATERIALS	6.08	48	5.23
I330 DECODE MESSAGES MANUALLY	6.04	59	5.16
E94 DESTROY CLASSIFIED MATERIALS	6.02	49	5.12
I332 DETERMINE TYPE OF MEACONING, INTRUSION, JAMMING AND INTERFERENCE (MIJI)	5.98	65	4.05
E100 LOOK UP CALL SIGN LISTS	5.82	32	6.00
E145 STORE CLASSIFIED MATERIALS	5.69	75	3.65
E123 MAKE ENTRIES ON DD FORMS 1753 (MASTER STATION LOG)	5.69	45	4.21
I345 MAKE PHONE PATCHES MANUALLY	5.59	68	4.35
E146 TRANSPORT CLASSIFIED MATERIALS	5.57	55	4.44
I325 CHECK STATIONS INTO NET	5.51	30	4.55
I326 CHECK STATIONS OUT OF NET	5.49	49	4.11
E135 PREPARE MEACONING, INTRUSION, JAMMING, AND INTERFERENCE (MIJI) REPORTS	5.39	46	4.11
K414 INVENTORY COMMUNICATIONS SECURITY (COMSEC) MATERIALS	5.35	35	5.80
E104 MAINTAIN MASTER STATION LOGS	5.20	52	5.42
F226 TUNE TRANSCEIVERS TO OBTAIN READABLE SIGNALS	5.18	63	4.48
I358 PREPARE MESSAGES USING HIGH FREQUENCY (HF) VOICE FORMAT	5.10	41	4.40
E106 MAINTAIN POSITION (CIRCUIT) LOGS WITH TYPEWRITERS	4.96	39	4.57
I348 NOTIFY STATIONS OF FREQUENCY CHANGE	4.92	48	4.21
	4.86	39	3.92

* The Training Emphasis average is 2.37, with a standard deviation of 1.36

** The Task Difficulty average is 5.0, with a standard deviation of 1.0

ATIs provide a guideline for training decisions with an objective, categorical training decision indicator value for a task derived from considerations of percent of members performing, TE and TD ratings, and existing constraints such as criticality and safety. Atch 1, ATCR 52-22, has the guidelines for developing the ATI values and the training decision connected to those values.

Note that tasks receiving high ratings in both TE and TD, accompanied by moderate to high percentages of members performing (30 percent or better) in the first enlistment group, may justify resident training. ATIs help identify these tasks. While reviewing this section of the report, note that training decisions are not only weighed against these four factors, but also take into account command concerns, safety standards, and the importance of the task.

First-Enlistment Personnel

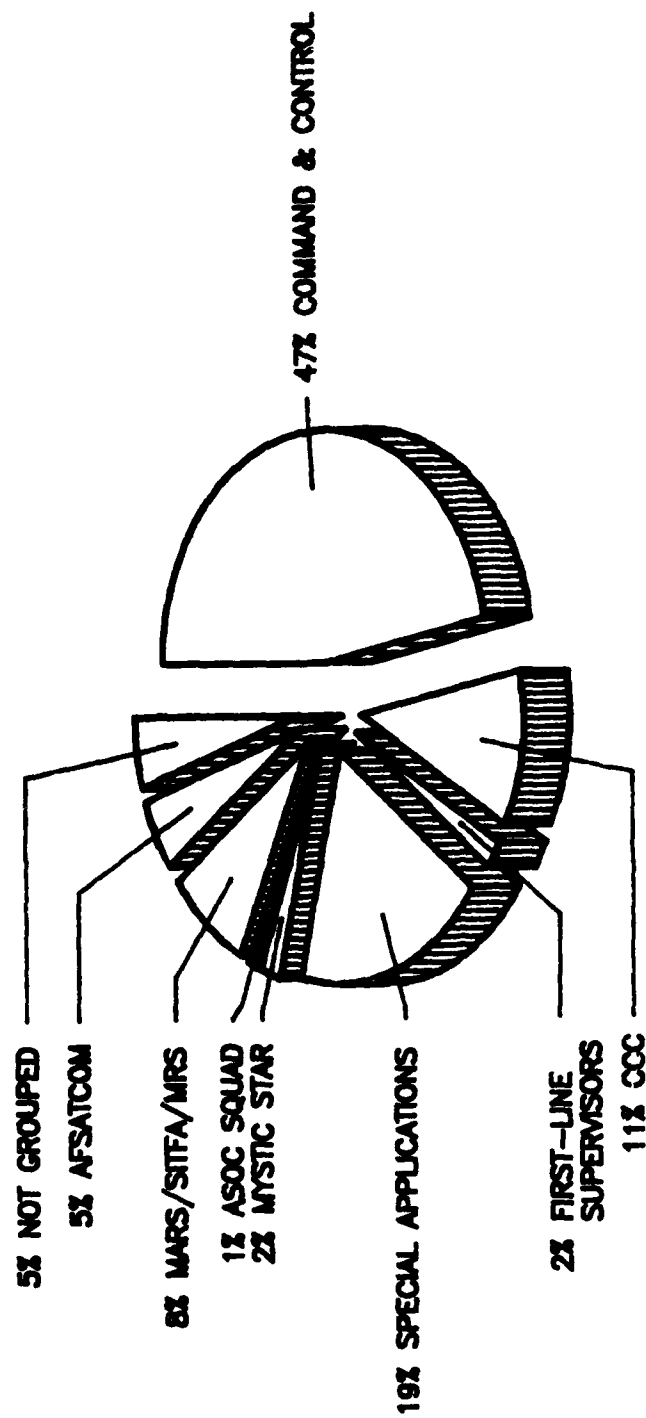
Five hundred and fifty individuals (46 percent of the sample) are in their first enlistment for this career ladder. They spend 32 percent of their time performing administrative functions (filling out logs and forms), 24 percent of their time operating ground radio equipment, and 13 percent of their time setting up ground radio equipment. Half are stationed in the CONUS; 50 percent are overseas. Almost all (93 percent), have completed the basic E3ABR49231 000, Communications Systems Radio Operator, course in residence. Figure 2 shows the distribution of first-termers across career ladder jobs; almost half are performing as Command and Control Personnel. Nineteen percent are Special Applications Personnel, while 11 percent are Combat Crew Communications Specialists. The majority of first-termers are using high frequency band (86 percent) and single sideband mode (76 percent). For a complete listing of the kinds of bands, modes, systems, and ancillary equipment used by first termers, see Table 17. In addition, Table 16 shows some tasks which are representative of those performed by first-enlistment personnel.

Specialty Training Standard

A comprehensive review of the STS was conducted by comparing task data to the STS. Subject-matter experts at the technical training school matched tasks to applicable STS areas, then computer products were run on this match. Usually, the percent of members performing these tasks at the first job, first enlistment, 5-skill level and 7-skill level are used to analyze the STS. A paragraph is supported if 20 percent of the members at one of these levels are performing at least one of the tasks matched to that STS area.

With the diversity found within this career ladder, very little support was seen for many areas of the STS, in that less than 20 percent of the criterion groups above were performing matched tasks. These areas include Combat Crew Communications and AF Satellite Communications (AFSATCOM) functions.

AFSC 492X1 FIRST-TERMER JOBS



Note: Tactical Switchboard Operators comprise less than 1 percent of the sample

Figure 2

TABLE 16

REPRESENTATIVE TASKS PERFORMED BY DAFSC 492X1 AIRMEN
WITH 1-48 MONTHS TAFMS

TASKS	PERCENT PERFORMING (N=550)
I367 RECEIVE RADIO CHECKS	86
E100 LOOK UP CALL SIGN LISTS	75
I323 AUTHENTICATE STATIONS USING CHALLENGE-AND-REPLY SYSTEMS	75
E98 INVENTORY CLASSIFIED MATERIALS	73
E140 REPORT EQUIPMENT PROBLEMS	71
E123 MAKE ENTRIES ON DD FORMS 1753 (Master STATION LOG)	68
E111 MAKE ENTRIES ON AF COMMUNICATIONS SECURITY (COMSEC) FORM 16 (COMSEC ACCOUNT-DAILY SHIFT INVENTORY)	66
E144 SET STATION CLOCKS	66
E94 DESTROY CLASSIFIED MATERIALS	65
E104 MAINTAIN MASTER STATION LOGS	63
I322 AUTHENTICATE MESSAGE TRAFFIC USING TRANSMISSION AUTHENTICATION SYSTEMS	63
I353 PERFORM TIME HACKS	61
E101 MAINTAIN CLASSIFIED MATERIALS	59
E96 FILE FORMS, REPORTS, OR MESSAGES	59
E113 MAKE ENTRIES ON AF FORMS 1109 (VISITOR REGISTER)	58
I345 MAKE PHONE PATCHES MANUALLY	55
E95 DOCUMENT DESTRUCTION OF CLASSIFIED MATERIALS	55
I354 PLACE CALLS ON HOLD	55
I337 IDENTIFY INCOMING CALLS USING CALL SIGN LIST	54
K414 INVENTORY COMMUNICATIONS SECURITY (COMSEC) MATERIALS	52
E93 COPY CALL SIGN LISTS	51

TABLE 17

BANDS, MODES, SYSTEMS, AND ANCILLARY EQUIPMENT
USED BY FIRST ENLISTMENT PERSONNEL
(PERCENT MEMBERS RESPONDING)

<u>BANDS USED</u>	<u>PERCENT USING</u>
SUPER LOW FREQUENCY (SLF)	0
VERY LOW FREQUENCY (VLF)	1
LOW FREQUENCY (LF)	5
HIGH FREQUENCY (HF)	86
VERY HIGH FREQUENCY (VHF)	23
ULTRA HIGH FREQUENCY (UHF)	33
SUPER HIGH FREQUENCY (SHF)	1
NONE OF THE ABOVE	4

<u>MODES USED</u>	<u>PERCENT USING</u>
AMPLITUDE MODULATION (AM)	15
CONTINUOUS WAVE (CW)	21
DATA TRANSMISSION	22
FREQUENCY MODULATION (FM)	19
SINGLE SIDEBAND (SSB)	76
NONE OF THE ABOVE	7
OTHER	4

TABLE 17 (CONTINUED)

BANDS, MODES, SYSTEMS, AND ANCILLARY EQUIPMENT
USED BY FIRST ENLISTMENT PERSONNEL
(PERCENT MEMBERS RESPONDING)

<u>SYSTEMS USED</u>	<u>PERCENT USING</u>
PORTABLE TRANSCEIVERS	37
VEHICULAR TRANSCEIVERS	17
BACKPACK RADIOS	5
WALKIE-TALKIES	14
QUICK REACTION PACKAGES (QRPS)	9
NONE OF THE ABOVE	48
OTHER	5

<u>ANCILLARY EQUIPMENT USED</u>	<u>PERCENT USING</u>
CRYPTOGRAPHIC EQUIPMENT	45
IONOSPHERIC SOUNDING EQUIPMENT	3
MOBILE ANTENNA SYSTEMS	29
PRINTERS	30
QRPS	8
RADIOTELETYPE EQUIPMENT	33
SWITCHBOARD EQUIPMENT	21
TAPE RECORDERS	34
NONE OF THE ABOVE	15
OTHER	1

Because of this diversity, an alternate approach was used to review this training document. Instead of using TAFMS and DAFSC group data, the percentage of people in each large job area was used to review the various paragraphs of the STS. Using this method, almost all of the job-specific areas in the STS were supported by the data. Only one paragraph, (9a(5)(a)6. Characteristics and typical application of frequency shift key), was not supported. This paragraph should be reviewed to see if it needs to be included in the Specialty Training Standard. Table 18 shows those areas that were not supported by DAFSC or TAFMS data; at the far right of the table are those jobs which tend to support the STS item under the alternate method of analysis.

Tasks not matched to the STS are also examined to determine if the STS is omitting coverage of large numbers of related tasks. Many tasks were supported by large job areas (most of which comprise at least 10 percent of the sample). These tasks, examples of which are shown in Table 19, need to be reviewed to determine if they should be covered by the STS.

PLAN OF INSTRUCTION (POI) ANALYSIS

The POI (dated August 88) for Course 3ABR49231 000, Communications System Radio Operator, was reviewed to see if survey data supported it. This was done by matching the data to the POI, which personnel in this career ladder accomplished at the Keesler Technical Training Center. Computer products were then run on this match, giving the Training Emphasis (TE), Automated Training Indicators (ATIs), the Task Difficulty (TD), and the percent members performing the matched tasks for first-job personnel (1-24 months TAFMS) and first-enlistment personnel (1-48 months TAFMS). Thirty percent of the members in one area must be performing a task matched to that area for the POI section to be supported. However, TE, TD, and the criticality of a task are also important factors to consider when deciding if an item should be taught at the technical school. ATIs provide a guideline as the value is derived from a consideration of all these factors.

Overall, the performance areas of the POI are well supported. There are only two areas that had tasks matched to them with low percent members performing--II3c, and II3d (see Table 20). These areas should be reviewed to see if they need to be included in the Plan of Instruction.

In addition, tasks not matched to the POI were reviewed to see if there are many that have high percent members performing (over 30 percent) but are not taught. Example of these tasks that also have high TE and ATI ratings are listed in Table 21. Many of the tasks are administrative in nature, such as filling out logs, forms, and reports. Dealing with classified materials is also an area which is represented by many of the unmatched tasks. These should be examined to see if they warrant inclusion in the POI.

TABLE 18

STS PERFORMANCE ELEMENTS REFLECTING LOW PERCENT MEMBERS PERFORMING TASKS
(LESS THAN 20 PERCENT FOR A CODED LEVEL)

STS ELEMENTS & MATCHING TASKS	TNG EMP*	TASK DIFF**	PERCENT MEMBERS PERFORMING				SUPPORTING JOB NOS.***
			1-24 MOS	1-48 MOS	5- LVL	7- LVL	
5b(2). SECURITY VIOLATIONS VS MALPRACTICES E139 PREPARE REPORTS OF SECURITY VIOLATIONS	1.63	6.27	7	7	7	16	124 (27%)
7b(1)(i) COMBAT CREW COMMUNICATIONS K401 ASSEMBLE PEACETIME COMMUNICATIONS KITS K417 ISSUE COMMUNICATIONS KITS	3.47 3.33	5.59 4.90	7 7	13 13	15 16	17 18	38 (86%) 38 (89%)
7b(1)(j). COMBAT COMMUNICATIONS GROUPS K435 UNPACK COMMUNICATIONS MATERIALS AFTER EXERCISES	2.51	4.82	12	17	16	16	33 (24%) 38 (74%)
7b(3)(b)1. AFSATCOM OPERATIONS CONCEPT L444 CONFIGURE AFSATCOM TERMINALS FOR SLAVE OPERATIONS L445 ENTER AFSATCOM MESSAGES INTO STORAGE	1.73 2.08	4.92 5.16	6 6	5 6	8 9	7 7	73 (96%) 73 (93%)

Job 33 Special Applications Personnel (N=199)
Job 38 Combat Crew Communications Specialists (N=161)
Job 66 Command and Control Personnel (N=395)
Job 73 AFSATCOM Terminal Operators (N=72)
Job 108 Mystic Star Radio Operators (N=24)
Job 124 First Line Supervisors (N=122)

* The Training Emphasis average is 2.37, with a standard deviation of 1.36

** The Task Difficulty average is 5.0, with a standard deviation of 1.0

*** The percent of members in a job performing the task is located in the parentheses next to the
job number

TABLE 18 (CONTINUED)

STS PERFORMANCE ELEMENTS REFLECTING LOW PERCENT MEMBERS PERFORMING TASKS
(LESS THAN 20 PERCENT FOR A CODED LEVEL)

STS ELEMENTS & MATCHING TASKS	TNG EMP*	TASK DIFF**	PERCENT MEMBERS PERFORMING				SUPPORTING JOB NOS.***
			1-24 MOS	1-48 MOS	5- LVL	7- LVL	
7b(3)(b)2. AFSATCOM GROUND SEGMENT							
L446 ESTABLISH COMMUNICATIONS LINKS WITH MASTER CONTROL CENTERS	1.53	5.04	8	9	9	8	73 (78%)
L447 ESTABLISH COMMUNICATIONS LINKS WITH ON-STATION AIRCRAFT	1.65	5.04	9	8	10	11	73 (78%)
7b(3)(b)3. AFSATCOM SPACE SEGMENT							
L451 INITIATE SATELLITE COMMANDS	1.65	5.72	6	5	7	6	73 (85%)
7c(1)(c). COMMUNICATIONS PUBLICATIONS FREQUENCY CONTROL							
E141 REQUEST PERMANENT FREQUENCY CHANGES	.67	6.20	8	8	11	16	124 (30%)
E149 UPDATE FREQUENCY ALLOCATION LISTS	.84	4.62	4	5	8	17	124 (34%)
7c(3)(b). FLIPS ENROUTE							
K418 ISSUE FLIP	2.96	4.42	5	10	12	14	38 (78%)
K428 RETRIEVE FLIP	2.29	4.05	5	9	12	14	38 (77%)
Job 33 Special Applications Personnel (N=199)							
Job 38 Combat Crew Communications Specialists (N=161)							
Job 66 Command and Control Personnel (N=395)							
Job 73 AFSATCOM Terminal Operators (N=72)							
Job 108 Mystic Star Radio Operators (N=24)							
Job 124 First Line Supervisors (N=122)							

* The Training Emphasis average is 2.37, with a standard deviation of 1.36

** The Task Difficulty average is 5.0, with a standard deviation of 1.0

*** The percent of members in a job performing the task is located in the parentheses next to the
job number

TABLE 18 (CONTINUED)

STS PERFORMANCE ELEMENTS REFLECTING LOW PERCENT MEMBERS PERFORMING TASKS
(LESS THAN 20 PERCENT FOR A CODED LEVEL)

STS ELEMENTS & MATCHING TASKS	TNG EMP*	TASK DIFF**	PERCENT MEMBERS PERFORMING					SUPPORTING JOB NOS.***
			1-24 MOS	1-48 MOS	5- LVL	7- LVL		
8d(6). MESSAGE FORMATS - TELETYPE 1356 PREPARE MESSAGES USING AUTOMATED DIGITAL INFORMATION CHECK NETWORK (AUTODIN) FORMAT	2.49	5.41	10	11	14	15	108 (29%) 66 (23%)	
10c(10). PRESET DTMF CONTROLLED TRANSMITTER/RECEIVER F173 PRESET DUAL TONE MULTI-FREQUENCY (DTMF) CONTROLLED RECEIVERS	2.55	4.57	9	10	11	6	66 (21%)	
F174 PRESET DTMF CONTROLLED TRANSMITTERS	2.45	4.61	9	10	11	6	66 (22%)	
F228 VERIFY EQUIPMENT PRESETS	3.04	3.81	13	16	18	16	124 (30%)	
10e. USE IONOSPHERIC SOUNDING EQUIPMENT 1331 DETERMINE BEST OPERATING FREQUENCY USING IONOSPHERIC SOUNDING EQUIPMENT (CHIRP SOUNDER)	3.37	5.80	7	7	8	5	33 (22%)	
Job 33 Special Applications Personnel (N=199)								
Job 38 Combat Crew Communications Specialists (N=161)								
Job 66 Command and Control Personnel (N=395)								
Job 73 AFSATCOM Terminal Operators (N=72)								
Job 108 Mystic Star Radio Operators (N=24)								
Job 124 First Line Supervisors (N=122)								

* The Training Emphasis average is 2.37, with a standard deviation of 1.36

** The Task Difficulty average is 5.0, with a standard deviation of 1.0

*** The percent of members in a job performing the task is located in the parentheses next to the
job number

TABLE 19

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

TASKS	TNG EMPH	TASK DIFF	PERCENT MEMBERS PERFORMING					1ST-LINE SUPVRS
			MYSTIC STAR	MARS/ SITFA/MRS	COMMAND CONTROL	AFSATCOM		
E108 MAINTAIN PUBLICATION FILES	3.29	5.06	4	14	17	18	74	
F166 LOAD EQUIPMENT ON TRUCKS	2.06	3.15	0	11	3	6	21	
F179 SELECT ANTENNA USING PATCH PANELS	3.08	3.92	17	39	25	3	34	
F200 SET UP MOBILE FIELD HF/SSB TRANSCEIVERS	4.43	5.33	0	27	7	4	20	
G287 CONFIGURE TRANSCEIVERS FOR PHONE PATCH OPERATIONS	2.78	4.53	67	52	21	4	37	
H298 CHANGE PAPER ON RADIO TELETYPE EQUIPMENT	2.51	3.46	79	23	21	40	30	
I332 DETERMINE TYPE OF MEACONING, INTRUSION, JAMMING AND INTERFERENCE (MIJI)	5.82	6.00	4	18	47	26	56	
I338 IDENTIFY MISSENT FOR MISROUTED MESSAGES	3.90	4.68	0	18	18	25	30	
M458 ACCEPT AND CONNECT CALLS ACCORDING TO THEIR PRECEDENCE	1.18	5.09	13	13	22	0	9	

TABLE 19 (CONTINUED)

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

TASKS	TNG EMPH	TASK DIFF	PERCENT MEMBERS PERFORMING					TAC SWBD
			SPECIAL APPLNS	CCC	STAFF NCO	WEATHER INTERCEPT	ASOC	
E108 MAINTAIN PUBLICATION FILES	3.29	5.06	25	41	33	33	0	40
F166 LOAD EQUIPMENT ON TRUCKS	2.06	3.15	89	30	2	0	0	0
F179 SELECT ANTENNA USING PATCH PANELS	3.08	3.92	7	2	1	100	14	
F200 SET UP MIBILE FIELD HF/SSB TRANCEIVERS	4.43	5.33	60	34	1	0	0	0
G287 CONFIGURE TRANSCEIVERS FOR PHONE PATCH OPERATIONS	2.78	4.53	29	6	1	0	0	0
H298 CHANGE PAPER ON RADIO TELETYPE EQUIPMENT	2.51	3.46	17	10	2	83	0	0
I332 DETERMINE TYPE OF MEACONING, INTRUSION, JAMMING AND INTERFERENCE (MIJI)	5.82	6.00	46	24	6	17	0	0
I338 IDENTIFY MISSENT OR MISROUTED MESSAGES	3.90	4.69	22	4	2	0	0	0
M458 ACCEPT AND CONNECT CALLS ACCORDING TO THEIR PRECEDENCE	1.18	5.09	11	0	0	0	43	100

TABLE 20

UNSUPPORTED E3ABR49231 000 POI LEARNING OBJECTIVES

POI OBJECTIVE AND MATCHED TASKS	TNG EMPH	PERCENT PERFORMING		TASK DIFF
		1-24 TAFMS (N=358)	1-48 TAFMS (N=550)	
113c. CONVERT RADIO FREQUENCIES TO THEIR WAVELENGTH WITH 70% ACCURACY.				
F151 ADJUST ANTENNAS TO LENGTH	4.53	20	22	5.38
F157 CUT ANTENNAS TO LENGTH	4.27	10	13	5.69
113d. USING A PROPAGATION CHART, DETERMINE THE OPTIMUM TRAFFIC FREQUENCY (FOT) WITH 70% ACCURACY.				
F182 SELECT FREQUENCY OF OPTIMUM TRAFFIC (FOT)	4.49	19	22	4.71
E107 MAINTAIN PROPAGATION AIDS	2.22	12	12	4.59

TABLE 21

SAMPLE OF TASKS NOT MATCHED TO E3ABR49231 000 POI

TASKS	TNG EMPH	PERCENT PERFORMING		TASK DIFF
		1-24 TAFMS (N=358)	1-48 TAFMS (N=550)	
E123 MAKE ENTRIES ON DD FORMS 1753 (MASTER STATION LOG)	5.59	67	68	4.35
I345 MAKE PHONE PATCHES MANUALLY	5.57	58	55	4.44
K414 INVENTORY COMMUNICATIONS SECURITY (COMSEC) MATERIALS	5.20	45	52	5.42
E113 MAKE ENTRIES ON AF FORMS 1109 (VISITOR REGISTER)	4.18	56	58	2.82
I353 PERFORM TIME HACKS	4.14	63	61	2.95
E114 MAKE ENTRIES ON AF FORMS 145 (CERTIFICATE OF DESTRUCTION OF MATERIAL)	4.80	30	33	3.78
E135 PREPARE MEACONING, INTRUSION, JAMMING, AND INTERFERENCE (MIJI) REPORTS	5.35	33	35	5.80
E145 STORE CLASSIFIED MATERIALS	5.69	39	45	4.21
I330 DECODE MESSAGES MANUALLY	6.02	46	49	5.12
I332 DETERMINE TYPE OF MEACONING, INTRUSION, JAMMING AND INTERFERENCE (MIJI)	5.82	31	32	6.00
I334 ENCODE MESSAGES MANUALLY	6.08	44	48	5.23

JOB SATISFACTION

Another factor included in the surveys sent to respondents is that of job satisfaction. We look at five questions that will indicate the level to which people are happy with their job: job interest, perceived use of talents, perceived use of training, reenlistment intentions, and satisfaction with the sense of accomplishment on the job. Tables 22, 23, and 24 show these indicators by TAFMS groups as compared to other Direct Support personnel surveyed in 1987, TAFMS groups as compared to the 1981 AFSC 293X1 survey sample TAFMS groups, and between job areas.

Overall, about half of the career ladder members find their job interesting. Two-thirds feel their training is utilized, and 60 percent feel their talents are used. Seventy-one percent plan to reenlist.

In a comparison with other similar specialty career ladders, AFSC 492X1 second-termers (49-96 months) and career members (97 months or more) found their jobs less interesting and were less satisfied with the way their training was used and their sense of accomplishment derived from the job when compared with the other Direct Support personnel. More career members did find their jobs "so-so" than second-termers. For the question "How does your job utilize your talents?," the results were comparable with job interest. Reenlistment intentions are higher across all TAFMS groups than the comparative sample for Direct Support personnel.

When comparing this survey sample with the previous (1981) survey sample, very little difference was found in job satisfaction. There is an increase in the number of first-termers who feel their talents and training are used well when compared to first-termers in the 1981 survey sample. Reenlistment intentions are also higher than for the previous survey sample across all TAFMS groups.

Mystic Star Radio Operators (ST0108), Technical School Instructors (ST0081), and Staff NCOs (ST0014) seem to be the members who indicate they find their jobs interesting. Weather Intercept Operators (ST0097), ASOC Squad personnel (ST0137), and Tactical Switchboard Operators (ST0142) seem the least satisfied. These last three areas are all very small groups of people. However, Command and Control Personnel (ST0066) and AFSATCOM Personnel (ST0073) also have less than 50 percent who find their job interesting. Data from the "utilization of training question" were similar to those for job interest.

For perceived use of training, the groups that feel their training is used very little are the Combat Crew Communications Personnel (ST0038) and the Special Applications Personnel (GP0033), as well as the Weather Intercept Operators (ST0097), ASOC Squad Personnel (ST0137), and Tactical Switchboard Operators (ST0142). These first two perform mobility functions. Reenlistment intentions are high across jobs, even for those who expressed dissatisfaction in all the other indicators. For the question, "How satisfied are you with the sense of accomplishment you derive from this job?", we found that less

TABLE 22

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

	1-48 MOS TAFMS		49-96 MOS TAFMS		97+ MOS TAFMS	
	492X1 (N=550)	COMP SAMPLE* (N=3,237)	492X1 (N=246)	COMP SAMPLE* (N=1,176)	492X1 (N=402)	COMP SAMPLE* (N=2,227)
<u>JOB INTEREST:</u>						
INTERESTING	50	56	48	64	59	73
SO-SO	24	23	22	20	22	15
DULL	26	20	29	15	19	11
<u>PERCEIVED USE OF TALENTS:</u>						
FAIRLY WELL TO PERFECTLY	58	65	55	72	67	79
LITTLE OR NOT AT ALL	42	35	46	28	33	20
<u>PERCEIVED USE OF TRAINING:</u>						
FAIRLY WELL TO PERFECTLY	74	76	61	72	62	75
LITTLE OR NOT AT ALL	25	23	39	27	37	24
<u>REENLISTMENT INTENTIONS:</u>						
YES OR PROBABLY YES	64	60	76	74	77	69
NO OR PROBABLY NO	35	38	24	23	8	9
WILL RETIRE	*	1	0	1	15	21
<u>SENSE OF ACCOMPLISHMENT:</u>						
SATISFIED	56	58	48	63	59	68
NEITHER SATISFIED NOR DISSATISFIED	17	15	13	11	12	10
DISSATISFIED	27	26	38	25	29	21

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

** Comparative sample includes Direct Support personnel (AFSCs 391X0, 392X0, 552X5, 566X0, 603X0, 612X1) surveyed in 1987

TABLE 23

COMPARISON OF JOB SATISFACTION FOR CURRENT AND PREVIOUS SURVEY DATA
(PERCENT MEMBERS RESPONDING)

	<u>1-48 MOS TAFMS</u>		<u>49-96 MOS TAFMS</u>		<u>97+ MOS TAFMS</u>	
	1988 (N=550)	1981 (N=482)	1988 (N=246)	1981 (N=190)	1988 (N=402)	1981 (N=317)
<u>EXPRESSED JOB INTEREST:</u>						
INTERESTING	50	44	48	51	59	60
SO-SO	24	22	22	18	22	16
DULL	26	34	29	31	19	22
<u>PERCEIVED USE OF TALENTS:</u>						
FAIRLY WELL TO PERFECTLY	58	49	55	50	67	65
LITTLE OR NOT AT ALL	42	50	46	50	33	33
<u>PERCEIVED USE OF TRAINING:</u>						
FAIRLY WELL TO PERFECTLY	74	65	61	56	62	63
LITTLE OR NOT AT ALL	25	34	39	44	37	37
<u>REENLISTMENT INTENTIONS:</u>						
YES OR PROBABLY YES	64	47	76	56	77	72
NO OR PROBABLY NO	35	52	24	43	8	27

*Columns may not add up to 100 percent due to rounding. Data does not include members not responding

TABLE 24

COMPARISON OF JOB SATISFACTION INDICATORS BY CAREER LADDER STRUCTURE GROUPS
(PERCENT MEMBERS RESPONDING)*

	JOB AREAS					1ST-LINE SUPERVISORS
	TECH SCHOOL INSTRUCTOR	MYSTIC STAR	MARS/ SITFA/MRS	COMMAND CONTROL	AFSATCOM	
<u>EXPRESSED JOB INTEREST:</u>						
INTERESTING	67	83	52	43	46	58
SO-SO	0	13	29	25	21	21
DULL	33	4	20	32	33	19
<u>PERCEIVED USE OF TALENTS:</u>						
FAIRLY WELL TO PERFECTLY LITTLE OR NOT AT ALL	78 22	75 25	64 36	53 47	57 43	74 26
<u>PERCEIVED USE OF TRAINING:</u>						
FAIRLY WELL TO PERFECTLY LITTLE OR NOT AT ALL	78 22	83 17	73 27	79 21	60 39	76 22
<u>REENLISTMENT INTENTIONS:</u>						
YES OR PROBABLY YES	56	67	64	71	67	84
NO OR PROBABLY NO	33	33	36	28	31	11
PLAN TO RETIRE	11	0	0	1	3	5
<u>SENSE OF ACCOMPLISHMENT:</u>						
SATISFIED	67	71	57	49	40	66
NEITHER SATISFIED OR DISSATISFIED	0	13	20	16	18	10
DISSATISFIED	33	17	23	35	42	24

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

TABLE 24 (CONTINUED)

COMPARISON OF JOB SATISFACTION INDICATORS BY CAREER LADDER STRUCTURE GROUPS
(PERCENT MEMBERS RESPONDING)*

	JOB AREAS				
	<u>SPECIAL APPLICATIONS</u>	<u>CCC</u>	<u>STAFF NCO</u>	<u>WEATHER INTERCEPT</u>	<u>ASOC</u> <u>TACTICAL SWITCHBOARD</u>
<u>EXPRESSED JOB INTEREST:</u>					
INTERESTING	57	61	73	0	29
SO-SO	23	19	20	17	29
DULL	20	19	7	83	43
					40
					60
					0
<u>PERCEIVED USE OF TALENTS:</u>					
FAIRLY WELL TO PERFECTLY LITTLE OR NOT AT ALL	66 34	61 39	73 27	17 83	43 57
					40
					60
<u>PERCEIVED USE OF TRAINING:</u>					
FAIRLY WELL TO PERFECTLY LITTLE OR NOT AT ALL	25 74	37 61	63 38	0 100	43 57
					0
					100
<u>REENLISTMENT INTENTIONS:</u>					
YES OR PROBABLY YES	73	66	64	100	43
NO OR PROBABLY NO	23	22	10	0	43
PLAN TO RETIRE	3	12	26	0	14
					80
					20
					0
<u>SENSE OF ACCOMPLISHMENT:</u>					
SATISFIED	61	58	68	17	29
NEITHER SATISFIED NOR DISSATISFIED	11	13	14	50	43
DISSATISFIED	28	28	18	33	29
					60
					20
					20

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

than 50 percent of the jobs of Command and Control Personnel (ST0066), AFSATCOM Terminal Operators (ST0073), Weather Intercept Operators, and ASOC Squad Personnel (ST0137) were satisfied with the sense of accomplishment they received from their jobs.

The people who seem to like their job most are the Mystic Star Radio Operators. The members least satisfied were the Weather Intercept Operators, ASOC Squad Personnel, and Tactical Switchboard Operators. Command and Control Personnel and AFSATCOM Terminal Operators also seem to find their jobs less than interesting, and the majority are less than satisfied with the sense of accomplishment derived from the job. TAFMS groups percentages were lower than the Direct Support sample, with the exception of reenlistment intentions, which were higher for this AFSC. The comparisons of the TAFMS groups for this sample and the previous survey sample are comparable, with the exception of first-termers, who are more satisfied than this same TAFMS group in the 1981 sample.

INTERNATIONAL MORSE CODE (IMC)

International Morse Code is an issue of interest to the Technical School and HQ AFCC. The data indicate that 26 percent of the respondents are located at a station with IMC transmission capability. Overall, 16 percent of the sample indicate they must maintain a proficiency level of some number of groups per minute (most say five groups per minute). Of the jobs, Special Applications Personnel (GP0033) and MARS/SITFA/MRS Radio Operators (ST0118), and Technical School Instructors (ST0081) are the groups in which at least 50 percent of the members are located at IMC transmission capable stations. Special Applications Personnel respondents appear to use IMC the most. Seventy-six percent say their station has IMC transmission capability, while 47 percent say they are required to maintain a proficiency of five groups per minute. See Table 25 for a complete overview of responses.

IMPLICATIONS

This is a very diverse career ladder. This heterogeneity did create some problems in validating the STS, but a job-specific match supported that document. All of the career ladder training documents are very recently published, and the data is basically supportive. New jobs for this career ladder include a large group of AFSATCOM Terminal Operators, as well as a smaller group of Mystic Star Radio Operators.

IMC data indicate that 16 percent of the career ladder must maintain a proficiency level, but 26 percent of the respondents are located at IMC transmission capable stations. Jobs using IMC heavily are the Special Operations Personnel and the MARS/SITFA/MRS Radio Operators.

TABLE 25

IMC DATA BY TOTAL SAMPLE AND JOB AREA
(PERCENT MEMBERS RESPONDING)

	JOB AREA						1ST-LINE SUPERVISORS
	TOTAL SAMPLE	TECH SCHOOL INSTRUCTOR	MYSTIC STAR	MARS/ SITFA/MRS	COMMAND CONTROL	AFSATCOM	
PROFICIENCY IN IMC TESTED AT WHAT INTERVAL (MONTHS)?							
1	3	0	0	5	4	1	4
2	*	0	0	0	0	0	0
3	3	0	0	0	1	0	1
6	6	0	0	2	1	0	6
12	2	1	0	7	0	0	2
GIVEN AN INITIAL PROFICIENCY EVALUATION ONLY	8	11	0	2	5	7	3
REQUIRED TO MAINTAIN A PROFICIENCY OF ____ GROUPS/ MINUTE							
5	10	11	0	7	2	0	6
6	1	0	0	0	0	0	0
8	1	0	0	5	1	0	2
10	1	0	0	0	*	0	0
12	3	0	0	2	5	0	4
STATION HAS IMC TRANSMISSION CAPABILITY	26	67	8	54	15	10	20

TABLE 25 (CONTINUED)

IMC DATA BY TOTAL SAMPLE AND JOB AREA
(PERCENT MEMBERS RESPONDING)

	TOTAL SAMPLE	SPECIAL APPLICATIONS	JOB AREA				TACTICAL SWITCHBOARD
			CCC	STAFF NCO	WEATHER INTERCEPT	ASOC	
PROFICIENCY IN IMC TESTED AT WHAT INTERVAL (MONTHS)?							
1	3	5	0	0	0	0	0
2	*	3	0	0	0	0	0
3	3	11	1	1	0	0	0
6	6	26	0	1	0	0	0
12	2	4	0	2	0	0	0
GIVEN AN INITIAL PROFICIENCY EVALUATION ONLY	8	25	3	7	0	14	0
REQUIRED TO MAINTAIN A PROFICIENCY OF ___ GROUPS/ MINUTE							
5	10	47	0	5	0	0	0
6	1	7	0	1	0	0	0
8	1	1	0	1	0	0	0
10	1	4	0	0	0	0	0
12	3	2	0	1	0	14	0
STATION HAS IMC TRANSMISSION CAPABILITY	26	76	6	20	0	14	0