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OCCUPATIONAL SURVEY REPORT

TELEPHONE AND DATA CIRCUITRY EQUIPMENT

AFSC 362X4

AFPT 90-362-868

JANUARY 1990

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

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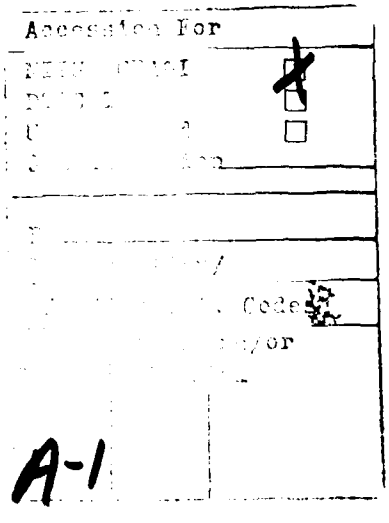

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PREFACE

This report presents the results of an Air Force occupational survey of the Telephone and Data Circuitry Equipment (AFSC 362X4) career ladder. Authority for conducting occupational surveys is contained in AFR 35-2. Computer products used in this report are available for use by operations and training officials.

Lieutenant Kara Worthington developed the survey instrument, Master Sergeant Cornelia Wharton provided computer programming support, and Mr Richard G. Ramos provided administrative support. Mr Daniel E. Dreher analyzed the data and wrote the final report. Lieutenant Colonel Charles D. Gorman, Chief, Airman Analysis Branch, Occupational Analysis Division, USAF Occupational Measurement Center, reviewed and approved this report for release.

Copies of this report are distributed to Air Staff sections 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: This report is based on data collected from 742 respondents constituting 69 percent of all assigned AFSC 362X4 personnel.

2. Career Ladder Structure: Survey data show there are four clusters and four independent job types in this career ladder. The clusters are Telephone Installation and Repair, Combat Communications, Telephone Survey, and Administration and Supervisory. The independent jobs are Leased Equipment Management, Quality Control, Training, and Supply.

3. Career Ladder Progression: This career ladder is typical in that 3- and 5-skill level members spend most of their job time performing technical tasks related to the installation and repair job. Seven-skill level members are first-line supervisors, performing a mixture of technical and supervisory tasks.

4. Specialty Descriptions: The AFR 39-1 Specialty Descriptions accurately describe jobs and tasks performed by AFSC 362X4 personnel in the career ladder.

5. Training Analysis: Most of the Specialty Training Standard (STS) and Plan of Instruction (POI) are supported by survey data when reviewed using criteria set forth in AFR 8-13/ATC Supplement 1 and ATCR 52-22.

6. Job Satisfaction: Job satisfaction for respondents in the present study is somewhat higher than reported for members of comparative AFSCs surveyed in 1988. Overall, satisfaction has increased slightly over the last 8 years. Members of most jobs report they find their job interesting and feel their talents and training are being used. Members in the Combat Communications job, however, have the lowest satisfaction indicators.

7. Special Issues: AFSC 362X4 personnel perform a number of tasks common to AFSCs 362X1 and 362X3, but only a few are performed by more than 30 percent of all three specialties. These data suggest there is actually little overlap among the specialties.

8. Implications: Survey data show the career ladder structure is the same as it was 8 years ago. Members progress typically through the specialty and current AFR 39-1 Specialty Descriptions are supported. Job satisfaction has increased somewhat over the last 8 years, with only members of the Combat Communications job showing relative dissatisfaction. Survey data support the current training documents. AFSC 362X4 data compared with AFSC 362X1 and 362X3 data show little overlap among the three specialties.

OCCUPATIONAL SURVEY REPORT
TELEPHONE AND DATA CIRCUITRY MAINTENANCE CAREER LADDER
(AFSC 362X4)

INTRODUCTION

This is a report of an occupational survey of the Telephone and Data Circuitry Maintenance (AFSC 362X4) career ladder completed by the USAF Occupational Measurement Center in December 1989. This career ladder was last surveyed in 1981. The present survey was requested by HQ USAF/LEYE to provide data for decisions concerning restructuring the entire AFSC 36XXX career field.

Background

The AFR 39-1 Specialty Descriptions state that AFSC 362X4 personnel install, remove, test, troubleshoot, and repair telephone subsets, telephone key systems, and data transmission media systems circuitry. Personnel enter this career ladder by attending a 13-week 3ABR36234 course taught at Sheppard AFB TX.

SURVEY METHODOLOGY

Data for this survey were collected using USAF Job Inventory AFPT 90-362-797 (May 1989). The Inventory Developer reviewed pertinent career ladder documents, the previous OSR and job inventory, and then prepared a tentative task list. The task list was validated through personal interviews with four members of an SKT rewrite team TDY to the Occupational Measurement Center and 42 subject-matter experts at the following bases:

BASE	REASON FOR VISIT
Sheppard AFB TX	Technical school
Keesler AFB MS	Outside plant functions
Eglin AFB FL	Key and switching systems functions
Robins AFB GA	Combat and field functions
Andrews AFB DC	Key systems functions

Langley AFB VA	Key systems functions
Kelly AFB TX	Survey functions
Malmstrom AFB MT	WS-133A and B functions
Vandenberg AFB CA	Validate all tasks
Kirtland AFB NM	Survey functions

The final inventory contains 614 tasks grouped under 18 duty headings, standard background questions asking for DAFSC, organization of assignment, MAJCOM, duty title, TAFMS, time in career ladder, and additional questions asking respondents to indicate work site assigned to, factory training completed, telephones and telephone systems installed and maintained, and test equipment used. Training personnel will use responses to these questions to evaluate training and determine how AFSC 362X4 personnel are being used.

Survey Administration

From June through September 1989, Consolidated Base Personnel Offices at operational bases worldwide administered the surveys to AFSC 362X4 personnel selected from a computer-generated mailing list provided by the Human Resources Laboratory. Respondents were asked to complete the identification and biographical information section first, go through the booklet and mark all tasks they perform in their current job, and then go back and rate each task they marked on a 9-point scale reflecting the relative amount of time spent on each task. Time spent ratings range from 1 (indicating a very small amount of time spent) to 9 (indicating a very large amount of time spent).

The computer calculated the relative percent time spent on all tasks for each respondent by first totaling ratings on all tasks, dividing the rating for each task by this total, and multiplying by 100. The percent time spent ratings from all inventories were then combined and used with percent member performing values to describe various groups in the career ladder.

Survey Sample

The final sample included responses from 742 DAFSC 36234, 36254, and 36274 members. As shown in Tables 1 and 2, the MAJCOM and DAFSC representation in the sample is very close to that of the total AFSC 362X4 population, with nearly all members assigned to AFCC.

Data Processing and Analysis

Once the job inventories are received from the field, demographic data, such as name, duty AFSC, and time in career ladder, are manually entered to form one computer file. Responses to task statements and background

TABLE 1

MAJCOM REPRESENTATION IN SAMPLE

COMMAND	PERCENT OF ASSIGNED	PERCENT OF SAMPLE
AFCC	98%	99%
OTHER	2%	1%

TOTAL ASSIGNED = 1,071
TOTAL ELIGIBLE = 936
TOTAL IN FINAL SAMPLE = 742
PERCENT OF ASSIGNED IN SAMPLE = 69%
PERCENT OF ELIGIBLE IN SAMPLE = 79%

TABLE 2

PAYGRADE DISTRIBUTION OF SAMPLE

PAYGRADE	PERCENT OF ASSIGNED	PERCENT OF SAMPLE
E-1 to E-3	24%	26%
E-4	34%	33%
E-5	22%	26%
E-6	11%	8%
E-7	8%	6%
E-8	*	*
E-9	*	0

* Less than 1 percent

information, on the other hand, are optically scanned to become another computer file. The two files are merged to form one complete case record for each respondent. Comprehensive Occupational Data Analysis Programs (CODAP) then create a job description for each respondent, as well as composite job descriptions for members of various demographic groups. These job descriptions are used for much of the occupational analysis.

Task Factor Administration

Personnel who make decisions about career ladder documents and training programs need task factor data (training emphasis and task difficulty ratings) as well as job descriptions. The survey process provides these data by asking selected E-6 and E-7 supervisors to complete either a training emphasis (TE) or task difficulty (TD) booklet. These booklets are processed separately from the job inventories and TE and TD data are used in several analyses discussed later in this report.

Training Emphasis (TE). Training emphasis is defined as the amount of structured training that first-enlistment personnel need to perform tasks successfully. Structured training is defined as training provided by resident technical schools, field training detachments (FTD), mobile training teams (MTT), formal OJT, or any other organized training method. Forty-nine experienced AFSC 36274 supervisors rated the tasks in the inventory on a 10-point training emphasis scale ranging from 0 (no training required) to 9 (much structured training required). The interrater agreement for these 49 raters is acceptable.

TE ratings, when used with percent members performing values and TD ratings, can help validate the need for organized training and provide insight into the 3-skill level training codes needed on individual STS elements.

Task Difficulty (TD). Task difficulty is defined as an estimate of the length of time the average airman takes to learn how to perform each task listed in the inventory. Fifty-three experienced AFSC 36274 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 are adjusted so tasks of average difficulty have a value of 5.0. Interrater agreement for these 53 raters is also acceptable.

Automated Training Indicators (ATI). The computer uses TE and TD ratings for each task in the inventory, the percent of first-enlistment respondents performing, and the training decision table found in ATCR 52-22 to compute an Automated Training Indicator (ATI) value for each task. ATI numbers correspond to training decisions found on the Course Training Decision Table in ATCR 52-22. ATI, TE and TD values, and percent of various groups of respondents performing tasks are the data used to make decisions about training requirements. These data are discussed later in the TRAINING ANALYSIS section of this report.

SPECIALTY JOBS
(Career Ladder Structure)

The first step in the analysis process is to identify the structure of the career ladder in terms of jobs performed. CODAP assists by creating an individual job description for each respondent based on the tasks performed and relative amount of time spent on the tasks. The CODAP automated job clustering program then compares all the individual job descriptions, locates the two descriptions with the most similar tasks and time spent ratings, and combines them to form a composite job description. In successive stages, new members are added to this initial group or new groups are formed based on the similarity of tasks and time spent ratings. This process continues until all respondents have been included in a group.

The basic group that CODAP uses in the clustering process is a job, or those individuals who perform many of the same tasks and spend a similar amount of time performing them. When several jobs are similar, they form a cluster. If members of a job perform tasks so different they cannot be included in a cluster, they are referred to as being an independent job. These definitions are used to describe the Telephone and Data Circuitry Equipment specialty and the variations in jobs within the specialty. In addition, this information is used to evaluate the accuracy and completeness of AFR 39-1 Specialty Descriptions, the Specialty Training Standard (STS), and the Plan of Instruction (POI) for the entry-level course.

Overview

Survey data show most members of the career ladder perform telephone equipment installation and repair, while smaller numbers have one of seven other distinct jobs (Figure 1). Relative time members of the jobs spend on duties is presented in Table 3 and selected background information on these members is presented in Table 4. A listing of the clusters and independent jobs follows. The Stage (STG) number beside the job title is a group reference number assigned by CODAP, and the letter "N" refers to the number of respondents in each job.

I. TELEPHONE INSTALLATION AND REPAIR CLUSTER (STG034, N=507)

II. COMBAT COMMUNICATIONS CLUSTER (STG052, N=32)

III. TELEPHONE SURVEY CLUSTER (STG053, N=62)

IV. ADMINISTRATION AND SUPERVISION CLUSTER (STG078, N=47)

V. LEASED EQUIPMENT MANAGEMENT INDEPENDENT JOB (STG132, N=7)

VI. QUALITY CONTROL INDEPENDENT JOB (STG065, N=9)

VII. TRAINING INDEPENDENT JOB (STG070, N=5)

AFSC 362X4 CAREER LADDER JOBS

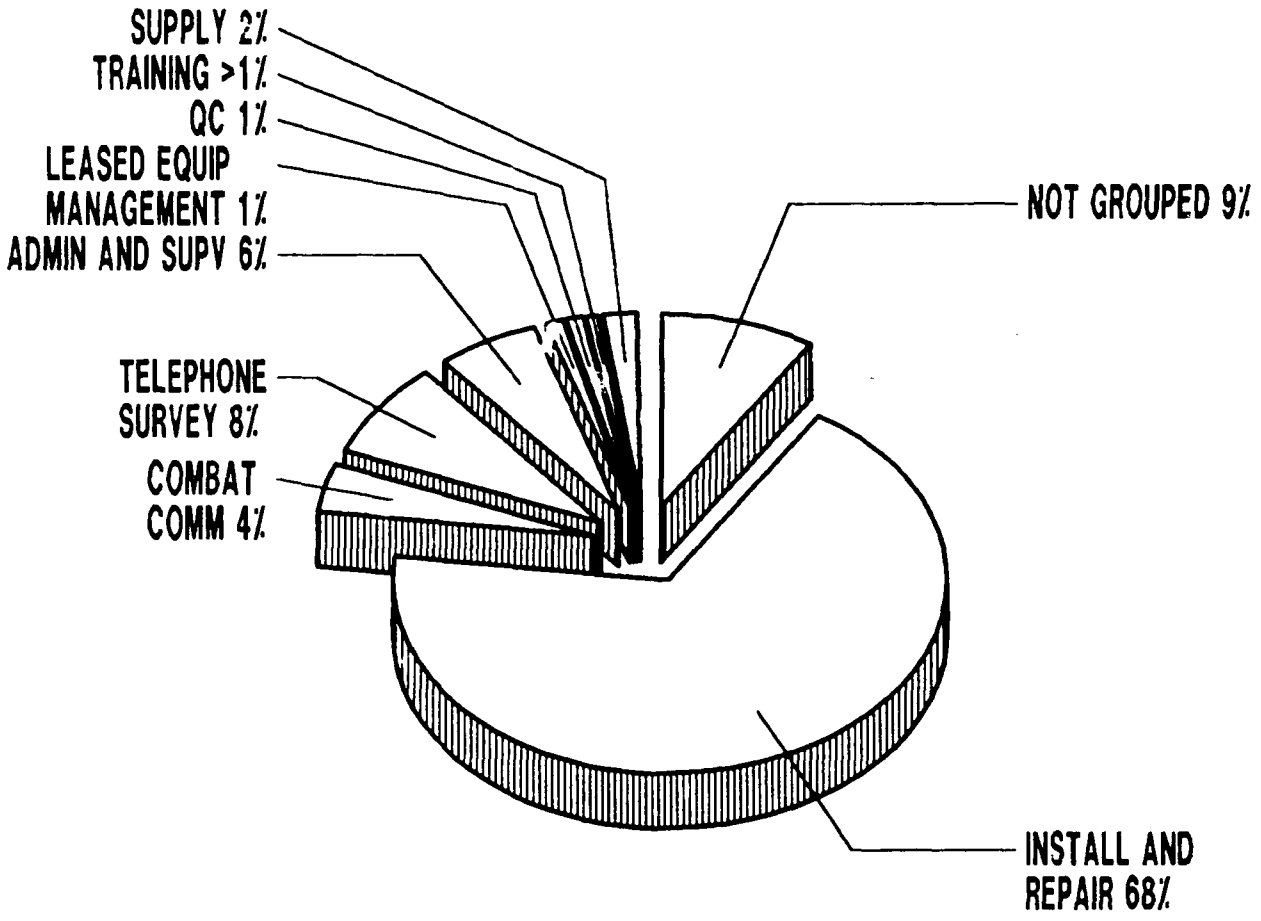

FIGURE 1

TABLE 3

DISTRIBUTION OF DUTY TIME SPENT BY MEMBERS OF CAREER LADDER JOBS
(RELATIVE PERCENT OF JOB TIME SPENT)

DUTIES	INSTALL REPAIR (N=507)	COMBAT COMM (N=32)	SURVEY (N=62)	ADMIN SUPV (N=47)	LEASED EQUIP (N=7)	QUALITY CONTROL (N=9)	TRAINING (N=5)	SUPPLY (N=15)
A. ORGANIZING AND PLANNING	3	5	16	25	18	12	6	8
B. DIRECTING AND IMPLEMENTING	2	3	3	12	4	8	4	3
C. INSPECTING AND EVALUATING	2	5	5	22	2	27	13	6
D. TRAINING	2	3	2	9	-	8	49	1
E. PERFORMING ADMINISTRATIVE OR SUPPLY TASKS	8	12	19	18	11	24	5	60
F. PERFORMING GENERAL MAINTENANCE	17	6	13	4	13	2	8	2
G. MAINTAINING SYSTEM COMPONENTS	4	1	*	*	0	*	*	*
H. ISOLATING MALFUNCTIONS IN EQUIPMENT OR CIRCUITS	11	5	*	*	*	*	2	*
I. MAINTAINING CABLES, WIRING, AND ASSOCIATED EQUIPMENT	11	7	*	*	0	0	2	*
J. MAINTAINING SPECIAL CIRCUITS	5	*	*	1	0	0	*	0
K. MAINTAINING HANDSETS, HEADSETS, AND TELEPHONES	13	12	*	*	0	*	3	13
L. MAINTAINING FIBER OPTIC CABLE SYSTEMS	*	0	*	0	0	0	0	0
M. PERFORMING DISPATCH TASKS	2	3	2	2	0	2	*	*
N. PERFORMING CORROSION CONTROL TASKS	2	2	*	*	0	12	*	1
O. PERFORMING SURVEY OR JOB CONTROL TASKS	2	*	23	5	2	1	*	3
P. PROCESSING LEASED OR GOVERNMENT OWNED TELEPHONE EQUIPMENT	*	*	12	2	49	0	0	0
Q. MAINTAINING TELEPHONE SYSTEM OUTSIDE WIRING	7	7	*	*	0	2	3	*
R. MAINTAINING KEY TELEPHONE SYSTEMS	9	*	*	*	0	0	*	*
S. PERFORMING OR PRACTICING COMBAT COMMUNICATION TASKS	*	26	*	*	*	0	3	*

* Denotes less than 1 percent

TABLE 4

SELECTED BACKGROUND DATA FOR CAREER LADDER JOBS

	INSTALL REPAIR	COMBAT COMM	SURVEY	ADMIN SUPV	LEASED EQUIP	QUALITY CONTROL	TRAINING	SUPPLY
NUMBER IN GROUP	507	32	62	47	8	9	5	15
PERCENT OF SAMPLE	68%	4%	8%	6%	1%	1%	*	2%
PERCENT IN CONUS	61%	78%	77%	60%	75%	79%	80%	67%
DAFSC DISTRIBUTION								
36234	18%	22%	2%	0	0	0	0	0
36254	68%	44%	59%	6%	50%	44%	60%	60%
36274	14%	34%	39%	94%	50%	56%	40%	40%
AVERAGE TAFMS (MOS)	62	114	106	186	137	131	136	93
AVERAGE NUMBER OF TASKS PERFORMED	175	43	48	83	16	54	65	49
PERCENT IN FIRST ENLISTMENT	54%	28%	16%	0	13%	0	0	13%
PERCENT SUPERVISING	36%	59%	26%	98%	25%	22%	20%	53%

* Denotes less than 1 percent

VIII. SUPPLY INDEPENDENT JOB (STG071, N=15)

A description of each job is presented below and representative tasks performed by members of each job are listed in Appendix A.

I. TELEPHONE INSTALLATION AND REPAIR CLUSTER (STG034, N=507). Five hundred seven respondents, or 68 percent of the sample, are in this cluster. These are the more junior members of the career ladder, averaging 62 months TAFMS, with 54 percent in their first enlistment, 73 percent in paygrades E-2 through E-5, and 68 percent holding the 5-skill level. As part of the Installation and Repair cluster, these AFSC 362X4 personnel spend 17 percent of their duty time performing tasks related to general maintenance; 13 percent maintaining handsets, headsets, and telephones; 11 percent maintaining cables and wires; 11 percent isolating malfunctions in equipment and circuits; and 9 percent maintaining key telephone systems. Members in this cluster have the broadest job in the career ladder as they perform an average of 178 tasks, and in terms of time spent, are distinguished by the performance of the following tasks:

terminate jumpers
terminate cables with punch-on devices
remove or replace jumpers
connect or disconnect inside cables to or from connecting blocks or junction boxes
remove or replace inside wiring
test or verify base cable pairs
terminate cables by constructing amphenol connectors
remove or replace multiline telephones
isolate malfunctions within 1A2 KTSS

Survey data show there are three jobs within this cluster. Members of all three jobs perform common installation and repair tasks, but differ by the number of tasks performed, the amount of time spent on common tasks, or an emphasis on different tasks. There are 461 AFSC 362X4 personnel who have the core installation and repair job. Twenty-six others are NCOICs who perform both the core installation and repair tasks, as well as supervisory tasks. Finally, there are six members who are distinguished because they perform an average of only 58 tasks and indicate they are part of an Engineering and Installation Team.

II. COMBAT COMMUNICATIONS CLUSTER (STG052, N=32). The Combat Communications cluster constitutes 4 percent of the sample. AFSC 362X4 personnel in the cluster are more senior to installers and repairmen, as they average 114 months TAFMS and only 9 are in their first enlistment. Members of this cluster spend 26 percent of their time performing or practicing combat communications tasks; 12 percent performing general maintenance; and 12 percent

maintaining handsets, headsets, and telephones. Nineteen of the 32 indicate they have supervisory responsibility. Members of this cluster are distinguished by the time they spend performing the following tasks:

practice mobilization alerts or deployment exercises
assemble or disassemble communication lines
pack or unpack telephone instruments or equipment for mobilization
operate mobile cable reeling units
connect or disconnect cables to or from mobile equipment vans
assemble or disassemble cantonment facilities
remove or replace field telephone batteries
remove or replace 407-1 cables

Survey data show there are two jobs within this cluster. One is a rather limited job with 17 airmen who spend half their time performing only 20 combat communications tasks. The other job is much broader as it includes not only combat communication tasks, but also supervisory responsibilities.

III. TELEPHONE SURVEY CLUSTER (STG053, N=62). Members of this cluster make up 8 percent of the sample. Fifty-nine percent hold the 5-skill level and 39 percent hold the 7-skill level. They spend 23 percent of their duty time performing survey or job control tasks, 19 percent performing administrative or supply tasks, 16 percent organizing and planning, 13 percent performing general maintenance, and 12 percent processing leased or government-owned telephone equipment. AFSC 362X4 personnel in this cluster perform an average of 48 tasks and are distinguished by the time spent performing the following tasks:

process work orders
determine telephone installation requirements
evaluate subscriber requests for equipment or supplies
perform site survey evaluations
plan locations of equipment or supplies with subscribers
evaluate telephone service request sites
review subscriber requested communications layouts

Survey data show there are three telephone survey jobs included in the cluster, differing only by the number of tasks members perform or the time spent on common tasks. There are 18 Telephone Surveyors who spend half their time performing only 14 telephone survey tasks, a second group of 33 members with a somewhat broader survey job who spend half their time performing 30 survey tasks, and a final group of 5 surveyors who have additional administrative responsibility.

IV. ADMINISTRATION AND SUPERVISION CLUSTER (STG078, N=47). The Administration and Supervision cluster contains the most senior AFSC 362X4 personnel in the career ladder, as members average 186 months TAFMS. Forty-four hold the 7-skill level and all but one indicate they are supervisors. In their role as supervisors, members of the cluster spend 25 percent of their time organizing and planning, 22 percent inspecting and evaluating, 18 percent performing general maintenance functions, and 12 percent directing and implementing. They are distinguished by the time they spend performing the following tasks:

review correspondence
review or endorse enlisted performance reports (EPR)
write APRs
counsel personnel on personal or military-related matters
plan work assignments
determine work priorities
evaluate inspection report findings or procedures
evaluate personnel for compliance with performance standards

Survey data show minor variations in the basic supervisor job resulting from the number of tasks some individuals perform or time some members spend on specific tasks.

V. LEASED EQUIPMENT MANAGER INDEPENDENT JOB (STG132, N=7). Members with this job constitute only 1 percent of the sample. They average 137 months TAFMS and only one is a first-enlistment airman. They differ from members of other clusters and jobs because they spend 47 percent of their time processing leased or government-owned telephone equipment, only 13 percent on general maintenance, and 10 percent performing administrative and supply tasks. The Leased Equipment Manager job is the most restrictive as members perform an average of only 16 tasks, including the following:

coordinate telephone installation activities with base units or commercial telephone companies
coordinate leased equipment charges with appropriate agencies
assign due dates
perform site survey evaluations
coordinate lease requirements with base procurement offices
coordinate installation of equipment with contract personnel or associated system personnel
update leased telephone work order registers

VI. QUALITY CONTROL INDEPENDENT JOB (STG065, N=9). Only nine AFSC 362X4 personnel indicated they have this specific job. Four hold the 5-skill level and the other five hold the 7-skill level. They are distinguished because they spend 27 percent of their duty time on tasks related to inspecting and

evaluating, 24 percent of their time performing administrative or supply tasks, and 12 percent of their time (more than any other group) performing corrosion control tasks. All nine members have the job title of Quality Control/Quality Assurance Inspector and all are assigned to a quality control functional area. Members with this job perform an average of 54 tasks including the following:

perform maintenance standardization evaluation program inspections
schedule inspections
evaluate personnel for compliance with performance standards
evaluate inspection report findings or procedures
evaluate personnel for compliance with safety standards
evaluate unit or workcenter work standards
implement quality control or quality assurance programs

VII. TRAINING INDEPENDENT JOB (STG070, N=5). This small group of AFSC 362X4 personnel includes one resident course instructor and four others that spend their time in the training functional area. Members with the training job are the second most senior group averaging 136 months TAFMS and 102 months in the career field. They spend 49 percent of their time performing tasks related to the training duty and 13 percent inspecting and evaluating. Trainers perform an average of 65 tasks and are distinguished by the time they spend on the following tasks:

conduct OJT
develop training programs
annotate on-the-job records
determine training requirements
conduct training conferences or briefings
counsel trainers or trainees on training progress
conduct resident course classroom training

VIII. SUPPLY INDEPENDENT JOB (STG071, N=15). Fifteen AFSC 362X4 personnel indicated they are Supply Monitors. What distinguishes them from members of other jobs is they spend 60 percent of their duty time performing administrative or supply tasks and 13 percent on tasks related to maintaining handsets, headsets, and telephones. The job is rather limited as members perform an average of only 49 tasks. Survey data show they spend the largest amount of time on the following tasks:

complete AF Forms 2005 (Issue/Turn in Request)
complete AF Forms 1297 (Temporary Issue Receipt)
annotate AF Forms 2413 (Supply Control Log)
establish bench stock requirements

review master bench stock listings
maintain tool kits
check out or return tools or equipment

Comparison to Previous Survey

Jobs identified in the present survey were compared to those reported in the 1981 OSR (see Table 5). There has been very little change in the career ladder structure over the last 8 years even though there have been some major changes in equipment. The slight differences in job names shown in Table 5 are a result of the way tasks were grouped in the latest job inventory and use of the CODAP task clustering process which identified groups of coperformed tasks which, in turn, helped identify the jobs performed in the career ladder.

Summary

The analysis of the jobs performed by AFSC 362X4 personnel accounts for 91 percent of the total sample. The remaining 9 percent (75 respondents) either perform such a variety of tasks or have such an unusual emphasis on certain tasks that the CODAP programs could not include them in any groups of meaningful size. The jobs identified above support the current classification structure of the career ladder.

CAREER LADDER PROGRESSION

Analysis of DAFSC groups, together with the analysis of the career ladder structure, is an important part of each occupational survey. The DAFSC analysis identifies differences in tasks performed by members of the various skill level groups, which in turn may be used to evaluate how well career ladder documents such as AFR 39-1 Specialty Descriptions and the STS, reflect what members of the various skill level groups are doing.

The distribution of skill level members across the specialty jobs is displayed in Table 6, while relative amounts of time members of the various skill level groups spend on duties is shown in Table 7. These data show 80 percent of 3- and 5-skill level members are assigned to the Installation and Repair job. Seven-skill level members, on the other hand, are not as concentrated in this one job, but are assigned to a a variety of jobs in the career ladder. Descriptions of the skill levels follow.

Skill-Level Descriptions

DAFSC 36234/54. DAFSC 36234/54 respondents constitute 73 percent of the sample and have a 77 percent-time-spent overlap on common tasks, indicating they perform essentially the same job. Because of the high overlap, a combined job description was created and used in further analyses. As shown in Table 6,

TABLE 5

COMPARISON OF CAREER LADDER STRUCTURE FOR
CURRENT AND PREVIOUS SURVEY

JOBS IDENTIFIED IN 1989	JOBS IDENTIFIED IN 1981
INSTALLATION AND REPAIR CLUSTER	INSTALLATION AND REPAIR CLUSTER
	TELEPHONE EQUIPMENT INSTALLER NCOIC INDEPENDENT JOB
	TELEPHONE EQUIPMENT INSTALLER CREWMEMBER
	CABLE AND WIRE INSTALLATION CREWMEMBER INDEPENDENT JOB
	TRANSISTORIZED OPERATION PHONE SYSTEM (TOPS) INSTALLERS INDEPENDENT JOB
	OUTSIDE PLANT NCOIC INDEPENDENT JOB
COMBAT COMMUNICATIONS CLUSTER	MOBILE COMMUNICATIONS CREWMEMBER INDEPENDENT JOB
LEASED EQUIPMENT MANAGER INDEPENDENT JOB	LEASED TELEPHONE COMMUNICATIONS COORDINATOR CLUSTER
	GOVERNMENT-OWNED TELEPHONE COMMUNICATIONS COORDINATOR CLUSTER
ADMINISTRATION AND SUPERVISION CLUSTER	SUPERVISORY CLUSTER
QUALITY CONTROL INDEPENDENT JOB	QUALITY CONTROL NCOIC INDEPENDENT JOB
INSTRUCTOR INDEPENDENT JOB	TRAINING INSTRUCTOR INDEPENDENT JOB
SURVEY CLUSTER	NOT IDENTIFIED
SUPPLY INDEPENDENT JOB	NOT IDENTIFIED

TABLE 6

DISTRIBUTION OF SKILL LEVEL MEMBERS IN
CAREER LADDER JOBS
(PERCENT)

JOBS	36234/54 (N=545)	36274 (N=197)
INSTALLATION AND REPAIR	80%	36%
COMBAT COMMUNICATIONS	4%	6%
TELEPHONE SURVEY	7%	12%
ADMINISTRATION AND SUPERVISION	*	22%
LEASED EQUIPMENT MANAGERS	*	2%
QUALITY CONTROL	*	3%
TRAINING	*	1%
SUPPLY	2%	3%
UNGROUPED	5%	15%

* Denotes less than 1 percent

TABLE 7

TIME SPENT ON DUTIES BY MEMBERS OF SKILL LEVEL GROUPS
(RELATIVE PERCENT OF JOB TIME)

DUTIES	36234/54 (N=545)	36274 (N=197)
A. ORGANIZING AND PLANNING	5	15
B. DIRECTING AND IMPLEMENTING	2	6
C. INSPECTING AND EVALUATING	3	11
D. TRAINING	2	5
E. PERFORMING ADMINISTRATIVE OR SUPPLY TASKS	10	17
F. PERFORMING GENERAL MAINTENANCE	16	9
G. MAINTAINING SYSTEM COMPONENTS	3	1
H. ISOLATING MALFUNCTIONS IN EQUIPMENT OR CIRCUITS	9	4
I. MAINTAINING CABLES, WIRING, AND ASSOCIATED EQUIPMENT	9	4
J. MAINTAINING SPECIAL CIRCUITS	5	2
K. MAINTAINING HANDSETS, HEADSETS, AND TELEPHONES	12	5
L. MAINTAINING FIBER OPTIC CABLE SYSTEMS	*	*
M. PERFORMING DISPATCH TASKS	2	2
N. PERFORMING CORROSION CONTROL TASKS	2	*
O. PERFORMING SURVEY OR JOB CONTROL TASKS	3	6
P. PROCESSING LEASED OR GOVERNMENT OWNED TELEPHONE EQUIPMENT	1	4
Q. MAINTAINING TELEPHONE SYSTEM OUTSIDE WIRING	7	2
R. MAINTAINING KEY TELEPHONE SYSTEMS	7	3
S. PERFORMING OR PRACTICING COMBAT COMMUNICATION TASKS	2	2

* Denotes less than 1 percent

most 3- and 5-skill level members have the Installation and Repair job, with smaller percentages working in Telephone Survey, Combat Communications, and Supply. There were 32 3- and 5-skill level members that were not grouped into any cluster or independent job because of the diversity of tasks they perform. Representative tasks DAFSC 36234/54 members perform are listed in Table 8. Most of the tasks listed are core to the Installation and Repair job.

DAFSC 36274. Seven-skill level personnel constitute 17 percent of the sample and, as shown in Table 6, are involved in most of the jobs identified by survey data. Representative tasks performed by 7-skill level members are listed in Table 9 and include a mixture of technical and supervisory tasks. Table 10 lists examples of tasks that best differentiate between AFSC 36234/54 and 36274 personnel. Figures in the top portion of the table show a greater percentage of 3- and 5-skill level personnel perform the technical tasks, while figures in the lower half clearly show more 7-skill level personnel perform the supervisory and administrative tasks.

Summary

Survey data show Telephone and Data Circuitry Equipment personnel progress typically through the skill levels to the 7-skill level. Three- and 5-skill level personnel typically have the installation and repair job which involves the more technical tasks, while 7-skill level members perform a mixture of technical and supervisory tasks.

AFR 39-1 SPECIALTY JOB DESCRIPTION ANALYSIS

The current AFR 39-1 Specialty Descriptions for the career ladder were compared to job descriptions for each job identified and for each DAFSC group. Survey data support the jobs and tasks included in the current AFR 39-1 Specialty Descriptions.

TRAINING ANALYSIS

Occupational survey data are a source of information used to review training documents for the specialty. The three most commonly used types of data are: (1) percent of first-enlistment personnel performing tasks, (2) ratings of how much training emphasis tasks should receive in the basic resident course, and (3) ratings of relative difficulty of tasks. These data were used to evaluate the STS and the POI for the basic course taught at Sheppard AFB.

TABLE 8

REPRESENTATIVE TASKS PERFORMED BY 36234/54 PERSONNEL

TASKS		PERCENT MEMBERS PERFORMING (N=545)
I350	TERMINATE CABLES WITH PUNCH-ON DEVICES	81
I351	TERMINATE JUMPERS	80
I339	REMOVE OR REPLACE JUMPERS	79
H301	ISOLATE MALFUNCTIONS TO JUMPERS	78
F213	REMOVE OR REPLACE AMPHENOL CONNECTORS	77
K419	REMOVE OR REPLACE SINGLELINE TELEPHONES, OTHER THAN FIELD TELEPHONES	77
F204	INTERPRET FLOOR PLANS	76
F196	CONNECT OR DISCONNECT INSIDE CABLES TO OR FROM CONNECTING BLOCKS OR JUNCTION BOXES	76
F223	REMOVE OR REPLACE INSIDE WIRING	76
F199	DRILL HOLES FOR MOUNTINGS OR CABLE RUNS	76
F203	INTERPRET DRAWINGS, DIAGRAMS, OR SCHEMATICS	75
G270	REMOVE OR REPLACE FUSES	75
K417	REMOVE OR REPLACE MULTILINE TELEPHONES	75
R568	ISOLATE MALFUNCTIONS WITHIN 1A2 KTSS	75
K402	ISOLATE MALFUNCTIONS TO MULTILINE TELEPHONES	75
I348	TERMINATE CABLES BY CONSTRUCTING AMPHENOL CONNECTORS	74
K413	REMOVE OR REPLACE DIALS ON TELEPHONES	74
F206	MOVE FURNITURE FOR INSTALLATION OF EQUIPMENT	73
I331	MARK, CUT, STRIP, AND BUTT CABLES	73
K397	INSERT OR REMOVE DIAL CENTER CARDS AND NUMBERING STRIPS ON TELEPHONES	73
K396	CLEAN TELEPHONE INSTRUMENT CASES	73
E126	CLEAN FACILITIES OR WORK AREAS	72
Q556	TEST OR VERIFY BASE CABLE PAIRS	72
I333	REMOVE OR REPLACE CABLE RUNS	72
K387	ASSEMBLE OR DISASSEMBLE ROTARY TELEPHONES	72
F226	REMOVE OR REPLACE MODULAR CONNECTING BLOCKS	72
H287	ISOLATE MALFUNCTIONS TO CABLES	71
K420	REMOVE OR REPLACE TELEPHONE CORDS	71
K412	PERFORM RING-BACK OPERATIONAL CHECKS	70
M477	DRIVE TO OR FROM SITES	68
F212	PLAN LOCATIONS OF EQUIPMENT OR SUPPLIES WITH SUBSCRIBERS	67
K388	ASSEMBLE OR DISASSEMBLE TOUCHTONE TELEPHONES	67
A11	DETERMINE TELEPHONE INSTALLATION REQUIREMENTS	54
E123	ANNOTATE WORK ORDERS	47

TABLE 9

REPRESENTATIVE TASKS PERFORMED BY 36274 PERSONNEL

TASKS		PERCENT MEMBERS PERFORMING (N=197)
A5	WRITE APRs	70
A11	DETERMINE TELEPHONE INSTALLATION REQUIREMENTS	67
A13	DETERMINE WORK PRIORITIES	65
C49	COUNSEL PERSONNEL ON PERSONAL OR MILITARY-RELATED MATTERS	65
A9	DETERMINE EQUIPMENT OR SUPPLY REQUIREMENTS	62
F203	INTERPRET DRAWINGS, DIAGRAMS, OR SCHEMATICS	61
F204	INTERPRET FLOOR PLANS	60
D78	ANNOTATE ON-THE-JOB TRAINING (OJT) RECORDS	59
E166	PROCESS WORK ORDERS	56
A6	COORDINATE JOBS, OUTAGES, OR MAINTENANCE WITH JOB CONTROL	55
A5	COORDINATE INSTALLATION OF EQUIPMENT WITH CONTRACT PERSONNEL OR ASSOCIATED SYSTEM PERSONNEL	54
A23	PREPARE BRIEFINGS	54
C67	REVIEW CORRESPONDENCE	53
F212	PLAN LOCATIONS OF EQUIPMENT OR SUPPLIES WITH SUBSCRIBERS	53
B40	INTERPRET POLICIES, DIRECTIVES, OR PROCEDURES FOR PERSONNEL	53
B45	SUPERVISE TELEPHONE AND DATA CIRCUITRY EQUIPMENT SPECIALISTS (AFSC 36254)	53
C70	REVIEW OR INDORSE ENLISTED PERFORMANCE REPORTS (EPR)	52
A22	PLAN WORK ASSIGNMENTS	52
A12	DETERMINE TELEPHONE MAINTENANCE REQUIREMENTS	51
F211	PERFORM SITE SURVEY EVALUATIONS	50
C53	EVALUATE PERSONNEL FOR COMPLIANCE WITH PERFORMANCE STANDARDS	50
E123	ANNOTATE WORK ORDERS	48
A3	CONDUCT MEETINGS, SUCH AS STAFF MEETINGS, COUNCIL MEETINGS, OR BOARD MEETINGS	46
0502	EVALUATE SUBSCRIBER REQUESTS FOR EQUIPMENT OR SUPPLIES	40
E161	PREPARE COST ESTIMATES	37
0505	EVALUATE TELEPHONE SERVICE REQUEST SITES	31
A14	DEVELOP TABLES, GRAPHS, OR DIAGRAMS, OTHER THAN ORGANIZATIONAL CHARTS OR STATUS BOARDS	31
P520	ASSIGN DUE DATES	26
P526	COORDINATE TELEPHONE INSTALLATION ACTIVITIES WITH BASE UNITS OR COMMERCIAL TELEPHONE COMPANIES	25

TABLE 10

EXAMPLES OF TASKS WHICH BEST DIFFERENTIATE BETWEEN DAFSC 36234/54 AND DAFSC 36274 PERSONNEL (PERCENT MEMBERS PERFORMING)

TASKS		36234/54 (N=545)	36274 (N=197)	DIFFERENCE
F199	DRILL HOLES FOR MOUNTINGS OR CABLE RUNS	76	34	42
K387	ASSEMBLE OR DISASSEMBLE ROTARY TELEPHONES	72	30	42
F201	GROUND POWER SUPPLIES	73	31	42
I348	TERMINATE CABLES BY CONSTRUCTING AMPHENOL CONNECTORS	74	32	42
F213	REMOVE OR REPLACE AMPHENOL CONNECTORS	77	36	41
C75	WRITE EPRs	26	70	-44
C67	REVIEW CORRESPONDENCE	12	53	-41
B40	INTERPRET POLICIES, DIRECTIVES, OR PROCEDURES FOR PERSONNEL	13	53	-40
A25	SCHEDULE LEAVES OR TEMPORARY DUTY (TDY) ASSIGNMENTS	6	46	-40
A23	PREPARE BRIEFINGS	15	54	-39

Secondary factors (TE and TD) may be used in conjunction with percent members performing figures to determine what tasks should be emphasized in entry-level training. Tasks with high TE and TD ratings and performed by moderate to high percentages of first-enlistment personnel normally are taught in resident courses while tasks with high TE and TD ratings and low percentages of first-enlistment personnel performing may be more appropriate for OJT. Tasks rated low in TE and TD generally are not included in any formal training unless their inclusion can be justified by percent members performing, command concerns, or criticality. Products in the Training Extract contain several listings of tasks with accompanying TE and TD ratings, ATI (discussed previously), and percent members performing figures. Training personnel will find these listings extremely helpful for reviewing training requirements for the AFSC 362X4 career ladder.

Table 11 lists tasks with the highest TE ratings, with accompanying first job (1-24 months TAFMS), first enlistment (1-48 months TAFMS), and TD ratings shown. These tasks are core to the installation and repair job, most are performed by fairly high percentages of respondents, have fairly high TD ratings, all but four are matched to to POI learning objectives, and all but three are matched to STS elements.

Tasks rated highest in task difficulty are listed in Table 12. Because nearly all deal with fiber optics and are performed by very small percentages of AFSC 362X4 personnel, they have low TE ratings and are not matched to the STS and POI.

The Training Extract contains complete listings of all tasks in descending TE and TD order, as well as a listing of the nonelectronic principles STS with tasks matched to elements, percent first-enlistment personnel performing the tasks, and TE and TD ratings for matched tasks. A separate extract has been prepared showing Electronics Priniciples Inventory (EPI) data matched to elements of the electronics principles STS. Copies of these extracts have been forwarded to technical school personnel for their use in reviewing training documents for the career ladder. A summary of that information is presented below.

First-Enlistment Telephone and Data Circuitry Equipment Personnel

Three hundred and three survey respondents indicated they are in their first enlistment. As shown by Figure 2, the largest percentage of first-enlistment AFSC 362X4 personnel have the Installation and Repair job, with smaller percentages in a few of the other jobs. The relative amount of time spent by first-enlistment AFSC 362X4 personnel on the duties is presented in Table 13, while representative tasks performed are listed in Table 14. These data confirm that most first-enlistment personnel are involved with telephone installation and repair.

TABLE 11

SAMPLE OF TASKS WITH HIGHEST TRAINING EMPHASIS RATINGS

TASKS		TNG EMP	PERCENT MEMBERS PERFORMING 1-24 TAFMS	PERCENT MEMBERS PERFORMING 1-48 TAFMS	TSK DIF
R568	ISOLATE MALFUNCTIONS WITHIN 1A2 KTSS	6.53	88	85	5.11
H304	ISOLATE MALFUNCTIONS TO MULTILINE SYSTEMS	6.29	73	76	5.24
F201	GROUND POWER SUPPLIES	6.20	81	81	3.66
H297	ISOLATE MALFUNCTIONS TO INSIDE WIRING	6.07	80	80	4.76
H292	ISOLATE MALFUNCTIONS TO DIAL LINES	5.98	59	67	4.70
F227	REMOVE OR REPLACE MULTI_INE SYSTEMS	5.96	73	71	5.28
E110	ANNOTATE AFTO FORMS 122 (KEY TELEPHONE EQUIPMENT INSTALLATION RECORD/WORKSHEET)	5.93	56	59	4.24
H294	ISOLATE MALFUNCTIONS TO DIRECT LINES	5.93	71	74	4.91
F203	INTERPRET DRAWINGS, DIAGRAMS, OR SCHEMATICS	5.76	75	79	5.58
F198	CROSS-CONNECT INTERMEDIATE OR MAINFRAMES	5.73	69	70	3.69
R565	ISOLATE MALFUNCTIONS WITHIN ELECTRONIC KEY SYSTEMS	5.73	49	53	5.67
K388	ASSEMBLE OR DISASSEMBLE TOUCHTONE TELEPHONES	5.67	72	74	4.95
F196	CONNECT OR DISCONNECT INSIDE CABLES TO OR FROM CONNECTING BLOCKS OR JUNCTION BOXES	5.62	83	83	3.73
F218	REMOVE OR REPLACE DIRECT LINES	5.58	84	81	4.42
F213	REMOVE OR REPLACE AMPHENOL CONNECTORS	5.56	91	87	4.08
H287	ISOLATE MALFUNCTIONS TO CABLES	5.56	78	77	5.12
H301	ISOLATE MALFUNCTIONS TO JUMPERS	5.56	90	86	4.64
H281	CROSS-CHECK WIRING	5.53	73	72	5.07
K392	BENCH CHECK MULTILINE TELEPHONES	5.44	78	75	4.37
H280	CROSS-CHECK TELEPHONE ASSOCIATED EQUIPMENT	5.42	69	69	5.21
K402	ISOLATE MALFUNCTIONS TO MULTILINE TELEPHONES	5.40	85	83	4.73
Q556	TEST OR VERIFY BASE CABLE PAIRS	5.40	80	78	3.77
I348	TERMINATE CABLES BY CONSTRUCTING AMPHENOL CONNECTORS	5.36	89	83	4.53
F216	REMOVE OR REPLACE DIAL LINES	5.33	57	66	4.04
H283	ISOLATE MALFUNCTIONS TO AMPHENOL CONNECTORS	5.31	88	85	5.13
F223	REMOVE OR REPLACE INSIDE WIRING	5.29	85	83	4.16
F226	REMOVE OR REPLACE MODULAR CONNECTING BLOCKS	5.24	87	83	3.56
H298	ISOLATE MALFUNCTIONS TO INTERMEDIATE OR MAINFRAMES	5.22	48	54	4.88

TE MEAN = 2.33 S.D. = 1.49
TD MEAN = 5.00 S.D. = 1.00

TABLE 12

SAMPLE OF TASKS WITH HIGHEST TASK DIFFICULTY RATINGS

TASKS		TSK DIF	1-48 TAFMS	36254	36274	TNG EMP
L429	ISOLATE MALFUNCTIONS TO FIBER OPTIC PATCH PANELS	7.49	0	1	1	1.89
L432	MACHINE POLISH FIBERS IN FIBER OPTIC CABLES	7.47	0	0	1	1.93
L443	PREPARE ARMOR SHIELDED FIBER OPTIC CABLES FOR SPLICING COATING	7.37	0	0	1	1.56
L466	REMOVE OR REPLACE FIBER OPTIC REGENERATORS	7.36	0	0	1	1.67
L438	MEASURE SPLICE LOSS USING OTDRs	7.34	0	0	2	1.93
L425	ISOLATE MALFUNCTIONS TO FIBER OPTIC CLUSTER UNITS	7.30	0	0	1	1.84
L433	MEASURE ATTENUATION USING OPTICAL TIME DOMAIN REFLECTOMETERS (OTDR)	7.29	0	0	3	1.96
L431	ISOLATE MALFUNCTIONS TO T-CARRIERS	7.28	1	2	1	1.87
R569	ISOLATE MALFUNCTIONS WITHIN 302 KEY SWITCHING SYSTEMS	7.27	5	5	2	1.96
L437	MEASURE MAXIMUM PULLING TENSION IN FIBER OPTIC CABLES	7.27	0	0	1	1.67
L424	ISOLATE MALFUNCTIONS TO AERIAL FIBER OPTIC CABLE SPLICE HOUSINGS	7.24	0	0	1	1.91
L426	ISOLATE MALFUNCTIONS TO FIBER OPTIC CONNECTORS	7.24	1	1	2	1.98
L428	ISOLATE MALFUNCTIONS TO FIBER OPTIC MULTIPLEXERS	7.24	0	1	2	1.87
R564	ISOLATE MALFUNCTIONS WITHIN AN/GTC-28 SWITCHING SYSTEMS	7.23	4	4	3	2.00
L465	REMOVE OR REPLACE FIBER OPTIC PATCH PANELS	7.22	0	0	1	1.67
D88	DEVELOP RESIDENT COURSE CURRICULUM MATERIALS, SUCH AS PLANS OF INSTRUCTION OR SPECIALTY TRAINING STANDARDS	7.21	1	2	8	.53
L430	ISOLATE MALFUNCTIONS TO FIBER OPTIC REGENERATORS	7.21	0	0	1	1.87
L427	ISOLATE MALFUNCTIONS TO FIBER OPTIC CROSSCONNECT PANELS	7.11	0	1	1	1.89
L447	PREPARE FLOOD RESISTANT FIBER OPTIC CABLES FOR SPLICING	7.08	0	0	1	1.44
D89	DEVELOP TRAINING PROGRAMS	7.08	3	11	26	1.36
L468	SEAL FIBER OPTIC SPLICES	7.07	0	0	1	1.67
L444	PREPARE DOUBLE SHEATH FIBER OPTIC CABLES FOR SPLICING	7.03	0	1	1	1.67
L450	PREPARE SINGLE SHEATH FIBER OPTIC CABLES FOR SPLICING	7.02	0	0	1	1.64
L464	REMOVE OR REPLACE FIBER OPTIC MULTIPLEXERS	7.02	1	1	2	1.67
L469	SPLICE FIBER OPTIC CABLES USING HAND TOOLS	7.02	0	1	2	1.82
L473	TERMINATE FIBER OPTIC STRENGTH MEMBERS	7.02	0	0	1	1.71
L451	REMOVE OR REPLACE AERIAL FIBER OPTIC CABLE SPLICE HOUSINGS	7.02	0	0	1	1.38
B47	WRITE STAFF STUDIES	6.98	0	2	9	.40
L422	HAND POLISH FIBER OPTIC CONNECTORS	6.97	2	2	2	2.18
L463	REMOVE OR REPLACE FIBER OPTIC CROSSCONNECT PANELS	6.97	0	0	1	1.67

TD MEAN = 5.00 S.D. = 1.00
TE MEAN = 2.33 S.D. = 1.49

FIRST ASSIGNMENT AFSC 362X4
CAREER LADDER JOBS

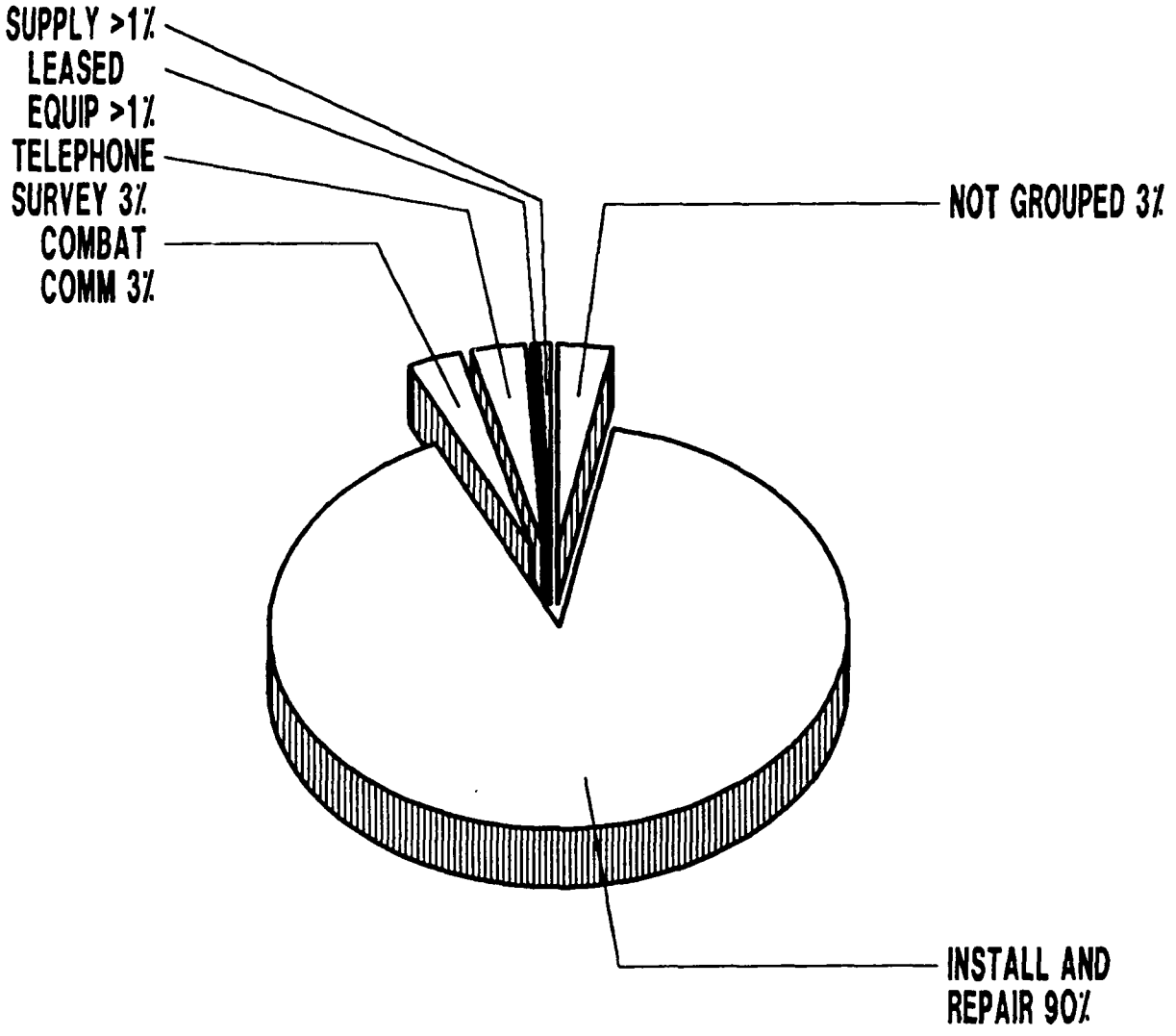

FIGURE 2

TABLE 13

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

DUTIES	1-48 MOS TAFMS (N=303)
A. ORGANIZING AND PLANNING	2
B. DIRECTING AND IMPLEMENTING	*
C. INSPECTING AND EVALUATING	*
D. TRAINING	*
E. PERFORMING ADMINISTRATIVE OR SUPPLY TASKS	8
F. PERFORMING GENERAL MAINTENANCE	18
G. MAINTAINING SYSTEM COMPONENTS	4
H. ISOLATING MALFUNCTIONS IN EQUIPMENT OR CIRCUITS	11
I. MAINTAINING CABLES, WIRING, AND ASSOCIATED EQUIPMENT	11
J. MAINTAINING SPECIAL CIRCUITS	5
K. MAINTAINING HANDSETS HEADSETS, AND TELEPHONES	14
L. MAINTAINING FIBER OPTIC CABLE SYSTEMS	*
M. PERFORMING DISPATCH TASKS	2
N. PERFORMING CORROSION CONTROL TASKS	2
O. PERFORMING SURVEY OR JOB CONTROL TASKS	2
P. PROCESSING LEASED OR GOVERNMENT OWNED TELEPHONE EQUIPMENT	*
Q. MANTAINING TELEPHONE SYSTEM OUTSIDE WIRING	8
R. MAINTAINING KEY TELEPHONE SYSTEMS	9
S. PERFORMING OR PRACTICING COMBAT COMMUNICATION TASKS	1

TABLE 14

REPRESENTATIVE TASKS PERFORMED BY FIRST-ENLISTMENT
AFSC 362X4 PERSONNEL

TASKS		PERCENT MEMBERS PERFORMING (N=303)
I350	TERMINATE CABLES WITH PUNCH-ON DEVICES	89
I351	TERMINATE JUMPERS	89
I339	REMOVE OR REPLACE JUMPERS	88
F213	REMOVE OR REPLACE AMPHENOL CONNECTORS	87
Q530	CLIMB LADDERS	86
H301	ISOLATE MALFUNCTIONS TO JUMPERS	86
R568	ISOLATE MALFUNCTIONS WITHIN 1A2 KTSS	85
F199	DRILL HOLES FOR MOUNTINGS OR CABLE RUNS	85
K419	REMOVE OR REPLACE SINGLELINE TELEPHONES, OTHER THAN FIELD TELEPHONES	85
I348	TERMINATE CABLES BY CONSTRUCTING AMPHENOL CONNECTORS	84
G270	REMOVE OR REPLACE FUSES	84
K417	REMOVE OR REPLACE MULTILINE TELEPHONES	84
F223	REMOVE OR REPLACE INSIDE WIRING	84
K402	ISOLATE MALFUNCTIONS TO MULTILINE TELEPHONES	84
F226	REMOVE OR REPLACE MODULAR CONNECTING BLOCKS	84
F196	CONNECT OR DISCONNECT INSIDE CABLES TO OR FROM CONNECTING BLOCKS OR JUNCTION BOXES	83
F206	MOVE FURNITURE FOR INSTALLATION OF EQUIPMENT	82
I331	MARK, CUT, STRIP, AND BUTT CABLES	82
K412	PERFORM RING-BACK OPERATIONAL CHECKS	81
K396	CLEAN TELEPHONE INSTRUMENT CASES	81
K387	ASSEMBLE OR DISASSEMBLE ROTARY TELEPHONES	81
K397	INSERT OR REMOVE DIAL CENTER CARDS AND NUMBERING STRIPS ON TELEPHONES	80
I333	REMOVE OR REPLACE CABLE RUNS	80
R591	REMOVE OR REPLACE KEY TELEPHONE UNITS	80
F204	INTERPRET FLOOR PLANS	79
F203	INTERPRET DRAWINGS, DIAGRAMS, OR SCHEMATICS	79
Q556	TEST OR VERIFY BASE CABLE PAIRS	78
E126	CLEAN FACILITIES OR WORK AREAS	76
M477	DRIVE TO OR FROM SITES	75
K388	ASSEMBLE OR DISASSEMBLE TOUCHTONE TELEPHONES	74
F212	PLAN LOCATIONS OF EQUIPMENT OR SUPPLIES WITH SUBSCRIBERS	68

Specialty Training Standard (STS)

For the purposes of reviewing the STS and POI for this specialty, OMC personnel met with 3750th Technical Training Group personnel to match tasks listed in the job inventory to STS line items and POI learning objectives dealing with topics not included in the electronic fundamentals portions of the two documents. The end product of the match was used to produce listings of the nonelectronic fundamentals portion of the STS and POI with job inventory tasks matched, percent members performing the tasks, TE and TD ratings, and ATI values for each matched task. These listings are included in the Training Extract sent to the school for review.

The portions of the STS and POI dealing with electronics fundamentals were included in the EPI administered to AFSC 36254 personnel between September 1987 and April 1988. Listings of these portions of the training documents were produced showing EPI statements matched to individual line items and objectives and percentage of AFSC 36254 personnel responding. These listings are included in a separate extract for training personnel to review.

Because the first seven paragraphs of the AFSC 362X4 STS deal with the general topics of career progression, security, AFOSH, graduate evaluation, technical publications, supervision and training, and maintenance, they were not reviewed. Technical aspects of the career ladder, on the other hand, are covered in paragraphs 8 through 20.

Criteria set forth in AFR 8-13, AFR 8-13/ATC Supplement 1 (Attachment 1, paragraph A1-3c(4)), and ATCR 52-22 Attachment 1, were used to review the relevance of each STS element that had inventory tasks matched to it.

Using these criteria, most elements in the STS are supported by OSR data, meaning individual line items have tasks matched that are performed by more than 20 percent first-job, first-enlistment, 5-, or 7-skill level members. There were, however, some exceptions. Most elements in paragraph 18 - fiber optics and element 19c(1) - coaxial cables, were not supported. These areas should be examined by career field managers and training personnel to determine if they should be retained in the STS. These individual STS elements, with matched tasks and survey data are included in Table 15 for school review.

There are several tasks with high TE ratings, performed by more than 20 percent of criterion group members, and not matched to STS elements (Table 16). These tasks were reviewed to determine if they concentrate around any particular function or are related to a specific job. Those dealing with bench checking appear to be in-shop functions while the rest appear related to the typical outside shop installation and repair function. Training personnel and subject-matter experts need to review these unmatched tasks to determine if they suggest material that should be added to the STS.

TABLE 15

UNSUPPORTED AFSC 362X4 STS ELEMENTS

		PERCENT MEMBERS PERFORMING				
	TNG EMP	1ST JOB	1ST ENL	5- LVL	7- LVL	TSK DIF
18B(1). UNDERGROUND						
L421 CONNECT OR DISCONNECT FIBER OPTIC CABLES TO OR FROM INTERFACE EQUIPMENT	2.29	1	1	2	3	6.46
L437 MEASURE MAXIMUM PULLING TENSION IN FIBER OPTIC CABLES	1.67	0	0	0	1	7.27
L457 REMOVE OR REPLACE FIBER OPTIC CABLES UNDERGROUND USING ONE DIRECTION HAND PULL METHOD	1.36	0	0	0	1	6.67
L458 REMOVE OR REPLACE FIBER OPTIC CABLES UNDERGROUND USING ONE DIRECTION MACHINE PULL METHOD	1.31	0	0	0	1	6.53
L459 REMOVE OR REPLACE FIBER OPTIC CABLES UNDERGROUND USING TWO DIRECTION HAND PULL METHOD	1.36	0	0	0	1	6.37
L460 REMOVE OR REPLACE FIBER OPTIC CABLES UNDERGROUND USING TWO DIRECTION MACHINE PULL METHOD	1.31	0	0	0	1	6.37
18B(2). AERIAL						
L451 REMOVE OR REPLACE AERIAL FIBER OPTIC CABLE SPLICE HOUSINGS	1.38	0	0	0	1	7.02
L452 REMOVE OR REPLACE AERIAL FIBER OPTIC CABLES	1.31	0	0	0	1	6.77
18B(3). DIRECT BURIED						
L454 REMOVE OR REPLACE BURIED FIBER OPTIC CABLES USING TRENCHING METHOD	1.18	0	0	0	1	6.34
L457 REMOVE OR REPLACE FIBER OPTIC CABLES UNDERGROUND USING ONE DIRECTION HAND PULL METHOD	1.36	0	0	0	1	6.67
L458 REMOVE OR REPLACE FIBER OPTIC CABLES UNDERGROUND USING ONE DIRECTION MACHINE PULL METHOD	1.31	0	0	0	1	6.53

TABLE 15 (CONTINUED)

UNSUPPORTED AFSC 362X4 STS ELEMENTS

		PERCENT MEMBERS PERFORMING				
	TNG EMP	1ST JOB	1ST ENL	5- LVL	7- LVL	TSK DIF
18B(3). DIRECT BURIED						
L459 REMOVE OR REPLACE FIBER OPTIC CABLES UNDERGROUND USING TWO DIRECTION HAND PULL METHOD	1.36	0	0	0	1	6.37
L460 REMOVE OR REPLACE FIBER OPTIC CABLES UNDERGROUND USING TWO DIRECTION MACHINE PULL METHOD	1.31	0	0	0	1	6.37
18B(4). PLOWED						
L453 REMOVE OR REPLACE BURIED FIBER OPTIC CABLES USING PLOWING METHOD	1.18	0	0	0	1	6.47
18B(5). INNER DUCT						
L421 CONNECT OR DISCONNECT FIBER OPTIC CABLES TO OR FROM INTERFACE EQUIPMENT	2.29	1	1	2	3	6.46
L437 MEASURE MAXIMUM PULLING TENSION IN FIBER OPTIC CABLES	1.67	0	0	0	1	7.27
L439 OFF REEL FIBER OPTIC CABLES IN FIGURE 8 LOOP	1.67	0	0	0	1	6.75
18C(1). SPLICE POINT TO POINT						
L470 SPLICE FIBER OPTIC CABLES USING POINT-TO-POINT METHOD	1.71	0	0	0	1	6.95
L472 SPLICE SINGLE MODE FIBERS USING POINT-TO-POINT METHOD	1.73	0	0	0	1	6.84
18C(2). HAND TOOLS						
L469 SPLICE FIBER OPTIC CABLES USING HAND TOOLS	1.82	0	0	1	2	7.02
L471 SPLICE SINGLE MODE FIBERS USING HAND TOOLS	1.82	0	0	1	1	6.77

TABLE 15 (CONTINUED)

UNSUPPORTED AFSC 362X4 STS ELEMENTS

		PERCENT MEMBERS PERFORMING				
	TNG EMP	1ST JOB	1ST ENL	5- LVL	7- LVL	TSK DIF
18C(3)(A). WET SPLICE						
I352 WET SPLICE CABLES	.67	2	5	5	3	4.79
18C(4). FUSION SPLICE						
I330 FUSION SPLICE CABLES	1.24	1	1	2	2	6.01
18D. SPLICE CLOSURES						
I346 SPLICE CLOSURES	1.29	7	9	8	4	5.57
L422 HAND POLISH FIBER OPTIC CONNECTORS	2.18	1	2	2	2	6.97
L423 HAND POLISH FIBERS IN FIBER OPTIC CABLES	2.07	1	1	1	2	6.73
L468 SEAL FIBER OPTIC SPLICES	1.67	0	0	0	1	7.07
18E(1). OPTICAL TIME DOMAIN REFLECTOMETER						
L433 MEASURE ATTENUATION USING OPTICAL TIME DOMAIN REFLECTOMETERS (OTDR)	1.96	0	0	0	3	7.29
L436 MEASURE DISTANCES USING OTDRs	1.93	0	0	1	2	6.94
L438 MEASURE SPLICE LOSS USING OTDRs	1.93	0	0	0	2	7.34
18E(2). OPTICAL POWER METER						
L434 MEASURE CONNECTOR LOSS USING OPTICAL POWER MULTIMETER SINGLE METER METHOD	1.91	0	0	0	2	6.82
L435 MEASURE CONNECTOR LOSS USING OPTICAL POWER MULTIMETER TWO METER METHOD	1.91	0	0	0	2	6.75

TABLE 15 (CONTINUED)

UNSUPPORTED AFSC 362X4 STS ELEMENTS

		PERCENT MEMBERS PERFORMING				
	TNG EMP	1ST JOB	1ST ENL	5- LVL	7- LVL	TSK DIF
18E(3). FIBER OPTIC VOICE COMMUNICATION						
L441 OPERATE FIBER OPTIC TALK SETS	1.78	0	0	0	1	6.82
18H. TROUBLESHOOT T-CARRIER EQUIPMENT						
L431 ISOLATE MALFUNCTIONS TO T-CARRIERS	1.87	1	1	2	1	7.28
L467 REMOVE OR REPLACE T-CARRIERS	1.80	3	2	1	1	6.71
19C(1). COAXIAL CABLES						
I335 REMOVE OR REPLACE COAXIAL CABLES	2.31	15	18	14	9	4.47

TABLE 16

TASKS WITH HIGH TE NOT MATCHED TO AFSC 362X4 STS

TASKS		TNG EMP	PERCENT MEMBERS PERFORMING 1ST JOB	1ST ENL	5- LVL	7- LVL	TSK DIF
A12	DETERMINE TELEPHONE MAINTENANCE REQUIREMENTS	3.82	33	41	44	51	5.45
F218	REMOVE OR REPLACE DIRECT LINES	5.58	84	81	73	35	4.42
F228	REMOVE OR REPLACE MULTIPLE PAIR PROTECTED TERMINALS	4.20	38	39	33	14	4.40
H298	ISOLATE MALFUNCTIONS TO INTERMEDIATE OR MAINFRAMES	5.22	48	54	55	27	4.88
H305	ISOLATE MALFUNCTIONS TO MULTIPLE PAIR PROTECTED TERMINALS	4.76	34	43	40	17	5.07
I345	SHIELD CABLE FOR SECURE TELEPHONES	3.80	31	35	34	17	5.07
K390	BENCH CHECK HANDSETS, OTHER THAN PUSH-TO-TALK HANDSETS	3.93	67	67	59	27	3.86
K392	BENCH CHECK MULTILINE TELEPHONES	5.44	78	75	68	32	4.37
K393	BENCH CHECK PUSH-TO-TALK HANDSETS	4.11	57	62	56	26	3.97
K394	BENCH CHECK SINGLELINE TELEPHONES, OTHER THAN EXPLOSION OR WEATHERPROOF TELEPHONES	5.02	75	73	67	38	3.98
K395	BENCH CHECK WEATHERPROOF TELEPHONES	4.07	40	48	49	23	4.11
R586	REHABILITATE WIRING IN KEY TELEPHONE CABINETS	4.31	54	54	50	21	5.11

TE MEAN = 2.33 S.D. = 1.49
TD MEAN = 5.00 S.D. = 1.00

Electronic Principles Specialty Training Standard

Responses of the 180 AFSC 36254 personnel who completed the EPI in 1988 were matched to the AFSC 362X4 Electronic Principles/Applications STS. Results show the subjects listed in Table 17 are not supported, meaning less than 20 percent of the AFSC 36254 personnel taking the EPI responded with a "yes" to questions asking if they use the related principle, skill, or equipment. School personnel need to review these data to determine if these subjects should be retained in the basic course.

In addition, EPI data show more than 20 percent of AFSC 36254 EPI respondents indicated they use the principle, skill, or equipment for the subjects listed in Table 18. As these topics are not being currently taught, school personnel should review the topics in Table 18 to determine if they should be included in the course.

Plan of Instruction (POI)

The same 3750 TCHTG personnel also matched inventory tasks to learning objectives of the Telephone and Data Circuitry Equipment POI, dated Jun 89. A computer product was created for the POI listing the learning objectives, tasks matched, percent first-job, first-enlistment and 5-skill level members performing, TE, TD, and ATI values.

Blocks I1 through I4 cover introductory materials and were not reviewed, while blocks I5 through VI4, dealing with technical topics, were. Each learning objective with tasks matched to it was reviewed using criteria found in ATCR 55-22, Attachment 1 (Feb 89). Any objective matched to tasks performed by less than 30 percent first-job or first-enlistment members is considered unsupported and should be taught by OJT, unless there is sufficient justification (i.e., criticality) to keep it in the entry-level course.

Using the criteria set forth in ATCR 52-22, all learning objectives matched to tasks were supported. There were several objectives, with no matched tasks, that could not be evaluated. These deal with analyzing key telephone circuits, 1A2 circuit cards, and key system expansion. Survey data show more than 30 percent of first-enlistment AFSC 362X4 personnel install or maintain these items, which suggests these topics are appropriate for the entry-level course. School personnel and subject-matter experts should review these unmatched objectives to ensure they are appropriate for the POI.

There are also a number of tasks having high TE ratings, performed by more than 30 percent of first-job or first-enlistment personnel, having moderate TD ratings, that were not matched to the POI (see Table 19).

TABLE 17

UNSUPPORTED ELECTRONIC FUNDAMENTALS/APPLICATIONS STS ELEMENTS

		PERCENT MEMBERS SAYING YES 36254 (N=180)
3B.	BASIC AC CIRCUIT CALCULATIONS	
A7	DO YOU CALCULATE VALUES OF AC EFFECTIVE VOLTAGE, AVERAGE VOLTAGE, OR PEAK-TO-PEAK VOLTAGE	17
A8	DO YOU CALCULATE VALUES OF FREQUENCY, PHASE RELATIONSHIPS, OR WAVE LENGTH	11
6A.	INDUCTORS - THEORY OF OPERATION	
A20	DO YOU TRACE SCHEMATIC OR BLOCK DIAGRAMS OF CIRCUITS CONTAINING INDUCTORS, CHOKES, OR CHOKE COILS	19
A25	DO YOU CALIBRATE OR ADJUST CIRCUITS BY USING VARIABLE INDUCTORS	3
6B.	ISOLATE FAULTY INDUCTORS	
A21	DO YOU TROUBLESHOOT CIRCUITS TO ISOLATE A FAULTY INDUCTOR, CHOKE, OR CHOKE COIL	8
A26	DO YOU OHM CHECK INDUCTORS	5
18A.	THEORY OF METER MOVEMENT OPERATIONS	
A80	DO YOU TRACE SCHEMATIC OR BLOCK DIAGRAMS OF CIRCUITS CONTAINING METER MOVEMENTS	5
A82	DO YOU PERFORM MAINTENANCE ON METER MOVEMENT MECHANICAL PARTS	3
19C.	SPECIFICATIONS OF SOLID STATE DIODES	
A86	DO YOU USE DIODE CHARACTERISTIC CURVES	4
A87	DO YOU USE DIODE SUBSTITUTION INFORMATION	4
22A.	THEORY OF SOLID STATE SPECIAL PURPOSE DEVICES	
A98	DO YOU TRACE SCHEMATICS OR BLOCK DIAGRAMS OF CIRCUITS CONTAINING SOLID-STATE SPECIAL PURPOSE DEVICES	14
A104	DO YOU PERFORM TASKS ON ZENER DIODES	14
A107	DO YOU PERFORM TASKS ON LIGHT EMITTING DIODES	15

TABLE 17 (CONTINUED)

UNSUPPORTED ELECTRONIC FUNDAMENTALS/APPLICATIONS STS ELEMENTS

		PERCENT MEMBERS SAYING YES 36254 (N=180)
24A.	THEORY OF CATHODE RAY TUBE OPERATION	
A135	DO YOU TRACE BLOCK DIAGRAMS OF CIRCUITS CONTAINING CATHODE RAY TUBES (CRT)	1
A136	DO YOU TRACE SCHEMATIC DIAGRAMS OF CRT CIRCUITS	1
27B.	USE OSCILLOSCOPES	
B161	DO YOU USE THE OSCILLOSCOPES TO MEASURE TIME TO DETERMINE FREQUENCY	4
B162	DO YOU USE THE OSCILLOSCOPES TO MEASURE TIME (RISE, FALL, PULSE WIDTH, ETC)	4
B163	DO YOU USE THE OSCILLOSCOPES TO MEASURE AC VOLTAGE	7
B164	DO YOU USE THE OSCILLOSCOPES TO MEASURE DC VOLTAGE	8
B165	DO YOU USE THE OSCILLOSCOPES TO MEASURE RIPPLE VOLTAGES	2
B166	DO YOU USE THE OSCILLOSCOPES TO MEASURE PHASE JITTERS	3
27C.	USE SIGNAL GENERATOR	
B172	DO YOU USE SIGNAL GENERATORS (SG) TO PERFORM OPERATIONAL CHECKS	11
B172	DO YOU USE (SG) TO PERFORM ALIGNMENTS, ADJUSTMENTS, OR CALIBRATIONS	9
B172	DO YOU USE (SG) TO TROUBLESHOOT CIRCUITS	16
28A(1).	TRANSISTOR AMPLIFIER CIRCUITS	
C199	DO YOU TRACE BLOCK DIAGRAMS OF CIRCUITS CONTAINING TRANSISTOR AMPLIFIERS	9
C200	DO YOU TRACE SCHEMATIC DIAGRAMS OF TRANSISTOR AMPLIFIER CIRCUITS	8
C211	DO YOU WORK ON AUDIO TRANSISTOR AMPLIFIERS	4
28A(2).	TRANSISTOR STABILIZATION CIRCUITS	
C218	DO YOU TRACE SCHEMATIC DIAGRAMS OF AMPLIFIER STABILIZATION CIRCUITS	1
C220	DO YOU PERFORM TASKS ON EMITTER (SWAMPING) RESISTOR STABILIZATION AMPLIFIERS	1
C221	DO YOU PERFORM TASKS ON SELF-BIAS STABILIZATION AMPLIFIERS	1

TABLE 17 (CONTINUED)

UNSUPPORTED ELECTRONIC FUNDAMENTALS/APPLICATIONS STS ELEMENTS

		PERCENT MEMBERS SAYING YES 36254 (N=180)
28A(3). TRANSISTOR COUPLING CIRCUITS		
C225	DO YOU TRACE BLOCK DIAGRAMS OF CIRCUITS CONTAINING COUPLING CIRCUITS	5
C226	DO YOU TRACE SCHEMATIC DIAGRAMS OF COUPLING CIRCUITS	4
C229	DO YOU PERFORM TASKS ON DIRECT COUPLING CIRCUITS	3
30A. THEORY OF OPERATIONAL AMPLIFIERS		
C261	DO YOU USE OR APPLY OP AMPS FOR POWER SUPPLIES (VOLTAGE REGULATORS)	6
C249	DO YOU TRACE BLOCK OR SCHEMATIC DIAGRAMS OF CIRCUITS CONTAINING OPERATIONAL AMPLIFIERS (OP AMPS)	2
C251	DO YOU CALCULATE OP AMP GAIN	2
C252	DO YOU ADJUST OP AMP BIAS, OFFSETS, OR DRIFT	1
33A(2). POWER SUPPLY CIRCUIT FILTERS		
D288	DO YOU TRACE BLOCK DIAGRAMS OF CIRCUITS CONTAINING POWER SUPPLY FILTERS	8
D289	DO YOU TRACE SCHEMATIC DIAGRAMS OF POWER SUPPLY FILTERS	6
D292	DO YOU PERFORM TASKS ON CAPACITIVE POWER SUPPLY FILTERS	6
40A. CONVERSION OF DIGITAL NUMBERING SYSTEMS		
G389	DO YOU CONVERT DECIMAL NUMBERS TO BINARY OR BINARY NUMBERS TO DECIMAL	2
G391	DO YOU CONVERT HEXADECIMAL NUMBERS TO BINARY OR BINARY NUMBERS TO HEXADECIMAL	1
G392	DO YOU CONVERT OCTAL NUMBERS TO DECIMAL OR DECIMAL TO OCTAL	1
40B. MATH OPERATIONS OF DIGITAL NUMBERING SYSTEMS		
G396	DO YOU ADD BINARY NUMBERS	3
G397	DO YOU SUBTRACT BINARY NUMBERS	3
G398	DO YOU MULTIPLY BINARY NUMBERS	3
G399	DO YOU DIVIDE BINARY NUMBERS	3

TABLE 17 (CONTINUED)

UNSUPPORTED ELECTRONIC FUNDAMENTALS/APPLICATIONS STS ELEMENTS

		PERCENT MEMBERS SAYING YES 36254 (N=180)
40C.	BINARY CODE SYSTEMS	
G404	DO YOU USE BINARY CODED DECIMAL (BCD)	1
G405	DO YOU USE GREY CODES	1
G406	DO YOU USE ICAD CODES	1
41A.	THEORY OF DIGITAL LOGIC FUNCTIONS	
G412	DO YOU TRACE DATA FLOW THROUGH LOGIC SYMBOL DIAGRAMS	2
G413	DO YOU TRACE DATA FLOW THROUGH LOGIC SCHEMATIC DIAGRAMS	2
G419	DO YOU PERFORM TASKS RELATED TO AND GATES	2
G420	DO YOU PERFORM TASKS RELATED TO OR GATES	2
41D.	LOGIC FAMILIES (TTL AND CMOS)	
G438	DO YOU PERFORM TASKS ON RTL (RESISTOR TRANSISTOR LOGIC FORMALLY DCTL)	1
G439	DO YOU PERFORM TASKS ON DTL (DIODE TRANSISTOR LOGIC)	1
G443	DO YOU PERFORM TASKS ON CMOS (COMPLEMENTARY METAL OXIDE SEMICONDUCTOR)	1
42A.	BOOLEAN EQUATIONS - DIAGRAM TO EQUATION	
G435	DO YOU DEVELOP BOOLEAN EQUATIONS FROM LOGIC CIRCUITS OR DIAGRAMS	1
42B.	BOOLEAN EQUATIONS - EQUATION TO DIAGRAM	
G436	DO YOU DEVELOP LOGIC DIAGRAMS FROM BOOLEAN EQUATIONS	1
42C.	BOOLEAN EQUATIONS - SIMPLIFY EXPRESSIONS	
G437	DO YOU SIMPLIFY BOOLEAN EXPRESSIONS USING BOOLEAN ALGEBRA	1
43A.	COMPUTERS - OPERATION PRINCIPLES	
G447	DO YOU TRACE BLOCK OR SCHEMATIC DIAGRAMS OF COMPUTER CONTROLLED OR COMPUTER BASED SYSTEMS	4
G454	DO YOU PERFORM TASKS ON ANALOG COMPUTERS	3
G455	DO YOU PERFORM TASKS ON DIGITAL COMPUTERS	3

TABLE 17 (CONTINUED)

UNSUPPORTED ELECTRONIC FUNDAMENTALS/APPLICATIONS STS ELEMENTS

		PERCENT MEMBERS SAYING YES 36254 (N=180)
43F.	COMPUTERS - TYPES OF MEMORIES	
G466	DO YOU PERFORM TASKS ON MAGNETIC (TAPE, DISC, CORE) COMPUTER MEMORIES	7
G467	DO YOU PERFORM TASKS ON SEMICONDUCTOR (RAM, ROM, PEROM, PROM) COMPUTER MEMORIES	6
G469	DO YOU PERFORM TASKS ON ADVANCED TECHNOLOGY (BUBBLE, CCD, ELECTRON BEAM, LASER, THIN FILM) COMPUTER MEMORIES	1
43G.	COMPUTERS - PERIPHERAL DEVICES	
G470	DO YOU PERFORM TASKS ON COMPUTER KEYBOARDS	8
G471	DO YOU PERFORM TASKS ON COMPUTER CHARACTER PRINTERS	6
G472	DO YOU PERFORM TASKS ON MAGNETIC TAPE DRIVES	3
43H.	COMPUTERS - PROGRAMMING LANGUAGES	
G456	DO YOU USE BASIC COMPUTER LANGUAGE	5
G457	DO YOU USE COBOL COMPUTER LANGUAGE	2
G456	DO YOU USE FORTRAN COMPUTER LANGUAGE	1
G456	DO YOU USE BASIC COMPUTER LANGUAGE	1
44A.	THEORY OF MICROPROCESSOR CONTROLLED SYSTEM OPERATION	
G485	DO YOU TRACE BLOCK OR SCHEMATIC DIAGRAMS OF MICROPROCESSOR CONTROLLED SYSTEMS	2
45A(1).	LOGIC CIRCUITS - COUNTERS	
G491	DO YOU PERFORM TASKS ON UP COUNTERS IN LOGIC CIRCUITS	2
G492	DO YOU PERFORM TASKS ON DOWN COUNTERS IN LOGIC CIRCUITS	2
45A(2).	LOGIC CIRCUITS - REGISTERS	
G501	DO YOU PERFORM TASKS ON SHIFT REGISTERS IN LOGIC CIRCUITS	2
G502	DO YOU PERFORM TASKS ON STORAGE REGISTERS IN LOGIC CIRCUITS	2

TABLE 17 (CONTINUED)

UNSUPPORTED ELECTRONIC FUNDAMENTALS/APPLICATIONS STS ELEMENTS

		PERCENT MEMBERS SAYING YES 36254 (N=180)
45A(3).	LOGIC CIRCUITS - COMBINATIONAL LOGIC CIRCUITS	
G503	DO YOU TRACE DATA FLOW THROUGH COMBINATIONAL LOGIC CIRCUITS	2
G506	DO YOU PERFORM TASKS ON ENCODERS	2
G507	DO YOU PERFORM TASKS ON DECODERS	2
46A.	THEORY OF A/D, D/A CONVERTER OPERATION	
G516	DO YOU TRACE DATA FLOW THROUGH A/D CONVERTERS	2
G517	DO YOU TRACE DATA FLOW THROUGH D/A CONVERTERS	2
55A.	THEORY OF MICROPHONE OPERATION	
J668	DO YOU TRACE BLOCK DIAGRAMS OF CIRCUITS CONTAINING MICROPHONES	16
J669	DO YOU TRACE SCHEMATIC DIAGRAMS OF CIRCUITS CONTAINING MICROPHONES	13
J672	DO YOU WORK ON CARBON MICROPHONES	15
J675	DO YOU WORK ON DYNAMIC MICROPHONES	3
55B.	ISOLATE FAULTY MICROPHONES	
J670	DO YOU TROUBLESHOOT TO ISOLATE A FAULTY MICROPHONE	16
56C.	SPEAKERS - TROUBLESHOOT CIRCUITS	
J680	DO YOU TROUBLESHOOT SPEAKERS	15

TABLE 18

ELECTRONIC FUNDAMENTALS/APPLICATIONS STS ELEMENTS NOT CURRENTLY BEING TAUGHT THAT ARE SUPPORTED BY EPI DATA

		PERCENT MEMBERS SAYING YES 36254 (N=180)
20B.	ISOLATE FAULTY BIPOLAR JUNCTION TRANSISTORS	
A90	DO YOU TROUBLESHOOT CIRCUITS TO ISOLATE A FAULTY TRANSISTOR	22
A91	DO YOU CHECK TRANSISTORS USING AN OHMMETER	16
A92	DO YOU CHECK TRANSISTORS USING TRANSISTOR TESTERS	7
47A.	THEORY OF TRANSMISSION LINES	
H531	DO YOU PERFORM TASKS ON OPEN-WIRE TRANSMISSION LINES	24
H532	DO YOU PERFORM TASKS ON TWISTED PAIR TRANSMISSION LINES	44
47D.	ISOLATE FAULTY TRANSMISSION LINES	
H530	DO YOU TROUBLESHOOT TRANSMISSION LINES	37

TABLE 19

TASKS WITH HIGH TE NOT MATCHED TO 3ABR36234 POI

TASKS NOT REFERENCED		TNG EMP	ATI	PERCENT MEMBERS PERFORMING 1ST JOB	1ST ENL	TSK DIF
F227	REMOVE OR REPLACE MULTILINE SYSTEMS	5.96	18	73	71	5.28
F218	REMOVE OR REPLACE DIRECT LINES	5.58	18	84	81	4.42
K392	BENCH CHECK MULTILINE TELEPHONES	5.44	18	78	75	4.37
H298	ISOLATE MALFUNCTIONS TO INTERMEDIATE OR MAINFRAMES	5.22	18	48	54	4.88
K394	BENCH CHECK SINGLELINE TELEPHONES, OTHER THAN EXPLOSION OR WEATHERPROOF TELEPHONES	5.02	18	75	73	3.98
F212	PLAN LOCATIONS OF EQUIPMENT OR SUPPLIES WITH SUBSCRIBERS	4.91	18	62	68	5.28
Q534	CONSTRUCT EQUIPMENT BACKBOARDS	4.82	18	70	69	4.83
R589	REMOVE OR REPLACE INTERCOMMUNICATIONS SYSTEMS	4.76	18	50	50	5.16
R593	REMOVE OR REPLACE POWER SUPPLIES	4.69	18	76	76	4.30
R597	REMOVE OR REPLACE 1A2 KTSS	4.58	18	75	73	5.16
K405	MODIFY INSTRUMENTS FOR SECURE AREAS	4.53	12	43	46	5.60
F221	REMOVE OR REPLACE GROUND RODS	4.47	12	33	40	3.96
F202	INTERPRET BLUEPRINTS	4.42	18	41	51	5.34
J360	ISOLATE MALFUNCTIONS TO DATA LINES	4.42	18	59	65	5.16
K418	REMOVE OR REPLACE PUSH-TO-TALK HANDSETS	4.40	18	73	77	3.56
H312	ISOLATE MALFUNCTIONS TO SINGLELINE SYSTEMS	4.38	18	68	70	4.55
R586	REHABILITATE WIRING IN KEY TELEPHONE CABINETS	4.31	18	54	54	5.11
F228	REMOVE OR REPLACE MULTIPLE PAIR PROTECTED TERMINALS	4.20	12	38	39	4.40
K403	ISOLATE MALFUNCTIONS TO PUSH-TO-TALK HANDSETS	4.18	18	62	70	4.08
J376	PROVIDE CIRCUIT PATHS FOR DATA LINES	4.16	18	63	67	4.86
K393	BENCH CHECK PUSH-TO-TALK HANDSETS	4.11	18	57	62	3.97
J361	ISOLATE MALFUNCTIONS TO DURESS/INTRUSION ALARM CIRCUITS	4.09	12	35	43	4.96
J363	ISOLATE MALFUNCTIONS TO FIRE ALARM CIRCUITS	4.07	18	42	50	4.89
K395	BENCH CHECK WEATHERPROOF TELEPHONES	4.07	12	40	48	4.11
K390	BENCH CHECK HANDSETS, OTHER THAN PUSH-TO-TALK HANDSETS	3.93	18	67	67	3.86
F205	LOCATE OR MARK POSITIONING OF EQUIPMENT ON PLANS OR SPECIFICATIONS	3.89	18	53	59	4.66
F220	REMOVE OR REPLACE GATE PHONES	3.87	18	41	50	4.23

TE MEAN = 2.33 S.D. = 1.49
TD MEAN = 5.00 S.D. = 1.00

Summary

Most of the STS and POI are supported by survey data using criteria set forth in AFR 8-13/ATC Sup 1 and ATCR 52-22, Atch 1. Training personnel may need to review the two learning objectives not supported by survey data to determine if material covered by these two objectives should be taught in the entry-level course.

JOB SATISFACTION

Respondents were asked to indicate how interested they are in their jobs, if they feel their talents and training are being used, and if they intend to reenlist. Satisfaction indicators for TAFMS groups in the present study were compared to those of members of 17 related AFSCs surveyed in 1988 (Table 20). Overall indicators are higher for AFSC 362X4 personnel than those expressed by members of related mission equipment maintenance specialties. Fewer career AFSC 362X4 personnel, however, feel their talents and training are used better than their counterparts in the related specialties.

Satisfaction indicators for TAFMS groups in the present study were also compared to figures reported in the 1981 OSR (Table 21). While overall indicators for both studies are quite similar, a slightly higher percentage of first-enlistment personnel in the present study find their jobs interesting and feel their talents and training are being used. Reenlistment intentions, on the other hand, are noticeably higher for members in the current study. Overall, satisfaction indicators have remained quite stable over the last 8 years.

Satisfaction indicators for members of the clusters and independent jobs are shown in Table 22. Most respondents find their work interesting, except those in the Combat Communications cluster, who find their job least interesting and feel their talents and training are used the least. Respondents with the training and supply jobs also feel their talents and training are not being used as well as they could. Reenlistment intentions for all groups, however, are fairly high.

Summary

Satisfaction of AFSC 362X4 personnel and members of similar AFSCs surveyed in 1988 were compared and data show AFSC 362X4 personnel have somewhat higher satisfaction indicators than their counterparts in other AFSCs. Overall, satisfaction has increased slightly over the last 8 years. Members of most clusters and jobs find their work interesting, feel their talents and training are used, and plan to reenlist, with the exception of those in the Combat Communications cluster who have the lowest satisfaction indicators.

TABLE 20

COMPARISON OF JOB SATISFACTION INDICATORS FOR 362X4 TAFMS GROUPS IN CURRENT STUDY TO A COMPARATIVE SAMPLE (PERCENT MEMBERS RESPONDING)

	1-48 MONTHS TAFMS		49-96 MONTHS TAFMS		97+ MONTHS TAFMS	
	362X4 (N=303)	COMP SAMPLE (N=6,152)	362X4 (N=190)	COMP SAMPLE (N=4,464)	362X4 (N=249)	COMP SAMPLE (N=6,451)
EXPRESSED JOB INTEREST:						
INTERESTING	88	73	81	71	78	73
SO-SO	7	17	11	16	11	16
DULL	5	10	8	12	9	10
PERCEIVED USE OF TALENTS:						
FAIRLY WELL TO GOOD	88	80	81	78	77	80
LITTLE OR NOT AT ALL	12	19	19	22	22	20
PERCEIVED USE OF TRAINING:						
FAIRLY WELL TO GOOD	88	83	77	74	71	74
LITTLE OR NOT AT ALL	12	17	23	26	29	26
REENLISTMENT INTENTIONS:						
WILL REENLIST	54	59	75	69	79	74
WILL NOT REENLIST	45	40	23	30	6	11
WILL RETIRE	*	*	0	*	14	14

* Denotes less than 1 percent
Comparative data were from 17 Mission Equipment Maintenance AFSCs surveyed in 1988

TABLE 21

COMPARISON OF JOB SATISFACTION INDICATORS FOR AFSC 362X4
TAFMS GROUPS IN CURRENT AND PREVIOUS STUDY
(PERCENT MEMBERS RESPONDING)

	1-48 MONTHS TAFMS		49-96 MONTHS TAFMS		97+ MONTHS TAFMS	
	1989 (N=303)	1981 (N=293)	1989 (N=190)	1981 (N=169)	1989 (N=249)	1981 (N=264)
EXPRESSED JOB INTEREST:						
INTERESTING	88	80	81	84	78	75
SO-SO	7	10	11	5	11	11
DULL	5	9	8	9	9	11
PERCEIVED USE OF TALENTS:						
FAIRLY WELL TO GOOD	88	84	81	85	77	77
LITTLE OR NOT AT ALL	12	15	19	14	22	21
PERCEIVED USE OF TRAINING:						
FAIRLY WELL TO GOOD	88	79	77	77	71	71
LITTLE OR NOT AT ALL	12	21	23	21	29	27
REENLISTMENT INTENTIONS:						
WILL REENLIST	54	31	75	69	79	66
WILL NOT REENLIST	45	67	23	29	6	10
WILL RETIRE	*	1	0	1	14	23

* Denotes less than 1 percent

TABLE 22

COMPARISON OF JOB SATISFACTION INDICATORS FOR MEMBERS OF 362X4 SPECIALTY JOBS
(PERCENT MEMBERS RESPONDING)

	INSTALL REPAIR (N=507)	COMBAT COMM (N=32)	SURVEY (N=62)	ADMIN SUPV (N=47)	LEASED EQUIP (N=8)	QUALITY CONTROL (N=9)	TRAINING (N=5)	SUPPLY (N=15)
EXPRESSED JOB INTEREST:								
INTERESTING	90	34	74	83	87	100	60	53
SO-SO	7	25	15	6	0	0	20	20
DULL	2	41	12	11	13	0	20	27
PERCEIVED USE OF TALENTS:								
FAIRLY WELL TO GOOD	91	28	68	87	75	100	60	74
LITTLE OR NOT AT ALL	9	72	31	13	25	0	40	26
PERCEIVED USE OF TRAINING:								
FAIRLY WELL TO GOOD	92	16	53	81	62	89	60	53
LITTLE TO NOT AT ALL	8	84	47	19	38	11	40	47
REENLISTMENT INTENTIONS:								
WILL REENLIST	67	69	76	75	64	89	60	80
WILL NOT REENLIST	30	22	21	12	13	11	20	20
WILL RETIRE	2	9	3	12	23	0	20	0

ANALYSIS OF COMMON TASKS

A joint survey was originally requested and developed to evaluate common tasks performed by AFSC 362X1, 362X3, and 362X4 personnel. Subsequently, the school requested individual surveys of each career ladder due to equipment changes in each specialty. Many common tasks, however, were retained in each of the three job inventories. These common tasks were identified and percent members of each specialty performing were compared (See Appendix B, Table B1).

Survey data show very few common tasks are performed by high percentages of members of all three AFSCs. Some tasks appear to be more specific to one specialty than the others, or are tasks members of two specialties perform. Some corrosion control tasks are performed by similar percentages of members of the three AFSCs, while fiber optic tasks, on the other hand, are performed by almost no one. School and functional personnel should review these common tasks before making decisions about restructuring the career field.

IMPLICATIONS

Overall, there have been no changes in the structure of the career ladder over the last 8 years. Survey data show most AFSC 362X4 personnel are telephone installers and repairmen, with smaller numbers in other jobs. Personnel progress normally through the career ladder with 3- and 5-skill level members performing mainly technical tasks and 7-skill level members performing a mixture of technical and supervisory tasks. This career ladder merges with others at the 9- and 00-skill levels. Survey data support the current AFR 39-1 specialty descriptions.

Job satisfaction indicators for this specialty are somewhat higher than those of related AFSCs surveyed in 1988. Overall, satisfaction has increased slightly over the last 8 years. Members of most clusters and jobs report they find their job interesting and feel their talents and training are used. Members in the Combat Communications cluster, however, have the lowest satisfaction indicators.

Most of the STS and POI for this career ladder are supported by survey data. There are a number of topics covered in the Electronic Fundamentals/ Applications STS that are not supported by EPI data. School personnel need to review these unsupported topics to determine if they should continue to be included in the training program.

AFSC 362X4 personnel perform a number of tasks common to AFSCs 362X1 and 362X4, but only a few are performed by more than 30 percent of the three specialties. These data suggest there is little overlap between the specialties. School and functional personnel need to review these tasks when considering restructuring the three specialties.

APPENDIX A

SELECTED REPRESENTATIVE TASKS PERFORMED BY MEMBERS OF CAREER LADDER JOBS

TABLE A1

TELEPHONE INSTALLATION AND REPAIR CLUSTER
STG034

NUMBER IN GROUP: 507
PERCENT OF SAMPLE: 86%

AVERAGE TIME IN JOB: 32 MONTHS
AVERAGE TAFMS: 62 MONTHS

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING:

TASKS		PERCENT MEMBERS PERFORMING
I350	TERMINATE CABLES WITH PUNCH-ON DEVICES	98
I351	TERMINATE JUMPERS	97
I339	REMOVE OR REPLACE JUMPERS	95
F213	REMOVE OR REPLACE AMPHENOL CONNECTORS	95
H301	ISOLATE MALFUNCTIONS TO JUMPERS	95
F223	REMOVE OR REPLACE INSIDE WIRING	93
F199	DRILL HOLES FOR MOUNTINGS OR CABLE RUNS	93
F196	CONNECT OR DISCONNECT INSIDE CABLES TO OR FROM CONNECTING BLOCKS OR JUNCTION BOXES	92
R568	ISOLATE MALFUNCTIONS WITHIN 1A2 KTSS	92
K402	ISOLATE MALFUNCTIONS TO MULTILINE TELEPHONES	92
K419	REMOVE OR REPLACE SINGLELINE TELEPHONES, OTHER THAN FIELD TELEPHONES	92
K417	REMOVE OR REPLACE MULTILINE TELEPHONES	91
G270	REMOVE OR REPLACE FUSES	91
F201	GROUND POWER SUPPLIES	91
I348	TERMINATE CABLES BY CONSTRUCTING AMPHENOL CONNECTORS	90
I331	MARK, CUT, STRIP, AND BUTT CABLES	89
K397	INSERT OR REMOVE DIAL CENTER CARDS AND NUMBERING STRIPS ON TELEPHONES	89
I333	REMOVE OR REPLACE CABLE RUNS	89
H287	ISOLATE MALFUNCTIONS TO CABLES	89
F206	MOVE FURNITURE FOR INSTALLATION OF EQUIPMENT	88
F226	REMOVE OR REPLACE MODULAR CONNECTING BLOCKS	88
H297	ISOLATE MALFUNCTIONS TO INSIDE WIRING	88
K404	ISOLATE MALFUNCTIONS TO SINGLELINE TELEPHONES, OTHER THAN FIELD TELEPHONES	87
R591	REMOVE OR REPLACE KEY TELEPHONE UNITS	86
K396	CLEAN TELEPHONE INSTRUMENT CASES	86
F204	INTERPRET FLOOR PLANS	85
H283	ISOLATE MALFUNCTIONS TO AMPHENOL CONNECTORS	85
Q556	TEST OR VERIFY BASE CABLE PAIRS	83
F203	INTERPRET DRAWINGS, DIAGRAMS, OR SCHEMATICS	84
K412	PERFORM RING-BACK OPERATIONAL CHECKS	83
F198	CROSS-CONNECT INTERMEDIATE OR MAINFRAMES	80

TABLE A2

COMBAT COMMUNICATIONS INDEPENDENT JOB
STG052

NUMBER IN GROUP: 32
PERCENT OF SAMPLE: 4%

AVERAGE TIME IN JOB: 29 MONTHS
AVERAGE TAFMS: 114 MONTHS

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

TASKS		PERCENT MEMBERS PERFORMING
S609	PACK OR UNPACK TELEPHONE INSTRUMENTS OR EQUIPMENT FOR MOBILIZATION	100
S606	OPERATE MANUAL CABLE REELING UNITS	100
S613	REMOVE OR REPLACE FIELD TELEPHONE BATTERIES	100
S601	ASSEMBLE OR DISASSEMBLE COMMUNICATION LINES	97
S612	PRACTICE MOBILIZATION ALERTS OR DEPLOYMENT EXERCISES	94
S602	CONNECT OR DISCONNECT CABLES TO OR FROM MOBILE EQUIPMENT VANS	94
S600	ASSEMBLE OR DISASSEMBLE CANTONMENT FACILITIES	94
S611	PLAN LOCATION OF FIELD CABLE RUNS	94
Q553	REMOVE OR REPLACE 407-L CABLES	88
S603	COORDINATE CIRCUIT ACTIVATION WITH TECHNICAL CONTROL AND TELEPHONE SWITCHING	88
K414	REMOVE OR REPLACE FIELD TELEPHONES	84
I337	REMOVE OR REPLACE FIELD WIRES	81
K398	ISOLATE MALFUNCTIONS TO FIELD TELEPHONES	78
S610	PERFORM SUPPORTIVE FUNCTIONS, SUCH AS SECURITY WATCH, FIRE WATCH, OR SANITATION	66
N489	INSPECT CABLES FOR CORROSION	66
Q544	REMOVE OR REPLACE CABLE HOCKS	63
Q537	ISOLATE MALFUNCTIONS TO CABLE HOCKS	63
S614	REVIEW MOBILE OPERATION PLANS	63
E126	CLEAN FACILITIES OR WORK AREAS	63
M483	PERFORM OPERATOR MAINTENANCE ON GOVERNMENT VEHICLES	59
K396	CLEAN TELEPHONE INSTRUMENT CASES	56
C75	WRITE APRs	56
E130	COMPLETE AF FORMS 1297 (TEMPORARY ISSUE RECEIPT)	53
E170	REVIEW CARDIOPULMONARY RESUSCITATION (CPR) PROCEDURES	50
D78	ANNOTATE ON-THE-JOB TRAINING (OJT) RECORDS	50
H287	ISOLATE MALFUNCTIONS TO CABLES	44

TABLE A3

TELEPHONE SURVEY INDEPENDENT JOB
STG053

NUMBER IN GROUP: 62
PERCENT OF SAMPLE: 8%

AVERAGE TIME IN JOB: 23 MONTHS
AVERAGE TAFMS: 106 MONTHS

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

TASKS		PERCENT MEMBERS PERFORMING
E166	PROCESS WORK ORDERS	92
A11	DETERMINE TELEPHONE INSTALLATION REQUIREMENTS	89
0502	EVALUATE SUBSCRIBER REQUESTS FOR EQUIPMENT OR SUPPLIES	89
0505	EVALUATE TELEPHONE SERVICE REQUEST SITES	82
A13	DETERMINE WORK PRIORITIES	82
F211	PERFORM SITE SURVEY EVALUATIONS	81
F212	PLAN LOCATIONS OF EQUIPMENT OR SUPPLIES WITH SUBSCRIBERS	81
0506	LOG REQUIREMENTS FOR TELEPHONE INSTALLATIONS	79
F204	INTERPRET FLOOR PLANS	76
0504	EVALUATE TELEPHONE EQUIPMENT WORK ORDER DISCREPANCIES	76
0510	REVIEW SUBSCRIBER REQUESTED COMMUNICATIONS LAYOUTS	74
A5	COORDINATE INSTALLATION OF EQUIPMENT WITH CONTRACT PERSONNEL OR ASSOCIATED SYSTEM PERSONNEL	74
P526	COORDINATE TELEPHONE INSTALLATION ACTIVITIES WITH BASE UNITS OR COMMERCIAL TELEPHONE COMPANIES	71
A9	DETERMINE EQUIPMENT OR SUPPLY REQUIREMENTS	71
E161	PREPARE COST ESTIMATES	66
F203	INTERPRET DRAWINGS, DIAGRAMS, OR SCHEMATICS	66
E123	ANNOTATE WORK ORDERS	65
0508	REVIEW COMMUNICATION SERVICE AUTHORIZATION FORMS	65
P520	ASSIGN DUE DATES	63
0503	EVALUATE TELEPHONE EQUIPMENT SERVICE CHARGES	61
0500	COORDINATE TELEPHONE INSTALLATION ACTIVITIES WITH INSIDE AND OUTSIDE PLANTS	60
0512	SKETCH INSTALLATION DESIGNS	58
F202	INTERPRET BLUEPRINTS	56
F205	LOCATE OR MARK POSITIONING OF EQUIPMENT ON PLANS OR SPECIFICATIONS	55
P524	COORDINATE LEASED EQUIPMENT CHARGES WITH APPROPRIATE AGENCIES	53
P521	ASSIGN WORK ORDER NUMBERS TO EQUIPMENT	48
E113	ANNOTATE CUSTOMER SERVICE REQUEST (CSR) LOGS	44
P528	UPDATE GOVERNMENT-OWNED TELEPHONE WORK ORDER REGISTERS	42

TABLE A4

LEASED EQUIPMENT MANAGEMENT INDEPENDENT JOB
STG132

NUMBER IN GROUP: 7
PERCENT OF SAMPLE: 1%

AVERAGE TIME IN JOB: 18 MONTHS
AVERAGE TAFMS: 137 MONTHS

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

TASKS		PERCENT MEMBERS PERFORMING
P526	COORDINATE TELEPHONE INSTALLATION ACTIVITIES WITH BASE UNITS OR COMMERCIAL TELEPHONE COMPANIES	100
P523	COORDINATE LEASE REQUIREMENTS WITH BASE PROCUREMENT OFFICES	100
P524	COORDINATE LEASED EQUIPMENT CHARGES WITH APPROPRIATE AGENCIES	86
P522	COORDINATE GOVERNMENT-OWNED EQUIPMENT CHARGES WITH APPROPRIATE AGENCIES	86
P529	UPDATE LEASED TELEPHONE WORK ORDER REGISTERS	86
P525	COORDINATE LEASED EQUIPMENT MALFUNCTIONS WITH COMMERCIAL TELEPHONE COMPANIES	86
P520	ASSIGN DUE DATES	71
P528	UPDATE GOVERNMENT-OWNED TELEPHONE WORK ORDER REGISTERS	71
A5	COORDINATE INSTALLATION OF EQUIPMENT WITH CONTRACT PERSONNEL OR ASSOCIATED SYSTEM PERSONNEL	58
F211	PERFORM SITE SURVEY EVALUATIONS	57
A4	COORDINATE EQUIPMENT MODIFICATION WITH CONTRACT PERSONNEL	57
F212	PLAN LOCATIONS OF EQUIPMENT OR SUPPLIES WITH SUBSCRIBERS	57
A11	DETERMINE TELEPHONE INSTALLATION REQUIREMENTS	43
A6	COORDINATE JOBS, OUTAGES, OR MAINTENANCE WITH JOB CONTROL	43
P521	ASSIGN WORK ORDER NUMBERS TO EQUIPMENT	43
A13	DETERMINE WORK PRIORITIES	43
E161	PREPARE COST ESTIMATES	43
E166	PROCESS WORK ORDERS	29
E113	ANNOTATE CUSTOMER SERVICE REQUEST (CSR) LOGS	29
E123	ANNOTATE WORK ORDERS	29
B29	DIRECT INSTALLATION OF TELEPHONE EQUIPMENT	29
P527	DETERMINE MODE OF TRANSPORT OF MATERIALS	29
F203	INTERPRET DRAWINGS, DIAGRAMS, OR SCHEMATICS	29
F204	INTERPRET FLOOR PLANS	29

TABLE A5

ADMINISTRATION AND SUPERVISION INDEPENDENT JOB
STG078

NUMBER IN GROUP: 47
PERCENT OF SAMPLE: 6%

AVERAGE TIME IN JOB: 26 MONTHS
AVERAGE TAFMS: 186 MONTHS

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

TASKS		PERCENT MEMBERS PERFORMING
C75	WRITE APRs	98
C49	COUNSEL PERSONNEL ON PERSONAL OR MILITARY-RELATED MATTERS	98
C67	REVIEW CORRESPONDENCE	91
C70	REVIEW OR INDORSE ENLISTED PERFORMANCE REPORTS (EPR)	91
A23	PREPARE BRIEFINGS	89
A1	ASSIGN PERSONNEL TO DUTY POSITIONS	89
A22	PLAN WORK ASSIGNMENTS	87
A13	DETERMINE WORK PRIORITIES	85
A17	ESTABLISH PERFORMANCE STANDARDS FOR PERSONNEL	83
C51	EVALUATE INSPECTION REPORT FINDINGS OR PROCEDURES	81
A3	CONDUCT MEETINGS, SUCH AS STAFF MEETINGS, COUNCIL MEETINGS, OR BOARD MEETINGS	79
A10	DETERMINE PERSONNEL REQUIREMENTS	79
A18	ESTABLISH WORK CONTROLS	79
A25	SCHEDULE LEAVES OR TEMPORARY DUTY (TDY) ASSIGNMENTS	79
C53	EVALUATE PERSONNEL FOR COMPLIANCE WITH PERFORMANCE STANDARDS	77
D78	ANNOTATE ON-THE-JOB TRAINING (OJT) RECORDS	77
B40	INTERPRET POLICIES, DIRECTIVES, OR PROCEDURES FOR PERSONNEL	74
A8	COORDINATE QUALITY CONTROL (QC) OR QUALITY ASSURANCE (QA) INSPECTIONS WITH INSPECTORS	74
C54	EVALUATE PERSONNEL FOR COMPLIANCE WITH SAFETY STANDARDS	72
C50	EVALUATE INDIVIDUALS FOR PROMOTION, DEMOTION, OR RECLASSIFICATION	72
E166	PROCESS WORK ORDERS	70
C57	EVALUATE UNIT OR WORKCENTER WORK STANDARDS	70
A11	DETERMINE TELEPHONE INSTALLATION REQUIREMENTS	70
B45	SUPERVISE TELEPHONE AND DATA CIRCUITRY EQUIPMENT SPECIALISTS (AFSC 36254)	64
C48	ANALYZE WORKLOAD REQUIREMENTS	64
B44	SUPERVISE MILITARY PERSONNEL WITH AFSC OTHER THAN 362X4	57

TABLE A6

QUALITY CONTROL INDEPENDENT JOB
STG065

NUMBER IN GROUP: 9
PERCENT OF SAMPLE: 1%

AVERAGE TIME IN JOB: 18 MONTHS
AVERAGE TAFMS: 131 MONTHS

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

TASKS		PERCENT MEMBERS PERFORMING
C62	PERFORM MAINTENANCE STANDARDIZATION EVALUATION PROGRAM (MSEP) INSPECTIONS	100
A24	SCHEDULE INSPECTIONS	100
C64	PERFORM TECHNICAL ADVISORY FUNCTIONS	100
E157	LOCATE TO NUMBERS AND TITLES USING INDEXES	100
C53	EVALUATE PERSONNEL FOR COMPLIANCE WITH PERFORMANCE STANDARDS	89
C51	EVALUATE INSPECTION REPORT FINDINGS OR PROCEDURES	89
C54	EVALUATE PERSONNEL FOR COMPLIANCE WITH SAFETY STANDARDS	89
C57	EVALUATE UNIT OR WORKCENTER WORK STANDARDS	89
B37	IMPLEMENT QUALITY CONTROL OR QUALITY ASSURANCE PROGRAMS	78
C63	PERFORM SELF-INSPECTIONS	78
E154	LOCATE INFORMATION IN ABBREVIATED TOS	78
A16	ESTABLISH ORGANIZATIONAL POLICIES, OPERATING INSTRUCTIONS (OI), OR STANDARD OPERATING PROCEDURES (SOP)	78
A23	PREPARE BRIEFINGS	78
E140	COMPLETE AFTO FORMS 22 (TECHNICAL ORDER SYSTEM PUBLICATION IMPROVEMENT REPORT AND REPLY)	78
A8	COORDINATE QUALITY CONTROL (QC) OR QUALITY ASSURANCE (QA) INSPECTIONS WITH INSPECTORS	67
C61	PERFORM EQUIPMENT-IN-PROGRESS INSPECTIONS	67
N489	INSPECT CABLES FOR CORROSION	67
N492	INSPECT FRAMES FOR CORROSION	67
E155	LOCATE INFORMATION IN METHODS AND PROCEDURES TOS	67
B33	IMPLEMENT CORROSION CONTROL PROGRAMS	67
N488	INSPECT BUS BARS FOR CORROSION	67
N486	INSPECT ATTENDANT CABINETS FOR CORROSION	67
N487	INSPECT BATTERIES FOR CORROSION	67
E156	LOCATE PART NUMBERS OR EQUIPMENT CLASSES USING SUPPLY INDEXES	67
B40	INTERPRET POLICIES, DIRECTIVES, OR PROCEDURES FOR PERSONNEL	56
N495	INSPECT STATION GROUNDS FOR CORROSION	56
D93	EVALUATE TRAINING METHODS OR TECHNIQUES	56
E188	UPDATE TO FILES AND TO COMPLIANCE RECORDS	56
C67	REVIEW CORRESPONDENCE	44

TABLE A7

TRAINING INDEPENDENT JOB
STG070

NUMBER IN GROUP: 5 AVERAGE TIME IN JOB: 32 MONTHS
PERCENT OF SAMPLE: LESS THAN 1% AVERAGE TAFMS: 136 MONTHS

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

TASKS		PERCENT MEMBERS PERFORMING
D80	CONDUCT OJT	100
D89	DEVELOP TRAINING PROGRAMS	100
D89	DEVELOP TRAINING PROGRAMS	100
D78	ANNOTATE ON-THE-JOB TRAINING (OJT) RECORDS	100
D83	CONDUCT TRAINING CONFERENCES OR BRIEFINGS	100
D81	CONDUCT RESIDENT COURSE CLASSROOM TRAINING	100
D91	EVALUATE PROGRESS OF OJT TRAINERS OR TRAINEES	100
D82	CONDUCT SKILL PERFORMANCE TESTS	100
D99	TRAIN PERSONNEL ON MAINTENANCE MANAGEMENT INFORMATION AND CONTROL SYSTEMS (MMICS)	100
D86	DETERMINE TRAINING REQUIREMENTS	80
D85	COUNSEL TRAINERS OR TRAINEES ON TRAINING PROGRESS	80
D77	ADMINISTER TESTS	80
D98	SCORE TESTS	80
D92	EVALUATE PROGRESS OF RESIDENT COURSE STUDENTS	80
D96	PROCURE TRAINING AIDS, SPACE, OR EQUIPMENT	80
D95	PREPARE LESSON PLANS	80
D93	EVALUATE TRAINING METHODS OR TECHNIQUES	80
D97	SCHEDULE PERSONNEL FOR TRAINING	80
D100	UPDATE STUDY REFERENCE FILES	80
C60	PARTICIPATE IN USAF GRADUATE EVALUATION PROGRAM	80
D84	CONSTRUCT TRAINING AIDS	80
D90	EVALUATE PERSONNEL FOR INDIVIDUAL TRAINING NEEDS	80
D79	ASSIGN OJT TRAINERS	80
C63	PERFORM SELF-INSPECTIONS	80
C67	REVIEW CORRESPONDENCE	60
D103	WRITE TRAINING REPORTS	60
D101	VERIFY ENROLLMENT OF PERSONNEL IN CAREER DEVELOPMENT COURSES (CDC)	60
C51	EVALUATE INSPECTION REPORT FINDINGS OR PROCEDURES	60
B40	INTERPRET POLICIES, DIRECTIVES, OR PROCEDURES FOR PERSONNEL	60
A3	CONDUCT MEETINGS, SUCH AS STAFF MEETINGS, COUNCIL MEETINGS, OR BOARD MEETINGS	40
C74	SELECT INDIVIDUALS FOR SPECIALIZED TRAINING	40

TABLE A8

SUPPLY INDEPENDENT JOB
STG071

NUMBER IN GROUP: 15
PERCENT OF SAMPLE: 2%

AVERAGE TIME IN JOB: 18 MONTHS
AVERAGE TAFMS: 93 MONTHS

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

TASKS		PERCENT MEMBERS PERFORMING
E132	COMPLETE AF FORMS 2005 (ISSUE/TURN IN REQUEST)	100
E130	COMPLETE AF FORMS 1297 (TEMPORARY ISSUE RECEIPT)	100
E107	ANNOTATE AF FORMS 2413 (SUPPLY CONTROL LOG)	100
A15	ESTABLISH BENCH STOCK REQUIREMENTS	93
E178	REVIEW MASTER BENCH STOCK LISTINGS	93
E119	ANNOTATE MASTER BENCH STOCK LISTINGS	93
E158	MAINTAIN TOOL KITS	87
E171	REVIEW DAILY DOCUMENT REGISTERS	87
E124	CHECK OUT OR RETURN TOOLS OR EQUIPMENT	80
E153	INVENTORY EQUIPMENT OR SUPPLIES	80
E189	VALIDATE SUPPLY PRIORITY MONITOR REPORTS	80
E173	REVIEW DD FORMS 1348-1	80
A9	DETERMINE EQUIPMENT OR SUPPLY REQUIREMENTS	73
E156	LOCATE PART NUMBERS OR EQUIPMENT CLASSES USING SUPPLY INDEXES	73
E172	REVIEW DAILY SUPPLY REGISTERS	73
E181	UNPACK OR VERIFY RECEIVED MATERIEL	60
E143	COMPLETE DD FORMS 1348-1 (DOD SINGLE LINE ITEM RELEASE/ RECEIPT DOCUMENT)	60
C63	PERFORM SELF-INSPECTIONS	60
F207	PACK OR TAG COMPONENTS OR SPARE PARTS	60
E118	ANNOTATE EQUIPMENT STATUS TAGS OR LABELS	60
E190	VERIFY STATUS OF SERVICEABLE OR CONDEMNED MATERIEL	60
E161	PREPARE COST ESTIMATES	53
K390	BENCH CHECK HANDSETS, OTHER THAN PUSH-TO-TALK HANDSETS	53
E169	REVIEW CA/CRLS	53
C75	WRITE APRs	53
E114	ANNOTATE DAILY SUPPLY REGISTERS	47
K393	BENCH CHECK PUSH-TO-TALK HANDSETS	47
0511	REVIEW SUPPLY PUBLICATIONS FOR AVAILABILITY OF EQUIPMENT OR SUPPLIES	40
0509	REVIEW MATERIEL CONTROL LOGS FOR AVAILABILITY OF EQUIPMENT OR SUPPLIES	40

APPENDIX B

PERCENTAGES OF AFSC 362X4 AND 362X1 PERSONNEL PERFORMING COMMON TASKS

TABLE B1

PERCENT 362X4, 362X1 AND 362X3 PERSONNEL PERFORMING COMMON TASKS

DUTY F. PERFORMING GENERAL MAINTENANCE		PERCENT PERFORMING 362X4 (N=742)	362X1 (N=628)	362X3 (N=83)
F194	ATTACH EQUIPMENT MOUNTINGS	51	15	15
F195	ATTACH IDENTIFICATION TAGS TO CABLE ENDS	39	13	5
F196	CONNECT OR DISCONNECT INSIDE CABLES TO OR FROM CONNECTING BLOCKS OR JUNCTION BOXES	66	29	29
F197	CONNECT OR DISCONNECT INSIDE WIRING TO OR FROM LINE PROTECTORS OR ELECTRICAL SURGE ARRESTORS (ESA)	45	19	48
F198	CROSS-CONNECT INTERMEDIATE OR MAINFRAMES	57	60	16
F199	DRILL HOLES FOR MOUNTINGS OR CABLE RUNS	65	19	27
F200	EVALUATE AVAILABILITY OF SUBSCRIBER REQUESTED EQUIPMENT	40	13	1
F201	GROUND POWER SUPPLIES	62	14	13
F202	INTERPRET BLUEPRINTS	47	19	7
F203	INTERPRET DRAWINGS, DIAGRAMS, OR SCHEMATICS	71	49	49
F204	INTERPRET FLOOR PLANS	72	24	8
F205	LOCATE OR MARK POSITIONING OF EQUIPMENT ON PLANS OR SPECIFICATIONS	53	12	11
F206	MOVE FURNITURE FOR INSTALLATION OF EQUIPMENT	62	26	18
F208	PERFORM PREVENTIVE MAINTENANCE INSPECTIONS (PMI) ON INTERMEDIATE OR MAINFRAMES	22	47	11
F209	PERFORM PMI ON RINGER UNITS	10	22	10
F210	PERFORM PMI ON TACTICAL SWITCHBOARDS	3	9	1
F211	PERFORM SITE SURVEY EVALUATIONS	47	8	7
F214	REMOVE OR REPLACE ANALOG MODEMS	13	6	2
F217	REMOVE OR REPLACE DIGITAL MODEMS	15	10	11
F222	REMOVE OR REPLACE GROUND WIRES	53	20	24
F223	REMOVE OR REPLACE INSIDE WIRING	67	44	37
F225	REMOVE OR REPLACE LINE FILTERS	29	5	34
F226	REMOVE OR REPLACE MODULAR CONNECTING BLOCKS	63	19	42
F232	REMOVE OR REPLACE SPADE-TIPPED CONNECTING BLOCKS	42	5	13
F233	REMOVE OR REPLACE TELEPHONE CABLE MOLDINGS	45	4	7
F235	SOLDER PRINTED CIRCUIT BOARDS USING HIGH RELIABILITY TECHNIQUES	6	9	22
F237	SOLDER TERMINALS USING HIGH RELIABILITY TECHNIQUES	21	28	43
F238	SOLDER TERMINALS USING OTHER THAN HIGH RELIABILITY TECHNIQUES	13	24	28
F239	STRAIGHTEN TERMINAL BLOCK TERMINALS	40	33	23
F240	TERMINATE FACTORY WIRING FAULTS	18	6	16
F241	WRAP OR UNWRAP TERMINALS	55	70	53

TABLE B1 (CONTINUED)

PERCENT 362X4, 362X1 AND 362X3 PERSONNEL PERFORMING COMMON TASKS

DUTY G. MAINTAINING SYSTEM COMPONENTS		PERCENT PERFORMING		
		362X4 (N=742)	362X1 (N=628)	362X3 (N=83)
G242	ADJUST OR ALIGN CIRCUIT CARDS OR ELECTRICAL CARD ASSEMBLIES	21	19	29
G243	ADJUST OR ALIGN COILS	2	3	4
G244	ADJUST OR ALIGN ELECTRICAL RELAYS	6	21	16
G245	ADJUST OR ALIGN ELECTRICAL SWITCHES	4	16	12
G246	ADJUST OR ALIGN MECHANICAL SWITCHES, OTHER THAN STEPPING SWITCHES	4	11	11
G247	ADJUST OR ALIGN PUSHBUTTON SWITCH CONTACTS	17	7	36
G248	ADJUST OR ALIGN RECEIVERS	16	4	12
G249	ADJUST OR ALIGN RELAY CONTACTS	9	25	16
G250	ADJUST OR ALIGN RESISTORS	2	5	28
G251	ADJUST OR ALIGN STEPPING SWITCHES	2	23	3
G252	ADJUST OR ALIGN SWITCH CONTACTS, OTHER THAN PUSHBUTTON TYPES	4	12	12
G253	ADJUST OR ALIGN TRANSFORMERS	2	2	8
G254	ADJUST OR ALIGN TRANSISTORS	1	1	5
G255	ADJUST OR ALIGN TRANSMITTERS	11	1	6
G256	ADJUST OR ALIGN WIPER CONTACTS	3	24	5
G257	ADJUST OR ALIGN WIPERS	2	24	4
G258	ASSEMBLE OR DISASSEMBLE ELECTRICAL SWITCHES	4	8	10
G259	ASSEMBLE OR DISASSEMBLE MECHANICAL SWITCHES	6	17	20
G260	MEASURE RESISTANCE LEVELS	31	50	70
G261	MEASURE VOLTAGE LEVELS	40	59	69
G262	PERFORM PREVENTIVE MAINTENANCE INSPECTIONS (PMI) ON ELECTRICAL SWITCHES	3	21	14
G263	PERFORM PMI ON MECHANICAL SWITCHES	2	25	6
G264	PERFORM PMI ON RELAYS	2	20	4
G265	REMOVE OR REPLACE CAPACITORS	5	12	39
G266	REMOVE OR REPLACE CIRCUIT CARDS OR ELECTRICAL CARD ASSEMBLIES	43	35	49
G267	REMOVE OR REPLACE COILS	4	11	23
G268	REMOVE OR REPLACE ELECTRICAL RELAYS	4	17	45
G269	REMOVE OR REPLACE ELECTRICAL SWITCHES	4	11	30
G270	REMOVE OR REPLACE FUSES	65	57	68
G271	REMOVE OR REPLACE LIGHT INDICATORS	42	30	48
G272	REMOVE OR REPLACE MECHANICAL RELAYS	5	20	27
G273	REMOVE OR REPLACE MECHANICAL SWITCHES, OTHER THAN STEPPING SWITCHES	4	7	20

TABLE B1 (CONTINUED)

PERCENT 362X4, 362X1 AND 362X3 PERSONNEL PERFORMING COMMON TASKS

DUTY G. MAINTAINING SYSTEM COMPONENTS		PERCENT PERFORMING 362X4 (N=742)	362X1 (N=628)	362X3 (N=83)
G274	REMOVE OR REPLACE RECEIVERS	48	3	36
G275	REMOVE OR REPLACE RECTIFIERS	2	2	13
G276	REMOVE OR REPLACE RESISTORS	3	12	43
G277	REMOVE OR REPLACE TRANSFORMERS	8	2	36
G278	REMOVE OR REPLACE TRANSISTORS	3	4	32
G279	REMOVE OR REPLACE TRANSMITTERS	48	2	37

DUTY H. ISOLATING MALFUNCTIONS IN GENERAL EQUIPMENT OR CIRCUITS		PERCENT PERFORMING 362X4 (N=742)	362X1 (N=628)	362X3 (N=83)
H280	CROSS-CHECK TELEPHONE ASSOCIATED EQUIPMENT	55	31	43
H281	CROSS-CHECK WIRING	57	42	40
H282	ISOLATE FACTORY WIRING FAULTS	38	16	22
H284	ISOLATE MALFUNCTIONS TO AMPLIFIERS	10	10	54
H285	ISOLATE MALFUNCTIONS TO ANALOG MODEMS	16	8	5
H286	ISOLATE MALFUNCTIONS TO AUDIBLE ALARMS	20	24	41
H287	ISOLATE MALFUNCTIONS TO CABLES	62	45	48
H289	ISOLATE MALFUNCTIONS TO CIRCUIT BRIDGES	8	8	8
H291	ISOLATE MALFUNCTIONS TO CIRCUITRY	32	24	41
H292	ISOLATE MALFUNCTIONS TO DIAL LINES	56	41	57
H293	ISOLATE MALFUNCTIONS TO DIGITAL MODEMS	21	18	18
H294	ISOLATE MALFUNCTIONS TO DIRECT LINES	58	48	39
H295	ISOLATE MALFUNCTIONS TO EXTERNAL SIGNALING DEVICES	42	7	11
H297	ISOLATE MALFUNCTIONS TO INSIDE WIRING	63	48	42
H298	ISOLATE MALFUNCTIONS TO INTERMEDIATE OR MAINFRAMES	46	50	12
H299	ISOLATE MALFUNCTIONS TO JACK TERMINALS	41	20	37
H300	ISOLATE MALFUNCTIONS TO JACKBOXES	3	5	59
H301	ISOLATE MALFUNCTIONS TO JUMPERS	68	66	32
H302	ISOLATE MALFUNCTIONS TO LINE FILTERS	33	5	29

TABLE B1 (CONTINUED)

PERCENT 362X4, 362X1 AND 362X3 PERSONNEL PERFORMING COMMON TASKS

DUTY H. ISOLATING MALFUNCTIONS IN GENERAL EQUIPMENT OR CIRCUITS		PERCENT PERFORMING		
		362X4 (N=742)	362X1 (N=628)	362X3 (N=83)
H303	ISOLATE MALFUNCTIONS TO MODULAR CONNECTING BLOCKS	62	17	28
H305	ISOLATE MALFUNCTIONS TO MULTIPLE PAIR PROTECTED TERMINALS	32	10	5
H306	ISOLATE MALFUNCTIONS TO NONSWITCHED CIRCUITS	14	18	4
H307	ISOLATE MALFUNCTIONS TO RADIO FREQUENCY (RF) EQUIPMENT	18	15	4
H308	ISOLATE MALFUNCTIONS TO RECORDERS	17	13	2
H309	ISOLATE MALFUNCTIONS TO RINGER UNITS	49	13	32
H310	ISOLATE MALFUNCTIONS TO SIGNAL FREQUENCY (SF) EQUIPMENT	9	21	6
H311	ISOLATE MALFUNCTIONS TO SINGLE PAIR PROTECTED TERMINALS	37	10	6
H313	ISOLATE MALFUNCTIONS TO SPADE-TIPPED CONNECTING BLOCKS	40	5	12
H314	ISOLATE MALFUNCTIONS TO SUBCYCLE GENERATORS	2	6	2
H315	ISOLATE MALFUNCTIONS TO SWITCHED CIRCUITS	10	18	10
H316	ISOLATE MALFUNCTIONS TO SWITCHING SYSTEM FACILITIES	14	27	5
H317	ISOLATE MALFUNCTIONS TO TACTICAL SWITCHBOARDS	5	6	1
H319	ISOLATE MALFUNCTIONS TO VOICE ACTIVATED COMMUNICATION SETS	7	2	8
H320	PERFORM AMPLITUDE RESPONSE TESTS	2	3	31
H321	PERFORM COMMUNICATIONS-ELECTRONICS AND METEOROLOGICAL (CEM) SYSTEM SERVICEABILITY INSPECTIONS	1	2	2
H322	PERFORM DIFFERENTIAL DELAY TESTS	1	2	5
H324	PERFORM IMPULSE NOISE TRANSMISSION TESTS	6	24	4
H325	PERFORM LOOP RESISTANCE AND INSULATION TESTS	21	33	25
H326	PERFORM TRANSMISSION LEVEL TESTS	19	40	27

TABLE B1 (CONTINUED)

PERCENT 362X4, 362X1 AND 362X3 PERSONNEL PERFORMING COMMON TASKS

DUTY I. MAINTAINING CABLES, WIRING, AND ASSOCIATED EQUIPMENT		PERCENT PERFORMING		
		362X4 (N=742)	362X1 (N=628)	362X3 (N=83)
I328	FAN CABLES	48	29	2
I329	FORM CABLES	31	27	1
I330	FUSION SPLICE CABLES	2	4	0
I331	MARK, CUT, STRIP, AND BUTT CABLES	63	35	1
I332	PERFORM CABLE OPERATIONAL TESTS	40	18	8
I333	REMOVE OR REPLACE CABLE RUNS	63	24	4
I334	REMOVE OR REPLACE CABLE TROUGHS OR CONDUITS	43	13	4
I339	REMOVE OR REPLACE JUMPERS	68	70	37
I342	REMOVE OR REPLACE STRAPS ON TERMINALS	37	38	29
I343	REMOVE OR REPLACE TWISTED PAIR CABLES	32	21	8
I344	SECURE CABLES	53	30	23
I345	SHIELD CABLE FOR SECURE TELEPHONES	29	8	4
I346	SPLICE CLOSURES	7	4	-
I347	SPLICE WIRES	42	16	30
I348	TERMINATE CABLES BY CONSTRUCTING AMPHENOL CONNECTORS	63	31	2
I349	TERMINATE CABLES BY SOLDERING	32	40	25
I350	TERMINATE CABLES WITH PUNCH-ON DEVICES	71	37	19
I351	TERMINATE JUMPERS	70	70	23
I353	WIRE-WRAP OR LACE CABLES	33	36	37
I354	WIRE-WRAP OR LACE WIRES	41	53	28

TABLE B1 (CONTINUED)

PERCENT 362X4, 362X1 AND 362X3 PERSONNEL PERFORMING COMMON TASKS

DUTY J. MAINTAINING SPECIAL CIRCUITS		PERCENT PERFORMING		
		362X4 (N=742)	362X1 (N=628)	362X3 (N=83)
J355	ISOLATE MALFUNCTIONS TO ALERT FACILITY PAGING CIRCUITS	13	16	0
J356	ISOLATE MALFUNCTIONS TO BASE SIREN CIRCUITS	26	31	0
J357	ISOLATE MALFUNCTIONS TO COMPUTER MONITOR CIRCUITS	22	20	0
J358	ISOLATE MALFUNCTIONS TO COMPUTER REMOTE CIRCUITS	25	23	0
J359	ISOLATE MALFUNCTIONS TO CYPHER LOCK RELEASE CIRCUITS	4	4	0
J360	ISOLATE MALFUNCTIONS TO DATA LINES	50	40	8
J361	ISOLATE MALFUNCTIONS TO DURESS/INTRUSION ALARM CIRCUITS	37	38	2
J362	ISOLATE MALFUNCTIONS TO EMERGENCY EVACUATION ALARMS, SUCH AS BAILOUT CIRCUITS	20	23	1
J363	ISOLATE MALFUNCTIONS TO FIRE ALARM CIRCUITS	40	39	0
J364	ISOLATE MALFUNCTIONS TO FIRE REPORTING CIRCUITS	25	30	1
J365	ISOLATE MALFUNCTIONS TO KLAXON CIRCUITS	26	21	11
J366	ISOLATE MALFUNCTIONS TO OFF-PERIMETER CIRCUITS, SUCH AS RUNWAY LIGHTS OR NAVAIDS	11	16	0
J367	ISOLATE MALFUNCTIONS TO PREMISE EXTENSION CIRCUITS	8	5	0
J368	ISOLATE MALFUNCTIONS TO PUBLIC ADDRESS (PA) CIRCUITS	23	20	7
J369	ISOLATE MALFUNCTIONS TO RADIO CIRCUITS	36	33	17
J370	ISOLATE MALFUNCTIONS TO VISUAL SIGNAL DEVICES	18	6	21
J371	PROVIDE CIRCUIT PATHS FOR ALERT FACILITY PAGING SYSTEMS	13	17	0
J372	PROVIDE CIRCUIT PATHS FOR BASE SIREN SYSTEMS	25	27	0
J373	PROVIDE CIRCUIT PATHS FOR COMPUTER MONITOR SYSTEMS	30	25	2
J374	PROVIDE CIRCUIT PATHS FOR COMPUTER REMOTE SYSTEMS	33	28	1
J375	PROVIDE CIRCUIT PATHS FOR CYPHER LOCK RELEASE SYSTEMS	7	5	0
J376	PROVIDE CIRCUIT PATHS FOR DATA LINES	53	41	6
J377	PROVIDE CIRCUIT PATHS FOR DURESS/INTRUSION ALARM SYSTEMS	39	35	1
J378	PROVIDE CIRCUIT PATHS FOR EMERGENCY EVACUATION ALARMS, SUCH AS BAILOUT SYSTEMS	20	22	0
J379	PROVIDE CIRCUIT PATHS FOR FIRE ALARM SYSTEMS	41	37	0
J380	PROVIDE CIRCUIT PATHS FOR FIRE REPORTING SYSTEMS	28	30	0
J381	PROVIDE CIRCUIT PATHS FOR KLAXON SYSTEMS	25	20	2
J382	PROVIDE CIRCUIT PATHS FOR OFF-PERIMETER SYSTEMS, SUCH AS RUNWAY LIGHTS OR NAVAIDS	12	14	0
J383	PROVIDE CIRCUIT PATHS FOR PA SYSTEM SPEAKERS	24	22	8
J384	PROVIDE CIRCUIT PATHS FOR PREMISE EXTENSION SYSTEMS	9	7	0
J385	PROVIDE CIRCUIT PATHS FOR RADIO SYSTEMS	35	31	11
J386	PROVIDE CIRCUIT PATHS FOR VISUAL SIGNAL SYSTEMS	17	8	11

TABLE B1 (CONTINUED)

PERCENT 362X4, 362X1 AND 362X3 PERSONNEL PERFORMING COMMON TASKS

DUTY K. MAINTAINING HANDSETS, HEADSETS, AND TELEPHONES	PERCENT PERFORMING 362X4 (N=742)	362X1 (N=628)	362X3 (N=83)
K391 BENCH CHECK HEADSETS	27	11	67
K398 ISOLATE MALFUNCTIONS TO FIELD TELEPHONES	26	11	31
K399 ISOLATE MALFUNCTIONS TO HANDSETS, OTHER THAN PUSH-TO-TALK HANDSETS	60	14	64
K401 ISOLATE MALFUNCTIONS TO HEADSETS	28	15	63
K402 ISOLATE MALFUNCTIONS TO MULTILINE TELEPHONES	64	16	29
K403 ISOLATE MALFUNCTIONS TO PUSH-TO-TALK HANDSETS	55	14	64
K404 ISOLATE MALFUNCTIONS TO SINGLELINE TELEPHONES, OTHER THAN FIELD TELEPHONES	62	19	47
K409 PERFORM PMI ON HEADSETS	9	4	36

DUTY L. MAINTAINING FIBER OPTIC CABLE SYSTEMS	PERCENT PERFORMING 362X4 (N=742)	362X1 (N=628)	362X3 (N=83)
L421 CONNECT OR DISCONNECT FIBER OPTIC CABLES TO OR FROM INTERFACE EQUIPMENT	2	4	0
L422 HAND POLISH FIBER OPTIC CONNECTORS	1	3	0
L423 HAND POLISH FIBERS IN FIBER OPTIC CABLES	1	3	0
L424 ISOLATE MALFUNCTIONS TO AERIAL FIBER OPTIC CABLE SPLICE HOUSINGS	0	*	0
L425 ISOLATE MALFUNCTIONS TO FIBER OPTIC CLUSTER UNITS	0	*	0
L426 ISOLATE MALFUNCTIONS TO FIBER OPTIC CONNECTORS	1	2	0
L427 ISOLATE MALFUNCTIONS TO FIBER OPTIC CROSSCONNECT PANELS	1	1	0
L428 ISOLATE MALFUNCTIONS TO FIBER OPTIC MULTIPLEXERS	1	3	0
L429 ISOLATE MALFUNCTIONS TO FIBER OPTIC PATCH PANELS	1	2	0
L430 ISOLATE MALFUNCTIONS TO FIBER OPTIC REGENERATORS	0	*	0
L431 ISOLATE MALFUNCTIONS TO T-CARRIERS	1	2	0
L432 MACHINE POLISH FIBERS IN FIBER OPTIC CABLES	1	1	0
L433 MEASURE ATTENUATION USING OPTICAL TIME DOMAIN REFLECTOMETERS (OTDR)	1	3	0

TABLE B1 (CONTINUED)

PERCENT 362X4, 362X1 AND 362X3 PERSONNEL PERFORMING COMMON TASKS

DUTY L. MAINTAINING FIBER OPTIC CABLE SYSTEMS		PERCENT PERFORMING		
		362X4 (N=742)	362X1 (N=628)	362X3 (N=83)
L434	MEASURE CONNECTOR LOSS USING OPTICAL POWER MULTIMETER SINGLE METER METHOD	1	3	0
L435	MEASURE CONNECTOR LOSS USING OPTICAL POWER MULTIMETER TWO METER METHOD	1	3	0
L436	MEASURE DISTANCES USING OTDRs	1	3	0
L437	MEASURE MAXIMUM PULLING TENSION IN FIBER OPTIC CABLES	0	*	0
L438	MEASURE SPLICE LOSS USING OTDRs	1	3	0
L439	OFF REEL FIBER OPTIC CABLES IN FIGURE 8 LOOP	1	1	0
L440	OPERATE FIBER OPTIC SPLICING TRAILERS	0	*	0
L441	OPERATE FIBER OPTIC TALK SETS	0	*	0
L442	PREPACK FIBER OPTIC CABLES	0	*	0
L443	PREPARE ARMOR SHIELDED FIBER OPTIC CABLES FOR SPLICING COATING	0	*	0
L444	PREPARE DOUBLE SHEATH FIBER OPTIC CABLES FOR SPLICING	1	1	0
L445	PREPARE FIBER OPTIC CABLE REEL TRUCKS	0	*	0
L446	PREPARE FIBER OPTIC CABLES FOR MOUNTING	0	1	0
L447	PREPARE FLOOD RESISTANT FIBER OPTIC CABLES FOR SPLICING	0	*	0
L448	PREPARE METALLIC SHIELDED FIBER OPTIC CABLES FOR SPLICING	0	*	0
L449	PREPARE NONMETALLIC SHIELDED FIBER OPTIC CABLES FOR SPLICING	0	1	0
L450	PREPARE SINGLE SHEATH FIBER OPTIC CABLES FOR SPLICING	1	1	0
L451	REMOVE OR REPLACE AERIAL FIBER OPTIC CABLE SPLICE HOUSINGS	0	1	0
L452	REMOVE OR REPLACE AERIAL FIBER OPTIC CABLES	0	*	0
L453	REMOVE OR REPLACE BURIED FIBER OPTIC CABLES USING PLOWING METHOD	0	*	0
L454	REMOVE OR REPLACE BURIED FIBER OPTIC CABLES USING TRENCHING METHOD	0	*	0
L455	REMOVE OR REPLACE FIBER OPTIC BREAKOUT CABLES USING FUSION WELDING METHOD	0	*	0
L456	REMOVE OR REPLACE FIBER OPTIC BREAKOUT CABLES USING MECHANICAL METHOD	0	*	0
L457	REMOVE OR REPLACE FIBER OPTIC CABLES UNDERGROUND USING ONE DIRECTION HAND PULL METHOD	0	*	0
L458	REMOVE OR REPLACE FIBER OPTIC CABLES UNDERGROUND USING ONE DIRECTION MACHINE PULL METHOD	0	*	0

TABLE B1 (CONTINUED)

PERCENT 362X4, 362X1 AND 362X3 PERSONNEL PERFORMING COMMON TASKS

DUTY L. MAINTAINING FIBER OPTIC CABLE SYSTEMS		PERCENT PERFORMING		
		362X4 (N=742)	362X1 (N=628)	362X3 (N=83)
L459	REMOVE OR REPLACE FIBER OPTIC CABLES UNDERGROUND USING TWO DIRECTION HAND PULL METHOD	0	*	0
L460	REMOVE OR REPLACE FIBER OPTIC CABLES UNDERGROUND USING TWO DIRECTION MACHINE PULL METHOD	0	*	0
L461	REMOVE OR REPLACE FIBER OPTIC CLUSTER UNITS	0	*	0
L462	REMOVE OR REPLACE FIBER OPTIC CONNECTORS	2	2	0
L463	REMOVE OR REPLACE FIBER OPTIC CROSSCONNECT PANELS	0	*	0
L464	REMOVE OR REPLACE FIBER OPTIC MULTIPLEXERS	1	2	0
L465	REMOVE OR REPLACE FIBER OPTIC PATCH PANELS	1	2	0
L466	REMOVE OR REPLACE FIBER OPTIC REGENERATORS	0	*	0
L467	REMOVE OR REPLACE T-CARRIERS	1	2	0
L468	SEAL FIBER OPTIC SPLICES	0	1	0
L469	SPLICE FIBER OPTIC CABLES USING HAND TOOLS	1	2	0
L470	SPLICE FIBER OPTIC CABLES USING POINT-TO-POINT METHOD	0	1	0
L471	SPLICE SINGLE MODE FIBERS USING HAND TOOLS	1	1	0
L472	SPLICE SINGLE MODE FIBERS USING POINT-TO-POINT METHOD	1	*	0
L473	TERMINATE FIBER OPTIC STRENGTH MEMBERS	0	*	0

TABLE B1 (CONTINUED)

PERCENT 362X4, 362X1 AND 362X3 PERSONNEL PERFORMING COMMON TASKS

DUTY M. PERFORMING DISPATCH TASKS		PERCENT PERFORMING		
		362X4 (N=742)	362X1 (N=628)	362X3 (N=83)
M474	CHECK OUT ROUTE FOLDERS FROM OR RETURN TO MAINTENANCE CONTROL	2	1	41
M475	COORDINATE DISPATCHES WITH MAINTENANCE CONTROL	6	9	49
M476	DISPATCH CREWS TO WORK PROJECTS	16	19	27
M477	DRIVE TO OR FROM SITES	61	24	68
M478	INTERPRET MAPS FOR LOCATING SITES	36	15	57
M479	LOAD OR UNLOAD GOVERNMENT VEHICLES FOR DISPATCH	31	10	69
M480	NOTIFY COMMUNICATIONS CONTROL OF ARRIVALS, DEPARTURES, OR MAINTENANCE PROGRESS	20	14	65
M481	NOTIFY TRANSPORTATION CONTROL CENTERS (TCC) OF ARRIVALS OR DEPARTURES	6	2	52
M482	OPERATE VERY HIGH FREQUENCY (VHF) RADIOS	9	5	60
M483	PERFORM OPERATOR MAINTENANCE ON GOVERNMENT VEHICLES	51	17	61

DUTY N. PERFORMING CORROSION CONTROL TASKS		PERCENT PERFORMING		
		362X4 (N=742)	362X1 (N=628)	362X3 (N=83)
N484	APPLY CORROSION PREVENTIVE MATERIALS TO EQUIPMENT OR SUPPLIES	28	32	54
N486	INSPECT ATTENDANT CABINETS FOR CORROSION	17	25	29
N487	INSPECT BATTERIES FOR CORROSION	30	55	45
N488	INSPECT BUS BARS FOR CORROSION	13	34	22
N490	INSPECT ELECTRONIC DRAWERS FOR CORROSION	4	13	65
N491	INSPECT ESAS FOR CORROSION	3	7	48
N492	INSPECT FRAMES FOR CORROSION	23	57	35
N493	INSPECT POWER DISTRIBUTION CENTERS FOR CORROSION	12	31	10
N494	INSPECT POWER PANELS FOR CORROSION	23	30	16
N495	INSPECT STATION GROUNDS FOR CORROSION	29	29	39
N496	MAINTAIN CORROSION CONTROL KITS	5	10	37
N497	REMOVE CORROSION FROM METAL SURFACES	32	34	52

TABLE B1 (CONTINUED)

PERCENT 362X4, 362X1 AND 362X3 PERSONNEL PERFORMING COMMON TASKS

DUTY O. PERFORMING SURVEY OR JOB CONTROL TASKS		PERCENT PERFORMING 362X4 (N=742)	362X1 (N=628)	362X3 (N=83)
0498	ANALYZE EQUIPMENT OUTAGES AND MALFUNCTION REPORTS	14	14	17
0499	ASSIGN JOB CONTROL NUMBERS	8	40	33
0500	COORDINATE TELEPHONE INSTALLATION ACTIVITIES WITH INSIDE AND OUTSIDE PLANTS	32	27	8
0501	COORDINATE TROUBLESHOOTING WITH INSIDE AND OUTSIDE PLANT CREWS	30	37	19
0506	LOG REQUIREMENTS FOR TELEPHONE INSTALLATIONS	22	13	1
0507	PREPARE SUMMARIES OF AUTHORIZED EQUIPMENT AND SERVICES	7	3	2
0511	REVIEW SUPPLY PUBLICATIONS FOR AVAILABILITY OF EQUIPMENT OR SUPPLIES	11	4	1
0517	WRITE COMMUNICATION SERVICE REPORTS	6	3	5
0519	WRITE MISSION IMPAIRMENT REPORTS	3	3	6

DUTY P. PROCESSING LEASED OR GOVERNMENT OWNED TELEPHONE EQUIPMENT		PERCENT PERFORMING 362X4 (N=742)	362X1 (N=628)	362X3 (N=83)
P520	ASSIGN DUE DATES	12	2	2
P521	ASSIGN WORK ORDER NUMBERS TO EQUIPMENT	10	5	10
P522	COORDINATE GOVERNMENT-OWNED EQUIPMENT CHARGES WITH APPROPRIATE AGENCIES	6	2	1
P523	COORDINATE LEASE REQUIREMENTS WITH BASE PROCUREMENT OFFICES	6	*	1
P524	COORDINATE LEASED EQUIPMENT CHARGES WITH APPROPRIATE AGENCIES	7	5	1
P525	COORDINATE LEASED EQUIPMENT MALFUNCTIONS WITH COMMERCIAL TELEPHONE COMPANIES	8	7	4
P526	COORDINATE TELEPHONE INSTALLATION ACTIVITIES WITH BASE UNITS OR COMMERCIAL TELEPHONE COMPANIES	15	10	4
P527	DETERMINE MODE OF TRANSPORT OF MATERIALS	5	1	2
P528	UPDATE GOVERNMENT-OWNED TELEPHONE WORK ORDER REGISTERS	9	4	1
P529	UPDATE LEASED TELEPHONE WORK ORDER REGISTERS	6	1	4