(2)

UNITED STATES AIR FORCE

OCCUPATIONAL SURVEY REPORT

ENGINEERING ASSISTANT

AFSC 553X0

AFPT 90-553-879

AUGUST 1990

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

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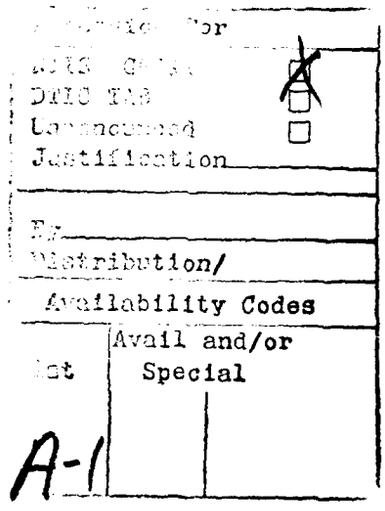

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PREFACE

This report presents the results of an Air Force Occupational Survey of the Engineering Assistant (AFSC 553X0) 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.

Chief Master Sergeant Bob Boerstler developed the survey instrument, Mr Wayne Fruge provided computer programming support, and Ms Raquel A. Soliz 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.

A Training Requirements Analysis (TRA) is being accomplished in conjunction with this OSR. The TRA will provide a comprehensive data base to support anticipated changes in training for the career ladder. The TRA will contain three sections: a) System Overview - an overall perspective of the career ladder training; b) Task Analysis - detailed training decision data on technical tasks performed; and c) Training Requirements and Recommendations - suggestions of what should be taught, when, and where. Copies of the TRA may be obtained from USAF Occupational Measurement Center, Detachment 5, Lowry AFB CO 80230-5000.

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 TX 78150-5000.

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SUMMARY OF RESULTS

1. Survey Coverage: This report is based on data collected from 1,049 respondents constituting 69 percent of all assigned AFSC 553X0 personnel.

2. Career Ladder Structure: Survey data show there are two major clusters and four independent jobs in the career ladder. The Engineering Function cluster includes the Drafting, Surveying, Base Survivability, Material Testing, NCOIC, Instructor, and Supply jobs. The Contract Management cluster includes the Contract Inspection, Service Contract Management, Squadron Level Contract Management, and Headquarters Contract Management jobs. The independent jobs are: Prime BEEF (Base Emergency Engineering Forces), Planning, Ground Radar, and Supervision and Administration.

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 drafting and surveying, 7-skill level members are first-line supervisors performing a mixture of technical and supervisory tasks, while 9-skill level and CEM members perform fewer technical tasks and spend more time on managerial functions.

4. Specialty Descriptions: AFR 39-1 Specialty Descriptions accurately describe jobs and tasks performed by AFSC 553X0 personnel.

5. Training Analysis: Most of the tentative 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. Unsupported elements and learning objectives need to be reviewed by school personnel.

6. Job Satisfaction: Job satisfaction for respondents in the present study is somewhat higher than reported for members of comparative AFSCs surveyed in 1989. Overall, satisfaction has remained fairly stable over the years. Members of most jobs report they find their job interesting and feel their talents and training are used. Members with the Ground Radar, Prime BEEF, and Drafting jobs, however, have the lowest satisfaction indicators.

7. Special Issues: Survey data were collected to provide answers to several questions related to the career ladder. Twenty-eight percent of all respondents indicate they use Computer Aided Drafting Design (CADD). Only 24 respondents have the Prime BEEF job, 7 respondents reported having the Ground Radar job, and 14 do material testing. Survey data also show most graduates of the entry-level course are assigned to drafting and surveying functions, rather than contract management jobs.

8. Implications: Survey data show the career ladder has remained essentially the same, even with recent equipment changes. Members progress typically through the specialty. Survey data suggest the tentative STS needs to be reviewed before it is finalized.

OCCUPATIONAL SURVEY REPORT
ENGINEERING ASSISTANT CAREER LADDER
(AFSC 553X0)

INTRODUCTION

This is a report of an occupational survey of the Engineering Assistant (AFSC 553X0) career ladder completed by the USAF Occupational Measurement Center in July 1990. This career ladder was last surveyed in 1983. The present study was requested by HQ ATC/TTCC to provide survey data following the introduction of the Computer-Aided Drafting Design (CADD) system and changes in procedures and duties for members of the career ladder. Survey data will also be used for a Training Requirements Analysis for this career ladder.

Background

The AFR 39-1 Specialty Descriptions state that 3- and 5-skill level AFSC 553X0 personnel perform field tests on solids and concrete, prepare engineering drawings, perform plane surveying, and assist project engineers. Seven-skill-level members have a more advanced job, as they perform field and technical investigations; design architectual, mechanical, and electrical engineering drawings; and perform contract inspections.

Members enter the career ladder by attending a 10-week Engineering Assistant Specialist course conducted at Sheppard AFB TX. This course curriculum includes knowledge and use of construction surveying equipment, surveying applied to air base development, drafting fundamentals, multi-view and engineering drawings, and methods of reproducing drawings and plans.

SURVEY METHODOLOGY

Data for this survey were collected using USAF Job Inventory AFPT 90-553-879 (November 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 32 subject-matter experts at the following bases:

BASE	REASON FOR VISIT
Sheppard AFB TX	Technical school
Tyndall AFB FL	Has a materials laboratory
Eglin AFB FL	Has a large and diversified CE complex performing many functions

Hurlburt FLD FL	Has Red Horse unit
Davis-Monthan AFB AZ	Has Computer-Aided Drafting Design
Luke AFB AZ	General CE operations

The final inventory contains 436 tasks grouped under 13 duty headings, standard background questions asking for DAFSC, organization of assignment, MAJCOM, duty title, TAFMS, time in career ladder, plus additional background questions asking respondents to indicate first duty area assigned out of technical school, whether or not they use CADD, and equipment used. The school and functional personnel will use responses to these questions to evaluate training and determine how graduates of the entry-level course are being used.

Survey Administration

From November 1989 through March 1990, Consolidated Base Personnel Offices at operational bases worldwide administered the surveys to AFSC 553X0 personnel selected from a computer-generated mailing list provided by the Air Force 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 includes responses from 1,049 AFSC 553X0 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 553X0 population.

Data Processing and Analysis

Once the job inventories are received from the field, the booklets are screened for completeness and accuracy and are optically scanned to create a complete case record for each respondent. Comprehensive Occupational Data Analysis Programs (CODAP) then create a job description for each respondent,

TABLE 1

MAJCOM REPRESENTATION IN SAMPLE

COMMAND	PERCENT OF ASSIGNED	PERCENT OF SAMPLE
SAC	25	24
TAC	16	14
USAFE	11	13
MAC	10	12
PACAF	8	10
AFLC	7	6
ATC	6	7
AFSC	5	3
AFCC	3	2
AAC	3	4
OTHER	6	5

Total Assigned = 1,526
Total Eligible = 1,338
Total in Sample = 1,049
Percent of Assigned in Sample = 69%
Percent of Eligible in Sample = 78%

TABLE 2

PAYGRADE DISTRIBUTION OF SAMPLE

PAYGRADE	PERCENT OF ASSIGNED	PERCENT OF SAMPLE
E-1 TO E-3	11	11
E-4	27	27
E-5	33	34
E-6	16	16
E-7	10	9
E-8	2	1
E-9	1	1

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 use task factor data (trainig emphasis (TE) and task difficulty (TD) ratings), as well as job descriptions. The survey process provides these data by asking selected E-6 and E-7 supervisors to complete either a TE or TD booklet. These booklets are processed separately from the job inventories, and TE and TD data, when applicable, are considered when analyzing other issues in the study.

Training Emphasis (TE). TE is defined as the amount of structured training that first-enlistment personnel need to perform tasks successfully. Structured training is defined as training provided by resident technical schools, field training detachments (FTD), mobile training teams (MTT), formal OJT, or any other organized training method. Forty-one experienced AFSC 553X0 supervisors rated the tasks in the inventory on a 10-point scale ranging from 0 (no TE required) to 9 (high TE required). Interrater agreement for these 41 raters is acceptable. The mean TE rating for tasks in the inventory is 2.81, and the standard deviation is 1.72. Any task with a TE rating of 4.53 or greater is considered to have high TE.

Task Difficulty (TD). TD is defined as an estimate of the length of time the average airman takes to learn how to perform each task listed in the inventory. Forty-nine experienced AFSC 553X0 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. There is acceptable agreement among the 49 TD raters.

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.

Overview

Survey data show there are two major clusters of jobs and four independent jobs. The Engineering Functions cluster includes the Drafting and Surveying, Drafting, Surveying, Base Survivability, Material Testing, NCOIC, Instructor, and Supply jobs. The Contract Management cluster includes the Contract Inspection, Service Contract Management, Squadron Level Contract Management, and Headquarters Level Contract Management jobs. The independent jobs are: Prime BEEF (Base Emergency Engineering Forces), Planning, Ground Radar, and Supervision and Administration. Figure 1 is a graphic representation of the career ladder structure showing the percentages of AFSC 553X0 personnel in the various jobs. Slices of the pie shaded with lines represent jobs in the Engineering cluster; slices with the dots represent jobs in the Contract Management cluster; while the unmarked slices represent the independent jobs.

The percent time members of these jobs spend on duties is shown in Table 3, while selected background information on members of these jobs is presented in Table 4. The Stage (STG) number listed beside the title is a reference number assigned by CODAP, while the letter "N" refers to the number of respondents in the job.

I. ENGINEERING FUNCTIONS CLUSTER OF JOBS (STG058, N=489)

- A. Drafting and Surveying (STG151, N=242)
- B. Drafting (STG106, N=58)
- C. Surveying (STG114, N=12)
- D. Base Survivability (STG103, N=17)
- E. Material Testing (STG234, N=14)
- F. NCOIC (STG126, N=117)
- G. Instructor (STG639, N=6)
- H. Supply (STG155, N=7)

II. CONTRACT MANAGEMENT CLUSTER OF JOBS (STG042, N=389)

- A. Contract Inspection (STG116, N=315)
- B. Service Contract Management (STG128, N=33)
- C. Squadron Level Contract Management (STG300, N=5)
- D. Headquarters Level Contract Management (STG166, N=9)

III. PRIME BEEF (STG071, N=24)

IV. PLANNING (STG105, N=6)

V. GROUND RADAR (STG353, N=7)

VI. SUPERVISION AND ADMINISTRATION (STG102, N=26)

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

AFSC 553XO CAREER LADDER JOBS

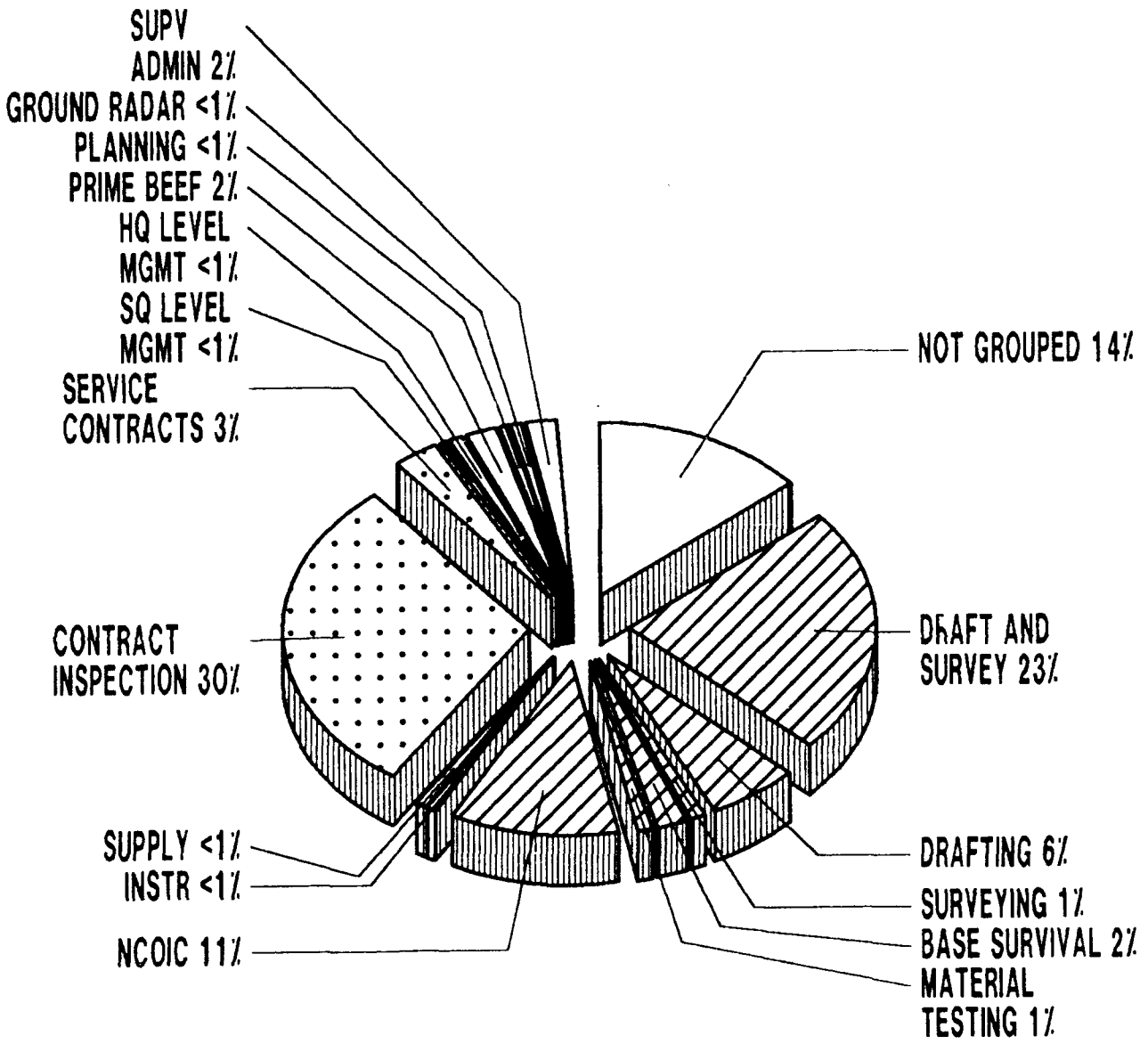

FIGURE 1

TABLE 3

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

DUTIES	DRAFTING AND SURVEYING (STG151, N=242)	DRAFTING (STG106, N=58)	SURVEYING (STG114, N=12)	BASE SURVIVABILITY (STG103, N=17)	MATERIAL TESTING (STG234, N=14
A ORGANIZING AND PLANNING	3	2	*	13	2
B DIRECTING AND IMPLEMENTING	2	*	2	2	2
C INSPECTING AND EVALUATING	2	2	1	2	1
D TRAINING	2	*	1	*	1
E PERFORMING GENERAL OR ADMINISTRATIVE FUNCTIONS	3	4	3	11	2
F PERFORMING SURVEYING FUNCTIONS	29	14	53	8	30
G PERFORMING DRAFTING FUNCTIONS	37	69	18	41	16
H PERFORMING PROJECT PLANNING FUNCTIONS	*	1	0	2	*
I PERFORMING CONTRACT MANAGEMENT FUNCTIONS	*	*	0	1	*
J PERFORMING CONTRACT MANAGEMENT COST ESTIMATE AND ANALYSIS FUNCTIONS	*	0	0	*	0
K PERFORMING MATERIAL TESTING	*	*	0	0	25
L PERFORMING GROUND RADAR EVALUATIONS	*	0	0	*	0
M PERFORMING PRIME BEEF FUNCTIONS	21	6	22	18	20

* Denotes less than 1 percent

TABLE 3 (CONTINUED)

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

DUTIES	NCOIC (STG126, (N=117)	INSTRUCTOR (STG639, (N=6)	SUPPLY (STG155, (N=7)	CONTRACT INSPECTION (STG116, (N=315)	SERVICE CONTRACT MANAGEMENT (STG128, (N=33)
A ORGANIZING AND PLANNING	11	3	8	3	3
B DIRECTING AND IMPLEMENTING	8	2	5	2	2
C INSPECTING AND EVALUATING	9	2	9	6	8
D TRAINING	9	11	3	1	2
E PERFORMING GENERAL OR ADMINISTRATIVE FUNCTIONS	6	2	28	12	13
F PERFORMING SURVEYING FUNCTIONS	17	59	10	*	*
G PERFORMING DRAFTING FUNCTIONS	23	20	28	2	*
H PERFORMING PROJECT-PLANNING FUNCTIONS	1	0	0	1	1
I PERFORMING CONTRACT MANAGEMENT FUNCTIONS	*	*	0	56	43
J PERFORMING CONTRACT MANAGEMENT COST ESTIMATE AND ANALYSIS FUNCTIONS	*	0	0	1	2
K PERFORMING MATERIAL TESTING	1	0	3	*	*
L PERFORMING GROUND RADAR EVALUATIONS	*	0	0	0	0
M PERFORMING PRIME BEEF FUNCTIONS	15	0	6	12	24

* Denotes less than 1 percent

TABLE 3 (CONTINUED)

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

DUTIES	SQUADRON LEVEL CONTRACT MGT (STG300, N=5)	HQ LEVEL CONTRACT MGT (STG166, N=9)	PRIME BEEF (STG071, N=24)	PLANNING (STG105, N=6)	GROUND RADAR (STG353, N=7)	SUPV & ADMIN (STG102, N=26)
A ORGANIZING AND PLANNING	6	13	5	2	4	20
B DIRECTING AND IMPLEMENTING	5	4	3	2	2	15
C INSPECTING AND EVALUATING	8	9	2	2	3	18
D TRAINING	3	*	2	*	5	15
E PERFORMING GENERAL OR ADMINISTRATIVE FUNCTIONS	11	11	7	5	3	8
F PERFORMING SURVEYING FUNCTIONS	10	2	3	4	39	3
G PERFORMING DRAFTING FUNCTIONS	13	18	20	17	4	4
H PERFORMING PROJECT-PLANNING FUNCTIONS	4	7	*	23	0	1
I PERFORMING CONTRACT MANAGEMENT FUNCTIONS	22	30	2	11	*	4
J PERFORMING CONTRACT MANAGEMENT COST ESTIMATE AND ANALYSIS FUNCTIONS	6	3	0	4	0	*
K PERFORMING MATERIAL TESTING	1	0	0	*	0	0
L PERFORMING GROUND RADAR EVALUATIONS	*	0	0	0	41	*
M PERFORMING PRIME BEEF FUNCTIONS	9	2	[illegible]	30	0	11

* Denotes less than 1 percent

TABLE 4

SELECTED BACKGROUND DATA ON MEMBERS IN CAREER LADDER JOBS

	DRAFTING AND SURVEYING (STG151)	DRAFTING (STG106)	SURVEYING (STG114)	BASE SURVIVABILITY (STG103)	MATERIAL TESTING (STG234)
NUMBER IN GROUP	242	58	12	17	14
PERCENT OF SAMPLE	23%	6%	1%	2%	1%
PERCENT IN CONUS	84%	14%	67%	12%	7%
DAFSC DISTRIBUTION					
55330	32%	43%	8%	29%	7%
55350	61%	52%	83%	35%	71%
55370	7%	5%	8%	35%	21%
55390	0	0	0	0	0
55300	0	0	0	0	0
PAYGRADE DISTRIBUTION					
AIRMAN	28%	42%	33%	24%	14%
E-4	42%	40%	42%	29%	21%
E-5	29%	16%	17%	24%	43%
E-6	1%	2%	8%	18%	7%
E-7	0	2%	0	0	14%
E-8	0	0	0	6%	0
E-9	0	0	0	0	0
AVERAGE MONTHS TAFMS	59	50	52	80	117
AVERAGE NUMBER OF TASKS PERFORMED	77	31	37	46	96
PERCENT IN FIRST ENLISTMENT	43%	49%	59%	50%	14%
PERCENT SUPERVISING	21%	3%	17%	12%	36%

* Denotes less than 1 percent

TABLE 4 (CONTINUED)

SELECTED BACKGROUND DATA FOR CAREER LADDER JOBS

	NCOIC (STG126)	INSTRUCTOR (STG639)	SUPPLY (STG155)	CONTRACT INSPECTION (STG116)	SERVICE CONTRACT MANAGEMENT (STG128)
NUMBER IN GROUP	117	6	7	315	33
PERCENT OF SAMPLE	11%	*	*	30%	3%
PERCENT IN CONUS	27%	40%	40%	83%	60%
DAFSC DISTRIBUTION					
55330	4%	0	0	1%	3%
55350	36%	70%	40%	44%	58%
55370	57%	30%	60%	52%	39%
55390	0	0	0	3%	0
55300	3%	0	0	0	0
PAYGRADE DISTRIBUTION					
AIRMAN	1%	10%	0	0	3%
E-4	15%	30%	40%	18%	30%
E-5	36%	40%	60%	43%	55%
E-6	29%	2%	0	24%	6%
E-7	16%	0	0	12%	3%
E-8	1%	0	0	3%	3%
E-9	2%	0	0	0	0
AVERAGE TAFMS (MOS)	135	88	99	131	99
AVERAGE NUMBER OF TASKS PERFORMED	129	71	59	95	52
PERCENT IN FIRST ENLISTMENT	6%	34%	0	6%	12%
PERCENT SUPERVISING	86%	30%	40%	37%	25%

* Denotes less than 1 percent

TABLE 4 (CONTINUED)

SELECTED BACKGROUND DATA FOR CAREER LADDER JOBS

	SQUADRON LEVEL CONTRACT MGT (STG300)	HQ LEVEL CONTRACT MGT (STG166)	PRIME BEEF (STG107)	PLANNING (STG105)	GROUND RADAR (STG353)	SUPERVISION AND ADMINISTRATION (STG102
NUMBER IN GROUP	5	9	24	6	7	26
PERCENT OF SAMPLE	1%	1%	2%	1%	1%	2%
PERCENT IN CONUS	40%	56%	87%	100%	100%	65%
DAFSC DISTRIBUTION						
55330	0	0	4%	0	0	0
55350	20%	11%	54%	50%	43%	27%
55370	60%	67%	38%	50%	57%	58%
55390	20%	22%	4%	0	0	12%
55300	0	0	0	0	0	3%
PAYGRADE DISTRIBUTION						
AIRMAN	20%	0	4%	0	0	0
E-4	0	11%	46%	0	0	4%
E-5	40%	33%	17%	67%	71%	15%
E-6	0	22%	17%	33%	29%	27%
E-7	40%	33%	8%	0	0	42%
E-8	0	0	4%	0	0	12%
E-9	0	0	4%	0	0	0
AVERAGE TAFMS (MOS)	140	149	127	144	140	170
AVERAGE NUMBER OF TASKS PERFORMED	216	85	36	55	42	74
PERCENT IN FIRST ENLISTMENT	0	0	17%	0	0	0
PERCENT SUPERVISING	60%	11%	12%	0	29%	92%

* Denotes less than 1 percent

I. ENGINEERING FUNCTIONS CLUSTER (STG058, N=489). Forty-seven percent of the sample have jobs related to Engineering functions. Survey data show members with these jobs perform a number of common drafting and surveying tasks. What distinguishes the individual jobs in the cluster is the time members spend performing predominantly drafting or surveying tasks, or by the emphasis on tasks unique to other specific jobs. Most members are paygrades E-1 through E-5, and over half hold the 5-skill level. Overall, members with these jobs spend 36 percent of their duty time performing drafting functions, 29 percent performing surveying functions, and 16 percent on Prime BEEF functions. Each of the individual jobs will be discussed in some detail below.

A. Drafting and Surveying Job (STG151, N=242). Two hundred and forty-two respondents indicated they perform an average of 77 drafting and surveying tasks. Thirty-two percent hold the 3-skill level, 61 percent hold the 5-skill level, 70 percent are paygrades E-1 through E-4, and 43 percent are in their first enlistment. AFSC 553X0 airmen with this job spend 37 percent of their time performing drafting functions, 24 percent performing surveying functions, and 21 percent performing Prime BEEF functions. Members with this job are distinguished by the time they spend performing the following tasks:

perform fundamental drafting practices
reproduce drawings on reproduction machines
set up surveying equipment
maintain drawing files
draw architectural plans
measure distances using tapes

B. Drafting Job (STG106, N=58). Fifty-eight 3- and 5-skill level respondents indicated they have this job that differs from the Drafting and Survey job in that members with it spend 69 percent of their duty time performing drafting functions, only 14 percent on surveying functions, and they perform an average of only 31 tasks. They are distinguished by the time they spend on the following drafting tasks:

interpret blueprints
letter drawings using mechanical-lettering sets
letter drawings using gothic-architect style
free hand
draw mechanical plans
draw electrical plans
draw civil plans
update as-built drawings

C. Surveying Job (STG114, N=12). These 12 respondents indicate they have a rather limited job that has more emphasis on surveying functions. Ten hold the 5-skill level, and 7 are in their first enlistment. These surveyors spend 53 percent of their duty time performing surveying functions, 18

percent performing drafting functions, and 22 percent on Prime BEEF functions. Surveyors perform an average of only 37, mainly surveying tasks, including the following:

set up surveying equipment
measure distances using tapes
measure horizontal angles
measure stadia distances
perform topographical surveys
measure horizontal distances using electronic equipment

D. Base Survivability Job (STG103, N=17). All but one of these personnel are assigned overseas, and all perform tasks related to base survivability functions. They are paygrades airman through E-6. They spend 41 percent of their duty time performing drafting functions, 18 percent performing Prime BEEF functions, 13 percent organizing and planning, and 11 percent performing general or administrative functions. While they perform a number of the common drafting tasks, they are distinguished by the time they spend on the following tasks:

prepare base comprehensive plans (BCP)
revise BCP
submit BCP
review BCP
complete drawings for DD Forms 1391

E. Material Testing Job (STG234, N=14). Fourteen respondents were identified separately as having this job because they perform a number of tasks dealing specifically with material testing. All 14 indicated they are assigned to a Red Horse functional area and work in a Red Horse organization. Ten of these respondents hold the 5-skill level, 3 hold the 7-skill level, and they average 117 months TAFMS. Personnel with this job spend 30 percent of their time performing drafting functions, 25 percent performing material testing (more time than members with other jobs), and 16 percent on drafting functions.

They perform an average of 96 tasks and are distinguished by the time they spend performing the following tasks:

test concrete for compressive strength
test concrete for slump
analyze soils for moisture content
collect asphalt or concrete samples
mark and set construction stakes
establish building corners for new construction sites

F. NCOIC Job (STG126, N=117). One hundred and seventeen respondents have the first-line supervisors job. They perform a mixture of technical and supervisory tasks and report having the job title of NCOIC. Thirty-six percent hold the 5-skill level, 57 percent hold the 7-skill level; they average 135 months TAFMS, and 101 report having direct supervisory responsibility. NCOICs spend 23 percent of their time performing drafting functions, 17 percent performing surveying functions, 15 percent on Prime BEEF functions, 11 percent organizing and planning, 9 percent inspecting, and 9 percent training. Members with this job report performing an average of 135 tasks, including the following:

interpret blueprints
reproduce drawing on reproduction machines
counsel personnel on personal or military-related problems
determine work priorities
interpret engineering plans for subordinates
draw civil plans
conduct OJT

G. Instructor Job (STG639, N=6). Five of the six members with this job indicate they are resident course instructors at the technical school located at Sheppard AFB. Instructors indicate they spend 59 percent of their duty time performing surveying functions, 20 percent performing drafting functions, and 11 percent training. Their role as instructors is shown by the following tasks which they spend most time performing:

conduct resident course classroom training
score tests
record field notes using standard surveying procedures
reproduce drawing on reproduction machines
adjust traverse data
measure horizontal angles

H. Supply Job (STG155, N=7). Seven respondents were identified as having this job. Five of the seven are assigned to an Engineering and Design work area, and two are assigned to a Red Horse functional area. Members with this job are unique, as they spend 28 percent of their time performing general or administrative functions (more than members of the other jobs). They also spend 28 percent of their time performing drafting functions and 10 percent on surveying functions. Those with the Supply job are distinguished by the time they spend performing the following tasks:

complete AF Forms 2005 (Issue/Turn-in Request)
inventory equipment, tools, or supplies
evaluate procedures for storage, inventory, or inspection of property items
perform operator maintenance on reproduction machines
review DD Forms 1348 (DOD Single Line Item Requisition System Document)
evaluate maintenance or use of workspace, equipment, or supplies

II. CONTRACT MANAGEMENT CLUSTER (STG042, N=389). This is a cluster of four jobs related to contract management functions. Members with these jobs perform a number of common contract management tasks, but are distinguished by the performance of inspection tasks or unique management tasks related to the functional area they are assigned to. The 389 members of the cluster constitute 37 percent of the total sample. Nearly all members of the cluster hold the 5- or 7-skill level, most are paygrades E-5 through E-8, they average 127 months TAFMS, and perform an average of 89 tasks. They spend 55 percent of their duty time performing contract management functions, 13 percent performing Prime BEEF functions, and 12 percent performing general or administrative functions. The following are typical contract maintenance tasks members of the cluster perform:

conduct on-site visits
identify contractor performance discrepancies
maintain records of contract changes
write correspondence related to contracts
identify on-site and design deficiencies
coordinate construction activities with base agencies, such as security police or ground safety

Each of the four jobs in the cluster will be discussed below.

A. Contract Inspection Job (STG116, N=315). This is the job with the most members in the cluster, constituting 30 percent of the total sample. Forty-four percent of the members with this job hold the 5-skill level, 52 percent hold the 7-skill level, 79 percent are paygrades E-5 through E-7, and only 6 percent are in their first enlistment. Inspectors spend 56 percent of their duty time performing contract management functions, 12 percent on Prime BEEF functions, and 12 percent on general or administrative functions. While members with this job perform many tasks common to the other three jobs in the cluster, they are distinguished by the time they spend on the following tasks related to contract inspection:

coordinate construction with construction manager
conduct pre-acceptance inspections
participate in pre-performance conferences
perform acceptance inspections
coordinate contract modifications with construction managers
review progress schedules

B. Service Contract Management Job (STG128, N=33). Survey data identified 33 AFSC 55350 and 55370 personnel who have this job. Most work in the contract management function of a base civil engineering organization. They report spending 43 percent of their duty time performing contract management functions, 24 percent in Prime BEEF functions, and 13 percent on general or administrative functions. These 33 respondents are identified as having a separate job by the time they spend performing the following tasks:

perform inspections of service contracts
complete surveillance and random sampling documents for service contracts
document service contract activities
write quality assurance surveillance plans for service contracts
maintain daily inspection records
analyze provisions of service contracts

C. Squadron Level Contract Management Job (STG300, N=5). Five respondents were identified separately within the cluster because of the specific contract management tasks they perform. All five are assigned to a squadron civil engineering organization, one holds the 5-skill level, three hold the 7-skill level, and one holds the 9-skill level. Members with this job have the broadest job in the career ladder as they perform an average of 216 tasks. They spend 22 percent of their duty time performing contract management functions, 13 percent on drafting functions, 11 percent performing general or administrative functions, and 10 percent on surveying functions. These contract managers are distinguished from contract inspectors by the time they spend performing the following tasks:

complete DD Forms 1391 (Military Construction Project Data)
complete drawing for DD Forms 1391
prepare engineering plans or projects for submittal to professional engineering staffs
perform surveillance of non appropriated funds (NAF) projects
participate in technical reviews
evaluate project specifications

D. Headquarters Level Contract Management Job (STG166, N=9). Headquarters Level Contract Management personnel are distinguished from those with the Squadron Level job because of duty location and tasks they perform. All are assigned to either a wing or MAJCOM headquarters, six hold the 7-skill level, two hold the 9-skill level, and they average 149 months TAFMS. Thirty percent of their duty time is spent performing contract management functions, 18 percent on drafting functions, 13 percent organizing and planning, and 11 percent performing general or administrative functions. They perform an average of 85 tasks, including the following:

evaluate drawing or engineering plans for accuracy
perform acceptance inspections
conduct post-acceptance inspections
write correspondence related to contracts
review work orders
determine requirements for space, personnel, equipment, or supplies

III. PRIME BEEF JOB (STG071, N=24). These 24 predominant 5- and 7-skill level members are distinguished from all other jobs because they spend 56 percent of their duty time performing Prime BEEF functions (more time than members of any other job) and 20 percent performing drafting functions. This is a rather limited job as members report performing an average of only 36 tasks, all related to Prime BEEF, as shown by tasks listed below:

don or doff chemical warfare personal protective clothing
establish minimal operating strip (MOS)
identify bomb crater damage based on coordinate system
identify and report suspected unexploded ordinance
develop camp contonment layout
report air base damage

IV. PLANNING JOB (STG105, N=6). Six AFSC 553X0 respondents were identified separately because of the project planning tasks they perform. Three hold the 5-skill level, three hold the 7-skill level, four are E-5, and two are E-6. They are a fairly senior group averaging 144 months TAFMS. They spend 30 percent of their duty time performing Prime BEEF functions, 22 percent on project-planning functions, 17 percent on drafting functions, and 11 percent performing contract management functions. They are distinguished by the time they spend performing the following tasks:

estimate cost elements, such as materials, equipment, and labor
develop preliminary designs for architectural plans
prepare materials take off
develop preliminary designs for civil plans
develop preliminary designs for structural plans
select methods of installation and construction

V. GROUND RADAR JOB (GRP353, N=7). These seven respondents are assigned to Hill AFB UT. Three hold the 5-skill level, four hold the 7-skill level, six are paygrade E-5, and one is E-6. They report spending 41 percent of their time performing ground radar functions (more time than members of any other group) and 39 percent performing surveying functions. They perform an average of 42 tasks, and are distinguished by the time they spend performing the following tasks:

record field notes using radar evaluation procedures
collect physical radar site data
establish baselines
draw pictorial site plans
analyze radar or radio line of sight in relation to ground elevation
establish horizontal profiles

VI. SUPERVISION AND ADMINISTRATION JOB (GRP102, N=26). Members with this job are the most senior members, averaging 170 months TAFMS. Twenty-four report having supervisory responsibility, 15 hold the 7-skill level, 3 hold the 9-skill level, and 1 is a CEM. Members with this job spend 20 percent of their duty time organizing and planning, 18 percent inspecting and evaluating, 15 percent directing and implementing, and 15 percent training, for a total of 68 percent of their time performing tasks related to these four duties. Supervisors and Administrators are distinguished by the time they spend on the following tasks:

counsel personnel on personal or military-related problems
determine work priorities
schedule leaves or passes
plan work assignments
establish performance standards for subordinates
interpret policies, directives, or procedures for subordinates

Comparison to Previous Survey

Jobs identified in the present survey were compared to those reported in the previous OSR (see Table 5). While members doing drafting are beginning to use the Computer-Aided Drafting Design (CADD) system to make drawings and do lettering, the basic jobs of the career ladder have not changed over the last 7 years. Differences in job names shown in Table 5 reflect how tasks were grouped in the latest inventory and use of the CODAP task clustering process to identify jobs performed by survey respondents

Summary

Survey data show there are a number of jobs in the career ladder, most of which fall into either the Engineering or Contract Management clusters. While nearly all members of the career ladder perform some drafting and surveying tasks, the individual jobs are distinguished by the specific tasks members of the individual job perform and time spent performing these tasks. The jobs have remained stable over the last several years and are reflected by the current classification structure.

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 determine how well career ladder documents, such as AFR 39-1 Specialty Descriptions and the Specialty Training Standard (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 a distinction between the responsibilities of members of the skill levels, with more 3- and 5-skill level members involved with drafting and surveying functions, more 7-skill level members performing both contract management and supervisory functions, and more 9-skill level members involved with the administrative and managerial aspects of the career ladder.

SKILL-LEVEL DESCRIPTIONS

DAFSC 55330/50. DAFSC 55330/50 respondents constitute 60 percent of the total sample and have a 65 percent-time-spent overlap on common tasks, indicating they perform very nearly the same job. Because of the high overlap, a

TABLE 5

COMPARISON OF CAREER LADDER STRUCTURE FOR
CURRENT AND PREVIOUS SURVEY

JOBS IDENTIFIED IN CURRENT STUDY	JOBS IDENTIFIED IN PREVIOUS OSR
DRAFTING AND SURVEYING	SURVEYING AND DRAFTING
DRAFTING	SUPERVISORY DRAFTSMEN
SURVEYING	FIRST JOB SURVEYORS SUPERVISORY SURVEYORS
PLANNING	MASTER PLANS DEVELOPER ENVIRONMENTAL AND CONTRACT PLANNERS RESOURCES AND REQUIREMENTS PLANNERS
NCOIC	ENGINEERING SUPERVISORS AND INSTRUCTORS NCOICs AND SECTION CHIEFS
INSTRUCTOR	TECHNICAL SCHOOL INSTRUCTORS
MATERIAL TESTING	MATERIAL TESTING TECHNICIAN
CONTRACT INSPECTION	CONSTRUCTION CONTRACT INSPECTORS
SQUADRON LEVEL CONTRACT MANAGEMENT	CONTRACT MANAGEMENT SUPERVISORS CONSTRUCTION CONTRACT LIAISON PERSONNEL
HEADQUARTERS LEVEL CONTRACT MANAGEMENT	
SERVICE CONTRACT MANAGEMENT	SERVICE CONTRACT INSPECTORS
GROUND RADAR	GROUND RADAR EVALUATORS
SUPPLY	NOT IDENTIFIED
BASE SURVIVABILITY	NOT IDENTIFIED
PRIME BEEF	NOT IDENTIFIED

TABLE 6

DISTRIBUTION OF SKILL-LEVEL MEMBERS
ACROSS CAREER LADDER JOBS
(PERCENT)

JOBS	55330/50 (N=630)	55370 (N=381)	55390/00 (N=38)
DRAFTING AND SURVEY	36%	4%	0
DRAFTING	9%	*	0
SURVEYING	2%	*	0
BASE SURVIVABILITY	2%	2%	0
MATERIAL TESTING	2%	*	0
NCOIC	7%	18%	8%
INSTRUCTOR	*	0	0
SUPPLY	*	*	0
CONTRACT INSPECTION	23%	43%	24%
SERVICE CONTRACT MANAGEMENT	3%	3%	0
SQUADRON LEVEL CONTRACT MANAGEMENT	*	*	3%
HQ LEVEL CONTRACT MANAGEMENT	*	2%	5%
PRIME BEEF	2%	2%	3%
PLANNING	*	*	0
GROUND RADAR	*	1%	0
SUPERVISION AND ADMINISTRATION	1%	1%	11%
UNGROUPED	11%	17%	46%

* Denotes less than 1 percent

TABLE 7

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

DUTIES	55330/50 (N=630)	55370 (N=381)	55390/00 (N=38)
A ORGANIZING AND PLANNING	4	8	15
B DIRECTING AND IMPLEMENTING	2	5	9
C INSPECTING AND EVALUATING	4	8	16
D TRAINING	2	5	3
E PERFORMING GENERAL OR ADMINISTRATIVE FUNCTIONS	7	11	10
F PERFORMING SURVEYING FUNCTIONS	16	6	3
G PERFORMING DRAFTING FUNCTIONS	28	11	5
H PERFORMING PROJECT PLANNING FUNCTIONS	1	2	2
I PERFORMING CONTRACT MANAGEMENT FUNCTIONS	18	29	24
J PERFORMING CONTRACT MANAGEMENT COST ESTIMATE AND ANALYSIS FUNCTIONS	*	1	3
K PERFORMING MATERIAL TESTING	*	1	1
L PERFORMING GROUND RADAR EVALUATIONS	*	*	*
M PERFORMING PRIME BEEF FUNCTIONS	17	13	8

* Denotes less than 1 percent

combined job description was created and used in further analyses. As shown in Table 6, most 3- and 5-skill level members are involved with drafting, surveying, and contract inspections. Eleven percent of 3- and 5-skill level members could not be grouped into any of the jobs identified because of the diversity of tasks they perform. Representative tasks DAFSC 55330/50 members perform are listed in Table 8. These tasks deal with drafting, surveying, and Prime BEEF functions.

DAFSC 55370. Seven-skill level personnel constitute 36 percent of the total sample. As shown in Table 6, almost half have the Contract Inspection job, and another 18 percent are NCOICs. Representative tasks DAFSC 55370 members perform are listed in Table 9, and most are related to contract management duties. Tasks that best distinguish between DAFSC 55330/50 and 55370 personnel are shown in Table 10. Figures in the top portion of the table show a greater percentage of 3- and 5-skill level personnel perform drafting and surveying tasks, while figures in the lower half show more 7-skill level personnel perform supervisory tasks.

DAFSC 55390/00. There are 29 9-skill level and 9 CEM code respondents in the sample. These 38 members constitute 4 percent of the total sample and have a 61 percent-time-spent overlap on common tasks, suggesting they perform essentially the same job. Because of this overlap, a combined job description was created and used in further analyses. As shown in Table 6, 26 percent of these respondents have the Contract Inspection job, and 11 percent are Supervisors and Administrators. Representative tasks DAFSC 55390/00 members perform are listed in Table 11, and are clearly administrative and managerial tasks. Tasks that best distinguish between 7-skill level respondents and members of this senior group are listed in Table 12. Figures in the top portion of the table show a greater percentage of 7-skill level personnel perform drafting and Prime BEEF tasks, while figures in the lower half clearly show more senior-level personnel perform administrative and managerial tasks.

Summary

Survey data show Engineering Assistant personnel progress typically through the skill levels, with 3- and 5-skill level personnel spending more time on drafting, surveying, and Prime BEEF functions, 7-skill level members spending more time on contract management and supervisory responsibilities, and 9-skill level and CEM personnel performing the administrative and management functions of the career ladder.

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.

TABLE 8

REPRESENTATIVE TASKS PERFORMED BY 55330/50 PERSONNEL

TASKS		PERCENT MEMBERS PERFORMING (N=630)
G227	REPRODUCE DRAWINGS ON REPRODUCTION MACHINES	68
G216	PERFORM FUNDAMENTAL DRAFTING PRACTICES	68
G210	INTERPRET BLUEPRINTS	68
M391	ERECT TENTS	62
F173	MEASURE DISTANCES USING TAPES	60
G212	LETTER DRAWINGS USING MECHANICAL LETTERING SETS	59
G213	MAINTAIN DRAWING FILES	57
F193	SET UP SURVEYING EQUIPMENT	57
M393	ESTABLISH MINIMAL OPERATING STRIP (MOS)	57
M395	IDENTIFY AND REPORT SUSPECTED UNEXPLODED ORDNANCE	57
G232	UPDATE AS-BUILT DRAWINGS	55
G199	DRAW ARCHITECTURAL PLANS	55
M396	IDENTIFY BOMB CRATER DAMAGE BASED ON COORDINATE SYSTEM	55
G211	LETTER DRAWINGS USING GOTHIC-ARCHITECT STYLE FREE HAND	54
G201	DRAW CIVIL PLANS	52
M432	PREPARE PERSONAL CLOTHING AND EQUIPMENT FOR DEPLOYMENT	52
G205	DRAW MECHANICAL PLANS	49
G202	DRAW ELECTRICAL PLANS	49
G217	PERFORM OPERATOR MAINTENANCE ON REPRODUCTION MACHINES	49
F174	MEASURE HORIZONTAL ANGLES	48
F190	RECORD FIELD NOTES USING STANDARD SURVEYING PROCEDURES	46
G198	DEVELOP MODIFICATIONS FROM EXISTING DRAWINGS	44
G209	DRAW STRUCTURAL PLANS	44
F170	MAINTAIN SURVEYING EQUIPMENT	44
F187	PERFORM TOPOGRAPHIC SURVEYS	41
G233	UPDATE RECORD DRAWINGS	40
M435	REPORT AIR BASE DAMAGE	40
C49	EVALUATE DRAWINGS OR ENGINEERING PLANS FOR ACCURACY	39
I260	CONDUCT ON-SITE VISITS	31
G230	REVISE BCPs	30
G226	PREPARE WORKING DRAWINGS USING COMPUTER-AIDED DRAFTING (CAD)	29
I266	COORDINATE CONSTRUCTION WITH USING AGENCY	25
I289	MAINTAIN RECORDS OF CONTRACT CHANGES	25
I265	IDENTIFY CONTRACTOR PERFORMANCE DISCREPANCIES	25
I272	DOCUMENT CONSTRUCTION ACTIVITIES	24
I262	CONDUCT PRE-ACCEPTANCE INSPECTIONS	24

TABLE 9

REPRESENTATIVE TASKS PERFORMED BY 55370 PERSONNEL

TASKS		PERCENT MEMBERS PERFORMING (N=381)
C49	EVALUATE DRAWINGS OR ENGINEERING PLANS FOR ACCURACY	58
M395	IDENTIFY AND REPORT SUSPECTED UNEXPLODED ORDNANCE	56
G210	INTERPRET BLUEPRINTS	54
M396	IDENTIFY BOMB CRATER DAMAGE BASED ON COORDINATE SYSTEM	54
I260	CONDUCT ON-SITE VISITS	52
M393	ESTABLISH MINIMAL OPERATING STRIP (MOS)	52
C50	EVALUATE DRAWINGS OR ENGINEERING PLANS FOR CONSTRUCTIBILITY	52
E120	INITIATE AF FORMS 9 (REQUEST FOR PURCHASE)	51
A5	DETERMINE WORK PRIORITIES	49
I285	IDENTIFY CONTRACTOR PERFORMANCE DISCREPANCIES	49
I312	WRITE CORRESPONDENCE RELATED TO CONTRACTS	48
I266	COORDINATE CONSTRUCTION WITH USING AGENCY	48
I286	IDENTIFY ON-SITE AND DESIGN DEFICIENCIES	46
I272	DOCUMENT CONSTRUCTION ACTIVITIES	45
I288	INTERPRET CONTRACT PLANS AND SPECIFICATIONS	45
I289	MAINTAIN RECORDS OF CONTRACT CHANGES	45
I262	CONDUCT PRE-ACCEPTANCE INSPECTIONS	45
G227	REPRODUCE DRAWINGS ON REPRODUCTION MACHINES	44
I295	PERFORM ACCEPTANCE INSPECTIONS	44
B41	SUPERVISE ENGINEERING ASSISTANT SPECIALISTS (AFSC 55350)	44
E125	MAINTAIN DAILY INSPECTION RECORDS	43
I264	COORDINATE CONSTRUCTION WITH CONSTRUCTION MANAGER	43
I267	COORDINATE CONTRACT MODIFICATIONS WITH CONSTRUCTION MANAGERS	43
G216	PERFORM FUNDAMENTAL DRAFTING PRACTICES	42
C48	EVALUATE COMPLIANCE WITH WORK STANDARDS	42
A13	PLAN OR PREPARE BRIEFINGS	40
I252	COMPLETE AF FORMS 1477 (CONSTRUCTION INSPECTION RECORD)	39
E124	MAINTAIN ADMINISTRATIVE FILES	37
E135	ORGANIZE DATA FOR COMPUTER INPUTS	33

TABLE 10

EXAMPLES OF TASKS WHICH BEST DIFFERENTIATE BETWEEN
DAFSC 55330/50 AND DAFSC 55370 PERSONNEL
(PERCENT MEMBERS PERFORMING)

TASKS		55330/50 (N=630)	55370 (N=381)	DIFFERENCE
G232	UPDATE AS-BUILT DRAWINGS	55	24	31
G212	LETTER DRAWINGS USING MECHANICAL LETTERING SETS	59	29	30
F193	SET UP SURVEYING EQUIPMENT	57	28	29
G199	DRAW ARCHITECTURAL PLANS	55	8	27
G213	MAINTAIN DRAWING FILES	57	31	26
F173	MEASURE DISTANCES USING TAPES	60	35	25
B27	COUNSEL PERSONNEL ON PERSONAL OR MILITARY-RELATED PROBLEMS	20	51	-31
C50	EVALUATE DRAWINGS OR ENGINEERING PLANS FOR CONSTRUCTIBILITY	24	52	-28
C68	WRITE RECOMMENDATIONS FOR AWARDS AND DECORATIONS	8	37	-29
B41	SUPERVISE ENGINEERING ASSISTANT SPECIALISTS (AFSC 55350)	16	44	-28
C66	WRITE EPRs	18	45	-27
A5	DETERMINE WORK PRIORITIES	23	49	-26

TABLE 11

REPRESENTATIVE TASKS PERFORMED BY 55390/00 PERSONNEL

TASKS		PERCENT MEMBERS PERFORMING (N=38)
A13	PLAN OR PREPARE BRIEFINGS	87
A5	DETERMINE WORK PRIORITIES	87
C49	EVALUATE DRAWINGS OR ENGINEERING PLANS FOR ACCURACY	68
B27	COUNSEL PERSONNEL ON PERSONAL OR MILITARY-RELATED PROBLEMS	68
A14	PLAN OR PREPARE STATUS BOARDS, CHARTS, OR GRAPHS	66
A9	ESTABLISH ORGANIZATIONAL POLICIES, OFFICE INSTRUCTIONS (OI), OR STANDARD OPERATING PROCEDURES (SOP)	66
B38	INTERPRET POLICIES, DIRECTIVES, OR PROCEDURES FOR SUBORDINATES	61
C52	EVALUATE FINANCIAL REQUIREMENTS	61
C66	WRITE EPRs	61
C58	EVALUATE PROJECT SPECIFICATIONS	61
B26	CONDUCT STAFF MEETINGS	61
C68	WRITE RECOMMENDATIONS FOR AWARDS AND DECORATIONS	61
I312	WRITE CORRESPONDENCE RELATED TO CONTRACTS	58
B37	INTERPRET ENGINEERING PLANS FOR SUBORDINATES	58
A10	ESTABLISH PERFORMANCE STANDARDS FOR SUBORDINATES	55
I260	CONDUCT ON-SITE VISITS	55
C50	EVALUATE DRAWINGS OR ENGINEERING PLANS FOR CONSTRUCTIBILITY	53
A4	DETERMINE REQUIREMENTS FOR SPACE, PERSONNEL, EQUIPMENT, OR SUPPLIES	53
I266	COORDINATE CONSTRUCTION WITH USING AGENCY	53
E124	MAINTAIN ADMINISTRATIVE FILES	47
B43	SUPERVISE ENGINEERING ASSISTANT TECHNICIANS (AFSC 55370)	47
I267	COORDINATE CONTRACT MODIFICATIONS WITH CONSTRUCTION MANAGERS	45
C56	EVALUATE MAINTENANCE OR USE OF WORKSPACE, EQUIPMENT, OR SUPPLIES	42
I294	PARTICIPATE IN TECHNICAL REVIEWS	42
C69	WRITE STAFF STUDIES	39
I303	REVIEW CONTRACTOR INVOICES	32
E126	MAINTAIN FINANCIAL ACCOUNTS	21

TABLE 12

EXAMPLES OF TASKS WHICH BEST DIFFERENTIATE BETWEEN
DAFSC 553370 AND DAFSC 55390/00 PERSONNEL
(PERCENT MEMBERS PERFORMING)

TASKS		55370 (N=381)	55390/00 (N=38)	DIFFERENCE
M396	IDENTIFY BOMB CRATER DAMAGE BASED ON COORDINATE SYSTEM	54	26	28
G216	PERFORM FUNDAMENTAL DRAFTING PRACTICES	52	26	26
G227	REPRODUCE DRAWINGS ON REPRODUCTION MACHINES	43	18	25
G211	LETTER DRAWINGS USING GOTHIC-ARCHITECT STYLE FREE HAND	44	21	23
M395	IDENTIFY AND REPORT SUSPECTED UNEXPLODED ORDNANCE	30	8	22
M378	ASSEMBLE AM-2 MATTING FOR RAPID RUNWAY REPAIRS	56	34	22
A13	PLAN OR PREPARE BRIEFINGS	40	87	-47
C52	EVALUATE FINANCIAL REQUIREMENTS	19	61	-42
B26	CONDUCT STAFF MEETINGS	20	61	-41
A5	DETERMINE WORK PRIORITIES	49	87	-38
A8	DRAFT UNIT OR OFFICE BUDGET REQUIREMENTS	20	53	-33
C69	WRITE STAFF STUDIES	7	39	-32

ANALYSIS OF MAJCOM GROUPS

Survey data show there are some slight differences in time spent across duties by members of MAJCOMs. Figures in Table 13 show members of AAC spend more time on surveying functions than members of the other MAJCOMs, members in AFLC spend more time performing Prime BEEF functions than other MAJCOMs, members in PACAF and Space Command spend more time performing contract management functions, and members of AFCC spend more time on drafting functions. First-enlistment members of the MAJCOMs, however, spend very similar amounts of time across all duties, with the most time spent performing drafting, surveying, and Prime BEEF functions (see Table 14).

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 task difficulty. These data were used to evaluate the tentative STS and POI.

TE and TD data are secondary factors that are used in conjunction with percent members performing figures to determine what tasks should be included in entry-level training. Tasks with high TE and TD ratings and performed by moderate to high percentages of first-enlistment personnel are normally 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 with low TE and TD ratings are generally not included in any formal training unless their inclusion can be justified by percent members performing, command concerns, or criticality.

There is an additional factor, the Automated Training Indicator (ATI) computed for each task in the inventory, that school personnel can use to assist in making training decisions. A computer program uses the percent of first-enlistment members performing each task, TE and TD ratings, and the Course Training Decision Table found in ATCR 52-22, Atch 1, to assign an ATI value to each task in the inventory. ATIs range from 1 to 18 and suggest what tasks are most appropriate for training and to what level. The decision table and explanation of the ATIs precede the listing of tasks in descending ATI order in the Training Extract. School personnel will find this table and listing valuable for making decisions about training documents.

Table 15 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 are core drafting and surveying tasks performed by rather high percentages of first-enlistment personnel. All are matched to the STS, and most are matched to the POI.

TABLE 13

DISTRIBUTION OF TIME SPENT ACROSS DUTIES BY MEMBERS OF MAJCOMS
(RELATIVE PERCENT OF JOB TIME SPENT)

DUTIES	AAC (N=45)	USAFE (N=132)	ALFC (N=66)	AFSC (N=36)	ATC (N=74)	MAC (N=121)
A ORGANIZING AND PLANNING	4	9	5	7	5	4
B DIRECTING AND IMPLEMENTING	3	4	3	4	4	3
C INSPECTING AND EVALUATING	6	7	5	5	5	5
D TRAINING	2	2	3	2	7	2
E PERFORMING GENERAL OR ADMINISTRATIVE FUNCTIONS	8	11	7	7	7	8
F PERFORMING SURVEYING FUNCTIONS	20	8	8	9	16	12
G PERFORMING DRAFTING FUNCTIONS	19	17	21	26	24	19
H PERFORMING PROJECT PLANNING FUNCTIONS	2	1	2	2	1	1
I PERFORMING CONTRACT MANAGEMENT FUNCTIONS	29	22	19	19	13	24
J PERFORMING CONTRACT MANAGEMENT COST ESTIMATE AND ANALYSIS FUNCTIONS	1	1	*	*	*	*
K PERFORMING MATERIAL TESTING	*	3	*	*	*	*
L PERFORMING GROUND RADAR EVALUATIONS	*	*	*	0	0	*
M PERFORMING PRIME BEEF FUNCTIONS	7	15	25	18	16	20

* Denotes less than 1 percent

TABLE 13 (CONTINUED)

DISTRIBUTION OF TIME SPENT ACROSS DUTIES BY MEMBERS OF MAJCOMS
(RELATIVE PERCENT OF JOB TIME SPENT)

DUTIES	PACAF (N=45)	SAC (N=132)	TAC (N=66)	AFCC (N=36)	SPACE (N=74)
A ORGANIZING AND PLANNING	6	4	6	12	5
B DIRECTING AND IMPLEMENTING	3	3	4	5	3
C INSPECTING AND EVALUATING	6	5	6	12	7
D TRAINING	2	3	3	5	2
E PERFORMING GENERAL OR ADMINISTRATIVE FUNCTIONS	10	8	7	15	10
F PERFORMING SURVEYING FUNCTIONS	11	14	17	*	6
G PERFORMING DRAFTING FUNCTIONS	11	24	20	37	25
H PERFORMING PROJECT PLANNING FUNCTIONS	*	1	1	4	3
I PERFORMING CONTRACT MANAGEMENT FUNCTIONS	31	25	15	9	31
J PERFORMING CONTRACT MANAGEMENT COST ESTIMATE AND ANALYSIS FUNCTIONS	*	*	*	1	2
K PERFORMING MATERIAL TESTING	2	*	*	0	*
L PERFORMING GROUND RADAR EVALUATIONS	*	*	2	0	0
M PERFORMING PRIME BEEF FUNCTIONS	17	11	18	0	6

* Denotes less than 1 percent

TABLE 14

DISTRIBUTION OF TIME SPENT ACROSS DUTIES BY FIRST-TERM MEMBERS OF MAJCOMS
(RELATIVE PERCENT OF JOB TIME SPENT)

DUTIES	USAFE (N=32)	ATC (N=16)	MAC (N=13)	PACAF (N=14)	SAC (N=75)	TAC (N=26)
A ORGANIZING AND PLANNING	5	3	3	4	3	2
B DIRECTING AND IMPLEMENTING	2	2	*	1	*	*
C INSPECTING AND EVALUATING	3	1	2	2	2	*
D TRAINING	1	*	*	*	*	*
E PERFORMING GENERAL OR ADMINISTRATIVE FUNCTIONS	9	3	2	6	4	4
F PERFORMING SURVEYING FUNCTIONS	14	28	26	23	23	27
G PERFORMING DRAFTING FUNCTIONS	32	36	39	30	44	39
H PERFORMING PROJECT PLANNING FUNCTIONS	1	*	0	*	*	*
I PERFORMING CONTRACT MANAGEMENT FUNCTIONS	9	2	4	9	8	2
J PERFORMING CONTRACT MANAGEMENT COST ESTIMATE AND ANALYSIS FUNCTIONS	*	*	0	*	*	*
K PERFORMING MATERIAL TESTING	2	0	0	*	*	*
L PERFORMING GROUND RADAR EVALUATIONS	*	0	*	0	*	0
M PERFORMING PRIME BEEF FUNCTIONS	20	23	22	24	13	22

* Denotes less than 1 percent

NOTE: Only those MAJCOMs having more than 10 first-enlistment members or more than 10 percent of all first-enlistment personnel are listed

TABLE 15

SAMPLE OF TASKS WITH HIGHEST TRAINING EMPHASIS RATINGS

TASKS		TNG EMP	PERCENT MEMBERS PERFORMING 1-24 TAFMS	PERCENT MEMBERS PERFORMING 1-48 TAFMS	TASK DIFF
G216	PERFORM FUNDAMENTAL DRAFTING PRACTICES	7.12	92	84	3.36
G226	PREPARE WORKING DRAWINGS USING COMPUTER-AIDED DRAFTING (CAD)	7.10	34	34	6.96
F193	SET UP SURVEYING EQUIPMENT	6.83	89	77	3.80
G210	INTERPRET BLUEPRINTS	6.71	82	78	4.87
G201	DRAW CIVIL PLANS	6.66	63	62	4.48
G202	DRAW ELECTRICAL PLANS	6.61	70	64	4.86
F155	COMPUTE LEVEL CIRCUIT DATA	6.56	54	49	5.07
G232	UPDATE AS-BUILT DRAWINGS	6.56	77	72	4.01
G233	UPDATE RECORD DRAWINGS	6.56	58	54	3.99
M393	ESTABLISH MINIMAL OPERATING STRIP (MOS)	6.51	40	49	5.86
F190	RECORD FIELD NOTES USING STANDARD SURVEYING PROCEDURES	6.46	66	61	4.17
G205	DRAW MECHANICAL PLANS	6.44	67	65	5.06
F174	MEASURE HORIZONTAL ANGLES	6.41	67	63	4.03
G199	DRAW ARCHITECTURAL PLANS	6.39	72	70	4.52
F165	ESTABLISH HORIZONTAL CONTROLS	6.37	46	42	5.04
F187	PERFORM TOPOGRAPHIC SURVEYS	6.34	55	51	5.05

TE Mean = 2.81 S.D. = 1.72
TD Mean = 5.00 S.D. = 1.00

TABLE 15 (CONTINUED)

SAMPLE OF TASKS WITH HIGHEST TRAINING EMPHASIS RATINGS

TASKS		TNG EMP	PERCENT MEMBERS PERFORMING 1-24 TAFMS	PERCENT MEMBERS PERFORMING 1-48 TAFMS	TASK DIFF
F162	DRAW TOPOGRAPHIC MAPS	6.27	37	43	5.18
F167	ESTABLISH VERTICAL CONTROLS	6.27	37	33	5.22
F177	MEASURE VERTICAL ANGLES	6.27	55	52	4.54
F178	MEASURE VERTICAL DISTANCES OR HEIGHTS	6.22	51	47	4.72
G209	DRAW STRUCTURAL PLANS	6.22	52	56	4.76
F170	MAINTAIN SURVEYING EQUIPMENT	6.20	69	58	4.33
F176	MEASURE STADIA DISTANCES	6.17	61	56	4.16
F175	MEASURE HORIZONTAL DISTANCES USING ELECTRONIC EQUIPMENT	6.12	45	37	4.79
F154	COMPUTE HORIZONTAL OR VERTICAL DISTANCES	6.10	60	48	5.12
F189	PROLONG STRAIGHT LINES	6.10	49	47	3.50
F148	COMPUTE AZIMUTHS AND BEARINGS	6.07	47	39	4.68
F163	ESTABLISH BUILDING CORNERS FOR NEW CONSTRUCTION SITES	6.05	42	35	4.75
F173	MEASURE DISTANCES USING TAPES	6.05	87	77	3.50
F156	COMPUTE LINEAR ERROR OF CLOSURE	5.98	27	25	5.79
F158	COMPUTE TRAVERSE DATA	5.95	31	29	6.40
F168	FIELD ADJUST SURVEYING EQUIPMENT	5.95	31	28	6.40

TE Mean = 2.81 S.D. = 1.72
TD Mean = 5.00 S.D. = 1.00

Tasks with the highest TD ratings are listed in Table 16. These are tasks from several duties, performed by low percentages of AFSC 553X0 personnel. Task G226, dealing with CADD, has the highest percent of TAFMS or skill level members performing. About half of these tasks are matched to the STS, while very few are matched to the POI.

The Training Extract contains listing of tasks sorted in descending order of TE, TD, and ATI, as well as listings of the tentative STS and POI, with accompanying tasks matched to elements and learning objectives, percent first-job, first-enlistment, 5- and 7-skill level members performing each matched task, TE and TD ratings, and ATI. Copies of the extract have been forwarded to technical school personnel for their use in reviewing the tentative training documents. The TRA, scheduled to be printed in February 1991, will also be sent to the technical school for use in reviewing training documents. A summary of OSR information is presented below.

First-Enlistment Engineering Assistant Personnel (AFSC 553X0)

Two hundred and nine respondents indicated they are in their first enlistment. As shown by Figure 2, half have the drafting and surveying job, 16 percent the drafting job, and very small percentages in several other jobs. First-enlistment personnel spend 40 percent of their duty time performing drafting functions, 23 percent performing surveying functions, and 17 percent performing Prime BEEF functions (see Table 17). The jobs first-enlistment personnel have are also reflected by representative tasks they perform, shown in Table 18. Again, tasks performed by the highest percentage of first-enlistment personnel are those dealing with drafting, surveying, and Prime BEEF functions. Equipment items used by more than 30 percent of first-enlistment personnel are listed in Table 19, and most are drafting and surveying items.

Specialty Training Standards (STS)

For the purposes of reviewing the Specialty Training Standard (STS) and Plan of Instruction (POI), OMC personnel met with 3770th Technical Training Group personnel at Sheppard AFB to match tasks listed in the job inventory to line items of the tentative STS and learning objectives in the newly revised POI. The end products of the matches were used to produce listings 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 Extracts sent to the school for review. 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.

AFSC 553X0 STS. Paragraphs 1 through 6 and 8 deal with the general topics of career ladder structure, OPSEC, graduate evaluation, supervision, training, and AFOSH, and were not reviewed. Paragraph 7 deals with civil engineering management, while paragraphs 9 through 15 cover all other technical aspects of the career ladder.

TABLE 16

SAMPLE OF TASKS WITH HIGHEST TASK DIFFICULTY RATINGS

TASKS		TSK DIF	PERCENT MEMBERS PERFORMING 1-48 TAFMS	55350	55370	TNG EMP
H246	WRITE PROJECT SPECIFICATIONS	7.74	4	7	13	1.66
L370	COMPUTE SURVEYED SHADOW AND VERTICAL ANGLES	7.28	0	1	1	.59
L372	DRAW LOBING GRAPHS	7.25	0	1	1	.34
F159	COMPUTE VERTICAL CURVE	7.18	13	9	7	5.20
L369	COMPUTE SOLAR DATA	7.18	0	1	1	.34
C69	WRITE STAFF STUDIES	7.15	1	3	7	.32
K339	DEVELOP PRELIMINARY DESIGN FOR BITUMINOUS MIXES	7.10	0	1	2	1.32
F153	COMPUTE HORIZONTAL CURVE DATA	7.06	20	14	10	5.46
K340	DEVELOP PRELIMINARY DESIGN FOR CONCRETE MIXES	7.05	0	1	2	1.49
F151	COMPUTE GEOGRAPHICAL LATITUDE AND LONGITUDE DATA	7.00	15	15	11	4.66
D81	DEVELOP RESIDENT COURSE OR CAREER DEVELOPMENT COURSE (CDC) CURRICULUM MATERIALS	7.00	0	2	4	.68
G226	PREPARE WORKING DRAWINGS USING COMPUTER AIDED DRAFTING (CAD)	6.96	34	29	15	7.10
K338	DETERMINE ALLOWABLE GROSS LOADS OF AIRFIELD PAVEMENT SYSTEMS	6.90	1	0	2	1.37
H237	DEVELOP PRELIMINARY DESIGNS FOR ELECTRICAL PLANS	6.85	4	4	9	1.90
H238	DEVELOP PRELIMINARY DESIGNS FOR MECHANICAL PLANS	6.85	5	4	8	1.93
J319	PERFORM ENERGY AUDITS AND ANALYSIS OF FACILITIES	6.78	0	1	1	.51

TD Mean = 5.00 S.D. = 1.00
TE Mean = 2.81 S.D. = 1.72

TABLE 16 (CONTINUED)

SAMPLE OF TASKS WITH HIGHEST TASK DIFFICULTY RATINGS

TASKS		TSK DIF	PERCENT MEMBERS PERFORMING 1-48 TAFMS	55350	55370	TNG EMP
C58	EVALUATE PROJECT SPECIFICATIONS	6.76	9	23	43	3.12
J324	PREPARE FINAL COST ESTIMATES	6.74	0	7	13	1.22
C50	EVALUATE DRAWINGS OR ENGINEERING PLANS FOR CONSTRUCTIBILITY	6.70	10	29	52	4.05
H245	SELECT METHODS OF INSTALLATION AND CONSTRUCTION	6.66	2	6	14	1.51
I314	WRITE QUALITY ASSURANCE SURVEILLANCE PLANS FOR SERVICE CONTRACTS	6.65	3	13	15	2.22
A25	WRITE UNIT EMERGENCY OR DISASTER PLANS	6.65	1	4	6	.51
J329	WRITE WRITTEN EVALUATIONS OF BASE COMPREHENSIVE PLANS	6.59	0	1	3	.59
C68	WRITE RECOMMENDATIONS FOR AWARDS AND DECORATIONS	6.57	2	10	37	1.27
I288	INTERPRET CONTRACT PLANS AND SPECIFICATIONS	6.55	9	28	45	4.44
I271	DEVELOP PERFORMANCE WORK STATEMENTS	6.44	6	17	22	2.61
K365	WRITE MATERIALS TEST REPORTS	6.44	0	2	3	1.71
H244	SELECT MATERIALS AND EQUIPMENT	6.43	5	6	13	1.66
A19	PREPARE BASE COMPREHENSIVE PLANS (BCP)	6.43	27	20	15	3.95
F160	COMPUTE VERTICAL ERROR OF CLOSURE	6.41	12	8	6	5.27

TD Mean = 5.00 S.D. = 1.00
TE Mean = 2.81 S.D. = 1.72

FIRST ASSIGNMENT AFSC 553X0
CAREER LADDER JOBS

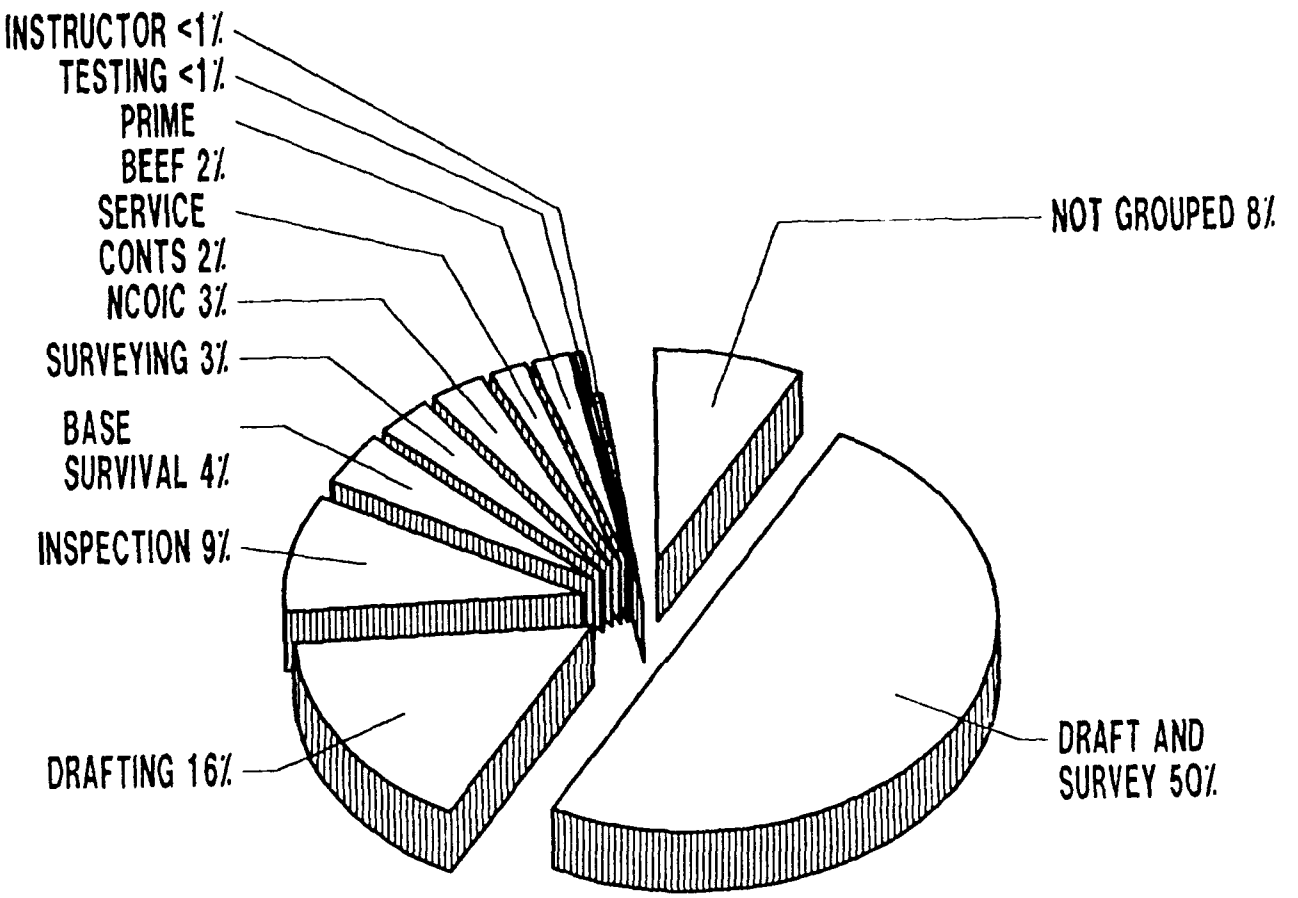

FIGURE 2

TABLE 17

RELATIVE PERCENT OF TIME SPENT ACROSS DUTIES BY FIRST-ENLISTMENT AFSC 553X0 PERSONNEL

DUTIES	1-48 MOS TAFMS (N=209)
A ORGANIZING AND PLANNING	3
B DIRECTING AND IMPLEMENTING	1
C INSPECTING AND EVALUATING	2
D TRAINING	1
E PERFORMING GENERAL OR ADMINISTRATIVE FUNCTIONS	5
F PERFORMING SURVEYING FUNCTIONS	23
G PERFORMING DRAFTING FUNCTIONS	40
H PERFORMING PROJECT PLANNING FUNCTIONS	*
I PERFORMING CONTRACT MANAGEMENT FUNCTIONS	7
J PERFORMING CONTRACT MANAGEMENT COST ESTIMATE AND ANALYSIS FUNCTIONS	*
K PERFORMING MATERIAL TESTING	*
L PERFORMING GROUND RADAR EVALUATIONS	*
M PERFORMING PRIME BEEF FUNCTIONS	17

* Denotes less than 1 percent

TABLE 18

REPRESENTATIVE TASKS PERFORMED BY FIRST-ENLISTMENT
AFSC 553X0 PERSONNEL

TASKS		PERCENT MEMBERS PERFORMING (N=209)
G216	PERFORM FUNDAMENTAL DRAFTING PRACTICES	84
G227	REPRODUCE DRAWINGS ON REPRODUCTION MACHINES	82
G210	INTERPRET BLUEPRINTS	78
G212	LETTER DRAWINGS USING MECHANICAL LETTERING SETS	77
F173	MEASURE DISTANCES USING TAPES	77
F193	SET UP SURVEYING EQUIPMENT	77
G213	MAINTAIN DRAWING FILES	73
G232	UPDATE AS-BUILT DRAWINGS	72
G199	DRAW ARCHITECTURAL PLANS	70
G217	PERFORM OPERATOR MAINTENANCE ON REPRODUCTION MACHINES	67
G211	LETTER DRAWINGS USING GOTHIC-ARCHITECT STYLE FREE HAND	65
G205	DRAW MECHANICAL PLANS	65
G202	DRAW ELECTRICAL PLANS	64
F174	MEASURE HORIZONTAL ANGLES	63
G201	DRAW CIVIL PLANS	62
F190	RECORD FIELD NOTES USING STANDARD SURVEYING PROCEDURES	61
M391	ERECT TENTS	60
F170	MAINTAIN SURVEYING EQUIPMENT	58
G198	DEVELOP MODIFICATIONS FROM EXISTING DRAWINGS	56
G209	DRAW STRUCTURAL PLANS	56
F176	MEASURE STADIA	56
G233	UPDATE RECORD DRAWINGS	54
F147	COMMUNICATE USING STANDARDIZED HAND SIGNALS	54
F187	PERFORM TOPOGRAPHIC SURVEYS	51
M396	IDENTIFY BOMB CRATER DAMAGE BASED ON COORDINATE SYSTEM	50
M393	ESTABLISH MINIMAL OPERATING STRIP (MOS)	49
M432	PREPARE PERSONAL CLOTHING AND EQUIPMENT FOR DEPLOYMENT	48
F154	COMPUTE HORIZONTAL OR VERTICAL DISTANCES	48
G230	REVISE BCPs	41
G226	PREPARE WORKING DRAWINGS USING COMPUTER-AIDED DRAFTING (CAD)	34
G228	REVIEW BASE COMPREHENSIVE PLANS (BCP)	34

TABLE 19

EQUIPMENT ITEMS USED BY MORE THAN 30 PERCENT OF FIRST-ENLISTMENT AFSC 553X0 PERSONNEL

EQUIPMENT ITEMS	PERCENT MEMBERS USING (N=209)
CALCULATORS	92
DRAWING TABLES	89
SCALES, ENGINEERING	89
SCALES, ARCHITECTURAL	87
TEMPLATES	83
DIAZO COPY MACHINES	82
TRIPODS	81
LETTERING SET WITH LETTERING GUIDES	78
STEEL TAPES	77
TRANSITS	75
COMPUTERS	74
MECHANICAL PENCILS	74
RANGLE POLES	74
METALLIC TAPES	73
LEVEL RODS	68
TAPING ARROWS	66
TECHNICAL FOUNTAIN PENS	64
PRECISION RODS	62
TRACING/LIGHT TABLES	62
THEODOLITES	61
LEVELS, DUMPY/ENGINEER	60
TAPE CLAMPS	60
LEAD HOLDERS	56
DRAFTING MACHINES	55
ULTRASONIC CLEANERS	51
LEVELS, SELF-LEVELING	47
RADIOS	47
MAGNETIC COMPASSES	42
LOW-COEFFICIENT TAPES	40
PARALLEL RULES	40
CADD SYSTEM	37
CAMERAS	36
LEVELS, HAND	35
LETTERING SET WITHOUT LETTERING GUIDES	34
ELECTRONIC DISTANCE MEASURERS	33
PROPORTIONAL DIVIDERS	32
STADIA BOARDS/RODS	31

Using AFR 8-13 criteria, most elements in the STS with tasks matched are supported by survey data, meaning tasks matched are performed by more than 20 percent of first-job, first-enlistment, 5-, or 7-skill level members. There are, however, a number of elements that are not supported. These deal with engineering management functions, construction materials testing, and general and specific contingency responsibilities. All but one of these unsupported elements are either not included in the entry-level course, or are taught to a knowledge level only. Because there are so many, they will not be discussed individually in this report, but are displayed with matched tasks and survey data in Appendix B, Table B1. School personnel are directed to this table to determine if these unsupported elements should remain in the STS.

STS elements 9b(1) - Site reconnaissance, 11d - Maintain drawing files, and 14a(1)(d)1 - MOS configuration, have a dash (-) as the entry-level course code, but are matched to tasks performed by more than 30 percent first-job or first-enlistment members. These data suggest the training code for these elements should be changed from a dash (-) to a knowledge or task proficiency level. School personnel need to review these items in light of the survey data.

There are a number of tasks performed by more than 20 percent of criterion group members that are not matched to STS elements (Table 20). These tasks were reviewed to determine if they deal with a particular function or are related to a specific job. A number appear to relate to surveying functions, while others are Prime BEEF functions. Only the first six tasks listed have high TE and, therefore, suggest material that might be added to the STS. Training personnel and subject-matter experts need to review these unmatched tasks.

Plan of Instruction (POI)

The same 3770 TCHTG personnel also matched inventory tasks to learning objectives of the revised Engineering Assistant Plan of Instruction (POI), dated 31 May 90. A computer product was created for the POI listing learning objectives, tasks matched, percent first-job and first-enlistment members performing, TE and TD data, and ATI values. Learning objectives with tasks matched were 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.

ABR55330 POI. Learning objectives in Block I of the course cover introductory materials and were not reviewed. All learning objectives with tasks matched were supported, except for II2b - measure horizontal angles of a closed loop traverse, III2b - compute horizontal curve data, III4a - compute vertical curve data, and III5a - compute earthwork volumes. These unsupported objectives, with matched tasks and percent first-job and first-enlistment personnel performing, are listed in Table 21.

TABLE 20

TASKS PERFORMED BY MORE THAN 20 PERCENT CRITERION GROUP
MEMBERS NOT MATCHED TO AFSC 553X0 STS

TASKS		PERCENT MEMBERS PERFORMING					
		TNG EMP	1ST JOB	1ST ENL	5- LVL	7- LVL	TSK DIFF
F182	PERFORM AS-BUILT SURVEYS	5.54	40	37	29	19	4.58
M379	ASSESS BASE FACILITY DAMAGE	5.44	33	40	45	46	5.21
F172	MEASURE DIRECTIONS AND ANGLES USING MAGNETIC COMPASS	5.41	20	25	19	13	4.44
M435	REPORT AIR BASE DAMAGE	4.90	23	32	42	42	4.64
M395	IDENTIFY AND REPORT SUSPECTED UNEXPLODED ORDNANCE	4.78	46	51	59	56	3.99
F191	RESEARCH WRITTEN LAND DESCRIPTIONS, SECTION CORNERS, AND BENCH MARKS	4.54	37	31	20	14	5.73
M380	ASSIST IN EVALUATING AIRFIELD ASSAULT STRIPS	4.49	17	23	31	29	5.41
F181	PERFORM AIRCRAFT ACCIDENT SURVEYS	4.20	24	25	21	13	5.75
F161	DRAW AIRCRAFT ACCIDENT MAPS	4.15	22	24	18	11	5.34
F180	OPERATE FIELD RADIOS	3.93	51	44	32	27	2.73

TABLE 21

UNSUPPORTED 3ABR55330 POI OBJECTIVES

	PERCENT MEMBERS PERFORMING				
	TNG EMP	1ST JOB	1ST ENL	TASK DIFF	ATI
II 2B. MEASURE THE HORIZONTAL ANGLES OF A CLOSED LOOP TRAVESE.					
F172 MEASURE DIRECTIONS AND ANGLES USING MAGNETIC COMPASS	5.41	20	25	4.44	11
III 2B. INITIATE A FINAL LOCATION SURVEY ON A PRELIMINARY ROAD BY ESTABLISHING HORIZONTAL ALIGNMENT AND COMPUTING HORIZONTAL CURVE DATA.					
F153 COMPUTE HORIZONTAL CURVE DATA	5.46	19	20	7.06	11
III 4A. PLOT A CENTER-LINE PLAN AND PROFILE BY ESTABLISHING HORIZONTAL AND VERTICAL ALIGNMENT AND COMPUTING VERTICAL CURVE DATA.					
F166 ESTABLISH VERTICAL ALIGNMENT, SUCH AS ROUTES, STRUCTURES, AND FACILITIES	5.56	24	23	5.33	11
F159 COMPUTE VERTICAL CURVE	5.20	14	13	7.18	11
III 5A. COMPUTE EARTHWORK VOLUMES TO THE NEAREST CUBIC YARD.					
F149 COMPUTE CROSS-SECTION END AREAS	5.49	29	27	5.83	11
F150 COMPUTE EARTHWORK VOLUMES	5.46	20	19	6.00	11

TD Mean = 5.00 S.D. = 1.00
TE Mean = 2.81 S.D. = 1.72

There are also a number of tasks performed by more than 30 percent first-job or first-enlistment personnel that are not matched to the POI (see Table 22). These deal with both drafting and Prime BEEF functions. School personnel need to review these tasks to determine if they suggest materials that should be included in the POI.

Summary

Most matched portions 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 need to review unsupported STS line items and POI objectives, as well as tasks that were not matched to either document.

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 members of related AFSCs surveyed in 1989 (Table 23). Job interest and perceived use of talents are higher for members of this career ladder compared to the comparative sample, while perceived use of training and reenlistment intentions are noticeably lower.

Satisfaction indicators for TAFMS groups in the present study were also compared to figures reported in the previous OSR (Table 24). Overall, indicators are quite similar for members of the TAFMS groups, and indicators have remained fairly stable over the years.

Satisfaction indicators for members of the various jobs are shown in Table 25. Most respondents find their work interesting, except those with the Ground Radar and Drafting jobs, who report the lowest job interest. Personnel with the Ground Radar, Prime BEEF, and Drafting jobs express lowest perceived use of talents, and personnel with the Ground Radar, Prime BEEF, and Base Survivability jobs feel their training is least used. There is also variation across jobs as far as reenlistment intentions go. Instructors and personnel with the Plans and Surveying job have the lowest reenlistment intentions.

Summary

Satisfaction of AFSC 553X0 personnel and members of similar AFSCs surveyed in 1989 were compared, and data show AFSC 553X0 personnel have somewhat higher satisfaction indicators than their counterparts in other AFSCs. Overall, satisfaction has remained fairly stable over the years. Members of most jobs find their work interesting, feel their talents and training are used, and plan to reenlist, with the exception of those with the Ground Radar, Prime BEEF, and Drafting jobs.

TABLE 22

TASKS PERFORMED BY MORE THAN 30 PERCENT CRITERION
GROUPS NOT MATCHED TO 3ABR55330 POI

TASKS NOT REFERENCED		PERCENT MEMBERS PERFORMING TNG EMP	1ST JOB	1ST ENL	TASK DIFF	ATI
G226	PREPARE WORKING DRAWINGS USING COMPUTER AIDED DRAFTING (CAD)	7.10	34	34	6.96	12
G232	UPDATE AS-BUILT DRAWINGS	6.56	77	72	4.01	18
G233	UPDATE RECORD DRAWINGS	6.56	58	54	3.99	18
M393	ESTABLISH MINIMAL OPERATING STRIP (MOS)	6.51	40	49	5.86	12
F175	MEASURE HORIZONTAL DISTANCES USING ELECTRONIC EQUIPMENT	6.12	45	37	4.79	12
M421	PERFORM FIRST-AID LIFESAVING TECHNIQUES	5.73	34	41	4.77	12
M396	IDENTIFY BOMB CRATER DAMAGE BASED ON COORDINATE SYSTEM	5.68	41	50	4.48	18
F169	MAINTAIN FIELD SURVEY FILES	5.61	30	31	4.58	12
G213	MAINTAIN DRAWING FILES	5.59	78	73	3.84	12
F182	PERFORM AS-BUILT SURVEYS	5.54	40	37	4.58	12
M379	ASSESS BASE FACILITY DAMAGE	5.44	33	40	5.21	12
F147	COMMUNICATE USING STANDARDIZED HAND SIGNALS	5.24	69	54	3.35	18
F186	PERFORM SITE RECONNAISSANCE	5.22	36	38	4.68	12
G198	DEVELOP MODIFICATIONS FROM EXISTING DRAWINGS	5.07	54	56	4.04	18
F179	OBTAIN BACKGROUND RECONNAISSANCE INFORMATION ON SITES TO BE SURVEYED	4.98	35	36	4.86	12
M395	IDENTIFY AND REPORT SUSPECTED UNEXPLODED ORDNANCE	4.78	46	51	3.99	18
G230	REVISE BCPs	4.54	42	41	4.95	12
F191	RESEARCH WRITTEN LAND DESCRIPTIONS, SECTION CORNERS, AND BENCH MARKS	4.54	37	31	5.73	12
G215	MEASURE IRREGULAR LINES	4.54	37	32	4.02	12
M397	IDENTIFY CHEMICAL WARFARE AGENTS	4.39	33	36	4.91	15
G228	REVIEW BASE COMPREHENSIVE PLANS (BCP)	4.20	37	34	4.78	15
G218	PREPARE ENGINEERING SKETCHES FOR ARCHITECTURAL PLANS	4.10	37	54	4.57	15
G204	DRAW ILLUSTRATION DRAWINGS	3.98	35	31	5.49	15
F180	OPERATE FIELD RADIOS	3.93	51	44	2.73	5

TD Mean = 5.00 S.D. = 1.00
TE Mean = 2.81 S.D. = 1.72

TABLE 23

COMPARISON OF JOB SATISFACTION INDICATORS FOR 553X0 TAFMS GROUPS
IN CURRENT STUDY TO A COMPARATIVE SAMPLE
(PERCENT MEMBERS RESPONDING)

	1-48 MONTHS TAFMS		49-96 MONTHS TAFMS		97+ MONTHS TAFMS	
	553X0 (N=209)	COMP SAMPLE (N=1,142)	553X0 (N=298)	COMP SAMPLE (N=838)	553X0 (N=531)	COMP SAMPLE (N=954)
EXPRESSED JOB INTEREST:						
INTERESTING	82	57	81	57	86	72
SO-SO	9	24	11	22	7	17
DULL	9	18	8	20	7	10
PERCEIVED USE OF TALENTS:						
FAIRLY WELL TO GOOD	80	58	82	67	86	83
LITTLE OR NOT AT ALL	20	41	17	33	14	16
PERCEIVED USE OF TRAINING:						
FAIRLY WELL TO GOOD	77	88	71	87	74	86
LITTLE OR NOT AT ALL	33	12	29	13	26	14
REENLISTMENT INTENTIONS:						
WILL REENLIST	45	61	67	75	76	75
WILL NOT REENLIST	54	38	32	24	9	9
WILL RETIRE	0	*	0	*	14	16

* Denotes less than 1 percent

Comparative data were from AFSCs 231X3 and 631X0 surveyed in 1989

TABLE 24

COMPARISON OF JOB SATISFACTION INDICATORS FOR AFSC 553X0 TAFMS GROUPS
IN CURRENT AND PREVIOUS STUDIES
(PERCENT MEMBERS RESPONDING)

	1-48 MONTHS TAFMS		49-96 MONTHS TAFMS		97+ MONTHS TAFMS	
	1990 (N=209)	1983 (N=385)	1990 (N=298)	1983 (N=217)	1990 (N=531)	1983 (N=370)
EXPRESSED JOB INTEREST:						
INTERESTING	82	77	81	82	86	86
SO-SO	9	12	11	9	7	6
DULL	9	9	8	7	7	6
PERCEIVED USE OF TALENTS:						
FAIRLY WELL TO GOOD	80	78	82	81	86	83
LITTLE OR NOT AT ALL	20	22	17	18	14	16
PERCEIVED USE OF TRAINING:						
FAIRLY WELL TO GOOD	77	75	71	70	74	74
LITTLE OR NOT AT ALL	33	25	29	29	26	26
REENLISTMENT INTENTIONS:						
WILL REENLIST	45	51	67	68	76	75
WILL NOT REENLIST	54	47	32	30	9	7
WILL RETIRE	0	*	0	*	14	18

* Denotes less than 1 percent

TABLE 25

COMPARISON OF JOB SATISFACTION INDICATORS FOR MEMBERS OF 553X0 SPECIALTY JOBS
(PERCENT MEMBERS RESPONDING)

	DRAFTING AND SURVEYING (N=242)	DRAFTING (N=58)	SURVEYING (N=12)	BASE SURVIVABILITY (N=17)	MATERIAL TESTING (N=14)	NCOIC (N=117)	INSTRUCTOR (N=6)	SUPPLY (N=7)
EXPRESSED JOB INTEREST:								
INTERESTING	88	64	75	76	86	88	83	80
SO-SO	5	19	8	24	14	10	0	20
DULL	7	17	17	0	0	2	17	0
PERCEIVED USE OF TALENTS:								
FAIRLY WELL TO GOOD	86	69	83	76	92	89	83	100
LITTLE OR NOT AT ALL	14	31	14	24	7	11	17	0
PERCEIVED USE OF TRAINING:								
FAIRLY WELL TO GOOD	86	74	100	47	100	77	83	80
LITTLE TO NOT AT ALL	13	26	0	53	0	23	17	20
REENLISTMENT INTENTIONS:								
WILL REENLIST	59	62	50	53	86	78	50	60
WILL NOT REENLIST	39	36	50	47	14	15	50	40
WILL RETIRE	1	2	0	0	0	7	0	0

TABLE 25 (CONTINUED)

COMPARISON OF JOB SATISFACTION INDICATORS FOR MEMBERS OF 553X0 SPECIALTY JOBS
(PERCENT MEMBERS RESPONDING)

	CONTRACT INSPECTION (N=315)	SERVICE CONTRACT MGMT (N=33)	SQUADRON LEVEL MGMT (N=5)	HQ LEVEL CONTRACT MANAGEMENT (N=9)	PRIME BEEF (N=24)	PLANNING (N=6)	GROUND RADAR (N=7)	SUPERVISION AND ADMINISTRATION (N=26)
EXPRESSED JOB INTEREST:								
INTERESTING	92	70	100	100	75	83	57	84
SO-SO	5	9	0	0	21	0	43	8
DULL	3	21	0	0	4	17	0	8
PERCEIVED USE OF TALENTS:								
FAIRLY WELL TO GOOD	91	76	80	88	62	83	43	92
LITTLE OR NOT AT ALL	9	24	20	11	38	17	57	8
PERCEIVED USE OF TRAINING:								
FAIRLY WELL TO GOOD	79	64	40	78	42	83	29	61
LITTLE TO NOT AT ALL	21	36	60	22	58	17	71	38
REENLISTMENT INTENTIONS:								
WILL REENLIST	72	64	100	89	66	50	71	73
WILL NOT REENLIST	18	27	0	0	17	17	0	4
WILL RETIRE	9	6	0	11	17	38	29	23

TABLE 26

PERCENTAGE OF MEMBERS IN SPECIALTY JOBS USING THE COMPUTER-AIDED DRAFTING DESIGN (CADD) SYSTEM

SPECIALTY JOB	PERCENT USING
DRAFTING AND SURVEYING	47%
DRAFTING	38%
SURVEYING	42%
BASE SURVIVAL	35%
MATERIAL TESTING	29%
NCOIC	47%
SUPPLY	60%
SQUADRON LEVEL CONTRACT MANAGEMENT	60%
HEADQUARTERS LEVEL CONTRACT MANAGEMENT	44%
PRIME BEEF	50%
SUPERVISION AND ADMINISTRATION	27%

TABLE 27

FIRST DUTY AREA ASSIGNED TO FOLLOWING COMPLETION OF 3ABR55330 RESIDENT COURSE

DUTY AREA	PERCENT ASSIGNED
DRAFTING/SURVEYING	86%
CONTRACT MANAGEMENT	7%
RED HORSE	2%
GROUND RADAR	*
OTHER	2%
NO RESPONSE	*
DID NOT COMPLETE RESIDENT COURSE	2%

SPECIAL ISSUES

Training and functional personnel are interested in how many AFSC 553X0 personnel use the Computer-Aided Drafting Design system (CADD), how many have the Prime BEEF and Ground Radar jobs, how many are involved with material testing, and if first-enlistment personnel are involved with contract management. These questions will be answered individually below.

Number Using CADD

Two hundred and ninety-four respondents, or 28 percent of the sample, and 37 percent of all first-enlistment respondents indicated they use CADD. Also, more members with the Drafting and Surveying job use CADD than members of the other jobs (see Table 26). Because of these data, there is support for having CADD training as part of the entry-level course.

Personnel in Prime BEEF and Ground Radar Jobs

Survey data show there are 24 respondents with the Prime BEEF job. Figures in Table 3 show members of most jobs, however, do perform some Prime BEEF tasks, but not nearly to the extent as the 24 respondents with the Prime BEEF job. The Prime BEEF tasks most commonly performed by members of the various jobs are:

erect tents
establish minimal operating strips
identify bomb crater damage based on coordinate system
identify and report suspected unexploded ordnance

Survey data show seven respondents stationed at Hill AFB have the Ground Radar job. Data in Table 3 show these seven are essentially the only ones performing tasks related to ground radar functions.

Junior Personnel Working in Contract Management

Figures in Table 4 show that 44 percent of the respondents in the Contract Management cluster hold the 5-skill level, half hold the 7-skill level, 21 percent are paygrade E-4, 42 percent are paygrade E-5, 36 percent are paygrades E-6 through E-8, and members in this cluster average 127 months TAFMS. Only 6 percent report being in their first enlistment. These data suggest that relatively few junior personnel are involved with contract management.

AFSC 553X0 Personnel Working in Material Testing

Only 14 respondents indicated they have the Material Testing job. Figures in Table 3 show these members are essentially the only ones performing tasks related to material testing. Since this is such a very small part of the career ladder, it may not be appropriate to keep this subject in the STS.

Functional Area Where Graduates are Assigned

Responses to the background question asking where graduates of the entry-level course were first assigned are summarized in Table 27. Eighty-six percent of the graduates were assigned to drafting and surveying functions, and only 7 percent went to Contract Management. These data suggest, for the most part, graduates are being properly assigned.

Summary

Survey data show substantial numbers of career ladder members use the CADD system; relatively few are involved with Prime BEEF, ground radar, or material testing; and most graduates of the entry-level course are assigned to surveying and drafting functions.

IMPLICATIONS

Overall, there have been few changes in the structure of the career ladder, even with the recent addition of Computer-Aided Drafting Design (CADD) equipment. Personnel progress typically through the career ladder, with 3- and 5-skill level members performing mainly drafting and surveying tasks, 7-skill level members performing more contract management and supervisory tasks, and 9-skill level and CEM members performing more administrative and career ladder management tasks. Survey data show the AFR 39-1 Specialty Descriptions are supported.

Job satisfaction indicators for this specialty are somewhat higher than those of related AFSCs surveyed in 1989. Overall, satisfaction has remained fairly stable over the years. Members of most jobs report they find their job interesting and feel their talents and training are used. Members with the Ground Radar, Prime BEEF, and Drafting jobs, however, have the lowest satisfaction indicators.

Most of the tentative STS and POI are supported by survey data. STS elements dealing with engineering management functions, material testing, and contingency responsibilities are not supported. Some POI objectives dealing with computing angles and curve data and earth-work volumes are not supported. School personnel need to review these unsupported topics to determine if they should remain in the STS and resident course.

APPENDIX A

SELECTED REPRESENTATIVE TASKS PERFORMED BY MEMBERS OF CAREER LADDER JOBS

TABLE A1

ENGINEERING FUNCTIONS CLUSTER (STG058)

NUMBER IN GROUP: 489
PERCENT OF SAMPLE: 47%

AVERAGE TIME IN JOB: 27 MONTHS
AVERAGE TAFMS: 80 MONTHS

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

TASKS		PERCENT MEMBERS PERFORMING
G227	REPRODUCE DRAWINGS ON REPRODUCTION MACHINES	93
G216	PERFORM FUNDAMENTAL DRAFTING PRACTICES	93
G210	INTERPRET BLUEPRINTS	88
G212	LETTER DRAWINGS USING MECHANICAL LETTERING SETS	85
F173	MEASURE DISTANCES USING TAPES	85
G213	MAINTAIN DRAWING FILES	84
F193	SET UP SURVEYING EQUIPMENT	83
G199	DRAW ARCHITECTURAL PLANS	82
G232	UPDATE AS-BUILT DRAWINGS	80
G211	LETTER DRAWINGS USING GOTHIC-ARCHITECT STYLE FREE HAND	79
G201	DRAW CIVIL PLANS	79
G205	DRAW MECHANICAL PLANS	75
G202	DRAW ELECTRICAL PLANS	75
G217	PERFORM OPERATOR MAINTENANCE ON REPRODUCTION MACHINES	73
F174	MEASURE HORIZONTAL ANGLES	73
F190	RECORD FIELD NOTES USING STANDARD SURVEYING PROCEDURES	69
G209	DRAW STRUCTURAL PLANS	68
F170	MAINTAIN SURVEYING EQUIPMENT	68
G198	DEVELOP MODIFICATIONS FROM EXISTING DRAWINGS	67
M391	ERECT TENTS	66
F187	PERFORM TOPOGRAPHIC SURVEYS	66
F176	MEASURE STADIA DISTANCES	65
F147	COMMUNICATE USING STANDARDIZED HAND SIGNALS	63
M393	ESTABLISH MINIMAL OPERATING STRIP (MOS)	62
G233	UPDATE RECORD DRAWINGS	61
M396	IDENTIFY BOMB CRATER DAMAGE BASED ON COORDINATE SYSTEM	59
G230	REVISE BCPs	47

TABLE A1(A)

DRAFTING AND SURVEYING JOB (STG151)

NUMBER IN GROUP: 242
PERCENT OF SAMPLE: 23%

AVERAGE TIME IN JOB: 28 MONTHS
AVERAGE TAFMS: 59 MONTHS

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

TASKS		PERCENT MEMBERS PERFORMING
G216	PERFORM FUNDAMENTAL DRAFTING PRACTICES	96
G227	REPRODUCE DRAWINGS ON REPRODUCTION MACHINES	95
F193	SET UP SURVEYING EQUIPMENT	92
G213	MAINTAIN DRAWING FILES	91
G199	DRAW ARCHITECTURAL PLANS	91
F173	MEASURE DISTANCES USING TAPES	91
G232	UPDATE AS-BUILT DRAWINGS	90
G212	LETTER DRAWINGS USING MECHANICAL LETTERING SETS	89
G210	INTERPRET BLUEPRINTS	88
G201	DRAW CIVIL PLANS	88
G211	LETTER DRAWINGS USING GOTHIC-ARCHITECT STYLE FREE HAND	86
G202	DRAW ELECTRICAL PLANS	85
G205	DRAW MECHANICAL PLANS	85
F174	MEASURE HORIZONTAL ANGLES	84
M391	ERECT TENTS	82
F190	RECORD FIELD NOTES USING STANDARD SURVEYING PROCEDURES	80
G217	PERFORM OPERATOR MAINTENANCE ON REPRODUCTION MACHINES	79
F187	PERFORM TOPOGRAPHIC SURVEYS	78
G209	DRAW STRUCTURAL PLANS	77
F170	MAINTAIN SURVEYING EQUIPMENT	74
M432	PREPARE PERSONAL CLOTHING AND EQUIPMENT FOR DEPLOYMENT	73
M395	IDENTIFY AND REPORT SUSPECTED UNEXPLODED ORDNANCE	73
M393	ESTABLISH MINIMAL OPERATING STRIP (MOS)	72
F176	MEASURE STADIA DISTANCES	72
G198	DEVELOP MODIFICATIONS FROM EXISTING DRAWINGS	71
F147	COMMUNICATE USING STANDARDIZED HAND SIGNALS	71
M396	IDENTIFY BOMB CRATER DAMAGE BASED ON COORDINATE SYSTEM	70
F162	DRAW TOPOGRAPHIC MAPS	70
G233	UPDATE RECORD DRAWINGS	66
F154	COMPUTE HORIZONTAL OR VERTICAL DISTANCES	65

TABLE A1(B)

DRAFTING JOB (STG106)

NUMBER IN GROUP: 58
PERCENT OF SAMPLE: 6%

AVERAGE TIME IN JOB: 19 MONTHS
AVERAGE TAFMS: 50 MONTHS

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

TASKS		PERCENT MEMBERS PERFORMING
G216	PERFORM FUNDAMENTAL DRAFTING PRACTICES	94
G227	REPRODUCE DRAWINGS ON REPRODUCTION MACHINES	91
G210	INTERPRET BLUEPRINTS	90
G212	LETTER DRAWINGS USING MECHANICAL LETTERING SETS	88
G213	MAINTAIN DRAWING FILES	84
G205	DRAW MECHANICAL PLANS	84
G199	DRAW ARCHITECTURAL PLANS	83
G202	DRAW ELECTRICAL PLANS	83
G232	UPDATE AS-BUILT DRAWINGS	76
G211	LETTER DRAWINGS USING GOTHIC-ARCHITECT STYLE FREE HAND	72
G217	PERFORM OPERATOR MAINTENANCE ON REPRODUCTION MACHINES	69
G201	DRAW CIVIL PLANS	69
F173	MEASURE DISTANCES USING TAPES	66
G198	DEVELOP MODIFICATIONS FROM EXISTING DRAWINGS	64
F193	SET UP SURVEYING EQUIPMENT	62
G209	DRAW STRUCTURAL PLANS	60
G233	UPDATE RECORD DRAWINGS	53
F174	MEASURE HORIZONTAL ANGLES	38
G226	PREPARE WORKING DRAWINGS USING COMPUTER-AIDED DRAFTING (CAD)	36
F170	MAINTAIN SURVEYING EQUIPMENT	34
G229	REVIEW FINISHED PROJECT DRAWINGS	33
G230	REVISE BCPs	33
G228	REVIEW BASE COMPREHENSIVE PLANS (BCP)	28
G224	PREPARE INTERMEDIATE MASTERS USING SCISSOR EDITING	26
G218	PREPARE ENGINEERING SKETCHES FOR ARCHITECTURAL PLANS	22
G215	MEASURE IRREGULAR LINES	22
G225	PREPARE INTERMEDIATE MASTERS USING TRANSPARENT MATTE TAPE	21
C49	EVALUATE DRAWINGS OR ENGINEERING PLANS FOR ACCURACY	20

TABLE A1(C)

SURVEYING JOB (STG114)

NUMBER IN GROUP: 12
PERCENT OF SAMPLE: 1%

AVERAGE TIME IN JOB: 18 MONTHS
AVERAGE TAFMS: 52 MONTHS

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

TASKS		PERCENT MEMBERS PERFORMING
F193	SET UP SURVEYING EQUIPMENT	100
F173	MEASURE DISTANCES USING TAPES	100
F174	MEASURE HORIZONTAL ANGLES	92
F176	MEASURE STADIA DISTANCES	92
F187	PERFORM TOPOGRAPHIC SURVEYS	83
F175	MEASURE HORIZONTAL DISTANCES USING ELECTRONIC EQUIPMENT	83
F180	OPERATE FIELD RADIOS	83
F190	RECORD FIELD NOTES USING STANDARD SURVEYING PROCEDURES	75
F147	COMMUNICATE USING STANDARDIZED HAND SIGNALS	75
M432	PREPARE PERSONAL CLOTHING AND EQUIPMENT FOR DEPLOYMENT	75
G227	REPRODUCE DRAWINGS ON REPRODUCTION MACHINES	67
F162	DRAW TOPOGRAPHIC MAPS	67
M391	ERECT TENTS	67
F189	PROLONG STRAIGHT LINES	67
F177	MEASURE VERTICAL ANGLES	58
F178	MEASURE VERTICAL DISTANCES OR HEIGHTS	58
F155	COMPUTE LEVEL CIRCUIT DATA	58
M411	OPERATE PORTABLE (FIELD) RADIOS	58
M393	ESTABLISH MINIMAL OPERATING STRIP (MOS)	50
F145	ADJUST LEVEL CIRCUIT DATA	50
F158	COMPUTE TRAVERSE DATA	50
F186	PERFORM SITE RECONNAISSANCE	50
G210	INTERPRET BLUEPRINTS	42
G216	PERFORM FUNDAMENTAL DRAFTING PRACTICES	42
G211	LETTER DRAWINGS USING GOTHIC-ARCHITECT STYLE FREE HAND	42
M424	PERFORM PALLET BUILD-UP FUNCTIONS	42
F179	OBTAIN BACKGROUND RECONNAISSANCE INFORMATION ON SITES TO BE SURVEYED	42

TABLE A1(D)

BASE SURVIVABILITY JOB (STG103)

NUMBER IN GROUP: 17
PERCENT OF SAMPLE: 2%

AVERAGE TIME IN JOB: 23 MONTHS
AVERAGE TAFMS: 80 MONTHS

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

TASKS		PERCENT MEMBERS PERFORMING
A19	PREPARE BASE COMPREHENSIVE PLANS (BCP)	100
G230	REVISE BCPs	100
G216	PERFORM FUNDAMENTAL DRAFTING PRACTICES	100
G212	LETTER DRAWINGS USING MECHANICAL LETTERING SETS	100
G231	SUBMIT BCPs	94
G227	REPRODUCE DRAWINGS ON REPRODUCTION MACHINES	88
G210	INTERPRET BLUEPRINTS	88
G228	REVIEW BASE COMPREHENSIVE PLANS (BCP)	76
E108	COMPLETE DRAWINGS FOR DD FORMS 1391	76
G213	MAINTAIN DRAWING FILES	76
M396	IDENTIFY BOMB CRATER DAMAGE BASED ON COORDINATE SYSTEM	71
G217	PERFORM OPERATOR MAINTENANCE ON REPRODUCTION MACHINES	71
G198	DEVELOP MODIFICATIONS FROM EXISTING DRAWINGS	65
M395	IDENTIFY AND REPORT SUSPECTED UNEXPLODED ORDNANCE	65
M411	OPERATE PORTABLE (FIELD) RADIOS	65
G234	WRITE AIRFIELD CLEARANCE WAIVERS	59
G195	CONSTRUCT VIEWGRAPHS	53
E102	COMPLETE AF FORMS 2005 (ISSUE/TURN-IN REQUEST)	53
A3	COORDINATE PROPOSED MILITARY CONSTRUCTION BASE COMPREHENSIVE PLANS WITH USING ORGANIZATIONS	47
E124	MAINTAIN ADMINISTRATIVE FILES	47
M379	ASSESS BASE FACILITY DAMAGE	47
G223	PREPARE INTERMEDIATE MASTERS USING MASKING OR BLOCK-OUT METHOD	47
A12	PLAN LAYOUT OF FACILITIES	41
G211	LETTER DRAWINGS USING GOTHIC-ARCHITECT STYLE FREE HAND	41
G233	UPDATE RECORD DRAWINGS	41
M435	REPORT AIR BASE DAMAGE	41
E132	MAINTAIN SUPPLY ACCOUNTS	35
G224	PREPARE INTERMEDIATE MASTERS USING SCISSOR EDITING	35
G226	PREPARE WORKING DRAWINGS USING COMPUTER-AIDED DRAFTING (CAD)	29

TABLE A1(E)

MATERIAL TESTING JOB (STG234)

NUMBER IN GROUP: 14
PERCENT OF SAMPLE: 1%

AVERAGE TIME IN JOB: 21 MONTHS
AVERAGE TAFMS: 117 MONTHS

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

TASKS		PERCENT MEMBERS PERFORMING
K354	TEST CONCRETE FOR COMPRESSIVE STRENGTH	100
K356	TEST CONCRETE FOR SLUMP	100
F193	SET UP SURVEYING EQUIPMENT	100
K332	ANALYZE SOILS FOR MOISTURE CONTENT	100
K336	COLLECT ASPHALT OR CONCRETE SAMPLES	93
F173	MEASURE DISTANCES USING TAPES	93
F171	MARK AND SET CONSTRUCTION STAKES	93
F163	ESTABLISH BUILDING CORNERS FOR NEW CONSTRUCTION SITES	93
G216	PERFORM FUNDAMENTAL DRAFTING PRACTICES	93
K331	ANALYZE SOILS FOR GRAIN-SIZE DISTRIBUTION	93
K337	COLLECT SOIL SAMPLES	93
F189	PROLONG STRAIGHT LINES	93
F147	COMMUNICATE USING STANDARDIZED HAND SIGNALS	93
K348	TEST BITUMINOUS MATERIALS FOR MARSHALL STABILITY AND FLOW	86
F190	RECORD FIELD NOTES USING STANDARD SURVEYING PROCEDURES	86
F170	MAINTAIN SURVEYING EQUIPMENT	86
G210	INTERPRET BLUEPRINTS	86
F174	MEASURE HORIZONTAL ANGLES	86
F192	SET GRADE STAKES	86
F152	COMPUTE GRADE STAKE DATA	86
F165	ESTABLISH HORIZONTAL CONTROLS	86
F167	ESTABLISH VERTICAL CONTROLS	86
F155	COMPUTE LEVEL CIRCUIT DATA	86
G212	LETTER DRAWINGS USING MECHANICAL LETTERING SETS	86
K346	TEST BITUMINOUS MATERIALS FOR ASPHALT CONTENT	79
G227	REPRODUCE DRAWINGS ON REPRODUCTION MACHINES	79
F164	ESTABLISH HORIZONTAL ALIGNMENT, SUCH AS ROUTES, STRUCTURES, AND FACILITIES	79
K344	TEST AGGREGATE FOR SPECIFIC GRAVITY	79
M433	REPAIR BOMB CRATERS	77
M399	INSTALL CONCRETE SLABS	71
K351	TEST BITUMINOUS MATERIALS FOR SPECIFIC GRAVITY	71

TABLE A1(F)

NCOIC JOB (STG126)

NUMBER IN GROUP: 117
PERCENT OF SAMPLE: 11%

AVERAGE TIME IN JOB: 32 MONTHS
AVERAGE TAFMS: 135 MONTHS

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

TASKS		PERCENT MEMBERS PERFORMING
G210	INTERPRET BLUEPRINTS	96
G227	REPRODUCE DRAWINGS ON REPRODUCTION MACHINES	96
B27	COUNSEL PERSONNEL ON PERSONAL OR MILITARY-RELATED PROBLEMS	93
G216	PERFORM FUNDAMENTAL DRAFTING PRACTICES	91
A5	DETERMINE WORK PRIORITIES	91
B37	INTERPRET ENGINEERING PLANS FOR SUBORDINATES	88
G201	DRAW CIVIL PLANS	88
F173	MEASURE DISTANCES USING TAPES	88
D73	CONDUCT OJT	86
G213	MAINTAIN DRAWING FILES	85
A17	PLAN WORK ASSIGNMENTS	84
C49	EVALUATE DRAWINGS OR ENGINEERING PLANS FOR ACCURACY	84
B38	INTERPRET POLICIES, DIRECTIVES, OR PROCEDURES FOR SUBORDINATES	84
G199	DRAW ARCHITECTURAL PLANS	83
B41	SUPERVISE ENGINEERING ASSISTANT SPECIALISTS (AFSC 55350)	82
C66	WRITE EPRs	82
A10	ESTABLISH PERFORMANCE STANDARDS FOR SUBORDINATES	82
G212	LETTER DRAWINGS USING MECHANICAL LETTERING SETS	81
G232	UPDATE AS-BUILT DRAWINGS	79
A7	DEVELOP WORK METHODS OR PROCEDURES	79
G211	LETTER DRAWINGS USING GOTHIC-ARCHITECT STYLE FREE HAND	79
G217	PERFORM OPERATOR MAINTENANCE ON REPRODUCTION MACHINES	77
G198	DEVELOP MODIFICATIONS FROM EXISTING DRAWINGS	76
D85	EVALUATE OJT TRAINEES	76
A22	SCHEDULE LEAVES OR PASSES	76
G229	REVIEW FINISHED PROJECT DRAWINGS	75
G202	DRAW ELECTRICAL PLANS	75
G233	UPDATE RECORD DRAWINGS	74
G205	DRAW MECHANICAL PLANS	74
D77	COUNSEL TRAINEES ON TRAINING PROGRESS	74
B40	SUPERVISE APPRENTICE ENGINEERING ASSISTANT SPECIALISTS (AFSC 55330)	68

TABLE A1(G)

INSTRUCTOR JOB (STG639)

NUMBER IN GROUP: 6
PERCENT OF SAMPLE: LESS THAN 1%

AVERAGE TIME IN JOB: 26 MONTHS
AVERAGE TAFMS: 88 MONTHS

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

TASKS		PERCENT MEMBERS PERFORMING
F174	MEASURE HORIZONTAL ANGLES	100
F173	MEASURE DISTANCES USING TAPES	100
F157	COMPUTE SLOPE STAKE DATA	100
F159	COMPUTE VERTICAL CURVE	100
F153	COMPUTE HORIZONTAL CURVE DATA	100
F156	COMPUTE LINEAR ERROR OF CLOSURE	100
F158	COMPUTE TRAVERSE DATA	100
F166	ESTABLISH VERTICAL ALIGNMENT, SUCH AS ROUTES, STRUCTURES, AND FACILITIES	100
F148	COMPUTE AZIMUTHS AND BEARINGS	100
F152	COMPUTE GRADE STAKE DATA	100
F155	COMPUTE LEVEL CIRCUIT DATA	100
F165	ESTABLISH HORIZONTAL CONTROLS	100
F167	ESTABLISH VERTICAL CONTROLS	100
F171	MARK AND SET CONSTRUCTION STAKES	100
F177	MEASURE VERTICAL ANGLES	100
F178	MEASURE VERTICAL DISTANCES OR HEIGHTS	100
F192	SET GRADE STAKES	100
F154	COMPUTE HORIZONTAL OR VERTICAL DISTANCES	100
F176	MEASURE STADIA DISTANCES	100
F187	PERFORM TOPOGRAPHIC SURVEYS	100
F193	SET UP SURVEYING EQUIPMENT	100
G211	LETTER DRAWINGS USING GOTHIC-ARCHITECT STYLE FREE HAND	100
F150	COMPUTE EARTHWORK VOLUMES	100
F164	ESTABLISH HORIZONTAL ALIGNMENT, SUCH AS ROUTES, STRUCTURES, AND FACILITIES	100
G212	LETTER DRAWINGS USING MECHANICAL LETTERING SETS	100
G216	PERFORM FUNDAMENTAL DRAFTING PRACTICES	100
F172	MEASURE DIRECTIONS AND ANGLES USING MAGNETIC COMPASS	100
D92	SCORE TESTS	83
F190	RECORD FIELD NOTES USING STANDARD SURVEYING PROCEDURES	83
G227	REPRODUCE DRAWINGS ON REPRODUCTION MACHINES	83
F146	ADJUST TRAVERSE DATA	83
D74	CONDUCT RESIDENT COURSE CLASSROOM TRAINING	67

TABLE A1(H)

SUPPLY JOB (STG155)

NUMBER IN GROUP: 7 AVERAGE TIME IN JOB: 27 MONTHS
PERCENT OF SAMPLE: LESS THAN 1% AVERAGE TAFMS: 99 MONTHS

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

TASKS		PERCENT MEMBERS PERFORMING
E102	COMPLETE AF FORMS 2005 (ISSUE/TURN-IN REQUEST)	100
E122	INVENTORY EQUIPMENT, TOOLS, OR SUPPLIES	100
C57	EVALUATE PROCEDURES FOR STORAGE, INVENTORY, OR INSPECTION OF PROPERTY ITEMS	100
G217	PERFORM OPERATOR MAINTENANCE ON REPRODUCTION MACHINES	100
G216	PERFORM FUNDAMENTAL DRAFTING PRACTICES	100
G210	INTERPRET BLUEPRINTS	100
F170	MAINTAIN SURVEYING EQUIPMENT	100
G212	LETTER DRAWINGS USING MECHANICAL LETTERING SETS	100
E142	REVIEW DD FORMS 1348 (DOD SINGLE LINE ITEM REQUISITION SYSTEM DOCUMENT)	80
C56	EVALUATE MAINTENANCE OR USE OF WORKSPACE, EQUIPMENT, OR SUPPLIES	80
E118	INITIATE AF FORMS 601 (EQUIPMENT ACTION REQUEST)	80
G213	MAINTAIN DRAWING FILES	80
G227	REPRODUCE DRAWINGS ON REPRODUCTION MACHINES	80
G199	DRAW ARCHITECTURAL PLANS	80
G201	DRAW CIVIL PLANS	80
A14	PLAN OR PREPARE STATUS BOARDS, CHARTS, OR GRAPHS	80
G232	UPDATE AS-BUILT DRAWINGS	80
G211	LETTER DRAWINGS USING GOTHIC-ARCHITECT STYLE FREE HAND	80
E132	MAINTAIN SUPPLY ACCOUNTS	60
A4	DETERMINE REQUIREMENTS FOR SPACE, PERSONNEL, EQUIPMENT, OR SUPPLIES	60
E131	MAINTAIN SPECIAL EQUIPMENT	60
G226	PREPARE WORKING DRAWINGS USING COMPUTER AIDED DRAFTING (CAD)	60
E144	SCHEDULE EQUIPMENT FOR PRECISION MEASUREMENT EQUIPMENT LABORATORY (PMEL) CALIBRATION	60
A8	DRAFT UNIT OR OFFICE BUDGET REQUIREMENTS	60
E114	INITIATE AF FORMS 1297 (TEMPORARY ISSUE RECEIPT)	60
E101	ANNOTATE EQUIPMENT STATUS TAGS OR LABELS	60
E120	INITIATE AF FORMS 9 (REQUEST FOR PURCHASE)	40
E135	ORGANIZE DATA FOR COMPUTER INPUTS	40

TABLE A2

CONTRACT MANAGEMENT CLUSTER (STG042)

NUMBER IN GROUP: 389
PERCENT OF SAMPLE: 37%

AVERAGE TIME IN JOB: 29 MONTHS
AVERAGE TAFMS: 127 MONTHS

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

TASKS		PERCENT MEMBERS PERFORMING
I260	CONDUCT ON-SITE VISITS	94
I285	IDENTIFY CONTRACTOR PERFORMANCE DISCREPANCIES	88
I289	MAINTAIN RECORDS OF CONTRACT CHANGES	85
I266	COORDINATE CONSTRUCTION WITH USING AGENCY	85
I312	WRITE CORRESPONDENCE RELATED TO CONTRACTS	84
I293	PARTICIPATE IN PRE-PERFORMANCE CONFERENCES	84
I262	CONDUCT PRE-ACCEPTANCE INSPECTIONS	83
I286	IDENTIFY ON-SITE AND DESIGN DEFICIENCIES	82
I263	COORDINATE CONSTRUCTION ACTIVITIES WITH BASE AGENCIES, SUCH AS SECURITY POLICE OR GROUND SAFETY	82
I272	DOCUMENT CONSTRUCTION ACTIVITIES	81
I295	PERFORM ACCEPTANCE INSPECTIONS	81
I288	INTERPRET CONTRACT PLANS AND SPECIFICATIONS	80
I264	COORDINATE CONSTRUCTION WITH CONSTRUCTION MANAGER	80
E125	MAINTAIN DAILY INSPECTION RECORDS	79
I267	COORDINATE CONTRACT MODIFICATIONS WITH CONSTRUCTION MANAGERS	79
I305	REVIEW PROGRESS SCHEDULES	77
I265	COORDINATE CONSTRUCTION WITH CONTRACTING OFFICE	76
I261	CONDUCT POST-ACCEPTANCE INSPECTIONS	76
I252	COMPLETE AF FORMS 1477 (CONSTRUCTION INSPECTION RECORD)	75
I302	PREPARE PRE-FINAL PUNCH LISTS	75
I287	INSPECT CONSTRUCTION ACTIVITIES FOR SAFETY COMPLIANCE	75
I273	DOCUMENT SAFETY VIOLATIONS	75
I304	REVIEW MATERIALS SUBMITTALS	73
I248	ANALYZE PROVISIONS OF CONSTRUCTION CONTRACTS	71
I277	EVALUATE DATA ON AF FORMS 3064 (CONTRACT PROGRESS SCHEDULE)	70
I278	EVALUATE DATA ON AF FORMS 3065 (CONTRACT PROGRESS REPORT)	68
I306	REVIEW STANDARD CONSTRUCTION METHODS	67
I276	EVALUATE DATA ON AF FORMS 3000 (MATERIAL APPROVAL SUBMITTAL)	66
I296	PERFORM INSPECTIONS OF SERVICE CONTRACTS	47

TABLE A2(A)

CONTRACT INSPECTION JOB (STG116)

NUMBER IN GROUP: 315
PERCENT OF SAMPLE: 30%

AVERAGE TIME IN JOB: 31 MONTHS
AVERAGE TAFMS: 131 MONTHS

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

TASKS		PERCENT MEMBERS PERFORMING
I266	COORDINATE CONSTRUCTION WITH USING AGENCY	98
I260	CONDUCT ON-SITE VISITS	96
I272	DOCUMENT CONSTRUCTION ACTIVITIES	95
I286	IDENTIFY ON-SITE AND DESIGN DEFICIENCIES	95
I264	COORDINATE CONSTRUCTION WITH CONSTRUCTION MANAGER	94
I285	IDENTIFY CONTRACTOR PERFORMANCE DISCREPANCIES	94
I263	COORDINATE CONSTRUCTION ACTIVITIES WITH BASE AGENCIES, SUCH AS SECURITY POLICE OR GROUND SAFETY	93
I262	CONDUCT PRE-ACCEPTANCE INSPECTIONS	93
I293	PARTICIPATE IN PRE-PERFORMANCE CONFERENCES	93
I295	PERFORM ACCEPTANCE INSPECTIONS	92
I289	MAINTAIN RECORDS OF CONTRACT CHANGES	92
I312	WRITE CORRESPONDENCE RELATED TO CONTRACTS	91
I267	COORDINATE CONTRACT MODIFICATIONS WITH CONSTRUCTION MANAGERS	91
I305	REVIEW PROGRESS SCHEDULES	91
I288	INTERPRET CONTRACT PLANS AND SPECIFICATIONS	90
I265	COORDINATE CONSTRUCTION WITH CONTRACTING OFFICE	89
I302	PREPARE PRE-FINAL PUNCH LISTS	89
I287	INSPECT CONSTRUCTION ACTIVITIES FOR SAFETY COMPLIANCE	89
I252	COMPLETE AF FORMS 1477 (CONSTRUCTION INSPECTION RECORD)	87
I304	REVIEW MATERIALS SUBMITTALS	86
E125	MAINTAIN DAILY INSPECTION RECORDS	84
I261	CONDUCT POST-ACCEPTANCE INSPECTIONS	84
I277	EVALUATE DATA ON AF FORMS 3064 (CONTRACT PROGRESS SCHEDULE)	83
I248	ANALYZE PROVISIONS OF CONSTRUCTION CONTRACTS	82
I278	EVALUATE DATA ON AF FORMS 3065 (CONTRACT PROGRESS REPORT)	81
I306	REVIEW STANDARD CONSTRUCTION METHODS	81
I276	EVALUATE DATA ON AF FORMS 3000 (MATERIAL APPROVAL SUBMITTAL)	78
E141	REVIEW AF FORMS 3064 (CONTRACT PROGRESS SCHEDULE)	77
E104	COMPLETE AF FORMS 3065 (CONTRACT PROGRESS REPORT)	74
I313	WRITE PROGRESS REPORTS	70

TABLE A2(B)

SERVICE CONTRACT MANAGEMENT JOB (STG128)

NUMBER IN GROUP: 33
PERCENT OF SAMPLE: 3%

AVERAGE TIME IN JOB: 22 MONTHS
AVERAGE TAFMS: 99 MONTHS

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

TASKS		PERCENT MEMBERS PERFORMING
I296	PERFORM INSPECTIONS OF SERVICE CONTRACTS	100
I259	COMPLETE SURVEILLANCE AND RANDOM SAMPLING DOCUMENTS FOR SERVICE CONTRACTS	97
I274	DOCUMENT SERVICE CONTRACT ACTIVITIES	91
I314	WRITE QUALITY ASSURANCE SURVEILLANCE PLANS FOR SERVICE CONTRACTS	88
I260	CONDUCT ON-SITE VISITS	79
E125	MAINTAIN DAILY INSPECTION RECORDS	79
I285	IDENTIFY CONTRACTOR PERFORMANCE DISCREPANCIES	79
M396	IDENTIFY BOMB CRATER DAMAGE BASED ON COORDINATE SYSTEM	79
M395	IDENTIFY AND REPORT SUSPECTED UNEXPLODED ORDNANCE	79
M393	ESTABLISH MINIMAL OPERATING STRIP (MOS)	76
I249	ANALYZE PROVISIONS OF SERVICE CONTRACTS	73
I303	REVIEW CONTRACTOR INVOICES	73
I271	DEVELOP PERFORMANCE WORK STATEMENTS	73
I257	COMPLETE AF FORMS 802 (CONTRACT DISCREPANCY REPORT)	72
I254	COMPLETE AF FORMS 714 (CUSTOMER COMPLAINT RECORD)	70
I289	MAINTAIN RECORDS OF CONTRACT CHANGES	70
E120	INITIATE AF FORMS 9 (REQUEST FOR PURCHASE)	70
I258	COMPLETE DD FORM 250 (MATERIAL INSPECTION AND RECEIVING REPORT)	67
C48	EVALUATE COMPLIANCE WITH WORK STANDARDS	64
I256	COMPLETE AF FORMS 799 (SURVEILLANCE ACTIVITY CHECKLIST)	64
I253	COMPLETE AF FORMS 713 (PERFORMANCE REQUIREMENTS SUMMARY)	61
E121	INITIATE CONTRACT FOLDERS	61
I312	WRITE CORRESPONDENCE RELATED TO CONTRACTS	58
E126	MAINTAIN FINANCIAL ACCOUNTS	52
E124	MAINTAIN ADMINISTRATIVE FILES	52
C54	EVALUATE INSPECTION REPORTS OR PROCEDURES	52
C62	EVALUATE WORK SCHEDULES	45

TABLE A2(C)

SQUADRON LEVEL CONTRACT MANAGEMENT JOB (STG300)

NUMBER IN GROUP: 5 AVERAGE TIME IN JOB: 43 MONTHS
PERCENT OF SAMPLE: LESS THAN 1% AVERAGE TAFMS: 140 MONTHS

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

TASKS		PERCENT MEMBERS PERFORMING
E107	COMPLETE DD FORMS 1391 (MILITARY CONSTRUCTION PROJECT DATA)	100
E108	COMPLETE DRAWINGS FOR DD FORMS 1391	100
J323	PREPARE ENGINEERING PLANS OR PROJECTS FOR SUBMITTAL TO PROFESSIONAL ENGINEERING STAFFS	100
G210	INTERPRET BLUEPRINTS	100
I312	WRITE CORRESPONDENCE RELATED TO CONTRACTS	100
I299	PERFORM SURVEILLANCE OF NONAPPROPRIATED FUNDS (NAF) PROJECTS	100
I294	PARTICIPATE IN TECHNICAL REVIEWS	100
C58	EVALUATE PROJECT SPECIFICATIONS	100
I288	INTERPRET CONTRACT PLANS AND SPECIFICATIONS	100
C48	EVALUATE COMPLIANCE WITH WORK STANDARDS	100
J315	COMPARE ACTUAL COST ESTIMATES WITH PROGRAMMED COST ESTIMATES	100
J316	COORDINATE COST ESTIMATES WITH PROGRAMMING PERSONNEL	100
C60	EVALUATE SHOP DRAWINGS	100
B37	INTERPRET ENGINEERING PLANS FOR SUBORDINATES	100
I286	IDENTIFY ON-SITE AND DESIGN DEFICIENCIES	100
I260	CONDUCT ON-SITE VISITS	100
E95	ANNOTATE AF FORMS 103 (BASE CIVIL ENGINEERING WORK CLEARANCE REQUEST)	100
G213	MAINTAIN DRAWING FILES	100
I307	REVIEW WORK CLEARANCE REQUESTS	100
A12	PLAN LAYOUT OF FACILITIES	100
G216	PERFORM FUNDAMENTAL DRAFTING PRACTICES	100
E121	INITIATE CONTRACT FOLDERS	80
C49	EVALUATE DRAWINGS OR ENGINEERING PLANS FOR ACCURACY	80
E109	DRAFT CHANGES TO TECHNICAL DIRECTIVES	80
H240	DEVELOP STATEMENTS OF WORK	80
C62	EVALUATE WORK SCHEDULES	80
H243	PREPARE PROGRAMMING DOCUMENTS	80
C44	ANALYZE WORKLOAD REQUIREMENTS	80
I267	COORDINATE CONTRACT MODIFICATIONS WITH CONSTRUCTION MANAGERS	80

TABLE A2(D)

HEAD QUETERS LEVEL CONTRACT MANAGEMENT JOB (STG166)

NUMBER IN GROUP: 9 AVERAGE TIME IN JOB: 24 MONTHS
PERCENT OF SAMPLE: LESS THAN 1% AVERAGE TAFMS: 149 MONTHS

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

TASKS		PERCENT MEMBERS PERFORMING
I260	CONDUCT ON-SITE VISITS	100
C49	EVALUATE DRAWINGS OR ENGINEERING PLANS FOR ACCURACY	100
I295	PERFORM ACCEPTANCE INSPECTIONS	100
I261	CONDUCT POST-ACCEPTANCE INSPECTIONS	89
I312	WRITE CORRESPONDENCE RELATED TO CONTRACTS	89
A21	REVIEW WORK ORDERS	89
A4	DETERMINE REQUIREMENTS FOR SPACE, PERSONNEL, EQUIPMENT, OR SUPPLIES	89
G216	PERFORM FUNDAMENTAL DRAFTING PRACTICES	89
A5	DETERMINE [illegible]K PRIORITIES	89
G210	INTERPRET BLUEPRINTS	89
I288	INTERPRET CONTRACT PLANS AND SPECIFICATIONS	89
C58	EVALUATE PROJECT SPECIFICATIONS	89
C50	EVALUATE DRAWINGS OR ENGINEERING PLANS FOR CONSTRUCTIBILITY	89
E117	INITIATE AF FORMS 332 (CCE WORK REQUEST)	89
I293	PARTICIPATE IN PRE-PERFORMANCE CONFERENCES	89
A9	ESTABLISH ORGANIZATIONAL POLICIES, OFFICE INSTRUCTIONS (OI), OR STANDARD OPERATING PROCEDURES (SOP)	89
A12	PLAN LAYOUT OF FACILITIES	78
I262	CONDUCT PRE-ACCEPTANCE INSPECTIONS	78
I266	COORDINATE CONSTRUCTION WITH USING AGENCY	78
I286	IDENTIFY ON-SITE AND DESIGN DEFICIENCIES	78
H240	DEVELOP STATEMENTS OF WORK	78
E135	ORGANIZE DATA FOR COMPUTER INPUTS	78
E136	PARTICIPATE IN WEEKLY SCHEDULING MEETINGS	78
I285	IDENTIFY CONTRACTOR PERFORMANCE DISCREPANCIES	78
A13	PLAN OR PREPARE BRIEFINGS	77
I268	COORDINATE ON-SITE VISITS OF OFFICIAL VISITORS	67
E120	INITIATE AF FORMS 9 (REQUEST FOR PURCHASE)	67
I275	ESCORT PROSPECTIVE CONTRACTORS FOR PRE-BID INSPECTIONS	67
G229	REVIEW FINISHED PROJECT DRAWINGS	67
C56	EVALUATE MAINTENANCE OR USE OF WORKSPACE, EQUIPMENT, OR SUPPLIES	67
G226	PREPARE WORKING DRAWINGS USING COMPUTER AIDED DRAFTING (CAD)	44

TABLE A3

PRIME BEEF (STG071)

NUMBER IN GROUP: 24
PERCENT OF SAMPLE: 2%

AVERAGE TIME IN JOB: 18 MONTHS
AVERAGE TAFMS: 127 MONTHS

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

TASKS		PERCENT MEMBERS PERFORMING
M389	DON OR DOFF CHEMICAL WARFARE PERSONAL PROTECTIVE CLOTHING	96
M393	ESTABLISH MINIMAL OPERATING STRIP (MOS)	96
M396	IDENTIFY BOMB CRATER DAMAGE BASED ON COORDINATE SYSTEM	92
M394	FIRE WEAPONS FOR QUALIFICATION	92
M395	IDENTIFY AND REPORT SUSPECTED UNEXPLODED ORDNANCE	92
M388	DEVELOP CAMP CONTONMENT LAYOUT	88
M432	PREPARE PERSONAL CLOTHING AND EQUIPMENT FOR DEPLOYMENT	79
M435	REPORT AIR BASE DAMAGE	79
M391	ERECT TENTS	79
M379	ASSESS BASE FACILITY DAMAGE	75
C227	REPRODUCE DRAWINGS ON REPRODUCTION MACHINES	63
M411	OPERATE PORTABLE (FIELD) RADIOS	63
G216	PERFORM FUNDAMENTAL DRAFTING PRACTICES	58
M387	DEVELOP BASE PLAN (BARE BASE)	58
M378	ASSEMBLE AM-2 MATTING FOR RAPID RUNWAY REPAIRS	58
M421	PERFORM FIRST AID LIFESAVING TECHNIQUES	54
M431	PREPARE CONTONMENT AREA MAPS	50
M380	ASSIST IN EVALUATING AIRFIELD ASSAULT STRIPS	50
C210	INTERPRET BLUEPRINTS	46
M397	IDENTIFY CHEMICAL WARFARE AGENTS	46
C232	UPDATE AS-BUILT DRAWINGS	42
G212	LETTER DRAWINGS USING MECHANICAL LETTERING SETS	42
G233	UPDATE RECORD DRAWINGS	42
M403	LAYOUT TAXIWAY AND RUNWAY TRAFFIC MARKINGS	42
G213	MAINTAIN DRAWING FILES	38
M406	OPERATE CHEMICAL WARFARE PERSONNEL PROTECTIVE EQUIPMENT	38
G217	PERFORM OPERATOR MAINTENANCE ON REPRODUCTION MACHINES	33
G195	CONSTRUCT VIEWGRAPHS	33
G199	DRAW ARCHITECTURAL PLANS	29
M405	OPERATE CARGO TRUCKS	29
E135	ORGANIZE DATA FOR COMPUTER INPUTS	25
M430	PRACTICE SELF-PROTECTION FROM EXTREME WEATHER	25
G226	PREPARE WORKING DRAWINGS USING COMPUTER AIDED DRAFTING (CAD)	21

TABLE A4

PLANNING JOB (STG105)

NUMBER IN GROUP: 6 AVERAGE TIME IN JOB: 13 MONTHS
PERCENT OF SAMPLE: LESS THAN 1% AVERAGE TAFMS: 144 MONTHS

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

TASKS		PERCENT MEMBERS PERFORMING
H241	ESTIMATE COST ELEMENTS, SUCH AS MATERIALS, EQUIPMENT, AND LABOR	100
H235	DEVELOP PRELIMINARY DESIGNS FOR ARCHITECTURAL PLANS	100
M391	ERECT TENTS	100
H242	PREPARE MATERIALS TAKE OFF	83
H236	DEVELOP PRELIMINARY DESIGNS FOR CIVIL PLANS	83
M393	ESTABLISH MINIMAL OPERATING STRIP (MOS)	83
H239	DEVELOP PRELIMINARY DESIGNS FOR STRUCTURAL PLANS	83
H245	SELECT METHODS OF INSTALLATION AND CONSTRUCTION	83
M396	IDENTIFY BOMB CRATER DAMAGE BASED ON COORDINATE SYSTEM	83
H238	DEVELOP PRELIMINARY DESIGNS FOR MECHANICAL PLANS	83
M388	DEVELOP CAMP CONTONMENT LAYOUT	83
M395	IDENTIFY AND REPORT SUSPECTED UNEXPLODED ORDNANCE	83
H244	SELECT MATERIALS AND EQUIPMENT	67
G219	PREPARE ENGINEERING SKETCHES FOR CIVIL PLANS	67
H246	WRITE PROJECT SPECIFICATIONS	67
H240	DEVELOP STATEMENTS OF WORK	67
H237	DEVELOP PRELIMINARY DESIGNS FOR ELECTRICAL PLANS	67
M415	PERFORM CAMP SECURITY	67
G222	PREPARE ENGINEERING SKETCHES FOR STRUCTURAL PLANS	67
G221	PREPARE ENGINEERING SKETCHES FOR MECHANICAL PLANS	67
G218	PREPARE ENGINEERING SKETCHES FOR ARCHITECTURAL PLANS	67
M417	PERFORM DECONTAMINATION PROCEDURES FOR CHEMICAL WARFARE AGENTS	67
J324	PREPARE FINAL COST ESTIMATES	50
G210	INTERPRET BLUEPRINTS	50
G227	REPRODUCE DRAWINGS ON REPRODUCTION MACHINES	50
G216	PERFORM FUNDAMENTAL DRAFTING PRACTICES	50
E105	COMPLETE AF FORMS 327 (CASE CIVIL ENGINEER WORK ORDER)	50
J315	COMPARE ACTUAL COST ESTIMATES WITH PROGRAMMED COST ESTIMATES	33

TABLE A5

GROUND RADAR JOB (GRP353)

NUMBER IN GROUP: 7 AVERAGE TIME IN JOB: 54 MONTHS
PERCENT OF SAMPLE: LESS THAN 1% AVERAGE TAFMS: 140 MONTHS

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

TASKS		PERCENT MEMBERS PERFORMING
L377	RECORD FIELD NOTES USING RADAR EVALUATION PROCEDURES	100
L368	COLLECT PHYSICAL RADAR SITE DATA	100
L374	ESTABLISH BASELINES	100
L373	DRAW PICTORIAL SITE PLANS	100
L366	ANALYZE RADAR OR RADIO LINE OF SIGHT IN RELATION TO GROUND ELEVATION	100
L375	ESTABLISH HORIZONTAL PROFILES	100
L372	DRAW LOBING GRAPHS	100
L369	COMPUTE SOLAR DATA	100
L371	CONSTRUCT MOVABLE RADAR COVERAGE INDICATORS	100
L370	COMPUTE SURVEYED SHADOW AND VERTICAL ANGLES	100
F173	MEASURE DISTANCES USING TAPES	100
L367	CALCULATE MAGNETIC DECLINATIONS	100
L376	FORMAT FIELD DATA FOR COMPUTER INPUT	86
F177	MEASURE VERTICAL ANGLES	86
F186	PERFORM SITE RECONNAISSANCE	86
F179	OBTAIN BACKGROUND RECONNAISSANCE INFORMATION ON SITES TO BE SURVEYED	86
F151	COMPUTE GEOGRAPHICAL LATITUDE AND LONGITUDE DATA	86
F178	MEASURE VERTICAL DISTANCES OR HEIGHTS	86
F145	ADJUST LEVEL CIRCUIT DATA	86
F188	PERFORM TRIGONOMETRIC LEVELING TO ESTABLISH VERTICAL CONTROL	86
F148	COMPUTE AZIMUTHS AND BEARINGS	86
F174	MEASURE HORIZONTAL ANGLES	71
F193	SET UP SURVEYING EQUIPMENT	71
F154	COMPUTE HORIZONTAL OR VERTICAL DISTANCES	71
G227	REPRODUCE DRAWINGS ON REPRODUCTION MACHINES	71
F184	PERFORM DIFFERENTIAL LEVELING TO ESTABLISH VERTICAL CONTROL	71
B31	ESTABLISH FIELD SURVEY FILES	71
G226	PREPARE WORKING DRAWINGS USING COMPUTER-AIDED DRAFTING (CAD)	57
F169	MAINTAIN FIELD SURVEY FILES	57

TABLE A6

SUPERVISION AND ADMINISTRATION JOB (STG102)

NUMBER IN GROUP: 26
PERCENT OF SAMPLE: 2%

AVERAGE TIME IN JOB: 21 MONTHS
AVERAGE TAFMS: 171 MONTHS

THE FOLLOWING TASKS ARE IN DESCENDING ORDER OF PERCENT MEMBERS PERFORMING

TASKS		PERCENT MEMBERS PERFORMING
B27	COUNSEL PERSONNEL ON PERSONAL OR MILITARY-RELATED PROBLEMS	100
A5	DETERMINE WORK PRIORITIES	96
A22	SCHEDULE LEAVES OR PASSES	96
A17	PLAN WORK ASSIGNMENTS	92
A10	ESTABLISH PERFORMANCE STANDARDS FOR SUBORDINATES	92
B38	INTERPRET POLICIES, DIRECTIVES, OR PROCEDURES FOR SUBORDINATES	92
B41	SUPERVISE ENGINEERING ASSISTANT SPECIALISTS (AFSC 55350)	85
A1	ASSIGN PERSONNEL TO DUTY POSITIONS	85
A2	ASSIGN SPONSORS FOR NEWLY ASSIGNED PERSONNEL	85
A9	ESTABLISH ORGANIZATIONAL POLICIES, OFFICE INSTRUCTIONS (OI), OR STANDARD OPERATING PROCEDURES (SOP)	81
C68	WRITE RECOMMENDATIONS FOR AWARDS AND DECORATIONS	81
A7	DEVELOP WORK METHODS OR PROCEDURES	77
C66	WRITE EPRs	77
D73	CONDUCT OJT	77
A13	PLAN OR PREPARE BRIEFINGS	77
C44	ANALYZE WORKLOAD REQUIREMENTS	73
D71	ASSIGN ON-THE-JOB TRAINING (OJT)	73
D82	DIRECT OR IMPLEMENT OJT PROGRAMS	69
B37	INTERPRET ENGINEERING PLANS FOR SUBORDINATES	69
C53	EVALUATE INDIVIDUALS FOR PROMOTION, DEMOTION, OR RECLASSIFICATION	69
A4	DETERMINE REQUIREMENTS FOR SPACE, PERSONNEL, EQUIPMENT, OR SUPPLIES	69
D88	MAINTAIN TRAINING RECORDS, CHARTS, OR GRAPHS	65
C62	EVALUATE WORK SCHEDULES	65
B43	SUPERVISE ENGINEERING ASSISTANT TECHNICIANS (AFSC 55370)	62
B30	DIRECT MAINTENANCE OF ADMINISTRATIVE FILES	62
C48	EVALUATE COMPLIANCE WITH WORK STANDARDS	62
D78	DETERMINE OJT REQUIREMENTS	62
D77	COUNSEL TRAINEES ON TRAINING PROGRESS	58
C63	INDORSE ENLISTED PERFORMANCE REPORTS (EPR)	58
C49	EVALUATE DRAWINGS OR ENGINEERING PLANS FOR ACCURACY	54
B40	SUPERVISE APPRENTICE ENGINEERING ASSISTANT SPECIALISTS (AFSC 55330)	46

APPENDIX B

STS ANALYSIS TABLES

TABLE B1

UNSUPPORTED AFSC 553X0 STS ELEMENTS

TASKS		PERCENT MEMBERS PERFORMING 1ST JOB	1ST ENL	5-LVL	7-LVL
7A(3). JOB ORDERS	A/X				
E98 ANNOTATE AF FORMS 1879 (CCE JOB ORDER RECORD)		0	1	2	3
7A(4). QUALITY CONTROL	A/X				
E139 REVIEW AF FORMS 1255 (QUALITY CONTROL EVALUATION)		1	2	3	4
7A(5). WORK ORDERS	A/X				
E105 COMPLETE AF FORMS 327 (BASE CIVIL ENGINEER WORK ORDER)		4	5	10	19
E123 LOG ENTRIES IN WORK ORDER REGISTERS		10	10	10	8
7B. IN-SERVICE WORK PLAN	-				
E100 ANNOTATE AF FORMS 919 (CCE IN-SERVICE WORK PLAN WORK SHEET)		0	0	1	0
7C(1). DAILY	A/X				
E96 ANNOTATE AF FORMS 1734 (CCE DAILY WORK SCHEDULE)		2	2	3	3
E128 MAINTAIN MAN-HOUR ACCOUNTING FORMS		5	4	7	12
9B(2). RECONNAISSANCE REPORTS	2B				
F194 WRITE RECONNAISSANCE REPORTS		5	6	6	7
9C(6). COMPUTE VERTICAL CURVE DATA	1B				
F159 COMPUTE VERTICAL CURVE		14	13	9	7
10A. PERFORM SOILS EXPLORATION	-				
K337 COLLECT SOIL SAMPLES		6	4	5	7
K341 PERFORM SOILS EXPLORATION		4	1	1	2

TABLE B1 (CONTINUED)

UNSUPPORTED AFSC 553X0 STS ELEMENTS

TASKS	PERCENT MEMBERS PERFORMING 1ST JOB	1ST ENL	5-LVL	7-LVL
10B. CLASSIFY SOILS UNDER FIELD CONDITIONS -				
K334 CLASSIFY SOILS UNDER FIELD CONDITIONS	5	2	3	6
10C. CLASSIFY PHYSICAL PROPERTIES OF SOIL -				
K335 CLASSIFY SOILS USING UNIFIED SOIL CLASSIFICATION SYSTEM	4	2	3	5
10D. TEST SOILS -				
K330 ANALYZE SOILS FOR ATTERBURG LIMITS	2	1	3	4
K331 ANALYZE SOILS FOR GRAIN-SIZE DISTRIBUTION	5	3	4	5
K332 ANALYZE SOILS FOR MOISTURE CONTENT	5	3	5	5
K333 ANALYZE SOILS FOR SPECIFIC GRAVITY	4	2	3	3
K334 CLASSIFY SOILS UNDER FIELD CONDITIONS	5	2	3	6
K335 CLASSIFY SOILS USING UNIFIED SOIL CLASSIFICATION SYSTEM	4	2	3	5
K359 TEST SOILS FOR IN-PLACE DENSITY	2	1	3	4
K360 TEST SOILS FOR MOISTURE-DENSITY RELATIONSHIP	2	1	2	3
K361 TEST SOILS USING DYNAMIC CONE PENETROMETER OR AUTOMATED CONE PENETROMETER	1	0	0	2
K362 TEST SOILS USING FIELD CALIFORNIA CEARING RATIO (CBR)	4	1	3	3
K364 TEST SOILS USING PLATE-BEARING TEST	1	0	1	1
K365 WRITE MATERIALS TEST REPORTS	1	0	2	3

TABLE B1 (CONTINUED)

UNSUPPORTED AFSC 553X0 STS ELEMENTS

TASKS	PERCENT MEMBERS PERFORMING 1ST JOB	1ST ENL	5-LVL	7-LVL
10E. TEST BITUMINOUS MATERIALS -				
K336 COLLECT ASPHALT OR CONCRETE SAMPLES	5	3	5	7
K346 TEST BITUMINOUS MATERIALS FOR ASPHALT CONTENT	1	0	1	2
K347 TEST BITUMINOUS MATERIALS FOR FLASH POINT	1	0	1	2
K348 TEST BITUMINOUS MATERIALS FOR MARSHALL STABILITY AND FLOW	1	1	2	3
K349 TEST BITUMINOUS MATERIALS FOR PENETRATION	1	1	2	2
K350 TEST BITUMINOUS MATERIALS FOR PERCENT OF STRIPPING	1	0	0	1
K351 TEST BITUMINOUS MATERIALS FOR SPECIFIC GRAVITY	1	1	2	2
K352 TEST BITUMINOUS MATERIALS FOR VISCOSITY	1	0	0	2
K358 TEST PAVEMENT USING FALLING WEIGHT DEFLECTOMETER	1	0	0	1
10F. DEVELOP PRELIMINARY DESIGN FOR BITUMINOUS MIXES -				
K339 DEVELOP PRELIMINARY DESIGN FOR BITUMINOUS MIXES	1	0	1	2
10G. DEVELOP PRELIMINARY DESIGN FOR CONCRETE MIXES -				
K340 DEVELOP PRELIMINARY DESIGN FOR CONCRETE MIXES	1	0	1	2
10H. TEST CONCRETE MATERIALS 2B				
K336 COLLECT ASPHALT OR CONCRETE SAMPLES	5	3	5	7
K342 TEST AGGREGATE FOR ORGANIC IMPURITIES	1	0	1	3
K343 TEST AGGREGATE FOR SOUNDNESS	2	1	1	2
K344 TEST AGGREGATE FOR SPECIFIC GRAVITY	1	1	2	3
K345 TEST AGGREGATE FOR SURFACE MOISTURE	1	1	1	3
K346 TEST BITUMINOUS MATERIALS FOR ASPHALT CONTENT	1	1	2	3
K353 TEST CONCRETE FOR AIR CONTENT	4	3	5	6
K354 TEST CONCRETE FOR COMPRESSIVE STRENGTH	5	3	5	6
K356 TEST CONCRETE FOR SLUMP	5	5	10	13
K357 TEST CONCRETE FOR UNIT WEIGHT	1	1	1	1
K358 TEST PAVEMENT USING FALLING WEIGHT DEFLECTOMETER	1	0	0	1

TABLE B1 (CONTINUED)

UNSUPPORTED AFSC 553X0 STS ELEMENTS

TASKS	PERCENT MEMBERS PERFORMING 1ST JOB	1ST ENL	5-LVL	7-LVL
12B. SUBMISSION OF BCP A				
G231 SUBMIT BCPS	8	12	10	10
13L(3). PREPARE SURVEILLANCE PLANS -				
I255 COMPLETE AF FORMS 798 (QUALITY ASSURANCE EVALUATOR DECISION TABLE)	0	1	6	8
I314 WRITE QUALITY ASSURANCE SURVEILLANCE PLANS FOR SERVICE CONTRACTS	2	3	13	15
13L(4). PREPARE SURVEILLANCE DOCUMENTS -				
I254 COMPLETE AF FORMS 714 (CUSTOMER COMPLAINT RECORD)	2	4	14	14
I256 COMPLETE AF FORMS 799 (SURVEILLANCE ACTIVITY CHECKLIST)	2	5	12	10
I257 COMPLETE AF FORMS 802 (CONTRACT DISCREPANCY REPORT)	4	6	15	17
I259 COMPLETE SURVEILLANCE AND RANDOM SAMPLING DOCUMENTS FOR SERVICE CONTRACTS	5	7	17	18
I274 DOCUMENT SERVICE CONTRACT ACTIVITIES	2	5	18	19
14A(1)(C)1. 50' X 5000' MINIMUM OPERATING A/X STRIP				
M392 ESTABLISH ASSAULT STRIP	8	9	11	15
14A(1)(C)2. AIRCRAFT TAXI ROUTE(S) A/X				
M392 ESTABLISH ASSAULT STRIP	8	9	11	15
M403 LAY OUT TAXIWAY AND RUNWAY TRAFFIC MARKINGS	13	18	19	16
14A(2)(A)1. WING OPERATIONS CENTER A/X				
M420 PERFORM FIELD BATTLE STAFF FUNCTIONS	4	4	7	12

TABLE B1 (CONTINUED)

UNSUPPORTED AFSC 553X0 STS ELEMENTS

TASKS	PERCENT MEMBERS PERFORMING 1ST JOB	1ST ENL	5-LVL	7-LVL
14A(2)(A)2. SURVIVAL RECOVERY CENTER (SRC) A/X				
M420 PERFORM FIELD BATTLE STAFF FUNCTIONS	4	4	7	12
14A(3)(A)1. WRM EQUIPMENT/VEHICLES -				
M386 DEVELOP BASE DENIAL PLAN	4	7	11	17
14A(3)(A)2. SUPPLIES -				
M386 DEVELOP BASE DENIAL PLAN	4	7	11	17
14A(3)(A)3. CRITICAL FACILITIES -				
M386 DEVELOP BASE DENIAL PLAN	4	7	11	17
14B(1)(E). SITE B-1 REVETMENT FOR BOTH AIRCRAFT AND PERSONNEL PROTECTION A/X				
M390 ERECT STEEL REVENTMENTS	2	4	2	4
14C(1)(C). OPERATE M1950 HEATER -				
M410 OPERATE IMMERSION HEATERS	0	2	4	5
15B(2). DISEASE AND PESTILENCE COUNTERMEASURES -				
M418 PERFORM DISEASE AND PESTILENCE COUNTERMEASURES	6	9	9	10
15D(2). INDIVIDUAL MOVEMENTS -				
M422 PERFORM INDIVIDUAL MOVEMENT TECHNIQUES FOR WORK PARTY SECURITY	12	15	17	18

TABLE B1 (CONTINUED)

UNSUPPORTED AFSC 553X0 STS ELEMENTS

TASKS		PERCENT MEMBERS PERFORMING 1ST JOB	1ST ENL	5-LVL	7-LVL
15H(1). LATRINES	-				
M384 CONSTRUCT FIELD LATRINES		4	7	9	7
15H(2). BERMS AND DIKES	-				
M382 CONSTRUCT BERMS AND DIKES		0	3	6	6
15H(3). FIELD AND UTILITY SYSTEMS	-				
M385 CONSTRUCT FIELD UTILITY SYSTEMS		4	5	5	6
15I(1). RAPID RUNWAY REPAIR (RRR) PHILOSOPHY	A				
M433 REPAIR BOMB CRATERS		4	6	9	8
15I(2)(A). AM-2 MATTING	A				
M433 REPAIR BOMB CRATERS		4	6	9	8
15I(2)(B). PFM (POLYURETHANE FIBERGLASS MAT)	A				
M401 INSTALL POLYURETHANE IMPREGNATED FIBERGLASS MATS (PFM)		0	2	3	4
M433 REPAIR BOMB CRATERS		4	6	9	8
M434 REPAIR SPALL FIELD		1	3	5	5
15I(2)(C). CONCRETE SLAB	A				
M399 INSTALL CONCRETE SLABS		2	7	5	7
M433 REPAIR BOMB CRATERS		4	6	9	8

TABLE B1 (CONTINUED)

UNSUPPORTED AFSC 553X0 STS ELEMENTS

TASKS		PERCENT MEMBERS PERFORMING 1ST JOB	1ST ENL	5-LVL	7-LVL
15I(4)(A). POLYURETHANE IMPREGNATED FIBERGLASS MAT (PFM)	A				
M401 INSTALL POLYURETHANE IMPREGNATED FIBERGLASS MATS (PFM)		0	2	3	4
M433 REPAIR BOMB CRATERS		4	6	9	8
M434 REPAIR SPALL FIELD		1	3	5	5
15I(4)(B). CONCRETE SLAB	A				
M399 INSTALL CONCRETE SLABS		2	7	5	7
M433 REPAIR BOMB CRATERS		4	6	9	8