UNITED STATES AIR FORCE

OCCUPATIONAL SURVEY REPORT

TACTICAL AIRCRAFT MAINTENANCE

AFSC 2A3X3

AFPT 90-2A3-068

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PREFACE

This report presents the results of a detailed Air Force Occupational Survey of the Tactical Aircraft Maintenance career ladder, Air Force Specialty Code (AFSC) 2A3X3. Authority for conducting occupational surveys is contained in AFI 36-2623. Computer products used in this report are available for use by operations and training officials.

The survey instrument was developed by Second Lieutenant Brandon K. Doan, Inventory Development Specialist, with computer programming support furnished by Mrs. Jeannie C. Guesman. Mr. Richard G. Ramos provided administrative support. Second Lieutenant Martin K. Topping, Occupational Analyst, analyzed the data and wrote the final report. This report has been reviewed and approved by Lieutenant Colonel Roger W. Barnes, Chief, Airman Analysis Section, Air Force Occupational Measurement Squadron (AFOMS).

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

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SUMMARY OF RESULTS

1. *Survey Coverage*: The Tactical Aircraft Maintenance career ladder was surveyed to provide current job and task data for use in updating career ladder documents and training programs. Survey results are based on responses from 4,547 respondents, accounting for 30 percent of the total assigned population. All major using commands were well represented in the survey sample.

2. *Specialty Jobs*: Eleven jobs were identified in the career ladder structure analysis. Six of the jobs were directly involved in performing the technical duties and tasks pertaining to various aircraft maintenance activities. One of these, Crew Chief/Mechanic, is the core job of the career ladder, making up 60 percent of the sample. The remaining five jobs were characterized by staff, supervisory, or training activities.

3. *Career Ladder Progression*: Distinctions between skill-level groups are evident, with personnel at the 3- and 5-skill levels spending the vast majority of their job time performing technical tasks across a number of different jobs. At the 7-skill level, the shift towards supervisory tasks becomes quite clear. Active-duty members perform more managerial tasks and tasks pertaining to engine maintenance. Guardsmen and reservists, however, reported performing more aircraft ground handling or servicing tasks than active-duty personnel.

4. *AFMAN 36-2108 Specialty Description*: Survey data were compared to the AFMAN 36-2108 *Specialty Description* for Tactical Aircraft Maintenance, dated 31 October 1994. The specialty description encompasses all of the AFSC 2A3X3 career ladder jobs identified. It discusses not only the technical aspect of the jobs, but also includes higher-level duties, such as performing staff and supervisory management functions.

5. *Training Analysis*: Overall, the AFSC 2A3X3 Specialty Training Standards were generally supported by Occupational Survey Report data. The Plans of Instruction for the F-15 and F-16 courses were also generally supported. Subject-matter experts, however, should closely review both documents for possible fine-tuning of content and proficiency codes.

6. *Job Satisfaction*: Overall job satisfaction was high across the entire career ladder, especially when compared with similar mission equipment management career ladders. Guardsmen and reservists, however, provided higher job satisfaction ratings than their active-duty counterparts.

7. *Implications*: Survey results indicate the AFSC 2A3X3 career ladder structure is extremely homogeneous, with 60 percent of the sample performing Crew Chief/Mechanic activities. Job progression shows a distinct pattern as one moves from the 3- to the 7-skill level, and the AFMAN 36-2108 *Specialty Description* adequately described the career ladder at all levels. AFSC 2A3X3 training documents, although generally supported, need to be reviewed. Job satisfaction rated high across the career ladder.

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OCCUPATIONAL SURVEY REPORT (OSR)
TACTICAL AIRCRAFT MAINTENANCE CAREER LADDER
(AFSC 2A3X3)

INTRODUCTION

This is a report of an occupational survey of the Tactical Aircraft Maintenance career ladder completed by the Air Force Occupational Measurement Squadron (AFOMS). Data collected will be used to validate career ladder documents and training programs. The last Tactical Aircraft Maintenance OSR was published February 1989. It was a multi-ladder report covering AFSCs 431X1, 431X2, 431X3, and 431X4. In July of 1991, a new survey was mailed to AFSC 452X4 personnel throughout the Air Force. However, due to Operation Desert Storm, a downsizing Air Force, and a redistribution of aircraft among bases, a representative sample could not be obtained and the project was canceled.

Background

As described in the AFMAN 36-2108 *Specialty Description*, dated 31 October 1994, Tactical Aircraft Maintenance members maintain tactical aircraft, support equipment, and forms and records. They perform and supervise flight chief, expediter, crew chief, support, aero repair, and maintenance functions. They troubleshoot and maintain aircraft structures, systems, components, and related equipment. This includes removing and installing aircraft components and conducting functional tests of repaired components and systems.

AFSC 2A3X3 personnel also inspect aircraft structures, systems, components, and related systems. They supervise and perform aircraft and component inspections, as well as interpreting inspection findings and determining adequacy of corrective actions. They inspect and check components for clearances, tolerances, proper installation, and operation. They also inspect and identify aircraft corrosion for prevention and correction and review maintenance forms, aircraft records, and reports to ensure complete documentation.

In addition, members coordinate maintenance plans to meet operational commitments. They supervise and assist in launching and recovering aircraft. They review maintenance data collection summaries to determine trends and production effectiveness. They also perform crash recovery duties.

Entry into the career ladder currently requires an Armed Services Vocational Aptitude Battery mechanical score of 51, and a strength factor of "L" (weight lift of 80 lbs) is also required. The technical school for this career ladder is located at Sheppard AFB in Wichita Falls, Texas. All personnel are required to attend the Tactical Aircraft Maintenance Fundamentals Course covering career ladder progression, operations security, the Air Force Occupational Safety and Health program, maintenance directives and references, Core Automated Maintenance System (CAMS), maintenance tools, and basic aircraft systems. Following the Fundamentals course, the trainees attend one of five "hot" courses that provide in-depth instruction on either the F-15, F-16, A-10, F-111, or U-2 aircraft. All of these courses are taught at Sheppard AFB, except for the U-2 course which is taught at Beale AFB. There is also a 7-skill level Tactical Aircraft Maintenance Craftsman course taught at Sheppard AFB.

SURVEY METHODOLOGY

Inventory Development

The data collection instrument for this occupational survey was USAF Job Inventory (JI) Air Force Personnel Test (AFPT) 90-2A3-068, dated June 1995. A tentative task list was prepared after reviewing pertinent career ladder publications and directives, pertinent tasks from the previous survey instrument, and data from the last OSR. The preliminary task list was refined and validated through personal interviews with 31 subject-matter experts (SMEs) at the technical training location and at the following installations:

BASE	REASON FOR VISIT
Sheppard AFB TX	Resident technical training location
Randolph AFB TX	Location of T-37, T-38, and T-1 aircraft
Nellis AFB NV	Location of F-4, F-15, F-15E, F-16, and A-10 aircraft
Cannon AFB NM	The only CONUS-based F-111 crew chiefs
Holloman AFB NM	The only CONUS-based F-117 crew chiefs
Beale AFB CA	The only U-2 crew chiefs in the Air Force

The resulting JI contains a comprehensive listing of 933 tasks grouped under 17 duty headings, and a background section requesting such information as grade, duty title, organizational level, aircraft maintained, aircraft engine maintained, support equipment used, and maintenance materials or tools used.

Survey Administration

From August 1995 through February 1996, Survey Control Monitors at base training offices worldwide administered the inventory to selected active duty, Air National Guard (ANG), and Air Force Reserve (AFRES) personnel. A stratified random sample consisting of 50 percent of assigned 3-, 5-, and 7-skill level members were selected from each of the 3 component groups. Inventory booklets were administered to 4,482 active duty, 1,713 ANG, and 428 AFRES personnel. Personnel excluded from taking the survey included the following: (1) hospitalized personnel; (2) personnel in transition for a permanent change of station; (3) personnel retiring within the time the inventories were administered to the field; and (4) personnel in the job less than 6 weeks. Job incumbents were selected from a computer-generated mailing list obtained from personnel data tapes maintained by the Air Force Personnel Center, Randolph AFB TX.

Each individual who completed the inventory first completed an identification and biographical information section and then checked each task performed in his or her current job. After checking all tasks performed, each member then rated each of these tasks on a 9-point scale, showing relative time spent on that task, as compared to all other tasks checked. The ratings ranged from 1 (very small amount time spent) through 5 (about average time spent) to 9 (very large amount time spent).

To determine relative time spent for each task checked by a respondent, all of the incumbent's ratings are assumed to account for 100 percent of his or her time spent on the job and are summed. Each task rating is then divided by the total task ratings and multiplied by 100 to provide a relative percentage of time spent for each task. This procedure provides a basis for comparing tasks in terms of both percent members performing and average percent time spent.

Survey Sample

Personnel were selected to participate in this survey so as to ensure an accurate representation across major commands (MAJCOM) and paygrade groups. Table 1 reflects the percentage distribution, by MAJCOM, of active duty AFSC 2A3X3 personnel as of August 1995. The 4,547 respondents in the final sample represent 30 percent of the total assigned personnel and 65 percent of the total personnel surveyed. Seventy-two percent of active duty personnel surveyed are in the sample. Table 2 reflects the paygrade distribution for active duty personnel. The survey sample is considered to be a satisfactory representation of the career ladder population.

TABLE 1

MAJCOM REPRESENTATION OF ACTIVE DUTY SURVEY SAMPLE

COMMAND	PERCENT OF ACTIVE DUTY ASSIGNED*	PERCENT OF ACTIVE DUTY SAMPLE
ACC	51	45
PACAF	17	18
AETC	15	19
USAFE	11	11
AFMC	6	7
TOTAL	100	100

	ACTIVE DUTY	AIR NATIONAL GUARD	AIR FORCE RESERVE	TOTAL
Total Assigned*:	10,467	3,564	888	14,919
Total Eligible / Surveyed**:	4,825	1,713	428	6,966
Total in Survey Sample:	3,462	874	211	4,547
Percent of Assigned in Sample:	33%	25%	24%	30%
Percent of Surveyed in Sample:	72%	51%	49%	65%

* Assigned strength as of August 1995

** Excludes personnel in PCS, student, or hospital status, or less than 6 weeks on the job

TABLE 2

PAYGRADE DISTRIBUTION OF ACTIVE DUTY SURVEY SAMPLE

GRADE	PERCENT OF ASSIGNED (N=10,467)*	PERCENT OF SAMPLE (N=3,462)
E-1 TO E-3	20	20
E-4	25	24
E-5	27	28
E-6	15	16
E-7	13	12

* Assigned strength as of August 1995

Task Factor Administration

Job descriptions alone do not provide sufficient data for making decisions about career ladder documents or training programs. Task factor information is needed for a complete analysis of the career ladder. To obtain the needed task factor data, selected senior AFSC 2A3X3 personnel (generally E-6 or E-7 craftsmen) also completed a second booklet for either training emphasis (TE) or task difficulty (TD). These booklets were processed separately from the JIs. This information is used in a number of different analyses discussed in more detail within the report.

Training Emphasis (TE). TE is a rating of the amount of emphasis that should be placed on tasks in entry-level training. The 137 senior NCOs who completed a TE booklet were asked to select tasks they felt require some sort of structured training for entry-level personnel and then indicate how much training emphasis these tasks should receive, from 1 (extremely low emphasis) to 9 (extremely high emphasis). Structured training is defined as training provided at resident technical schools, field training detachments, mobile training teams, formal on-the-job training (OJT), or any other organized training method

TE data were compiled for each of the five aircraft, and were used separately to analyze the five individual courses. TE data were as follows:

AIRCRAFT	AVERAGE TE	STANDARD DEVIATION	HIGH TE
F-15	1.73	1.66	3.39
F-16	2.48	1.81	4.29
A-10	2.65	1.65	4.30
F-111	2.21	2.40	4.61
U-2	2.17	2.18	4.35

Task Difficulty (TD). TD is an estimate of the amount of time needed to learn how to do each task satisfactorily. The 125 senior NCOs who completed TD booklets were asked to rate the difficulty of each task using a 9-point scale (extremely low to extremely high). TD data were also broken out among the individual aircraft; however, no U-2 TD booklets were returned. Ratings were standardized so tasks have an average difficulty of 5.00, with a standard deviation of 1.00. Any task with a TD rating of 6.00 or above is considered to be difficult to learn.

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

SPECIALTY JOBS
(Career Ladder Structure)

A USAF Occupational Analysis begins with an examination of the career ladder structure. The structure of jobs within the Tactical Aircraft Maintenance career ladder was examined on the basis of similarity of tasks performed and the percent of time spent ratings provided by job incumbents, independent of other specialty background factors.

Each individual in the sample performs a set of tasks called a *Job*. For the purpose of organizing individual jobs into similar units of work, an automated job clustering program is used. This hierarchical grouping program is a basic part of the Comprehensive Occupational Data Analysis Program system for job analysis. Each individual job description (all the tasks performed by that individual and the relative amount of time spent on those tasks) in the sample is compared to every other job description in terms of tasks performed and the relative amount of time spent on each task in the JI. The automated system is designed to locate the two job descriptions with the most similar tasks and percent time ratings and combine them to form a composite job description. In successive stages, new members are added to initial groups, or new groups are formed based on the similarity of tasks performed and similar time ratings in the individual job descriptions.

Overview of Specialty Jobs

The analysis procedure described above identified 11 jobs within the survey sample. The division of jobs performed by AFSC 2A3X3 personnel is illustrated in Figure 1, and a listing of those jobs is provided below. The group (GP) or stage (ST) number shown beside each title is a reference to computer-printed information; the number of personnel in each group or stage (N) is also shown.

I. CREW CHIEF/MECHANIC (ST506, N=2,740)

II. SUPERVISORY CLUSTER (ST061, N=595)

III. FORMAL INSTRUCTOR (ST467, N=36)

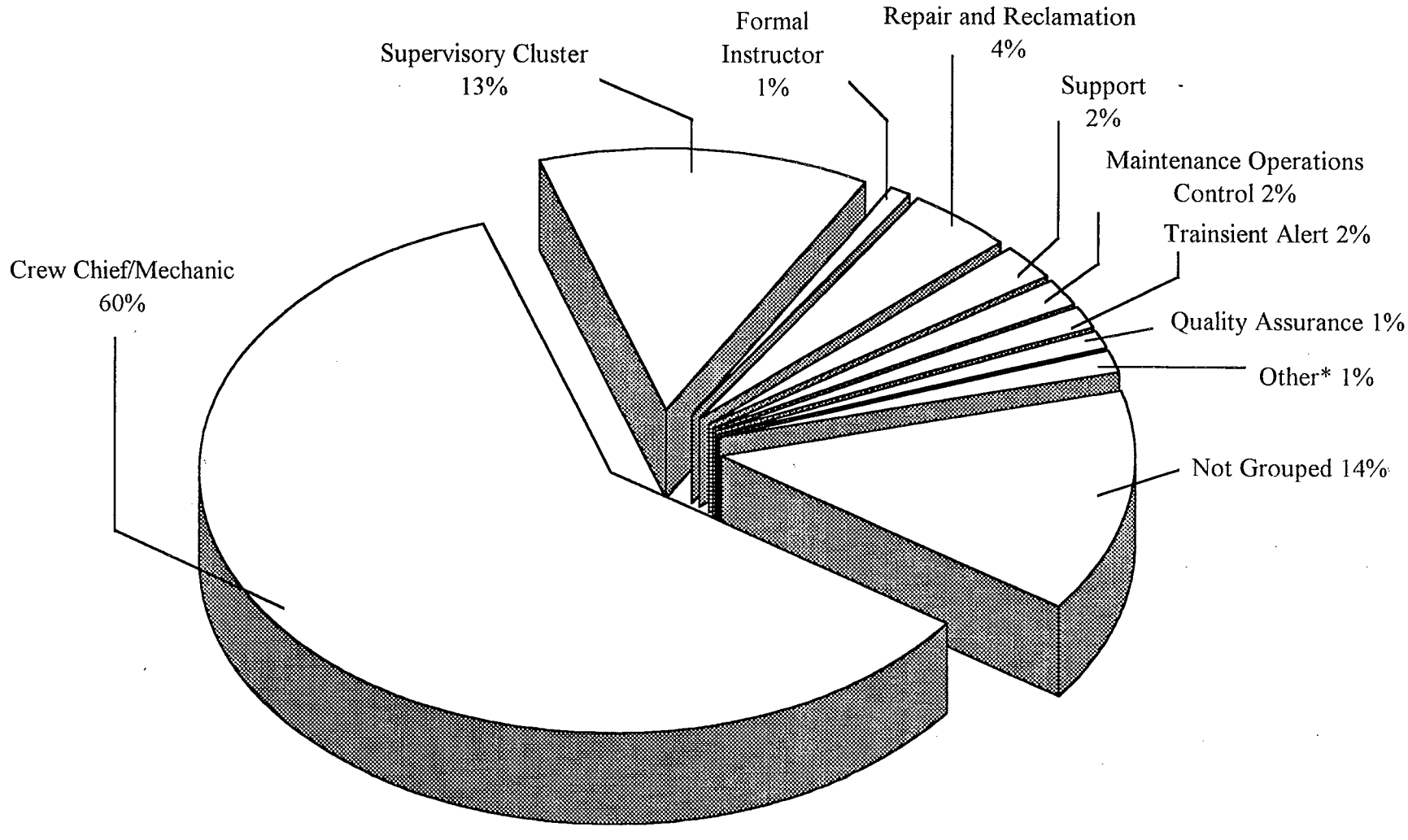
IV. MISSION READY TECHNICIAN (MRT) INSTRUCTOR (ST714, N=10)

V. REPAIR AND RECLAMATION (ST227, N=197)

VI. SUPPORT (ST127, N=97)

VII. MAINTENANCE OPERATIONS CONTROL (MOC) (ST100, N=72)

AFSC 2A3X3
CAREER LADDER JOBS



*Other includes MRT Instructor, Wheel and Tire, and Mobility

FIGURE 1

VIII. TRANSIENT ALERT (GP054, N=70)

IX. QUALITY ASSURANCE (QA) (ST312, N=45)

X. WHEEL AND TIRE (GP055, N=32)

XI. MOBILITY (ST392, N=17)

The respondents forming these jobs account for 84 percent of the survey sample. The remaining 16 percent were performing tasks or series of tasks which did not group with any of the defined jobs. Job titles given by respondents which were representative of these personnel include End of Runway Technician, Wing Programs Manager, and Weapons System Coordinator.

Group Descriptions

The following paragraphs contain brief descriptions of the jobs identified through the career ladder structure analysis. Table 3 presents the relative time spent on duties by members of these specialty jobs. Selected background data for these jobs are provided in Table 4. Representative tasks for all the jobs are contained in Appendix A.

I. CREW CHIEF/MECHANIC (ST506). The 2,740 members of this specialty job make up the core job in the AFSC 2A3X3 career ladder, comprising 60 percent of the survey sample. They are stationed at a wide variety of locations, both in CONUS and overseas, and they perform work on all types of tactical aircraft. Seventy percent of their time is spent in four duties, performing ground handling or servicing tasks, performing general airframe or aircraft maintenance activities, maintaining landing gear systems, and performing general engine maintenance activities. Thirty-one percent of the members are in ACC, and 70 percent are active duty. Typical tasks performed by members of this job include:

apply external electrical power to aircraft
jack aircraft using axle jacks
clean up fuel, oil, or hydraulic spills
defuel aircraft
apply external hydraulic power to aircraft
jack aircraft using tripod jacks
perform wing or tail walker duties
inspect aircraft tires

TABLE 3

RELATIVE PERCENT TIME SPENT ON DUTIES BY SPECIALTY JOBS

DUTIES	CREW CHIEF/ MECHANIC (ST506, N=2,740)	SPRVSORY CLUSTER (ST061, N=595)	FORMAL INSTR (ST467, N=36)	MRT INSTR (ST714, N=10)	REPAIR AND RECLAM (ST227, N=197)	SUPPORT (ST127, N=97)
A ORGANIZING AND PLANNING	1	25	3	7	3	7
B DIRECTING AND IMPLEMENTING	1	14	3	6	2	4
C EVALUATING AND INSPECTING	2	17	4	8	3	7
D TRAINING	1	9	15	10	2	3
E PERFORMING GENERAL ADMINISTRATIVE AND TECHNICAL DATA ACTIVITIES	1	4	2	2	1	5
F PERFORMING SUPPLY AND EQUIPMENT ACTIVITIES	2	8	3	3	5	58
G PERFORMING GENERAL AIRFRAME OR AIRCRAFT MAINTENANCE ACTIVITIES	18	4	12	9	15	1
H PERFORMING AIRCRAFT GROUND HANDLING OR SERVICING TASKS	26	5	24	27	15	2
I MAINTAINING LANDING GEAR SYSTEMS	14	1	13	11	15	*
J MAINTAINING UTILITY SYSTEMS	4	*	3	2	*	*
K MAINTAINING FLIGHT CONTROL SYSTEMS	5	*	1	*	25	-
L MAINTAINING HYDRAULIC OR PNEUMATIC SYSTEMS	3	*	3	1	1	-
M MAINTAINING FUEL SYSTEMS	4	*	2	1	*	-
N MAINTAINING ELECTRICAL SYSTEMS	3	*	3	2	1	*
O PERFORMING GENERAL ENGINE MAINTENANCE ACTIVITIES	12	1	9	9	3	*
P PERFORMING CORE AUTOMATED MAINTENANCE SYSTEM (CAMS) ACTIVITIES	4	7	1	1	5	4
Q PERFORMING MOBILITY AND CONTINGENCY ACTIVITIES	1	4	-	1	3	9

* Denotes less than .5 percent
- Denotes duty is not performed

TABLE 3 (CONTINUED)

RELATIVE PERCENT TIME SPENT ON DUTIES BY SPECIALTY JOBS

DUTIES	MAINT OPER CONTROL (ST100, N=72)	TRANSIENT ALERT (GP054, N=70)	QUALITY ASSUR (ST312, N=45)	WHEEL AND TIRE (GP055, N=32)	MOBILITY (ST392, N=17)
A ORGANIZING AND PLANNING	16	6	6	6	22
B DIRECTING AND IMPLEMENTING	6	3	4	2	10
C EVALUATING AND INSPECTING	5	5	17	4	10
D TRAINING	4	4	3	3	1
E PERFORMING GENERAL ADMINISTRATIVE AND TECHNICAL DATA ACTIVITIES	10	2	5	2	12
F PERFORMING SUPPLY AND EQUIPMENT ACTIVITIES	2	6	5	19	4
G PERFORMING GENERAL AIRFRAME OR AIRCRAFT MAINTENANCE ACTIVITIES	4	9	13	3	*
H PERFORMING AIRCRAFT GROUND HANDLING OR SERVICING TASKS	*	46	5	15	-
I MAINTAINING LANDING GEAR SYSTEMS	*	4	11	26	-
J MAINTAINING UTILITY SYSTEMS	*	1	6	1	-
K MAINTAINING FLIGHT CONTROL SYSTEMS	-	*	1	-	-
L MAINTAINING HYDRAULIC OR PNEUMATIC SYSTEMS	-	*	1	-	-
M MAINTAINING FUEL SYSTEMS	*	1	2	-	-
N MAINTAINING ELECTRICAL SYSTEMS	-	1	4	*	-
O PERFORMING GENERAL ENGINE MAINTENANCE ACTIVITIES	*	3	13	*	-
P PERFORMING CORE AUTOMATED MAINTENANCE SYSTEM (CAMS) ACTIVITIES	46	4	4	12	1
Q PERFORMING MOBILITY AND CONTINGENCY ACTIVITIES	6	2	1	6	40

* Denotes less than .5 percent
- Denotes duty is not performed

TABLE 4

SELECTED BACKGROUND DATA FOR SPECIALTY JOBS

	CREW CHIEF/ MECHANIC (ST506)	SPRVSORY CLUSTER (ST061)	FORMAL INSTR (ST467)	MRT INSTR (ST714)	REPAIR AND REC (ST227)	SUPPORT (ST127)
NUMBER IN GROUP	2,740	595	36	10	197	97
PERCENT OF SAMPLE	60%	13%	1%	*	4%	2%
PERCENT IN CONUS	78%	72%	97%	90%	76%	75%
DAFSC DISTRIBUTION:						
ACTIVE-DUTY 2A333	22%	1%	0%	0%	15%	10%
ACTIVE-DUTY 2A353	30%	5%	19%	40%	31%	54%
ACTIVE-DUTY 2A373	18%	83%	81%	60%	38%	31%
AIR NATIONAL GUARD	25%	8%	0%	0%	14%	5%
AIR FORCE RESERVE	5%	3%	0%	0%	2%	0%
PREDOMINANT GRADE(S)	E-4, E-5	E-6, E-7	E-5, E-6	E-4, E-5, E-6	E-4, E-5	E-4, E-5, E-6
AVERAGE MONTHS IN CAREER FIELD (AD ONLY)	77	182	154	126	104	112
AVERAGE MONTHS IN SERVICE (AD ONLY)	82	197	164	133	109	119
PERCENT IN FIRST ENLISTMENT (1-48 MOS TAFMS) (AD ONLY)	40%	0%	0%	10%	22%	20%
PERCENT SUPERVISING	38%	82%	42%	80%	50%	36%
AVERAGE NUMBER OF TASKS PERFORMED	219	86	120	97	162	33

* Denotes less than .5 percent

TABLE 4 (CONTINUED)

SELECTED BACKGROUND DATA FOR SPECIALTY JOBS

	MAINTENANCE OPERATIONS CONTROL (ST100)	TRANSIENT ALERT (GP054)	QUALITY ASSURANCE (ST312)	WHEEL AND TIRE (GP055)	MOBILITY (ST392)
NUMBER IN GROUP	72	70	45	32	17
PERCENT OF SAMPLE	2%	2%	1%	1%	*
PERCENT IN CONUS	72%	49%	80%	88%	76%
DAFSC DISTRIBUTION:					
ACTIVE-DUTY 2A333	0%	9%	0%	6%	0%
ACTIVE-DUTY 2A353	50%	54%	13%	34%	18%
ACTIVE-DUTY 2A373	33%	33%	62%	13%	82%
AIR NATIONAL GUARD	14%	4%	18%	47%	0%
AIR FORCE RESERVE	3%	0%	7%	0%	0%
PREDOMINANT GRADE(S)	E-4, E-5, E-6	E-4, E-5	E-5, E-6, E-7	E-4, E-5	E-5, E-6, E-7
AVERAGE MONTHS IN CAREER FIELD (AD ONLY)	118	98	155	80	172
AVERAGE MONTHS IN SERVICE (AD ONLY)	124	103	172	85	200
PERCENT IN FIRST ENLISTMENT (1-48 MOS TAFMS) (AD ONLY)	5%	9%	0%	30%	0%
PERCENT SUPERVISING	44%	51%	24%	25%	29%
AVERAGE NUMBER OF TASKS PERFORMED	31	95	123	46	33

* Denotes less than .5 percent

inspect areas for foreign object damage (FOD)
marshal aircraft
lubricate aircraft components

Thirty percent of active duty crew chief personnel are in the 5-skill level. They have a fairly low average time in service, about 82 months. Members perform an average of 219 tasks, more than any other specialty job. Thirty-three percent of these personnel are in paygrade E-5, and 27 percent are in paygrade E-4.

II. SUPERVISORY CLUSTER (ST061). The Supervisory Cluster contains 595 members and consists of various jobs, all of which are supervisory in nature. For example, many members reported such job titles as flightline expediter, production superintendent, flight chief, and noncommissioned officer in charge. They spend a large amount of their time on upper-level duties such as organizing and planning. The tasks that they perform also reflect the supervisory nature of the job:

determine or establish work priorities
assign personnel to work areas or duty positions, other than mobility positions
plan or schedule work assignments or priorities
write EPRs
counsel subordinates concerning personal matters
establish work schedules
conduct performance feedback evaluation sessions
supervise Tactical Aircraft Maintenance Journeymen (AFSC 2A353)
establish performance standards for subordinates
inspect personnel for compliance with military standards
write recommendations for awards or decorations

Thirty-seven percent of the job members are in ACC. Personnel in the Supervisory Cluster are high in grade, with 52 percent in the E-7 paygrade and 83 percent in the active duty 7-skill level. They also have a high average time in service of 197 months.

III. FORMAL INSTRUCTOR (ST467). Thirty of the 36 members in this job are stationed at the technical training school at Sheppard AFB. They conduct the formal training that all Tactical Aircraft Maintenance personnel must attend. This includes the Fundamentals course and the aircraft-specific training conducted at Sheppard. Typical tasks include both training-oriented tasks, as well as hands-on crew chief tasks:

direct aircraft jacking operations
apply external electrical power to aircraft
service aircraft tires
counsel trainees on training progress
perform safe-for-maintenance inspections
apply external hydraulic power to aircraft
jack aircraft using tripod jacks
jack aircraft using axle jacks
bleed aircraft brake systems
inspect aircraft tires

All 36 members of this job are active duty. Ninety-four percent of these members are in AETC, and 97 percent are in CONUS. Fifty percent of the members are in paygrade E-5, and 47 percent are in paygrade E-6. Eighty-one percent are in the 7-skill level, and they have an average of 164 months time in service. They perform an average of 120 tasks.

IV. MISSION READY TECHNICIAN (MRT) INSTRUCTOR (ST714). The 10 active duty members of the MRT Instructor Job make up the smallest specialty job identified. Seven members are stationed at Luke AFB. The tasks performed by these personnel are somewhat similar to the Formal Instructor Job, but there is more emphasis on the performance of the technical hands-on tasks. All of the members perform aircraft launch checklist procedures and various inspections:

perform aircraft launch checklist procedures
perform aircraft postflight inspections
perform aircraft preflight inspections
perform aircraft thruflight inspections
fuel aircraft using single-point methods
marshal aircraft
apply external electrical power to aircraft
inspect areas for foreign object damage (FOD)
inspect landing gear braces, drag pins, or bushings
perform aircraft recovery checklist procedures
clear Red-X conditions

Eighty percent of the personnel are in AETC, and 60 percent are in the 7-skill level. They reported performing an average of 97 tasks and 133 months time in service.

V. REPAIR AND RECLAMATION (ST227). The 197 members of this specialty job are stationed at a wide range of bases, with 76 percent stationed in CONUS. They also perform a wide range of duties, and spend more time maintaining flight control systems than any other job group. Typical tasks include:

apply external electrical power to aircraft
apply external hydraulic power to aircraft
operationally check rudder systems or horizontal stabilizer systems
measure flight control surface travel
adjust aircraft canopy latching mechanisms or linkages
remove or install aircraft windows or canopies
inspect aircraft canopy systems
operationally check aileron, flaperon, or elevon systems
rig rudders or rudder control mechanisms
inspect flight control cables or cable components
operationally check aircraft canopies

Forty-three percent of this group are in the E-5 paygrade, and 22 percent are in their first enlistment. They have an average 109 months time in service. They also carry out many tasks, reporting an average of 162 tasks performed. Forty-eight percent of this group are in ACC.

VI. SUPPORT (ST127). The 97 members in this specialty job spend more time than any other job group performing supply and equipment activities (58 percent). They are responsible for maintaining and storing equipment, tools, and supplies. On the average, they perform only 33 tasks, some of which include:

Inventory CTKs
Inspect equipment, tools, or supplies, such as CTKs
Inventory equipment, tools, or supplies, other than CTKs
Maintain tool cribs
Store equipment, tools, or supplies
Issue or log turn-ins of equipment, tools, or supplies, other than CTKs
Maintain equipment control listings (ECLs)
Evaluate serviceability of equipment, tools, or supplies
Maintain precision measurement equipment (PME) calibration schedules

All but 5 percent of this group are active duty. Fifty-four percent of these personnel are in the 5-skill level, and 20 percent are in their first enlistment. Forty-one percent are in the E-4 paygrade. They report an average 119 months in service.

VII. MAINTENANCE OPERATIONS CONTROL (MOC) (ST100). There are 72 members that make up this specialty job. They mainly perform Core Automated Maintenance System (CAMS) activities, but they also perform some managerial tasks. Their function is to direct and control all maintenance activities. Some other job titles in this job are expeditor, senior controller, and debriefer. Typical tasks of this job include:

access core automated maintenance system (CAMS) menus and data screens
verify accuracy of CAMS daily inputs
analyze CAMS data
correct CAMS work unit codes
retrieve CAMS historical reports
review flight schedules
correct CAMS errors noted during daily verification process
compile information for records, reports, or logs
determine or establish work priorities

This group performs a low number of tasks, averaging only 31. Fifty percent are at the 5-skill level, and their paygrades basically range from E-4 to E-6. Forty-four percent are in ACC. Only 5 percent of this group are in their first enlistment, and the average time in service is 124 months.

VIII. TRANSIENT ALERT (GP054). The 70 members of this job have the lowest percentage of personnel stationed in CONUS (only 49 percent). They basically perform aircraft ground handling and servicing tasks. Their primary function is to marshal aircraft and perform inspections and minor maintenance. Some typical tasks are:

marshal aircraft
fuel aircraft using single-point methods
apply external electrical power to aircraft
fuel aircraft using over-the-wing methods
service aircraft with LOX
direct fueling operations

remove or install safety devices, such as seat pins, gear locks, intake covers, or engine component safety devices
perform nonpowered AGE pre-use inspections
perform powered AGE pre-use inspections

Ninety-six percent of these members are active duty. Personnel in this group primarily hold an E-4 or E-5 paygrade. They average 103 months time in service and perform an average of 95 tasks. Thirty-three percent are in PACAF and 31 percent are in ACC.

IX. QUALITY ASSURANCE (QA) (ST312). The 45 members of this specialty job are primarily responsible for performing inspections. Although only 24 percent of them supervise, they are fairly high in rank. Some of the tasks they perform are:

perform quality verification inspections (QVIs), other than engine QVIs or completed maintenance inspections
inspect flightline maintenance activities
inspect landing gear hydraulic system components
inspect landing gear structural components, other than shock struts
inspect landing gear door mechanisms
inspect aircraft-installed landing gear shock struts
inspect landing gear up-lock mechanisms
inspect aircraft tires
inspect landing gear electrical system components
inspect areas for foreign object damage (FOD)

These personnel perform many tasks, averaging 123. Sixty-two percent are in the 7-skill level, and they average 172 months in service. Their paygrades range from E-5 to E-7. Eighty percent are stationed in CONUS.

X. WHEEL AND TIRE (GP055). This group of 32 members is primarily responsible for inspecting and servicing wheel and tire assemblies. They spend a large amount of their time maintaining landing gear systems. Typical tasks performed by members of this job include:

inspect aircraft tires
inspect aircraft wheel assemblies
inspect aircraft wheel bearings
pack or repack aircraft wheel bearings
inventory CTKs

clear or close out completed maintenance discrepancies in CAMS
assemble or disassemble aircraft wheel or tire assemblies
service aircraft tires
access core automated maintenance system (CAMS) menus and data screens

Personnel in this job average only 85 months time in service, and 30 percent of them are in their first enlistment. Only 25 percent of them supervise other personnel. Eighty-eight percent are stationed in CONUS. Forty-seven percent are in the ANG, and 38 percent are in ACC. Thirty-four percent are in the active duty 5-skill level.

XI. MOBILITY (ST392). The 17 active duty members making up this small group are responsible for performing mobility and contingency activities, and they spend 40 percent of their time on such activities. They are fairly high ranking, with 82 percent in the 7-skill level. Among the 33 average tasks performed are:

determine equipment or personnel requirements for mobility exercises or deployments
participate in mobility exercise planning meetings
plan personnel or equipment deployments
implement contingency or mobility plans
coordinate mobility exercise or contingency requirements with appropriate agencies
participate in general meetings, such as staff meetings, briefings, conferences, and workshops, other than conducting
assign personnel to mobility positions
develop inputs to mobility, contingency, disaster preparedness, or unit emergency or alert plans

This group averages 200 months time in service. None of the members are in their first enlistment. Fifty-nine percent are in ACC, and 24 percent are in PACAF. Forty-seven percent are in the E-7 paygrade.

Comparison of Current Jobs to Previous Survey Findings

The results of the specialty job analysis were compared to those of OSR AFPT 90-431-823, Aircraft Maintenance (old AFSC 431XX), published in February 1989. After reviewing the tasks comprising the jobs identified in 1989, most of the groups could be linked to similar jobs in the current study (see Table 5). The Supervisory Cluster in the current study was broken down into three jobs in 1989: Flightline First-Line Supervisors, Flightline Supervisors, and

TABLE 5

SPECIALTY JOBS COMPARISON BETWEEN CURRENT AND 1989 SURVEYS

CURRENT SURVEY (N=4,547)	PERCENT OF SAMPLE	1989 SURVEY (N=4,968)	PERCENT OF SAMPLE
I. CREW CHIEF/MECHANIC	60	TACTICAL AIRCRAFT CREW CHIEFS	21
II. SUPERVISORY CLUSTER	13	FLIGHT LINE FIRST-LINE SUPERVISORS	1
		FLIGHT LINE EXPEDITORS	1
		SUPERVISORY AND MANAGEMENT PERSONNEL	5
III. FORMAL INSTRUCTOR	1	TECHNICAL SCHOOL PERSONNEL	*
IV. MISSION READY TECHNICIAN (MRT) INSTRUCTOR	*	FIELD TRAINING DETACHMENT (FTD) INSTRUCTORS	1
V. REPAIR AND RECLAMATION	4	AIRCRAFT REPAIR AND RECLAMATION PERSONNEL	5
VI. SUPPORT	2	TOOL CRIB MONITORS	1
		BENCH STOCK MONITORS	1
VII. MAINTENANCE OPERATIONS CONTROL (MOC)	2	MAINTENANCE DEBRIEFERS	*
VIII. TRANSIENT ALERT	2	TRANSIENT ALERT PERSONNEL	1
IX. QUALITY ASSURANCE (QA)	1	QUALITY ASSURANCE PERSONNEL	1
X. WHEEL AND TIRE	1	WHEEL AND TIRE SHOP PERSONNEL	1
XI. MOBILITY	*	NOT IDENTIFIED	-
NOT IDENTIFIED	-	STRATEGIC AND AIRLIFT AIRCRAFT CREW CHIEFS	19
		ASSISTANT CREW CHIEFS	12
		PHASE INSPECTION TEAM PERSONNEL	4
		REFURBISHING PERSONNEL	*
		-21 SUPPORT EQUIPMENT PERSONNEL	1
		NONPOWERED AEROSPACE GROUND EQUIPMENT (AGE) MAINTENANCE PERSONNEL	1
		WEAPONS SYSTEMS CONTROLLERS	3
		SAFETY PERSONNEL	*
		DOCUMENTATION PERSONNEL	*
		TECHNICAL ORDER (T.O.) MONITORS	1

* Denotes less than .5 percent

Supervisory and Management Personnel. Likewise, Tool Crib Monitors and Bench Stock Monitors, two jobs identified in 1989, were combined into the single Support Job in the current survey.

Ten of the 11 jobs in the current study were also identified in 1989. The only job that was not identified in the last survey was Mobility. Since AFSC 431XX covered a broader range of occupations, there were nine jobs identified in 1989 that were not identified in the current study. These jobs were: Assistant Crew Chiefs, Phase Inspection Team Personnel, Refurbishing Personnel, -21 Support Equipment Personnel, Nonpowered Aerospace Ground Equipment (AGE) Maintenance Personnel, Weapons Systems Controllers, Safety Personnel, Documentation Personnel, and Technical Order (TO) Monitors. Strategic and Airlift Aircraft Crew Chiefs were not analyzed in the current study, so they were not identified as well. Aside from the two crew chief jobs, all of these jobs made up a low percentage of the 1989 survey sample.

Summary

Eleven jobs were identified in the career ladder structure analysis. Six of the jobs were directly involved in performing the technical duties and tasks pertaining to various aircraft maintenance activities. One of these, Crew Chief/Mechanic, is the core job of the career ladder, making up 60 percent of the sample. The remaining five jobs were characterized by staff, supervisory, or training activities.

ANALYSIS OF DAFSC GROUPS

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

The distribution of skill-level groups across the career ladder jobs is displayed in Table 6, while Table 7 offers another perspective by displaying the relative time spent on each duty across the skill-level groups. A typical pattern of progression is present, with personnel spending more of their relative time on duties involving supervisory, managerial, and training tasks as they move upward toward the 7-skill level. It is also obvious, though, that active duty 7-skill level personnel spend more relative time on managerial duties than Guard and Reserve 7-skill level personnel.

TABLE 6

DISTRIBUTION OF DAFSC GROUP MEMBERS ACROSS SPECIALTY JOBS
(PERCENT RESPONDING)

SPECIALTY JOBS		ACTIVE DUTY			ANG		AFRES		
		DAFSC 2A333 (N=730)	DAFSC 2A353 (N=1,228)	DAFSC 2A373 (N=1,504)	DAFSC 2A353 (N=416)	DAFSC 2A373 (N=458)	DAFSC 2A333 (N=21)	DAFSC 2A353 (N=102)	DAFSC 2A373 (N=88)
I.	CREW CHIEF/MECHANIC	82	68	32	83	74	95	78	49
II.	SUPERVISORY CLUSTER	*	2	33	1	9	-	1	22
III.	FORMAL INSTRUCTOR	-	1	2	-	-	-	-	-
IV.	MISSION READY TECHNICIAN (MRT) INSTRUCTOR	-	*	*	-	-	-	-	-
V.	REPAIR AND RECLAMATION	4	5	5	2	4	-	4	-
VI.	SUPPORT	1	4	2	*	1	-	-	-
VII.	MAINTENANCE OPERATIONS CONTROL (MOC)	-	3	2	*	2	-	-	2
VIII.	TRANSIENT ALERT	1	3	2	*	*	-	-	-
IX.	QUALITY ASSURANCE (QA)	-	1	2	-	2	-	-	3
X.	WHEEL AND TIRE	*	1	*	2	1	-	-	-
XI.	MOBILITY	-	*	1	-	-	-	-	-
	NOT GROUPED	11	4	20	10	7	5	17	24

* Denotes less than .5 percent
- Denotes no members

TABLE 7

RELATIVE PERCENT TIME SPENT ON DUTIES BY DAFSC GROUPS

DUTIES	ACTIVE DUTY			ANG		AFRES		
	DAFSC 2A333 (N=730)	DAFSC 2A353 (N=1,228)	DAFSC 2A373 (N=1,504)	DAFSC 2A353 (N=416)	DAFSC 2A373 (N=458)	DAFSC 2A333 (N=21)	DAFSC 2A353 (N=102)	DAFSC 2A373 (N=88)
A ORGANIZING AND PLANNING	1	3	13	1	5	1	2	7
B DIRECTING AND IMPLEMENTING	*	2	7	1	2	*	2	4
C EVALUATING AND INSPECTING	1	3	11	1	3	1	1	6
D TRAINING	*	2	7	1	2	*	2	4
E PERFORMING GENERAL ADMINISTRATIVE AND TECHNICAL DATA ACTIVITIES	1	2	4	1	2	1	1	2
F PERFORMING SUPPLY AND EQUIPMENT ACTIVITIES	3	6	6	3	4	2	2	3
G PERFORMING GENERAL AIRFRAME OR AIRCRAFT MAINTENANCE ACTIVITIES	20	14	9	19	16	21	18	14
H PERFORMING AIRCRAFT GROUND HANDLING OR SERVICING TASKS	29	21	11	31	23	32	26	18
I MAINTAINING LANDING GEAR SYSTEMS	14	11	6	14	11	41	14	9
J MAINTAINING UTILITY SYSTEMS	3	3	2	3	3	2	3	4
K MAINTAINING FLIGHT CONTROL SYSTEMS	5	5	3	4	5	2	6	4
L MAINTAINING HYDRAULIC OR PNEUMATIC SYSTEMS	3	3	2	2	2	2	3	2
M MAINTAINING FUEL SYSTEMS	3	3	1	3	3	4	3	3
N MAINTAINING ELECTRICAL SYSTEMS	3	2	1	3	3	4	3	2
O PERFORMING GENERAL ENGINE MAINTENANCE ACTIVITIES	10	11	6	8	7	10	9	8
P PERFORMING CORE AUTOMATED MAINTENANCE SYSTEM (CAMS) ACTIVITIES	4	6	6	2	5	1	2	5
Q PERFORMING MOBILITY AND CONTINGENCY ACTIVITIES	1	2	3	3	3	2	3	4

* Denotes less than .5 percent
- Denotes duty is not performed

Skill-Level Descriptions

Active Duty DAFSC 2A333. The 730 active duty airmen reporting holding the 3-skill level (representing 16 percent of the survey sample) performed an average of 145 tasks. Performing a highly technical job, 29 percent of their relative duty time is devoted to tasks covering ground handling and servicing tasks. Tasks pertaining to airframe or aircraft maintenance accounted for another 20 percent of their time (see Table 7). As shown in Table 6, personnel in this group are overwhelmingly found in the Crew Chief/Mechanic Job (82 percent). Table 8 displays representative tasks performed by the highest percentages of these airmen. A review of all the tasks performed by group members revealed that ground handling tasks are highly prevalent in the active duty 3-skill level.

Active Duty DAFSC 2A353. Active duty 5-skill level personnel (27 percent of the survey sample) perform many of the same tasks as DAFSC 2A333 personnel. The scope of the job performed by these airmen is somewhat greater than that of the 3-skill level group (184 average tasks versus an average of only 145 tasks, respectively). Five-skill level personnel are found in all 11 of the specialty jobs, with 68 percent working in the Crew Chief/Mechanic Job (see Table 6). Twenty-one percent of their relative time is spent on duties directly involved in aircraft ground handling or servicing, and another 14 percent of their relative time is spent on general airframe or aircraft maintenance activities (see Table 7). Table 9 displays selected representative tasks performed by the highest percentages of these airmen. Table 10 displays those tasks which reflect differences between the active duty 3-skill level and active duty 5-skill level groups. This table reveals that 5-skill level members are doing all the tasks that 3-skill level members are performing, but they are doing additional tasks that 3-skill level personnel are not performing.

Active Duty DAFSC 2A373. Representing 33 percent of the survey sample, these NCOs perform an average of 145 tasks. Although a substantial amount of their relative time is devoted to technical duties, 7-skill level personnel are also involved in the upper-level managerial, supervisory, and training duties (see Table 7). According to Table 6, 33 percent of active duty 7-skill level personnel are in the Supervisory Cluster. Thirty-two percent fall into the Crew Chief/ Mechanic Job. Table 11 reflects commonly performed tasks. Most of the tasks listed are supervisory- or training-related. The fact that there are only 17 tasks being performed by over 50 percent of the members indicates a diverse range of duties being performed by this group. Table 12 lists the tasks that show the major differences between active duty 7-skill level and active duty 5-skill level groups. The managerial role that 7-skill level personnel perform is the main distinguishing feature between them and the 5-skill level members.

ANG DAFSC 2A353. This group of airmen make up 9 percent of the survey sample and perform an average of 160 tasks. This is a very homogeneous group, with 83 percent falling into the Crew Chief/Mechanic Job (see Table 6). Table 7 shows that this group performs mainly technical duties. Thirty-one percent of their relative time is spent on aircraft ground handling or

TABLE 8

REPRESENTATIVE TASKS PERFORMED BY ACTIVE DUTY 2A333 PERSONNEL

TASKS		PERCENT MEMBERS PERFORMING (N=730)
H372	Apply external electrical power to aircraft	93
H373	Apply external hydraulic power to aircraft	89
H377	Clean up fuel, oil, or hydraulic spills	89
H393	Jack aircraft using axle jacks	88
H400	Marshal aircraft	88
I473	Inspect aircraft tires	87
G286	Inspect areas for foreign object damage (FOD)	86
H422	Perform wing or tail walker duties	86
H395	Jack aircraft using tripod jacks	85
H379	Defuel aircraft	85
G303	Lubricate aircraft components	84
G327	Remove or install aircraft hardware, such as screws or fasteners	82
H411	Perform aircraft preflight inspections	82
H374	Bleed aircraft hydraulic systems	81
H415	Perform aircraft thruflight inspections	80
H407	Perform aircraft launch checklist procedures	80
H434	Service aircraft tires	79
H420	Perform safe-for-maintenance inspections	79
H410	Perform aircraft postflight inspections	79
H430	Remove or install safety devices, such as seat pins, gear locks, intake covers, or engine component safety devices	78
H446	Service engine oil systems	78
G284	Inspect aircraft windows, windscreens, aft transparencies, or canopies	78
H391	Fuel aircraft using single-point methods	77
G371	Wash aircraft exteriors	75
I474	Inspect aircraft wheel assemblies	75
H433	Service aircraft accumulators	75
I472	Clean or inspect aircraft brake assemblies	74
I471	Bleed aircraft brake systems	74
G274	Clean aircraft transparent surfaces	74
O832	Take JOAP samples	73
G279	Inspect access or stress panels	73

* Average Number of Tasks Performed - 145

TABLE 9

REPRESENTATIVE TASKS PERFORMED BY ACTIVE DUTY 2A353 PERSONNEL

TASKS		PERCENT MEMBERS PERFORMING (N=1,228)
H372	Apply external electrical power to aircraft	80
H377	Clean up fuel, oil, or hydraulic spills	78
H373	Apply external hydraulic power to aircraft	76
H393	Jack aircraft using axle jacks	76
I473	Inspect aircraft tires	76
H385	Direct towing operations	75
G286	Inspect areas for foreign object damage (FOD)	75
H422	Perform wing or tail walker duties	75
H430	Remove or install safety devices, such as seat pins, gear locks, intake covers, or engine component safety devices	74
H395	Jack aircraft using tripod jacks	74
H383	Direct fueling operations	73
H400	Marshal aircraft	73
G303	Lubricate aircraft components	73
H374	Bleed aircraft hydraulic systems	73
H379	Defuel aircraft	72
P850	Access core automated maintenance system (CAMS) menus and data screens	71
H420	Perform safe-for-maintenance inspections	71
H381	Direct aircraft jacking operations	71
H433	Service aircraft accumulators	70
H391	Fuel aircraft using single-point methods	70
I476	Inspect aircraft-installed landing gear shock struts	70
G327	Remove or install aircraft hardware, such as screws or fasteners	69
I471	Bleed aircraft brake systems	69
H446	Service engine oil systems	69
H382	Direct defueling operations	69
H434	Service aircraft tires	68
G284	Inspect aircraft windows, windscreens, aft transparencies, or canopies	68
I489	Operationally check landing gear	67
H418	Perform nonpowered AGE pre-use inspections	67
I478	Inspect landing gear door mechanisms	67

* Average Number of Tasks Performed - 184

TABLE 10

TASKS WHICH BEST DIFFERENTIATE BETWEEN ACTIVE DUTY DAFSC 2A333 AND 2A353 PERSONNEL (PERCENT MEMBERS PERFORMING)

TASKS		DAFSC 2A333 (N=730)	DAFSC 2A353 (N=1,228)	DIFF
I515	Troubleshoot landing gear normal extension or retraction hydraulic systems	22	46	-24
I510	Troubleshoot aircraft brake systems	26	50	-24
D130	Counsel trainees on training progress	1	27	-26
B45	Counsel subordinates concerning personal matters	3	29	-26
C74	Conduct performance feedback evaluation sessions	4	34	-30
C112	Write EPRs	1	33	-32
H381	Direct aircraft jacking operations	38	71	-32
B67	Supervise Tactical Aircraft Maintenance Apprentices (AFSC 2A333)	6	43	-37
H385	Direct towing operations	37	75	-38
D122	Conduct on-the-job training (OJT)	15	56	-41
C72	Clear Red-X conditions	9	51	-42

TABLE 11

REPRESENTATIVE TASKS PERFORMED BY ACTIVE DUTY 2A373 PERSONNEL

TASKS		PERCENT MEMBERS PERFORMING (N=1,504)
C112	Write EPRs	72
C74	Conduct performance feedback evaluation sessions	67
A27	Participate in general meetings, such as staff meetings, briefings, conferences, and workshops, other than conducting	66
A10	Determine or establish work priorities	64
P850	Access core automated maintenance system (CAMS) menus and data screens	61
C72	Clear Red-X conditions	60
B45	Counsel subordinates concerning personal matters	58
D122	Conduct on-the-job training (OJT)	58
A1	Assign personnel to work areas or duty positions, other than mobility positions	57
B68	Supervise Tactical Aircraft Maintenance Journeymen (AFSC 2A353)	56
C104	Inspect personnel for compliance with military standards	55
C114	Write recommendations for awards or decorations	55
C94	Evaluate personnel for compliance with performance standards	54
G286	Inspect areas for foreign object damage (FOD)	52
H372	Apply external electrical power to aircraft	52
A23	Establish performance standards for subordinates	52
H385	Direct towing operations	51
A32	Plan or schedule work assignments or priorities	50
B67	Supervise Tactical Aircraft Maintenance Apprentices (AFSC 2A333)	50
F234	Inventory CTKs	50
H377	Clean up fuel, oil, or hydraulic spills	50
H381	Direct aircraft jacking operations	50
H422	Perform wing or tail walker duties	48
I473	Inspect aircraft tires	48
H373	Apply external hydraulic power to aircraft	47
H393	Jack aircraft using axle jacks	46
H420	Perform safe-for-maintenance inspections	46

* Average Number of Tasks Performed - 145

TABLE 12

TASKS WHICH BEST DIFFERENTIATE BETWEEN ACTIVE DUTY DAFSC 2A353 AND 2A373 PERSONNEL (PERCENT MEMBERS PERFORMING)

TASKS		DAFSC 2A353 (N=1,228)	DAFSC 2A373 (N=1,504)	DIFF
G303	Lubricate aircraft components	73	37	35
H379	Defuel aircraft	72	40	32
H407	Perform aircraft launch checklist procedures	66	34	32
I471	Bleed aircraft brake systems	69	37	32
H433	Service aircraft accumulators	70	39	31
H437	Service aircraft with LOX	62	31	31
G371	Wash aircraft exteriors	59	29	30
I494	Remove or install aircraft brake assemblies	65	35	30
H393	Jack aircraft using axle jacks	76	46	30
H400	Marshal aircraft	73	43	30
I472	Clean or inspect aircraft brake assemblies	63	33	30
C94	Evaluate personnel for compliance with performance standards	23	54	-31
A26	Establish work schedules	11	43	-32
B68	Supervise Tactical Aircraft Maintenance Journeymen (AFSC 2A353)	23	56	-33
C74	Conduct performance feedback evaluation sessions	34	67	-33
B69	Supervise Tactical Aircraft Maintenance Craftsmen (AFSC 2A373)	5	39	-34
C114	Write recommendations for awards or decorations	20	55	-35
A32	Plan or schedule work assignments or priorities	15	50	-36
A10	Determine or establish work priorities	28	64	-36
A1	Assign personnel to work areas or duty positions, other than mobility positions	21	57	-37
A27	Participate in general meetings, such as staff meetings, briefings, conferences, and workshops, other than conducting	28	66	-37
C112	Write EPRs	33	72	-39

servicing tasks, and another 19 percent is spent on airframe or aircraft maintenance activities. Table 13 summarizes the tasks performed by the highest percentages of 5-skill level guard personnel.

ANG DAFSC 2A373. Representing 10 percent of the survey sample, this group of NCOs performs an average of 204 tasks. Table 6 shows that 74 percent of this group falls into the Crew Chief/Mechanic Job, and 9 percent are in the Supervisory Cluster. Twenty-three percent of this group performs aircraft ground handling or servicing tasks (see Table 7). Table 14 lists tasks that are representative of this group. The 7-skill level Guard personnel perform almost all the same tasks as the 5-skill level personnel, but they perform many tasks that the 5-skill level members do not. Table 15 shows that only one task favored the 5-skill level, but there were many tasks favoring the 7-skill level.

AFRES DAFSC 2A333. This small group of 21 airmen makes up less than 1 percent of the total sample. This group is very homogeneous, with 95 percent in the Crew Chief/Mechanic Job (see Table 6). Table 7 reveals that 41 percent of their relative time is spent on maintaining landing gear systems, and 32 percent of their time is spent on aircraft ground handling or servicing tasks. Table 16 lists tasks representative of this group.

AFRES DAFSC 2A353. Making up 2 percent of the total survey sample, this group performs 194 average tasks. Seventy-eight percent are in the Crew Chief/Mechanic Job (see Table 6). Twenty-six percent of their relative time is spent on aircraft ground handling or servicing tasks, and 18 percent is spent on general airframe or aircraft maintenance activities (see Table 7). Table 17 shows the most performed tasks by 5-skill level reservists. Table 18 lists tasks that distinguish the 3-skill level members from the 5-skill level members. It shows that 3-skill level personnel are more concerned with engine maintenance, while 5-skill level personnel deal more with maintenance of landing gear systems.

AFRES DAFSC 2A373. These NCOs make up 2 percent of the survey sample and perform an average of 192 tasks. While 49 percent are in the Crew Chief/Mechanic Job, 22 percent fall into the Supervisory Cluster (see Table 6). Members perform a variety of duties, but the largest percent of time is spent on aircraft ground handling or servicing tasks (see Table 7). Representative tasks performed by 7-skill level reservists are listed in Table 19, while Table 20 shows the tasks that differentiate the 5-skill level from the 7-skill level. Five-skill level personnel perform more technical tasks, while 7-skill level personnel perform administrative and supervisory tasks.

TABLE 13

REPRESENTATIVE TASKS PERFORMED BY AIR NATIONAL GUARD 2A353 PERSONNEL

TASKS		PERCENT MEMBERS PERFORMING (N=416)
H372	Apply external electrical power to aircraft	91
H422	Perform wing or tail walker duties	89
H395	Jack aircraft using tripod jacks	88
G286	Inspect areas for foreign object damage (FOD)	88
H434	Service aircraft tires	88
H377	Clean up fuel, oil, or hydraulic spills	88
I473	Inspect aircraft tires	87
H437	Service aircraft with LOX	87
H393	Jack aircraft using axle jacks	87
H400	Marshal aircraft	86
H430	Remove or install safety devices, such as seat pins, gear locks, intake covers, or engine component safety devices	86
H428	Remove or install liquid oxygen (LOX) converters	86
H415	Perform aircraft thruflight inspections	85
H379	Defuel aircraft	85
H420	Perform safe-for-maintenance inspections	84
H391	Fuel aircraft using single-point methods	83
G327	Remove or install aircraft hardware, such as screws or fasteners	83
H373	Apply external hydraulic power to aircraft	83
G303	Lubricate aircraft components	82
H410	Perform aircraft postflight inspections	82
H411	Perform aircraft preflight inspections	81
H407	Perform aircraft launch checklist procedures	81
H433	Service aircraft accumulators	81
H383	Direct fueling operations	80
H385	Direct towing operations	80
H417	Perform end-of-runway (EOR) inspections	78
H446	Service engine oil systems	78
I495	Remove or install aircraft wheel assemblies	78
G274	Clean aircraft transparent surfaces	77
G371	Wash aircraft exteriors	77
H374	Bleed aircraft hydraulic systems	76

* Average Number of Tasks Performed - 160

TABLE 14

REPRESENTATIVE TASKS PERFORMED BY AIR NATIONAL GUARD 2A373 PERSONNEL

TASKS		PERCENT MEMBERS PERFORMING (N=458)
H395	Jack aircraft using tripod jacks	85
H393	Jack aircraft using axle jacks	83
H381	Direct aircraft jacking operations	83
H372	Apply external electrical power to aircraft	83
G286	Inspect areas for foreign object damage (FOD)	83
H422	Perform wing or tail walker duties	82
H385	Direct towing operations	82
H430	Remove or install safety devices, such as seat pins, gear locks, intake covers, or engine component safety devices	82
H428	Remove or install liquid oxygen (LOX) converters	82
H377	Clean up fuel, oil, or hydraulic spills	81
H400	Marshal aircraft	81
H434	Service aircraft tires	81
I473	Inspect aircraft tires	80
H379	Defuel aircraft	80
G303	Lubricate aircraft components	80
H383	Direct fueling operations	78
H391	Fuel aircraft using single-point methods	77
H437	Service aircraft with LOX	77
G327	Remove or install aircraft hardware, such as screws or fasteners	77
H415	Perform aircraft thruflight inspections	76
H420	Perform safe-for-maintenance inspections	76
H433	Service aircraft accumulators	76
H417	Perform end-of-runway (EOR) inspections	76
G284	Inspect aircraft windows, windscreens, aft transparencies, or canopies	76
H407	Perform aircraft launch checklist procedures	75
H446	Service engine oil systems	75
I495	Remove or install aircraft wheel assemblies	75
G279	Inspect access or stress panels	75
H373	Apply external hydraulic power to aircraft	74
H374	Bleed aircraft hydraulic systems	74
H410	Perform aircraft postflight inspections	74

* Average Number of Tasks Performed - 204

TABLE 15

TASKS WHICH BEST DIFFERENTIATE BETWEEN AIR NATIONAL GUARD DAFSC 2A353 AND 2A373 PERSONNEL (PERCENT MEMBERS PERFORMING)

TASKS		DAFSC 2A353 (N=416)	DAFSC 2A373 (N=458)	DIFF
I472	Clean or inspect aircraft brake assemblies	70	57	13
G341	Remove or install interior trim or kick panels	31	54	-23
G276	Debrief flightcrews	20	43	-23
A6	Coordinate parts cannibalization with materiel controls support agencies	8	33	-24
P855	Clear or close out completed maintenance discrepancies in CAMS	43	67	-24
B67	Supervise Tactical Aircraft Maintenance Apprentices (AFSC 2A333)	16	42	-26
B68	Supervise Tactical Aircraft Maintenance Journeymen (AFSC 2A353)	13	40	-27
P856	Conduct CAMS delayed discrepancy inquiries prior to, during, or after scheduling maintenance	25	53	-29
A10	Determine or establish work priorities	22	51	-29
D122	Conduct on-the-job training (OJT)	27	57	-30
A5	Coordinate maintenance with maintenance control or other agencies, other than for parts cannibalization	25	58	-33
C72	Clear Red-X conditions	23	61	-38

TABLE 16

REPRESENTATIVE TASKS PERFORMED BY AIR FORCE RESERVE 2A333 PERSONNEL

TASKS		PERCENT MEMBERS PERFORMING (N=21)
H372	Apply external electrical power to aircraft	100
H373	Apply external hydraulic power to aircraft	100
H393	Jack aircraft using axle jacks	100
H395	Jack aircraft using tripod jacks	100
G274	Clean aircraft transparent surfaces	100
H430	Remove or install safety devices, such as seat pins, gear locks, intake covers, or engine component safety devices	95
I473	Inspect aircraft tires	95
O832	Take JOAP samples	95
G286	Inspect areas for foreign object damage (FOD)	95
I474	Inspect aircraft wheel assemblies	95
H428	Remove or install liquid oxygen (LOX) converters	95
I484	Inspect landing gear wheel spin stop pads	95
H446	Service engine oil systems	95
H407	Perform aircraft launch checklist procedures	90
H410	Perform aircraft postflight inspections	90
H411	Perform aircraft preflight inspections	90
H415	Perform aircraft thruflight inspections	90
H434	Service aircraft tires	90
G279	Inspect access or stress panels	90
H455	Service hydraulic systems	90
O752	Inspect engine magnetic chip detectors	90
I476	Inspect aircraft-installed landing gear shock struts	90
H377	Clean up fuel, oil, or hydraulic spills	90
H433	Service aircraft accumulators	90
H417	Perform end-of-runway (EOR) inspections	90
H391	Fuel aircraft using single-point methods	86
I482	Inspect landing gear structural components, other than shock struts	86
H374	Bleed aircraft hydraulic systems	86
G308	Operationally check aircraft canopies	86
G281	Inspect aircraft antennas	86
H383	Direct fueling operations	86
I485	Inspect nosewheel steering systems	86

* Average Number of Tasks Performed - 164

TABLE 17

REPRESENTATIVE TASKS PERFORMED BY AIR FORCE RESERVE 2A353 PERSONNEL

TASKS		PERCENT MEMBERS PERFORMING (N=102)
H372	Apply external electrical power to aircraft	93
H373	Apply external hydraulic power to aircraft	91
H377	Clean up fuel, oil, or hydraulic spills	90
H434	Service aircraft tires	89
H395	Jack aircraft using tripod jacks	89
I473	Inspect aircraft tires	88
H422	Perform wing or tail walker duties	88
H430	Remove or install safety devices, such as seat pins, gear locks, intake covers, or engine component safety devices	87
H393	Jack aircraft using axle jacks	87
H433	Service aircraft accumulators	86
G286	Inspect areas for foreign object damage (FOD)	85
G303	Lubricate aircraft components	85
G284	Inspect aircraft windows, windscreens, aft transparencies, or canopies	83
H400	Marshal aircraft	83
H379	Defuel aircraft	82
H420	Perform safe-for-maintenance inspections	81
G274	Clean aircraft transparent surfaces	80
I476	Inspect aircraft-installed landing gear shock struts	80
H428	Remove or install liquid oxygen (LOX) converters	80
H374	Bleed aircraft hydraulic systems	79
H411	Perform aircraft preflight inspections	79
H419	Perform powered AGE pre-use inspections	79
I477	Inspect landing gear braces, drag pins, or bushings	79
H381	Direct aircraft jacking operations	79
G327	Remove or install aircraft hardware, such as screws or fasteners	78
H410	Perform aircraft postflight inspections	78
H417	Perform end-of-runway (EOR) inspections	78
I478	Inspect landing gear door mechanisms	78
I479	Inspect landing gear down-lock mechanisms	78
H437	Service aircraft with LOX	78
H457	Service landing gear shock struts	78

* Average Number of Tasks Performed - 194

TABLE 18

TASKS WHICH BEST DIFFERENTIATE BETWEEN AIR FORCE RESERVE DAFSC 2A333 AND 2A353 PERSONNEL (PERCENT MEMBERS PERFORMING)

TASKS		DAFSC 2A333 (N=21)	DAFSC 2A353 (N=102)	DIFF
G317	Perform ground observer duties	76	41	35
H447	Service engine or accessory drive gearboxes (ADGs)	86	55	31
O752	Inspect engine magnetic chip detectors	90	62	29
O764	Inspect or clean flame sensors or light-off detectors	62	34	28
G285	Inspect aircraft-installed ground service connections	81	56	25
I488	Operationally check arresting hook systems	81	56	25
G281	Inspect aircraft antennas	86	61	25
I484	Inspect landing gear wheel spin stop pads	95	71	25
O832	Take JOAP samples	95	71	25
G371	Wash aircraft exteriors	86	62	24
O757	Inspect engine or accessory gearboxes or associated components	62	39	23
I510	Troubleshoot aircraft brake systems	19	48	-29
K646	Troubleshoot aileron or flaperon systems	0	29	-29
I500	Remove or install landing gear doors	29	59	-30
I503	Remove or install landing gear structural components, such as drag braces, shock struts, or swing arms	29	59	-30
D122	Conduct on-the-job training (OJT)	14	45	-31
I505	Remove or install nosewheel steering system components	14	45	-31
I502	Remove or install landing gear hydraulic system components	29	60	-31
I499	Remove or install landing gear door latching mechanisms or linkages	19	52	-33
I498	Remove or install landing gear door actuating components	24	59	-35
H409	Perform aircraft phase inspections	29	64	-35
K608	Remove or install horizontal stabilizer control mechanisms	0	35	-35

TABLE 19

REPRESENTATIVE TASKS PERFORMED BY AIR FORCE RESERVE 2A373 PERSONNEL

TASKS		PERCENT MEMBERS PERFORMING (N=88)
I473	Inspect aircraft tires	75
G286	Inspect areas for foreign object damage (FOD)	74
H381	Direct aircraft jacking operations	73
H395	Jack aircraft using tripod jacks	72
H422	Perform wing or tail walker duties	72
H377	Clean up fuel, oil, or hydraulic spills	70
Q897	Don or doff chemical warfare personal protective clothing	67
H372	Apply external electrical power to aircraft	67
H391	Fuel aircraft using single-point methods	67
H430	Remove or install safety devices, such as seat pins, gear locks, intake covers, or engine component safety devices	67
H385	Direct towing operations	67
H400	Marshal aircraft	67
H379	Defuel aircraft	66
P850	Access core automated maintenance system (CAMS) menus and data screens	65
H383	Direct fueling operations	65
H434	Service aircraft tires	65
H437	Service aircraft with LOX	65
G327	Remove or install aircraft hardware, such as screws or fasteners	64
C72	Clear Red-X conditions	64
H393	Jack aircraft using axle jacks	64
G278	Initiate or annotate aircraft flight or maintenance records	63
G360	Review aircraft flight or maintenance records	63
H428	Remove or install liquid oxygen (LOX) converters	63
H382	Direct defueling operations	63
H373	Apply external hydraulic power to aircraft	63
I478	Inspect landing gear door mechanisms	61
G284	Inspect aircraft windows, windscreens, aft transparencies, or canopies	61
I476	Inspect aircraft-installed landing gear shock struts	61
G303	Lubricate aircraft components	61
H374	Bleed aircraft hydraulic systems	61

* Average Number of Tasks Performed - 192

TABLE 20

TASKS WHICH BEST DIFFERENTIATE BETWEEN AIR FORCE RESERVE DAFSC 2A353 AND 2A373 PERSONNEL (PERCENT MEMBERS PERFORMING)

TASKS		DAFSC 2A353 (N=102)	DAFSC 2A373 (N=88)	DIFF
H373	Apply external hydraulic power to aircraft	91	63	29
H433	Service aircraft accumulators	86	58	28
H457	Service landing gear shock struts	78	52	26
H372	Apply external electrical power to aircraft	93	67	26
H419	Perform powered AGE pre-use inspections	79	53	26
G274	Clean aircraft transparent surfaces	80	55	26
I502	Remove or install landing gear hydraulic system components	60	35	25
H420	Perform safe-for-maintenance inspections	81	57	25
H434	Service aircraft tires	89	65	24
I494	Remove or install aircraft brake assemblies	76	52	24
G303	Lubricate aircraft components	85	61	24
A14	Develop or establish work methods or procedures	13	35	-22
A23	Establish performance standards for subordinates	6	28	-23
A26	Establish work schedules	8	31	-23
A1	Assign personnel to work areas or duty positions, other than mobility positions	25	49	-23
B69	Supervise Tactical Aircraft Maintenance Craftsmen (AFSC 2A373)	10	34	-24
C72	Clear Red-X conditions	39	64	-24
C94	Evaluate personnel for compliance with performance standards	11	35	-24
C104	Inspect personnel for compliance with military standards	14	40	-26
B45	Counsel subordinates concerning personal matters	8	35	-27
A5	Coordinate maintenance with maintenance control or other agencies, other than for parts cannibalization	25	52	-28
A10	Determine or establish work priorities	22	50	-28

Summary

Distinctions between skill-level groups are evident, with personnel at the 3- and 5-skill levels spending the vast majority of their job time performing technical tasks across a number of different jobs. At the 7-skill level, the shift towards supervisory tasks becomes quite clear. Tables 21 and 22 compare tasks performed by active duty personnel to tasks performed by ANG and AFRES personnel, respectively. In both cases, the active duty members perform more managerial tasks and tasks pertaining to engine maintenance. Guardsmen and reservists, however, reported performing more aircraft ground handling or servicing tasks than active duty personnel.

ANALYSIS OF AFMAN 36-2108 *SPECIALTY DESCRIPTION*

Survey data were compared to the AFMAN 36-2108 Tactical Aircraft Maintenance Specialty Description, dated 31 October 1994. The specialty description encompasses all of the AFSC 2A3X3 career ladder jobs identified. It discusses not only the technical aspect of the jobs, but also includes higher-level duties, such as performing staff and supervisory management functions.

TRAINING ANALYSIS

Occupational survey data represent one of the many sources of information which are used to assist in the development training programs for career ladder personnel. OSR data useful to training personnel include job descriptions for the various jobs performed within a career ladder, distributions of personnel across career ladder jobs, percentages of personnel performing specific tasks, percentages of personnel maintaining specific equipment or systems, as well as the difficulty of tasks and TE ratings gathered from senior members of the career ladder.

First-Enlistment Personnel

In this study, there are 937 active duty members in their first enlistment (1-48 months TAFMS), representing 21 percent of the total survey sample. The jobs performed by these personnel are highly technical in nature. First enlistment personnel, according to Table 23, spend 61 percent of their relative time performing aircraft ground handling or servicing tasks, performing general airframe or aircraft maintenance activities, and maintaining landing gear systems. Distribution of these personnel across the career ladder jobs is displayed in Figure 2. Table 24 displays some of the average 153 tasks performed by the group.

TABLE 21

TASKS WHICH BEST DIFFERENTIATE BETWEEN ACTIVE DUTY AND AIR NATIONAL GUARD PERSONNEL (PERCENT MEMBERS PERFORMING)

TASKS		ACTIVE DUTY (N=3,462)	ANG (N=874)	DIFF
C112	Write EPRs	43	2	41
C74	Conduct performance feedback evaluation sessions	42	6	36
B45	Counsel subordinates concerning personal matters	36	11	25
C114	Write recommendations for awards or decorations	31	7	25
O810	Remove or install engine oil filters	31	10	21
O822	Remove or install igniter plugs	26	5	21
A23	Establish performance standards for subordinates	32	12	20
C94	Evaluate personnel for compliance with performance standards	32	12	20
O803	Remove or install engine fuel filters	29	9	20
O801	Remove or install engine flame holders	20	3	18
L677	Remove or install hydraulic pumps	41	23	17
H381	Direct aircraft jacking operations	55	79	-25
H415	Perform aircraft thruflight inspections	55	80	-25
H442	Service constant speed drives (CSDs)	35	60	-25
H412	Perform aircraft quick-turn inspections	41	67	-25
H434	Service aircraft tires	58	84	-26
I484	Inspect landing gear wheel spin stop pads	37	64	-27
H428	Remove or install liquid oxygen (LOX) converters	54	84	-29
H437	Service aircraft with LOX	51	82	-31
H447	Service engine or accessory drive gearboxes (ADGs)	29	60	-31
H431	Remove snow or ice from aircraft	19	52	-33
H417	Perform end-of-runway (EOR) inspections	38	77	-39

TABLE 22

TASKS WHICH BEST DIFFERENTIATE BETWEEN ACTIVE DUTY AND AIR FORCE RESERVE PERSONNEL (PERCENT MEMBERS PERFORMING)

TASKS		ACTIVE DUTY (N=3,462)	AFRES (N=211)	DIFF
C112	Write EPRs	43	11	32
C74	Conduct performance feedback evaluation sessions	42	14	27
C114	Write recommendations for awards or decorations	31	11	20
H390	Fuel aircraft using over-the-wing methods	38	20	18
B45	Counsel subordinates concerning personal matters	36	18	18
A23	Establish performance standards for subordinates	32	15	17
O801	Remove or install engine flame holders	20	6	14
G328	Remove or install aircraft rain seals	35	21	14
C94	Evaluate personnel for compliance with performance standards	32	20	12
G353	Remove or install wing leading edges	24	46	-22
Q920	Perform decontamination procedures for chemical warfare agents	19	41	-23
H442	Service constant speed drives (CSDs)	35	58	-23
H447	Service engine or accessory drive gearboxes (ADGs)	29	52	-23
K592	Operationally check wing leading edge flap systems	19	42	-23
H408	Perform aircraft periodic inspections	34	57	-23
H378	Decontaminate or practice decontaminating aircraft	16	41	-25
Q897	Don or doff chemical warfare personal protective clothing	36	62	-25
I484	Inspect landing gear wheel spin stop pads	37	64	-27
Q900	Identify or practice identifying chemical warfare agents	27	55	-28
H417	Perform end-of-runway (EOR) inspections	38	71	-33

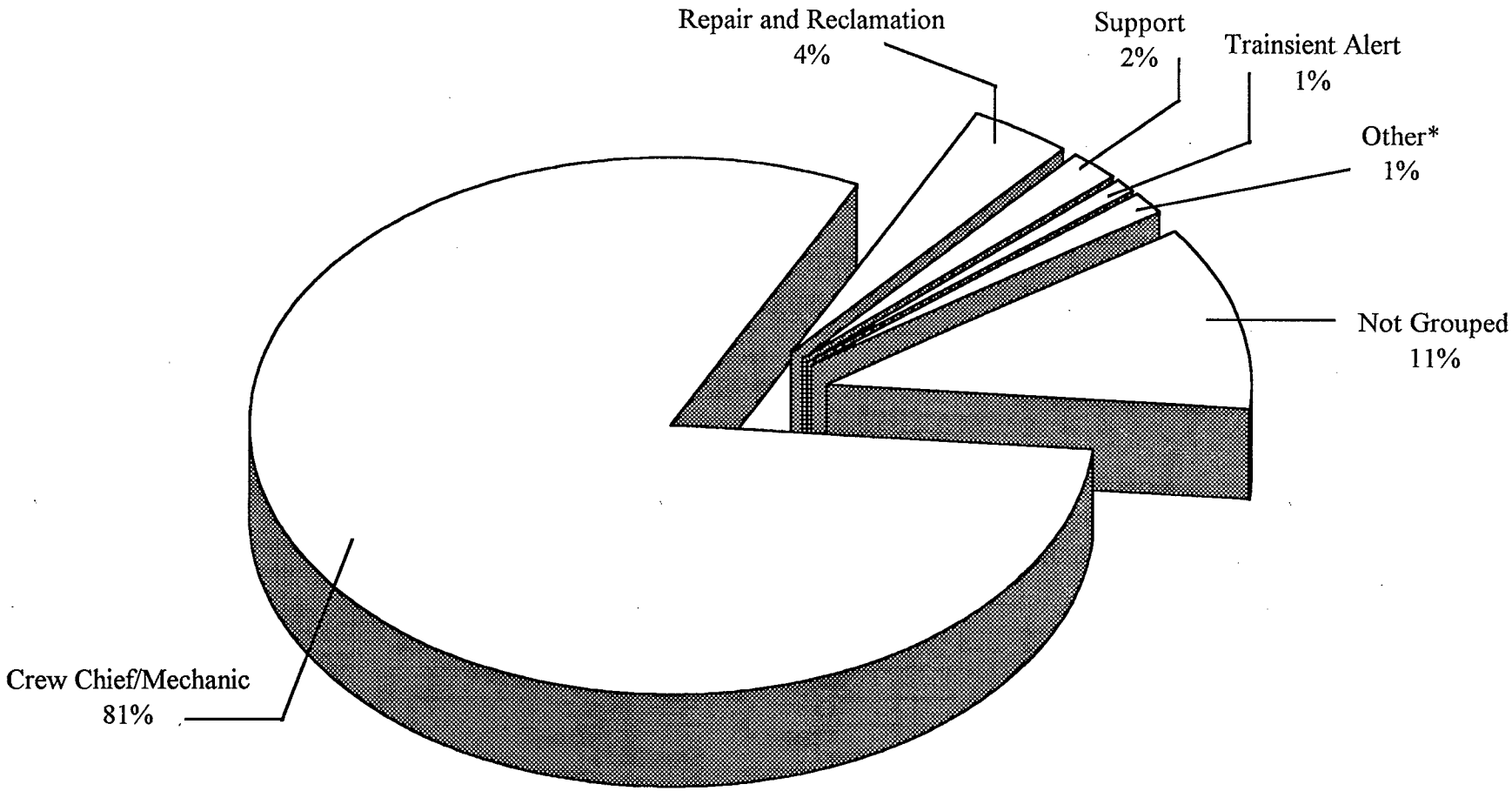
TABLE 23

RELATIVE PERCENT TIME SPENT ON DUTIES BY ACTIVE DUTY FIRST-ENLISTMENT PERSONNEL (N=937)

	DUTIES	PERCENT TIME SPENT
A	ORGANIZING AND PLANNING	1
B	DIRECTING AND IMPLEMENTING	*
C	EVALUATING AND INSPECTING	1
D	TRAINING	*
E	PERFORMING GENERAL ADMINISTRATIVE AND TECHNICAL DATA ACTIVITIES	1
F	PERFORMING SUPPLY AND EQUIPMENT ACTIVITIES	3
G	PERFORMING GENERAL AIRFRAME OR AIRCRAFT MAINTENANCE ACTIVITIES	19
H	PERFORMING AIRCRAFT GROUND HANDLING OR SERVICING TASKS	28
I	MAINTAINING LANDING GEAR SYSTEMS	14
J	MAINTAINING UTILITY SYSTEMS	3
K	MAINTAINING FLIGHT CONTROL SYSTEMS	5
L	MAINTAINING HYDRAULIC OR PNEUMATIC SYSTEMS	3
M	MAINTAINING FUEL SYSTEMS	3
N	MAINTAINING ELECTRICAL SYSTEMS	3
O	PERFORMING GENERAL ENGINE MAINTENANCE ACTIVITIES	10
P	PERFORMING CORE AUTOMATED MAINTENANCE SYSTEM (CAMS) ACTIVITIES	4
Q	PERFORMING MOBILITY AND CONTINGENCY ACTIVITIES	1

* Denotes less than .5 percent

AFSC 2A3X3
FIRST ENLISTMENT JOBS



*Other includes Supervisory Cluster, MRT Instructor, Mission Operations Control, and Wheel and Tire

FIGURE 2

TABLE 24

REPRESENTATIVE TASKS PERFORMED BY ACTIVE DUTY 2A3X3 FIRST-ENLISTMENT PERSONNEL (N=937)

TASKS		PERCENT MEMBERS PERFORMING
H372	Apply external electrical power to aircraft	91
H377	Clean up fuel, oil, or hydraulic spills	88
H373	Apply external hydraulic power to aircraft	88
H393	Jack aircraft using axle jacks	87
H400	Marshal aircraft	86
I473	Inspect aircraft tires	86
G286	Inspect areas for foreign object damage (FOD)	85
H422	Perform wing or tail walker duties	85
H395	Jack aircraft using tripod jacks	84
H379	Defuel aircraft	83
G303	Lubricate aircraft components	83
H374	Bleed aircraft hydraulic systems	81
G327	Remove or install aircraft hardware, such as screws or fasteners	80
H411	Perform aircraft preflight inspections	80
H415	Perform aircraft thruflight inspections	79
H407	Perform aircraft launch checklist procedures	79
H420	Perform safe-for-maintenance inspections	79
H434	Service aircraft tires	78
H430	Remove or install safety devices, such as seat pins, gear locks, intake covers, or engine component safety devices	78
H410	Perform aircraft postflight inspections	77
G284	Inspect aircraft windows, windscreens, aft transparencies, or canopies	77
H446	Service engine oil systems	77
H391	Fuel aircraft using single-point methods	76
H433	Service aircraft accumulators	75
I474	Inspect aircraft wheel assemblies	75
I471	Bleed aircraft brake systems	74
I472	Clean or inspect aircraft brake assemblies	74
G371	Wash aircraft exteriors	74
H383	Direct fueling operations	73
G274	Clean aircraft transparent surfaces	73
I476	Inspect aircraft-installed landing gear shock struts	73

Average Number of Tasks Performed - 153

One of the objectives of this survey was to gather data for the technical school pertaining to various types of equipment used or maintained by AFSC 2A3X3 members. Accordingly, Table 25 presents percentages of first-enlistment active duty airmen responding to questions concerning their activities involving these items. This type of information is useful for both technical school and MAJCOM training personnel to assist them in focusing limited training time or other resources on the most utilized items.

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

TE and TD data are secondary factors that can assist technical school personnel in deciding which tasks should be emphasized in entry-level training. These ratings, based on the judgments of senior career ladder NCOs working at operational units in the field, are collected to provide training personnel with a rank-ordering of those tasks in the JI considered important for first-enlistment personnel training (TE), along with a measure of the difficulty of the JI tasks (TD). The top-rated TE tasks are presented in Tables 26-35. They are shown individually for active duty, Guard, and Reserve personnel, and broken out among each aircraft group analyzed. The TD data is shown in Tables 36-44, and are broken out in the same fashion. As discussed earlier, the TE and TD data supporting each aircraft are specific to that aircraft.

When combined with data on the percentages of first-enlistment personnel performing tasks, comparisons can then be made to determine if training adjustments are necessary. For example, tasks receiving high ratings on both task factors, accompanied by moderate to high percentages performing, may warrant resident training. Those tasks receiving high task factor ratings, but low percentages performing, may be more appropriately planned for OJT programs within the career ladder. Low task factor ratings may highlight tasks best omitted from training for first-enlistment personnel, but this decision must be weighed against percentages of personnel performing the tasks, command concerns, and criticality of the tasks.

The results of the TE and TD analysis reveal certain trends. For each cross-section analyzed, the majority of the tasks rated highest in TE pertained to performing aircraft ground handling or servicing. A few tasks related to performing general airframe or aircraft maintenance were also apparent in the high TE range. Of those tasks rated highest in task difficulty, a large percentage were nontechnical in nature and focused around managerial and supervisory-type tasks. The percent members performing these tasks is highest among those at the 7-skill level. The majority of these tasks were also rated low in training emphasis.

To assist technical school personnel, AFOMS has developed a computer program that incorporates these secondary factors and the percentage of first-enlistment personnel performing each task to produce an Automated Training Indicator (ATI) for each task. These indicators correspond to training decisions listed and defined in the Training Decision Logic Table found in Attachment 2, AETC Instruction 36-2601, and allow course personnel to quickly focus their attention on those tasks which are most likely to qualify for initial resident course consideration.

TABLE 25

EQUIPMENT USED OR OPERATED BY ACTIVE DUTY FIRST-ENLISTMENT PERSONNEL

ENGINES MAINTAINED	PERCENT MEMBERS RESPONDING (N=937)
F100-PW-220	25
F100-PW-100	20
F110-GE-100	13
F100-PW-220E	12
F110-GE-129	10
F100-PW-229	9
POWERED OR NONPOWERED SUPPORT EQUIPMENT	
Aircraft Towbar	94
Aircraft Jack, Axle	90
Aircraft Jack, Tripod	90
Fire Extinguisher	90
Cart, Oil Servicing	86
Cart, Hydraulic Servicing	85
Engine Removal/Installation/Transportation Equipment	78
Cart, Liquid Oxygen	76
Hydraulic Test Stand, MJ or MK Series	76
Maintenance Platform/Stand, Nonpowered	72
Tow Vehicle, MB or U Series	72
Defueling Bowser	69
Cart, Liquid Nitrogen	68
Floodlight Set, NF or TF Series	64
Cart, Gaseous Nitrogen	63
Crew Entry Stand	57
Air Compressor, MB or MC Series	54
Ground Heater, H or F-Series	54
Air Conditioner, C, MA, or A Series	43
Cart, Water Wash	37
Bobtail Jeep	35
Cart, Gaseous Oxygen	35
Gas Turbine Compressor, AM or MA Series	34
Cart, Combined Power and AC Unit	31
Generator, AM, MD, or C-Series	31

TABLE 25 (CONTINUED)

EQUIPMENT USED OR OPERATED
BY ACTIVE DUTY FIRST-ENLISTMENT PERSONNEL

MAINTENANCE MATERIALS OR TOOLS USED	PERCENT MEMBERS RESPONDING (N=937)
Lubricants	93
Special Tools, such as Torque Wrenches	91
Air Servicing Equipment, such as Tire Pressure Gauges	89
Cleaning Agents	88
Sealants	81
Ground Communication Equipment	74
Adhesives	72
Securing Devices	58
Multimeters	35
Tensiometer Gauges	35
Boroscopes	31
Engine Testers	25
Engine Start Testers	20

TABLE 26

ACTIVE DUTY F-15 CREW CHIEF TASKS RATED HIGHEST IN TRAINING EMPHASIS (TE)

TASKS		F-15 TNG EMP*	PERCENT MEMBERS PERFORMING 1ST JOB (N=168)	PERCENT MEMBERS PERFORMING 1ST ENL (N=304)	F-15 TASK DIFF**
H373	Apply external hydraulic power to aircraft	7.33	95	97	4.20
G278	Initiate or annotate aircraft flight or maintenance records	7.15	68	73	4.14
H372	Apply external electrical power to aircraft	7.04	95	97	3.12
H400	Marshal aircraft	7.00	97	98	2.80
H420	Perform safe-for-maintenance inspections	6.93	90	92	3.53
H374	Bleed aircraft hydraulic systems	6.70	89	92	4.65
H455	Service hydraulic systems	6.44	83	87	3.35
H457	Service landing gear shock struts	6.44	79	84	4.96
P855	CAMS	6.44	55	65	4.23
G286	Inspect areas for foreign object damage (FOD)	6.44	92	93	3.69
I473	Inspect aircraft tires	6.41	97	96	3.54
H395	Jack aircraft using tripod jacks	6.41	94	96	3.87
H434	Service aircraft tires	6.41	84	89	2.84
H419	Perform powered AGE pre-use inspections	6.33	67	78	3.18
H393	Jack aircraft using axle jacks	6.30	96	98	3.21
G360	Review aircraft flight or maintenance records	6.26	68	75	4.43
H411	Perform aircraft preflight inspections	6.26	90	92	4.66
H410	Perform aircraft postflight inspections	6.26	85	89	4.80
G279	Inspect access or stress panels	6.26	85	85	3.68
H377	Clean up fuel, oil, or hydraulic spills	6.19	92	95	2.68
H415	Perform aircraft thruflight inspections	6.19	89	91	4.20

* Mean TE Rating is 1.73, and Standard Deviation is 1.66 (High TE = 3.39)

** Average TD Rating is 5.00

TABLE 27

ACTIVE DUTY F-16 CREW CHIEF TASKS RATED HIGHEST IN TRAINING EMPHASIS (TE)

TASKS		F-16 TNG EMP*	PERCENT MEMBERS PERFORMING 1ST JOB (N=119)	PERCENT MEMBERS PERFORMING 1ST ENL (N=313)	F-16 TASK DIFF**
H430	Remove or install safety devices, such as seat pins, gear locks, intake covers, or engine component safety devices	7.41	82	88	2.55
H411	Perform aircraft preflight inspections	7.37	93	91	4.43
H410	Perform aircraft postflight inspections	7.37	92	90	4.40
H433	Service aircraft accumulators	7.22	90	90	3.83
H420	Perform safe-for-maintenance inspections	7.16	92	90	3.66
H434	Service aircraft tires	7.16	77	84	3.33
H437	Service aircraft with LOX	7.12	67	79	3.76
H373	Apply external hydraulic power to aircraft	7.12	95	97	3.45
G286	Inspect areas for foreign object damage (FOD)	7.10	89	90	3.72
I473	Inspect aircraft tires	7.08	95	93	3.15
H446	Service engine oil systems	7.02	88	89	3.45
H415	Perform aircraft thruflight inspections	7.00	90	90	4.29
H395	Jack aircraft using tripod jacks	6.98	95	96	3.57
H400	Marshal aircraft	6.98	94	93	2.64
H372	Apply external electrical power to aircraft	6.92	99	99	2.79
H407	Perform aircraft launch checklist procedures	6.90	91	89	3.96
H393	Jack aircraft using axle jacks	6.84	95	94	3.12
H374	Bleed aircraft hydraulic systems	6.76	93	94	3.38
H455	Service hydraulic systems	6.76	77	79	3.38
H413	Perform aircraft recovery checklist procedures	6.76	83	83	4.09
H417	Perform end-of-runway (EOR) inspections	6.75	34	56	3.87

* Mean TE Rating is 2.48, and Standard Deviation is 1.81 (High TE = 4.29)

** Average TD Rating is 5.00

TABLE 28

ACTIVE DUTY A-10 CREW CHIEF TASKS RATED HIGHEST IN TRAINING EMPHASIS (TE)

TASKS		A-10 TNG EMP*	PERCENT MEMBERS PERFORMING		A-10 TASK DIFF**
			1ST JOB (N=49)	1ST ENL (N=56)	
H411	Perform aircraft preflight inspections	7.00	94	95	5.27
H410	Perform aircraft postflight inspections	7.10	92	93	5.27
H433	Service aircraft accumulators	6.80	84	82	4.03
H420	Perform safe-for-maintenance inspections	6.60	92	91	3.95
H434	Service aircraft tires	7.10	82	82	4.03
H437	Service aircraft with LOX	7.50	88	89	4.03
H373	Apply external hydraulic power to aircraft	7.20	94	93	3.73
G286	Inspect areas for foreign object damage (FOD)	7.40	96	95	4.03
I473	Inspect aircraft tires	7.20	94	95	4.03
H446	Service engine oil systems	7.00	80	82	4.17
H415	Perform aircraft thruflight inspections	7.20	94	91	4.87
H395	Jack aircraft using tripod jacks	7.20	96	95	4.22
H400	Marshal aircraft	7.00	96	96	3.51
H372	Apply external electrical power to aircraft	6.90	96	96	3.10
H407	Perform aircraft launch checklist procedures	6.20	92	91	4.05
H393	Jack aircraft using axle jacks	7.10	98	98	3.51
H374	Bleed aircraft hydraulic systems	6.70	90	88	3.88
H455	Service hydraulic systems	6.10	67	70	4.03
H413	Perform aircraft recovery checklist procedures	7.20	82	80	4.87
H417	Perform end-of-runway (EOR) inspections	6.90	37	41	4.34

* Mean TE Rating is 2.65, and Standard Deviation is 1.65 (High TE = 4.30)

** Average TD Rating is 5.00

TABLE 29

ACTIVE DUTY F-111 CREW CHIEF TASKS RATED HIGHEST IN TRAINING EMPHASIS (TE)

TASKS		F-111 TNG EMP*	PERCENT MEMBERS PERFORMING		F-111 TASK DIFF**
			1ST JOB (N=28)	1ST ENL (N=36)	
I467	Adjust landing gear door latching mechanisms or linkages	8.00	11	17	5.85
G316	Perform flightcrew seat or ejection seat safety inspections	8.00	43	42	4.51
H385	Direct towing operations	7.67	11	17	4.79
G286	Inspect areas for foreign object damage (FOD)	7.67	96	92	3.47
H393	Jack aircraft using axle jacks	7.67	96	97	3.93
K608	Remove or install horizontal stabilizer control mechanisms	7.67	43	36	5.85
H395	Jack aircraft using tripod jacks	7.67	93	92	4.26
H387	Dispose of hazardous chemicals	7.67	89	89	4.48
H378	Decontaminate or practice decontaminating aircraft	7.33	4	6	4.65
O749	Inspect engine fan section components	7.33	39	36	5.09
H379	Defuel aircraft	7.33	96	97	4.46
H410	Perform aircraft postflight inspections	7.00	93	94	4.46
H412	Perform aircraft quick-turn inspections	7.00	57	56	4.21
H382	Direct defueling operations	7.00	21	25	5.04
H437	Service aircraft with LOX	7.00	96	97	4.21
H414	Perform aircraft special inspections, such as over-G or lightning-strike inspections	7.00	21	22	5.07
H409	Perform aircraft phase inspections	7.00	32	33	4.97
H415	Perform aircraft thruflight inspections	7.00	86	83	4.21
H413	Perform aircraft recovery checklist procedures	7.00	75	72	4.21
H383	Direct fueling operations	7.00	89	89	4.46
G345	Remove or install radomes	7.00	43	42	5.34

* Mean TE Rating is 2.21, and Standard Deviation is 2.40 (High TE = 4.61)

** Average TD Rating is 5.00

TABLE 30

ACTIVE DUTY U-2 CREW CHIEF TASKS RATED HIGHEST IN TRAINING EMPHASIS (TE)

TASKS		U-2 TNG EMP*	PERCENT MEMBERS PERFORMING 1ST JOB (N=13)	PERCENT MEMBERS PERFORMING 1ST ENL (N=20)
G278	Initiate or annotate aircraft flight or maintenance records	8.00	92	85
H430	Remove or install safety devices, such as seat pins, gear locks, intake covers, or engine component safety devices	8.00	62	75
G349	Remove or install tail sections or empenages	7.75	77	80
H411	Perform aircraft preflight inspections	7.75	100	100
H401	Moor aircraft	7.50	100	100
H412	Perform aircraft quick-turn inspections	7.50	85	90
H407	Perform aircraft launch checklist procedures	7.50	100	95
H390	Fuel aircraft using over-the-wing methods	7.50	100	100
H377	Clean up fuel, oil, or hydraulic spills	7.50	100	100
H446	Service engine oil systems	7.50	92	85
H379	Defuel aircraft	7.50	100	95
H438	Service aircraft-mounted accessory drives (AMADs)	7.50	85	85
H373	Apply external hydraulic power to aircraft	7.50	85	90
H374	Bleed aircraft hydraulic systems	7.50	54	70
P855	Clear or close out completed maintenance discrepancies in CAMS	7.50	69	60
H400	Marshal aircraft	7.25	92	95
H387	Dispose of hazardous chemicals	7.25	54	70
H388	Drain water from fuel tank sumps	7.25	15	30
I495	Remove or install aircraft wheel assemblies	7.25	77	75
H394	Jack aircraft using fuselage carts	7.25	92	85
H415	Perform aircraft thruflight inspections	7.25	85	85

* Mean TE Rating is 2.17, and Standard Deviation is 2.18 (High TE = 4.35)

TABLE 31

AIR NATIONAL GUARD F-15 CREW CHIEF TASKS RATED HIGHEST IN TRAINING EMPHASIS (TE)

TASKS		F-15 TNG EMP*	PERCENT MEMBERS PERFORMING 5-LEVEL (N=42)	PERCENT MEMBERS PERFORMING 7-LEVEL (N=25)	F-15 TASK DIFF**
H373	Apply external hydraulic power to aircraft	7.33	90	88	4.20
G278	Initiate or annotate aircraft flight or maintenance records	7.15	69	88	4.14
R372	Apply external electrical power to aircraft	7.04	90	96	3.12
H400	Marshal aircraft	7.00	88	96	2.80
H420	Perform safe-for-maintenance inspections	6.93	93	96	3.53
H374	Bleed aircraft hydraulic systems	6.70	86	96	4.65
H455	Service hydraulic systems	6.44	76	96	3.35
H457	Service landing gear shock struts	6.44	86	88	4.96
P855	Clear or close out completed maintenance discrepancies in CAMS	6.44	31	68	4.23
G286	Inspect areas for foreign object damage (FOD)	6.44	93	100	3.69
I473	Inspect aircraft tires	6.41	93	100	3.54
H395	Jack aircraft using tripod jacks	6.41	95	92	3.87
H434	Service aircraft tires	6.41	93	92	2.84
H419	Perform powered AGE pre-use inspections	6.33	83	68	3.18
H393	Jack aircraft using axle jacks	6.30	93	88	3.21
G360	Review aircraft flight or maintenance records	6.26	79	80	4.43
H411	Perform aircraft preflight inspections	6.26	90	84	4.66
H410	Perform aircraft postflight inspections	6.26	93	88	4.80
G279	Inspect access or stress panels	6.26	76	96	3.68
R377	Clean up fuel, oil, or hydraulic spills	6.19	90	88	2.68
H415	Perform aircraft thruflight inspections	6.19	95	84	4.20

* Mean TE Rating is 1.73, and Standard Deviation is 1.66 (High TE = 3.39)

** Average TD Rating is 5.00

TABLE 32

AIR NATIONAL GUARD F-16 CREW CHIEF TASKS RATED HIGHEST IN TRAINING EMPHASIS (TE)

TASKS		F-16 TNG EMP*	PERCENT MEMBERS PERFORMING		F-16 TASK DIFF**
			5-LEVEL (N=283)	7-LEVEL (N=271)	
H430	Remove or install safety devices, such as seat pins, gear locks, intake covers or engine component safety devices	7.41	94	95	2.55
H411	Perform aircraft preflight inspections	7.37	92	91	4.43
H410	Perform aircraft postflight inspections	7.37	93	92	4.40
H433	Service aircraft accumulators	7.22	92	93	3.83
H420	Perform safe-for-maintenance inspections	7.16	90	92	3.66
H434	Service aircraft tires	7.16	93	95	3.33
H437	Service aircraft with LOX	7.12	96	96	3.76
H373	Apply external hydraulic power to aircraft	7.12	88	86	3.45
G286	Inspect areas for foreign object damage (FOD)	7.10	93	93	3.72
I473	Inspect aircraft tires	7.08	92	89	3.15
H446	Service engine oil systems	7.02	89	94	3.45
H415	Perform aircraft thruflight inspections	7.00	95	95	4.29
H395	Jack aircraft using tripod jacks	6.98	95	97	3.57
H400	Marshal aircraft	6.98	95	96	2.64
H372	Apply external electrical power to aircraft	6.92	97	94	2.79
H407	Perform aircraft launch checklist procedures	6.90	92	93	3.96
H393	Jack aircraft using axle jacks	6.84	93	98	3.12
H374	Bleed aircraft hydraulic systems	6.76	83	90	3.38
H455	Service hydraulic system	6.76	73	82	3.38
H413	Perform aircraft recovery checklist procedures	6.76	80	86	4.09
H417	Perform end-of-runway (EOR) inspections	6.75	87	91	3.87

* Mean TE Rating is 2.48, and Standard Deviation is 1.81 (High TE = 4.29)

** Average TD Rating is 5.00

TABLE 33

AIR NATIONAL GUARD A-10 CREW CHIEF TASKS RATED HIGHEST IN TRAINING EMPHASIS (TE)

TASKS		A-10 TNG EMP*	PERCENT MEMBERS PERFORMING 5-LEVEL (N=25)	PERCENT MEMBERS PERFORMING 7-LEVEL (N=32)	A-10 TASK DIFF**
P855	Clear or close out completed maintenance discrepancies in CAMS	7.70	40	81	4.76
H437	Service aircraft with LOX	7.50	96	91	4.03
H430	Remove or install safety devices, such as seat pins, gear locks, intake covers, or engine component safety devices	7.40	88	100	3.88
G286	Inspect areas for foreign object damage (FOD)	7.40	96	97	4.03
H391	Fuel aircraft using single-point methods	7.30	88	97	3.83
I473	Inspect aircraft tires	7.20	100	97	4.03
H413	Perform aircraft recovery checklist procedures	7.20	88	84	4.87
H395	Jack aircraft using tripod jacks	7.20	92	97	4.22
H373	Apply external hydraulic power to aircraft	7.20	100	91	3.73
H415	Perform aircraft thruflight inspections	7.20	92	100	4.87
H412	Perform aircraft quick-turn inspections	7.10	88	99	4.87
H434	Service aircraft tires	7.10	88	94	4.03
H410	Perform aircraft postflight inspections	7.10	96	100	5.27
H393	Jack aircraft using axle jacks	7.10	92	100	3.51
H379	Defuel aircraft	7.10	100	97	3.98
H400	Marshal aircraft	7.00	92	100	3.51
I494	Remove or install aircraft brake assemblies	7.00	92	97	4.83
H446	Service engine oil systems	7.00	84	97	4.17
H411	Perform aircraft preflight inspections	7.00	92	100	5.27
H372	Apply external electrical power to aircraft	6.90	96	97	3.10
H417	Perform end-of-runway (EOR) inspections	6.90	96	too	4.34

* Mean TE Rating is 2.65, and Standard Deviation is 1.65 (High TE = 4.30)

** Average TD Rating is 5.00

TABLE 34

AIR FORCE RESERVE F-16 CREW CHIEF TASKS RATED HIGHEST IN TRAINING EMPHASIS (TE)

TASKS		F-16 TNG EMP*	PERCENT MEMBERS PERFORMING 3-LVL (N=20)	5-LVL (N=70)	7-LVL (N=35)	F-16 TASK DIFF**
H430	Remove or install safety devices, such as seat pins, gear locks, intake covers, or engine component safety devices	7.41	95	99	94	2.55
H411	Perform aircraft preflight inspections	7.37	90	87	97	4.43
H410	Perform aircraft postflight inspections	7.37	90	90	94	4.40
H433	Service aircraft accumulators	7.22	90	93	89	3.83
H420	Perform safe-for-maintenance inspections	7.16	85	91	91	3.66
H434	Service aircraft tires	7.16	90	97	94	3.33
H437	Service aircraft with LOX	7.12	85	90	100	3.76
H373	Apply external hydraulic power to aircraft	7.12	100	99	97	3.45
G286	Inspect areas for foreign object damage (FOD)	7.10	95	90	94	3.72
I473	Inspect aircraft tires	7.08	95	96	94	3.15
H446	Service engine oil systems	7.02	95	86	89	3.45
H415	Perform aircraft thruflight inspections	7.00	90	90	97	4.29
H395	Jack aircraft using tripod jacks	6.98	100	94	94	3.57
H400	Marshal aircraft	6.98	95	93	94	2.64
H372	Apply external electrical power to aircraft	6.92	100	100	91	2.79
H407	Perform aircraft launch checklist procedures	6.90	90	89	91	3.96
H393	Jack aircraft using axle jacks	6.84	100	97	97	3.11
H374	Bleed aircraft hydraulic systems	6.76	85	91	97	3.38
H455	Service hydraulic systems	6.76	90	86	83	3.38
H413	Perform aircraft recovery checklist procedures	6.76	65	81	91	4.09
H417	Perform end-of-runway (EOR) inspections	6.75	90	89	94	3.87

* Mean TE Rating is 2.48, and Standard Deviation is 1.81 (High TE = 4.29)

** Average TD Rating is 5.00

TABLE 35

AIR FORCE RESERVE A-10 CREW CHIEF TASKS RATED HIGHEST IN TRAINING EMPHASIS (TE)

TASKS		A-10 TNG EMP*	PERCENT MEMBERS PERFORMING		A-10 TASK DIFF**
			5-LEVEL (N=13)	7-LEVEL (N=8)	
P855	Clear or close out completed maintenance discrepancies in CAMS	7.70	69	75	4.76
H437	Service aircraft with LOX	7.50	92	100	4.03
H430	Remove or install safety devices, such as seat pins, gear locks, intake covers, or engine component safety devices	7.40	92	88	3.88
G286	Inspect areas for foreign object damage (FOD)	7.40	100	100	4.03
H391	Fuel aircraft using single-point methods	7.30	92	100	3.83
I473	Inspect aircraft tires	7.20	100	100	4.03
H413	Perform aircraft recovery checklist procedures	7.20	85	75	4.87
H395	Jack aircraft using tripod jacks	7.20	92	88	4.22
H373	Apply external hydraulic power to aircraft	7.20	100	100	3.73
H415	Perform aircraft thruflight inspections	7.20	85	100	4.87
H412	Perform aircraft quick-turn inspections	7.10	77	75	4.87
H434	Service aircraft tires	7.10	100	100	4.03
H410	Perform aircraft postflight inspections	7.10	100	100	5.27
H393	Jack aircraft using axle jacks	7.10	100	88	3.51
H379	Defuel aircraft	7.10	92	100	3.98
H400	Marshal aircraft	7.00	92	100	3.51
I494	Remove or install aircraft brake assemblies	7.00	92	88	4.83
H446	Service engine oil systems	7.00	100	88	4.17
H411	Perform aircraft preflight inspections	7.00	100	1	5.27
H372	Apply external electrical power to aircraft	6.90	100	100	3.10
H417	Perform end-of-runway (EOR) inspections	6.90	100	88	4.34

* Mean TE Rating is 2.65, and Standard Deviation is 1.65 (High TE = 4.30)

** Average TD Rating is 5.00

TABLE 36

ACTIVE DUTY F-15 TASKS RATED HIGHEST IN TASK DIFFICULTY (TD)

TASKS		F-15 TASK DIFF*	PERCENT MEMBERS PERFORMING 1ST JOB (N=168)	1ST ENL (N=304)	DAFSC 2A353 (N=286)	DAFSC 2A373 (N=151)	F-15 TNG EMP**
A18	Draft budget requirements	8.24	1	1	3	4	.15
A4	Coordinate host-tenant or interservice agreements with appropriate agencies	7.61	2	2	4	10	.26
G297	Interpret aircraft electrical system wiring diagrams	7.43	5	17	40	51	3.70
O833	Trim installed engines	7.37	2	4	6	7	.81
G357	Remove or install wings	7.32	1	3	5	3	.44
E178	Draft or write unit readiness reports	7.28	0	0	0	0	.04
B52	Implement contingency or mobility plans	7.28	1	1	1	0	.26
G299	Interpret aircraft engine system wiring diagrams	7.25	6	18	43	56	3.56
A19	Draft inputs for status of resources, training, and supplies (SORTS) program	7.19	0	1	3	5	.15
O834	Troubleshoot aircraft engine computers, such as TEMS or DCUs	7.17	3	7	14	21	1.19
G296	Interpret aircraft electrical system schematics	7.12	5	18	40	50	3.81
C116	Write staff studies, surveys, or special reports, other than training reports	7.09	1	1	1	0	.11
E182	Establish automated technical order management system (ATOMS) accounts	7.07	0	0	1	0	.11
O778	Perform engine flex boroscope inspections	7.07	7	8	20	33	1.81
A33	Plan personnel or equipment deployments	7.00	1	1	2	7	.15
A11	Develop cost-reduction programs	6.97	0	2	5	9	.81
C81	Evaluate budget requirements	6.93	1	1	2	3	.04
A8	Determine logistics requirements, such as personnel, equipment, space, or supplies, other than for mobility exercises or deployments	6.91	0	1	6	21	.78
G298	Interpret aircraft engine system schematics	6.90	8	23	53	61	3.96
C92	Evaluate modified or prototype equipment	6.89	1	1	1	3	.33
C302	Interpret manufacturer engineering drawings	6.88	5	7	10	16	1.26
G301	Interpret aircraft hydraulic or pneumatic system wiring diagrams	6.84	17	33	61	67	5.00

* Average TD Rating is 5.00

** Mean TE Rating is 1.73, and Standard Deviation is 1.66 (High TE = 3.39)

TABLE 37

ACTIVE DUTY F-16 TASKS RATED HIGHEST IN TASK DIFFICULTY (TD)

TASKS		F-16 TASK DIFF*	PERCENT MEMBERS PERFORMING 1ST JOB (N=119)	1ST ENL (N=313)	DAFSC 2A353 (N=379)	DAFSC 2A373 (N=250)	F-16 TNG EMP**
A18	Draft budget requirements	7.96	0	0	2	3	.22
A33	Plan personnel or equipment deployments	7.47	1	1	2	9	.53
G357	Remove or install things	7.35	4	10	19	22	3.08
O133	Develop career development courses (CDCs)	7.28	0	1	2	1	
O135	Develop formal course curricula, plans of instructions (POIs), or specialty training standards (STSs)	7.23	0	0	1	5	.20
C81	Evaluate budget requirements	7.10	0	1	1	1	
O778	Perform engine flex boroscope inspections	7.10	4	8	25	44	1.73
O783	Perform engine rigid boroscope inspections	6.99	1	4	22	46	1.49
A31	Plan or prepare briefings, conferences, or workshops	6.98	1	1	3	14	67
A4	Coordinate host-tenant or interservice agreements with appropriate agencies	6.97	1	1	3	10	.24
O834	Troubleshoot aircraft engine computers. such as TEMS or DCUs	6.95	1	6	17	32	1.00
C116	Write staff studies, surveys, or special reports, other than training reports	6.91	0	0	1	3	.22
O835	Troubleshoot engine air systems. other than bleed-air systems	6.98	2	2	7	12	.98
A16	Develop resource protection programs	6.86	0	1	2	6	.65
A8	Determine logistics requirements, such as personnel, equipment, space, or supplies, other than for mobility exercises or deployments	6.86	0	1	3	17	.84
O793	Remove or install AMADs or ADGs	6.82	20	24	40	60	3.71
B52	Implement contingency or mobility plans	6.82	0	1	1	3	.43
B43	Conduct general meetings or briefings	6.82	1	1	2	4	.25
O829	Rig engine fuel controls	6.81	3	5	12	20	1.14
A19	Draft inputs for status of resources, training, and supplies (SORTS) program	6.80	0	0	2	6	.22
O846	Troubleshoot variable vane actuating systems	6.80	3	4	12	19	1.14

* Average TD Rating is 5.00

** Mean TE Rating is 2.48, and Standard Deviation is 1.81 (High TE = 4.29)

TABLE 38

ACTIVE DUTY A-10 TASKS RATED HIGHEST IN TASK DIFFICULTY (TD)

TASKS		A-10 TASK DIFF*	PERCENT MEMBERS PERFORMING				A-10 TNG EMP**
			1ST JOB (N=49)	1ST ENL (N=56)	DAFSC 2A353 (N=97)	DAFSC 2A373 (N=76)	
A18	Draft budget requirements	9.51	2	2	0	4	.70
A33	Plan personnel or equipment deployments	9.00	2	2	0	5	.80
D157	Prepare command standard training packages	8.37	0	0	1	4	.60
D135	Develop formal course curricula, plans of instructions (POIs), or specialty training standards (STSs)	8.10	0	0	3	7	.50
C81	Evaluate budget requirements	5.10	0	2	1	1	.70
A19	Draft inputs for status of resources, training, and supplies (SORTS) program	8.03	2	2	1	4	70
B41	Adjust daily maintenance plans to meet operation commitments	7.99	0	2	4	9	1.50
A4	Coordinate host-tenant or interservice agreements with appropriate agencies	7.98	2	5	6	9	1.60
A8	Determine logistics requirements, such as personnel, equipment, space, or supplies, other than for mobility exercises or deployments	7.86	2	2	7	16	90
B64	Maintain or update contingency or mobility plans	7.82	0	0	1	3	.60
G302	Interpret manufacturer engineering drawings	7.78	0	2	11	11	1.50
C92	Evaluate modified or prototype equipment	7.76	0	0	1	3	70
A11	Develop cost-reduction programs	7.70	2	2	3	8	.90
A3	Coordinate aircraft maintenance or launch and recovery times with flightcrews or other agencies	7.63	12	16	15	24	1.30
C88	Evaluate logistics requirements, such as personnel, equipment, space, tools, or supplies	7.60	4	5	2	9	.60
D137	Develop in-service training plans or procedures	7.54	0	0	1	3	.60
A12	Develop equipment maintenance schedules	7.53	2	2	5	11	2.60
A21	Establish administrative files	7.53	2	4	2	7	.70
D139	Develop OJT programs	7.49	0	0	4	9	.80
C82	Evaluate deficiency, service, or status reports, such as reports of deficiency (RODs) or material deficiency reports (MDRs)	7.47	0	4	9	9	1.70

* Average TD Rating is 5.00

** Mean TE Rating is 2.65, and Standard Deviation is 1.65 (High TE = 4.30)

TABLE 39

ACTIVE DUTY F-111 TASKS RATED HIGHEST IN TASK DIFFICULTY (TD)

TASKS		F-111 TASK DIFF*	PERCENT MEMBERS PERFORMING 1ST JOB (N=28)	1ST ENL (N=36)	DAFSC 2A353 (N=59)	DAFSC 2A373 (N=11)	F-111 TNG EMP**
A18	Draft budget requirements	8.42	4	3	5	0	.00
A19	Draft inputs for status of resources, training, and supplies (SORTS) program	8.01	4	3	7	0	.00
G357	Remove or install wings	7.65	4	6	2	0	4.67
B65	Supervise civilian employees	7.41	4	3	3	9	.00
B50	Draft recommendations for policy changes in logistic requirements, such as personnel equipment, space or supplies,	7.41	4	3	5	0	1.67
C81	Evaluate budget requirements	7.38	4	3	3	0	.00
K655	Troubleshoot wing sweep systems	7.31	4	6	19	27	2.00
G302	Interpret manufacturer engineering drawings	7.21	4	6	10	18	4.67
A30	Plan layouts of facilities	7.10	4	3	5	0	1.67
A3	Plan personnel or equipment deployments	7.07	4	3	3	9	2.67
B47	Direct functional check flight (FCF) programs	7.04	7	6	3	0	2.67
O135	Develop formal course curricula, plans of instructions (POIs), or specialty training standards (STSs)	7.04	4	3	5	0	.00
A8	Determine logistics requirements, such as personnel, equipment, space, or supplies, other than for mobility exercises or deployments	7.01	4	3	8	45	.00
O836	Troubleshoot engine anti-icing systems	7.00	0	3	8	0	.00
O844	Troubleshoot ignition systems	7.00	0	3	8	9	.00
J568	Troubleshoot APUs	7.00	0	3	3	9	.00
K653	Troubleshoot tail wheel steering systems	7.00	7	8	3	0	.00
O842	Troubleshoot engine warning systems	7.00	0	3	3	0	.00
O843	Troubleshoot IDGs	7.00	0	6	10	9	.00
N724	Troubleshoot electrical systems	7.00	4	6	19	27	.00
J565	Troubleshoot air-conditioning systems	7.00	0	3	5	0	.00

* Average TD Rating is 5.00

** Mean TE Rating is 2.21, and Standard Deviation is 2.40 (High TE = 4.61)

TABLE 40

AIR NATIONAL GUARD F-15 TASKS RATED HIGHEST IN TASK DIFFICULTY (TD)

TASKS		F-15 TASK DIFF*	PERCENT MEMBERS PERFORMING DAFSC 2A353 (N=42)	PERCENT MEMBERS PERFORMING DAFSC 2A373 (N=25)	F-15 TNG EMP**
A4	Coordinate host-tenant or interservice agreements with appropriate agencies	7.61	2	8	.26
G297	Interpret aircraft electrical system wiring diagrams	7.43	17	36	3.70
O833	Trim installed engines	7.37	2	4	.81
G357	Remove or install wings	7.32	2	0	.44
E178	Draft or write unit readiness reports	7.29	0	0	.04
B52	Implement contingency or mobility plans	7.28	2	0	.26
G299	Interpret aircraft engine system wiring diagrams	7.25	19	24	3.56
A19	Draft inputs for status of resources, training and supplies (SORTS) program	719	0	4	.15
O834	Troubleshoot aircraft engine computers, such as TEMS or DCUs	7.17	2	0	1.19
G296	Interpret aircraft electrical system schematics	7.12	19	36	3.81
C116	Write staff studies, surveys, or special reports, other than training reports	7.09	0	0	.11
E182	Establish automated technical order management system (ATOMS) accounts	7.07	0	0	.11
O778	Perform engine flex boroscope inspections	7.07	5	12	1.91
A33	Plan personnel or equipment deployments	7.00	2	4	.15
A11	Develop cost-reduction programs	6.97	0	8	.81
C81	Evaluate budget requirements	6.93	0	4	.04
A8	Determine logistics requirements, such as personnel, equipment, space, or supplies, other than for mobility exercises or deployments	6.91	0	12	.78
G298	Interpret aircraft engine system schematics	6.90	17	32	3.96
C92	Evaluate modified or prototype equipment	6.89	2	4	.33
G302	Interpret manufacturer engineering drawings	6.88	10	4	1.26

* Average TD Rating is 5.00

** Mean TE Rating is 1.73, and Standard Deviation is 1.66 (High TE = 3.39)

TABLE 41

AIR NATIONAL GUARD F-16 TASKS RATED HIGHEST IN TASK DIFFICULTY (TD)

TASKS		F-16 TASK DIFF*	PERCENT MEMBERS PERFORMING DAFSC 2A353 (N=283)	PERCENT MEMBERS PERFORMING DAFSC 2A373 (N=271)	F-16 TNG EMP**
A18	Draft budget requirements	7.96	1	1	.22
A33	Plan personnel or equipment deployments	7.47	2	6	.53
G357	Remove or install wings	7.35	9	13	3.08
O133	Develop career development courses (CDCs)	7.28	1	1	.71
D135	Develop formal course curricula, plans of instructions (POIs), or specialty training standards (STSs)	7.23	0	1	.20
C81	Evaluate budget requirements	7.10	1	1	.14
O778	Perform engine flex boroscope inspections	7.10	5	5	1.73
O783	Perform engine rigid boroscope inspections	6.99	3	1	1.49
A31	Plan or prepare briefings, conferences, or workshops	6.98	2	9	.67
A4	Coordinate host-tenant or interservice agreements with appropriate agencies	6.97	3	4	.24
O834	Troubleshoot aircraft engine computers, such as TEMS or DCUs	6.95	1	1	1.00
C116	Write staff studies, surveys, or special reports, other than training reports	6.91	1	3	.22
O835	Troubleshoot engine air systems, other than bleed-air systems	6.88	0	2	.98
A16	Develop resource protection programs	6.86	3	2	.65
A8	Determine logistics requirements, such as personnel, equipment, space, or supplies, other than for mobility exercises or deployments	6.86	6	13	.84
O793	Remove or install AMADs or ADGs	6.82	25	35	3.71
B52	Implement contingents or mobility plans	6.82	2	4	.43
B43	Conduct general staff meetings or briefings	6.82	1	2	.25
O829	Rig engine fuel controls	6.81	5	6	1.14
A19	Draft inputs for status of resources, training, and supplies (SORTS) program	6.80	1	3	.22

* Average TD Rating is 5.00

** Mean TE Rating is 2.48, and Standard Deviation is 1.81 (High TE = 4.29)

TABLE 42

AIR NATIONAL GUARD A-10 TASKS RATED HIGHEST IN TASK DIFFICULTY (TD)

TASKS		A-10 TASK DIFF*	PERCENT MEMBERS PERFORMING DAFSC 2A353 (N=25)	PERCENT MEMBERS PERFORMING DAFSC 2A373 (N=32)	A-10 TNG EMP**
A33	Plan personnel or equipment deployments	9.00	0	9	.80
D157	Prepare command standard training packages	8.37	0	0	.60
D135	Develop formal course curricula, plans of instructions (POIs), or specialty training standards (STSs)	8.10	0	0	.50
C81	Evaluate budget requirements	8.10	0	3	.70
A19	Draft inputs for status of resources, training and supplies (SORTS) program	8.03	0	3	.70
B41	Adjust daily maintenance plans to meet operation commitments	7.99	4	16	1.50
A4	Coordinate host-tenant or interservice agreements with appropriate agencies	7.98	0		1.60
A8	Determine logistics requirements, such as personnel, equipment, space, or supplies, other than for mobility exercises or deployments	7.86	4	16	.90
B64	Maintain or update contingency or mobility plans	7.82	0	0	.60
G302	Interpret manufacturer engineering drawings	7.78	12	22	1.50
C92	Evaluate modified or prototype equipment	7.76	0	0	.70
A11	Develop cost-reduction programs	7.70	0	13	.90
A3	Coordinate aircraft maintenance or launch and recovery times with flightcrews or other agencies	7.63	4	28	1.30
C88	Evaluate logistics requirements, such as personnel, equipment, space, tools, or supplies	7.60	4	3	.60
D137	Develop in-service training plans or procedures	7.54	0	3	.60
A12	Develop equipment maintenance schedules	7.53	0	22	2.60
A21	Establish administrative files	7.53	0	3	.70
D139	Develop OJT programs	7.49	0	13	.80

* Average TD Rating is 5.00

** Mean TE Rating is 2.65, and Standard Deviation is 1.65 (High TE = 4.30)

TABLE 43

AIR NATIONAL GUARD F-16 TASKS RATED HIGHEST IN TASK DIFFICULTY (TD)

TASKS		F-16 TASK DIFF*	PERCENT MEMBERS PERFORMING DAFSC 2A353 (N=70)	PERCENT MEMBERS PERFORMING DAFSC 2A373 (N=35)	F-16 TNG EMP**
A18	Draft budget requirements	7.96	1	3	.22
A33	Plan personnel or equipment deployments	7.47	0	6	.53
G357	Remove or install wings	7.35	16	31	3.08
O133	Develop career development courses (CDCs)	7.28	0	3	.71
O135	Develop formal course curricula, plans of instructions (POIs), or specialty training standards (STSs)	7.23	1	6	.20
C81	Evaluate budget requirements	7.10	1	0	.14
O778	Perform engine flex boroscope inspections	7.10	14	9	1.73
O783	Perform engine rigid boroscope inspections	6.99	13	9	1.49
A31	Plan or prepare briefings, conferences, or workshops	6.99	1	17	.67
A4	Coordinate host-tenant or interservice agreements with appropriate agencies	6.97	1	6	.24
O834	Troubleshoot aircraft engine computers, such as TEMS or DCUs	6.95	9	20	1.00
C116	Write staff studies, surveys, or special reports, other than training reports	6.91	1	0	.22
O835	Troubleshoot engine air systems, other than bleed-air systems	6.88	4	6	.98
A16	Develop resource protection programs	6.86	0	6	.65
A8	Determine logistics requirements, such as personnel, equipment, space, or supplies, other than for mobility exercises or deployments	6.86	4	9	.84
O793	Remove or install AMADs or ADGs	6.82	31	51	3.71
B52	Implement contingency or mobility plans	6.82	0	3	.43
B43	Conduct general meetings or briefings	6.82	0	9	.25
O829	Rig engine fuel controls	6.81	9	14	1.14
A19	Draft inputs for status of resources, training, and supplies (SORTS) program	6.80	1	3	.22

* Average TD Rating is 5.00

** Mean TE Rating is 2.48, and Standard Deviation is 1.81 (High TE = 4.29)

TABLE 44

AIR NATIONAL GUARD A-10 TASKS RATED HIGHEST IN TASK DIFFICULTY (TD)

TASKS		A-10 TASK DIFF*	PERCENT MEMBERS PERFORMING		A-10 TNG EMP**
			DAFSC 2A353 (N=13)	DAFSC 2A373 (N=8)	
A18	Draft budget requirements	9.51	8	0	.70
A33	Plan personnel or equipment deployments	9.00	8	13	.80
D157	Prepare command standard training packages	8.37	8	0	.60
D135	Develop formal course curricula, plans of instructions (POIs), or specialty training standards (STSs)	8.10	8	13	.50
C81	Evaluate budget requirements	8.10	3	0	.70
A19	Draft inputs for status of resources, training, and supplies (SORTS) program	8.03	8	13	.70
B41	Adjust daily maintenance plans to meet operation commitments	7.99	15	13	1.50
A4	Coordinate host-tenant or interservice agreements with appropriate agencies	7.98	11	25	1.60
A8	Determine logistics requirements, such as personnel, equipment, space, or supplies, other than for mobility exercises or deployments	7.86	15	13	.90
B64	Maintain or update contingency or mobility plans	7.82	9	13	.60
G302	Interpret manufacturer engineering drawings	7.78	15	50	1.50
C92	Evaluate modified or prototype equipment	7.76	8	0	.70
A11	Develop cost-reduction programs	7.70	8	13	.90
A3	Coordinate aircraft maintenance or launch and recovery times with flightcrews or other agencies	7.63	15	25	1.30
C88	Evaluate logistics requirements, such as personnel, equipment, space, tools, or supplies	7.60	8	0	.60
D137	Develop in-service training plans or procedures	7.54	8	25	.60
A12	Develop equipment maintenance schedules	7.53	15	13	2.60
A21	Establish administrative files	7.53	8	13	
D139	Develop OJT programs	7.49	8	25	.80

* Average TD Rating is 5.00

** Mean TE Rating is 2.65, and Standard Deviation is 1.65 (High TE = 4.30)

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

Specialty Training Standard (STS)

A comprehensive review of STS 2A3X3A, dated March 1995, and STSs 2A3X3B, 2A3X3C, 2A3X3E, and 2A3X3H dated December 1994, was made by comparing survey data to STS elements. Technical school personnel from Sheppard AFB TX matched JI tasks to appropriate STS sections and subsections. A complete computer listing displaying the percent members performing tasks, TE and TD ratings for each task, along with the STS matchings, has been forwarded to the technical school for their review of the training documents. A complete computer listing for equipment items and forms has also been forwarded to the school.

Typically, STS sections and subsections matched to tasks which have sufficiently high TE and TD ratings, and are performed by at least 20 percent of personnel in appropriate experience or skill-level groups (such as first-enlistment (1-48 months TAFMS) and 5- and 7-skill level groups), are considered to be supported and should be considered for inclusion in the STS. Likewise, paragraphs having tasks with less than 20 percent performing across all the criterion groups should be considered for deletion from the STS.

General STS paragraphs, such as Career Ladder Progression and Operations Security Vulnerability (paragraphs 1-2) were not reviewed. The remaining paragraphs were thoroughly reviewed against the OSR data. Most were, in general, supported, in that tasks matched to the STS paragraphs generally had at least 20 percent of one criterion group performing the matched tasks. However, SMEs should carefully review the STS for possible fine-tuning of content and proficiency codes, in light of the fact that there were paragraphs in each STS that were not supported by OSR data. Equipment data presented earlier should be helpful in any review performed.

Table 45 lists several examples of STS 2A3X3A paragraphs which need to be reviewed by SMEs. For example, paragraphs 5b(7) and 9h(4) need to be reviewed for deletion in future revisions due to small percentages (less than 20 percent) of active duty personnel performing related tasks. Several of the proficiency codes should also be carefully reviewed. For example, in paragraph 1d, only 8 percent of first-enlistment personnel are performing related tasks, yet the course is taught at the "3c" level. A similar situation occurs with paragraph 5b(7).

Tasks not matched to any element of the STS are listed at the end of the STS computer listing. Table 46 lists examples of tasks which were performed by 20 percent or more of active duty F-15 crew chief criterion groups, but not matched to any STS item. Training personnel and SMEs should review these and other nonreferenced tasks to determine their appropriateness in being included in the STS.

TABLE 45

EXAMPLES OF STS ELEMENTS NOT SUPPORTED BY ACTIVE DUTY F-15 OSR DATA (LESS THAN 20 PERCENT MEMBERS PERFORMING)

STS REFERENCE/TASKS		3-LEVEL COURSE PROF CODE	F-15 TNG EMPH	PERCENT MEMBERS PERFORMING 1ST JOB (N=168)	1ST ENL (N=304)	5-SKILL LEVEL (N=286)	7-SKILL LEVEL (N=151)	F-15 TASK DIFF
1d.	ORDER PARTS	3c						
F219	Coordinate obtaining parts with base supply		2.00	2	7	12	20	4.54
G370	Verify mission capability (MICAP) conditions		.70	5	8	11	21	5.49
5b(7).	OXYGEN SYSTEM	3c						
J536	Leak check oxygen systems		1.56	8	9	7	7	4.36
14c.	REPAIR AGTS COMPONENTS	-						
G358	Repair AGTSs		.59	1	1	1	1	6.43
9h(4).	ADJUST THROTTLE DETENT	-						
O830	Rig engine throttle control system components		1.26	5	7	8	14	6.26

Mean TE Rating is 1.73, and Standard Deviation is 1.66 (High TE = 3.39)
Average TD = 5.00, Standard Deviation = 1.00, High TD = 6.00

TABLE 46

TECHNICAL TASKS PERFORMED BY 20 PERCENT OR MORE OF ACTIVE DUTY F-15 CREW CHIEF PERSONNEL AND NOT REFERENCED TO THE STS

TASKS		PERCENT MEMBERS PERFORMING					
		1ST JOB (N=168)	1ST ENL (N=304)	5-SKILL LEVEL (N=286)	7-SKILL LEVEL (N=151)	F-15 TNG EMPH	F-15 TASK DIFF
Q897	Don or doff chemical warfare personal protective clothing	15	25	40	48	4.78	3.90
G345	Remove or install radomes	36	53	84	78	4.30	4.57
O807	Remove or install engine magnetic chip detectors	61	68	73	81	4.19	3.62
I500	Remove or install landing gear doors	21	33	52	54	4.04	4.95
G273	Clean aircraft interiors	74	78	80	75	3.78	3.24
H390	Fuel aircraft using ever-the-wing methods	56	65	69	54	3.78	3.40
H409	Perform aircraft phase inspections	46	56	69	60	3.74	5.39
G299	Interpret aircraft engine system wiring diagrams	6	18	43	56	3.56	7.25
Q900	Identify or practice identifying chemical warfare agents	14	20	33	35	3.48	4.41
F232	Inspect parts from storage or supply	22	24	29	31	3.30	3.89
I499	Remove or install landing gear door latching	15	22	35	42	3.30	5.26
H459	Service pneumatic systems	46	55	70	69	3.19	3.72
D122	Conduct on-the-job training (OJT)	10	22	64	89	3.07	4.90
G322	Remove or install access latches	18	26	38	45	3.07	3.95
G363	Troubleshoot aircraft canopy systems	8	24	49	51	3.07	5.98

Mean TE Rating is 1.73, and Standard Deviation is 1.66 (High TE = 3.39)
Average TD = 5.00, Standard Deviation = 1.00, High TD = 6.00

Subsequent aircraft groups are presented in Tables 47-64. Tables alternate unsupported STS paragraphs followed by tasks not referenced to the STS. Because each aircraft's STS was analyzed separately for active duty, guard, and reserve, they will not all be discussed in this report. For detailed information regarding the STSs and Plans of Instruction (POI), the TRAINING EXTRACT should be referenced.

Plan of Instruction (POI)

POIs J3AQR2A333A and J3ABP2A333A, dated June 1995, POI J3AQR2A333B, dated February 1995, and POI J3ABP2A333B, dated December 1995, were reviewed against the extensive equipment lists presented above, the tasks performed by first-job and first-enlistment personnel, TE and TD ratings, and the job structure described in the **SPECIALTY JOBS** section of the OSR. POI criterion objectives were compared against the standard set forth in Attachment 2, AETC Instruction 36-2601, dated July 1996 (30 percent or more of the criterion first-enlistment group performing tasks or using equipment trained, along with sufficiently high TE and TD ratings). Per this guidance, behavioral objectives in the course which do not meet these criteria should be considered for elimination from the formal course if not justified on some other acceptable basis.

Overall, there were few, if any, unsupported paragraphs in each POI. Tables 65 and 66, however, shows that there were a number of tasks not referenced to POIs J3AQR2A333A and J3ABP2A333A, respectively. POI J3AQR2A333B contained a number of elements which require review by SMEs because they are not performed by 30 percent of DAFSC 2A3X3 first-job or first-enlistment personnel. Examples of such elements are displayed in Table 67, followed by the tasks not referenced to the POI in Table 68. Table 69 displays the tasks not referenced to POI J3ABP2A333B but performed by a large percentage of first-job and first-enlistment personnel.

ANALYSIS OF MAJOR COMMANDS (MAJCOM)

Tasks and background data of the seven MAJCOMs or field operating agencies with the largest AFSC 2A3X3 populations were compared to determine whether job content varied as a function of command assignment (see Table 70). Generally, all MAJCOMs showed high relative time spent in performing general airframe or aircraft maintenance activities and performing aircraft ground handling or servicing tasks. By in large, there were no major differences between MAJCOM groups.

TABLE 47

EXAMPLES OF STS ELEMENTS NOT SUPPORTED BY ACTIVE DUTY F-16 OSR DATA (LESS THAN 20 PERCENT MEMBERS PERFORMING)

STS REFERENCE/TASKS		3-LEVEL COURSE PROF CODE	F-16 TNG EMPH	PERCENT MEMBERS PERFORMING 1ST JOB (N=119)	1ST ENL (N=313)	5-SKILL LEVEL (N=379)	7-SKILL LEVEL (N=250)	F-16 TASK DIFF
1f(5).	CRASH RECOVERY TEAM MEMBER	-						
H384	Direct or participate in crash recovery operations		3.24	3	4	9	12	5.50
H423	Position crash recovery equipment within crash sites or disabled aircraft areas		1.76	4	4	4	5	4.57
7b.	REMOVE AND INSTALL HALON RESERVOIR	3c						
J559	Remove or install fire extinguisher or fire suppression system components		1.71	6	12	16	16	5.05
13h(24).	ENGINE PLUMBING	3c						
O797	Remove or install engine bleed-air system components		2.45	12	15	28	35	5.67
13n(2).	CENC	-						
O828	Rig ABs or thrust augmentor systems		.98	3	3	8	12	6.65

Mean TE Rating is 2.48, and Standard Deviation is 1.81 (High TE = 4.29)
Average TD = 5.00, Standard Deviation = 1.00, High TD = 6.00

TABLE 48

TECHNICAL TASKS PERFORMED BY 20 PERCENT OR MORE OF ACTIVE DUTY F-16 CREW CHIEF PERSONNEL AND NOT REFERENCED TO THE STS

TASKS		PERCENT MEMBERS PERFORMING 1ST JOB (N=119)	1ST ENL (N=313)	5-SKILL LEVEL (N=379)	7-SKILL LEVEL (N=250)	F-16 TNG EMPH	F-16 TASK DIFF
H383	Direct fueling operations	69	83	96	96	6.43	3.62
H408	Perform aircraft periodic inspections	57	64	57	52	5.75	4.71
H405	Perform aircraft calendar inspections	45	54	57	5 1	5.27	4.36
J529	Inspect EPUs	61	67	77	78	5.08	4.37
I467	Adjust landing gear door latching mechanisms or linkages	24	40	63	68	4.98	5.04
I466	Adjust landing gear door actuating mechanisms	29	53	72	73	4.96	4.96
G273	Clean aircraft interiors	73	73	70	64	4.94	2.99
G312	Operationally check flightcrew seat adjustments	28	39	43	48	4.69	3.07
K603	Remove or install flight control accumulators	27	47	73	75	4.63	5.33
G341	Remove or install interior trim or kick panels	49	65	75	75	4.59	4.28
G285	Inspect aircraft-installed ground service connections	61	58	62	67	4.53	3.19
Q897	Don or doff chemical warfare personal protective clothing	23	30	43	48	4.45	3.96
G340	Remove or install horizontal or vertical stabilizer leading edges	34	50	66	68	4.41	5.77
J517	Adjust jet fuel starter (JFS) exhaust components	34	51	67	72	4 .37	5.21
H431	Remove snow or ice from aircraft	19	29	30	32	4.24	3.48

Mean TE Rating is 2.48, and Standard Deviation is 1.81 (High TE = 4.29)
Average TD = 5.00, Standard Deviation = 1.00, High TD = 6.00

TABLE 49

EXAMPLES OF STS ELEMENTS NOT SUPPORTED BY ACTIVE DUTY A-10 OSR DATA (LESS THAN 20 PERCENT MEMBERS PERFORMING)

STS REFERENCE/TASKS		3-LEVEL COURSE PROF CODE	A-10 TNG EMPH	PERCENT MEMBERS PERFORMING 1ST JOB (N=49)	1ST ENL (N=56)	5-SKILL LEVEL (N=97)	7-SKILL LEVEL (N=76)	A-10 TASK DIFF
la(5).	CRASH DAMAGED OR DISABLED AIRCRAFT RECOVERY (CDDAR)	A						
H384	Direct or participate in crash recovery operations		3.10	4	4	11	12	7.02
H423	Position crash recovery equipment within crash sites or disabled aircraft areas		2.50	2	2	7	3	5.28
H392	Inspect crash recovery equipment, such as lifting bags or slings		2.10	0	0	6	4	5.28
H396	Lift aircraft with air bags		1.90	0	0	4	0	4.97
H397	Lift aircraft with cranes		1.90	0	0	5	1	6.03
71(4).	TROUBLESHOOT TEMS	-						
O840	Troubleshoot engine temperature sensor systems		1.80	0	0	8	16	4.60
O834	Troubleshoot aircraft engine computers, such as TEMS or DCUs		1.60	2	2	13	16	5.83

Mean TE Rating is 2.65, and Standard Deviation is 1.65 (High TE = 4.30)
Average TD = 5.00, Standard Deviation = 1.00, High TD = 6.00

TABLE 50

TECHNICAL TASKS PERFORMED BY 20 PERCENT OR MORE OF ACTIVE DUTY A-10 CREW CHIEF PERSONNEL AND NOT REFERENCED TO THE STS

TASKS		PERCENT MEMBERS PERFORMING					
		1ST JOB (N=49)	1ST ENL (N=56)	5-SKILL LEVEL (N=97)	7-SKILL LEVEL (N=76)	A-10 TNG EMPH	A-10 TASK DIFF
H412	Perform aircraft quick-turn inspections	45	48	60	63	7.10	4.87
H436	Service aircraft windshield washer systems	88	84	76	84	6.80	4.16
H459	Service pneumatic systems	39	41	53	68	6.60	4.11
I479	Inspect landing gear down-lock mechanisms	73	75	84	80	6.10	3.96
G269	Adjust engine cowling latches	76	75	76	80	6.00	4.64
I477	Inspect landing gear braces, drag pins, or bushings	71	70	81	86	5.90	4.32
G304	Maintain self-contained crew entry ladders	84	80	80	80	5.70	3.79
Q897	Don or doff chemical warfare personal protective clothing	27	27	48	45	5.70	4.21
J528	Inspect desiccant dehydrators	51	54	65	70	5.50	3.95
J541	Operationally check APUs	37	38	69	79	5.30	4.42
G341	Remove or install interior trim or kick panels	59	59	79	87	5.20	3.47
J554	Remove or install desiccant dehydrators	55	52	61	72	5.10	3.88
G338	Remove or install glare shields	35	38	64	67	5.00	3.88
Q928	Prepare personal clothing and equipment for deployment	29	25	32	29	5.00	3.42
O900	Identify or practice identifying chemical warfare agents	14	13	39	43	4.90	4.84

Mean TE Rating is 2.65, and Standard Deviation is 1.65 (High TE = 4.30)
Average TD = 5.00, Standard Deviation = 1.00, High TD = 6.00

TABLE 51

EXAMPLES OF STS ELEMENTS NOT SUPPORTED BY ACTIVE DUTY F-111 OSR DATA (LESS THAN 20 PERCENT MEMBERS PERFORMING)

STS REFERENCE/TASKS		3-LEVEL COURSE PROF CODE	F-111 TNG EMPH	PERCENT MEMBERS PERFORMING 1ST JOB (N=28)	1ST ENL (N=36)	5-SKILL LEVEL (N=59)	7-SKILL LEVEL (N=11)	F-111 TASK DIFF
7b.	ENGINE MONITORING SYSTEM	-						
O729	Analyze or interpret engine computer data		.00	7	8	2	0	4.98
7f(l).	STARTER	lb						
O740	Inspect accessory splines or power-take-off (PTO) shafts		.00	11	11	10	9	4.98
7f(2).	FUEL PUMP	-						
M703	Remove or install fuel pumps		.00	4	8	10	0	5.48
7 f (3).	OIL COOLER	-						
O809	Remove or install engine oil coolers		.00	4	6	17	18	5.09

Mean TE Rating is 2.21, and Standard Deviation is 2.40 (High TE = 4.61)
Average TD = 5.00, Standard Deviation = 1.00, High TD = 6.00

TABLE 52

TECHNICAL TASKS PERFORMED BY 20 PERCENT OR MORE OF ACTIVE DUTY F-111 CREW CHIEF PERSONNEL AND NOT REFERENCED TO THE STS

TASKS		PERCENT MEMBERS PERFORMING 1ST JOB (N=28)	1ST ENL (N=36)	5-SKILL LEVEL (N=59)	7-SKILL LEVEL (N=11)	F-111 TNG EMPH	F-111 TASK DIFF
I467	Adjust landing gear door latching mechanisms or linkages	11	17	42	18	8.00	5.85
K608	Remove or install horizontal stabilizer control mechanisms	43	36	42	36	7.67	5.85
H378	Decontaminate or practice decontaminating aircraft	4	6	17	18	7.33	4.65
K605	Remove or install flight control cables or cable components	7	11	7	9	7.00	5.85
A24	Establish procedures for accountability of equipment, tools, or supplies	4	3	12	36	6.67	5.40
G344	Remove or install overwing fairings or fairing seals	68	64	76	45	6.67	5.62
I497	Remove or install arresting hook system components	29	36	63	45	6.67	5.01
I499	Remove or install landing gear door latching mechanisms or linkages	36	39	58	64	6.67	5.01
I504	Remove or install landing gear up-lock mechanisms	25	33	59	55	6.67	5.85
K625	Remove or install spoilers	43	47	61	45	6.67	5.60
K629	Remove or install wing trailing edge flaps	0	3	7	9	6.67	6.18
G269	Adjust engine cowling latches	11	17	22	36	6.33	3.97
G322	Remove or install access latches	14	19	41	55	6.33	4.78
G328	Remove or install aircraft rain seals	43	47	61	45	6.33	3.73
G366	Troubleshoot overwing fairings or fairing seals	29	28	68	45	6.33	5.87

Mean TE Rating is 2.21, and Standard Deviation is 2.40 (High TE = 4.61)
Average TD = 5.00, Standard Deviation = 1.00, High TD = 6.00

TABLE 53

EXAMPLES OF STS ELEMENTS NOT SUPPORTED BY ACTIVE DUTY U-2 OSR DATA
(LESS THAN 20 PERCENT MEMBERS PERFORMING)

STS REFERENCE/TASKS		3-LEVEL COURSE PROF CODE	U-2 TNG EMPH	PERCENT MEMBERS PERFORMING 1ST JOB (N=13)	1ST ENL (N=20)	5-SKILL LEVEL (N=22)	7-SKILL LEVEL (N=7)
3b(3).	STEERING SYSTEM	-					
I492	Operationally check nosewheel steering systems		1.50	0	0	9	0
4d(2).	AIR CONDITIONING SYSTEM	-					
J565	Troubleshoot air-conditioning systems		.75	0	0	14	14
4d(5).	FIRE/OVERHEAT WARNING SYSTEM	-					
J571	Troubleshoot fire and overheat detection systems		1.25	0	0	14	0
7k.	BLEND COMPRESSOR BLADES	-					
O732	Blend engine fan blades		.00	0	5	18	0

Mean TE Rating is 2.17, and Standard Deviation is 2.18 (High TE = 4.35)
Average TD = 5.00, Standard Deviation = 1.00, High TD = 6.00

TABLE 54

TECHNICAL TASKS PERFORMED BY 20 PERCENT OR MORE OF ACTIVE DUTY U-2 CREW CHIEF PERSONNEL AND NOT REFERENCED TO THE STS

TASKS		PERCENT MEMBERS PERFORMING				
		1ST JOB (N=13)	1ST ENL (N=20)	5-SKILL LEVEL (N=22)	7-SKILL LEVEL (N=7)	U-2 TNG EMPH
G349	Remove or install tail sections or empenages	77	80	86	86	7.75
H379	Defuel aircraft	100	95	91	100	7.50
H412	Perform aircraft quick-turn inspections	85	90	86	71	7.50
H438	Service aircraft-mounted accessory drives (AMADs)	85	85	59	57	7.50
H378	Decontaminate or practice decontaminating aircraft	15	30	50	57	7.25
H388	Drain water from fuel tank sumps	15	30	73	86	7.25
G279	Inspect access or stress panels	77	75	91	100	7.00
Q897	Don or doff chemical warfare personal protective clothing	38	40	59	29	7.00
G301	Lubricate aircraft components	100	100	95	100	6.75
G271	Clean aircraft interiors	92	95	77	100	6.50
G281	Inspect aircraft antennas	31	45	77	71	6.50
G284	Inspect aircraft windows, windscreens, aft transparencies, or canopies	85	90	100	71	6.50
G285	Inspect aircraft-installed ground service connections	46	55	77	57	6.50
G300	Interpret aircraft hydraulic or pneumatic system schematics	23	45	73	57	6.50
H445	Service engine oil servicing carts	77	80	77	86	6.50

Mean TE Rating is 2.17, and Standard Deviation is 2.18 (High TE = 4.35)
Average TD = 5.00, Standard Deviation = 1.00, High TD = 6.00

TABLE 55

EXAMPLES OF STS ELEMENTS NOT SUPPORTED BY AIR NATIONAL GUARD F-15 OSR DATA (LESS THAN 20 PERCENT MEMBERS PERFORMING)

STS REFERENCE/TASKS		3-LEVEL COURSE PROF CODE	F-15 TNG EMPH	PERCENT MEMBERS PERFORMING 5-SKILL LEVEL (N=42)	PERCENT MEMBERS PERFORMING 7-SKILL LEVEL (N=25)	F-15 TASK DIFF
4e(2).	NOSE WHEEL STEERING	-				
I509	Rig nosewheel steering systems		2.59	14	12	6.00
4k(l).	NOSE WHEEL ASSEMBLY	-				
I469	Assemble or disassemble aircraft wheel or tire assemblies		2.33	12	12	4.68
I493	Pack or repack aircraft wheel bearings		2.04	14	16	3.93
4k(2).	MAIN WHEEL ASSEMBLY	-				
I469	Assemble or disassemble aircraft wheel or tire assemblies		2.33	12	12	4.68
I493	Pack or repack aircraft wheel bearings		2.04	14	16	3.93
5b(5).	RAIN REMOVAL SYSTEM	-				
J547	Operationally check windshield rain removal systems		.67	7	8	4.22

Mean TE Rating is 1.73, and Standard Deviation is 1.66 (High TE = 3.39)
Average TD = 5.00, Standard Deviation = 1.00, High TD = 6.00

TABLE 56

TECHNICAL TASKS PERFORMED BY 20 PERCENT OR MORE OF AIR NATIONAL GUARD F-15 CREW CHIEF PERSONNEL AND NOT REFERENCED TO THE STS

TASKS		PERCENT MEMBERS PERFORMING 5-SKILL LEVEL (N=42)	PERCENT MEMBERS PERFORMING 7-SKILL LEVEL (N=25)	F-15 TNG EMPH	F-15 TASK DIFF
Q897	Don or doff chemical warfare personal protective clothing	43	48	4.78	3.90
G345	Remove or install radomes	40	48	4.30	4.57
O807	Remove or install engine magnetic chip detectors	33	52	4.19	3.62
I500	Remove or install landing gear doors	26	52	4.04	4.95
G273	Clean aircraft interiors	86	88	3.78	3.24
H390	Fuel aircraft using over-the-wing methods	50	64	3.78	3.40
H409	Perform aircraft phase inspections	43	72	3.74	5.39
G299	Interpret aircraft engine system wiring diagrams	19	24	3.56	7.25
Q900	Identify or practice identifying chemical warfare agents	40	28	3.48	4.41
F232	Inspect parts from storage or supply	24	20	3.30	3.89
I499	Remove or install landing gear door latching mechanisms or linkages	29	52	3.30	5.26
H459	Service pneumatic systems	52	68	3.19	3.72
Q932	Tear down, inspect, clean, and reassemble weapons, such as M-16 rifles	26	16	3.11	4.26
D122	Conduct on-the-job training (OJT)	33	52	3.07	4.90
G322	Remove or install access latches	55	36	3.07	3.95

Mean TE Rating is 1.73, and Standard Deviation is 1.66 (High TE = 3.39)
Average TD = 5.00, Standard Deviation = 1.00, High TD = 6.00

TABLE 57

EXAMPLES OF STS ELEMENTS NOT SUPPORTED BY AIR NATIONAL GUARD F-16 OSR DATA (LESS THAN 20 PERCENT MEMBERS PERFORMING)

STS REFERENCE/TASKS		3-LEVEL COURSE PROF CODE	F-16 TNG EMPH	PERCENT MEMBERS PERFORMING 5-SKILL LEVEL (N=283)	PERCENT MEMBERS PERFORMING 7-SKILL LEVEL (N=271)	F-16 TASK DIFF
13h(l)(d).	THERMOCOUPLE HARNESS	b				
O824	Remove or install starter system components, other than starter assemblies, generators, JFSs, or APUs		2.24	8	12	5.20
13h(2)(b).	SPEED SENSOR	-				
O824	Remove or install starter system components, other than starter assemblies, generators, JFSs, or APUs		2.24	8	12	5.20
13b(4).	ANTI-ICE VALVE	-				
O816	Remove or install engine or intake anti-icing system components		2.25	2	7	5.50
13h(5).	IGNITERS MAIN/AUGMENTER	b				
O822	Remove or install igniter plugs		2.35	6	8	4.94

Mean TE Rating is 2.48, and Standard Deviation is 1.81 (High TE = 4.29)
Average TD = 5.00, Standard Deviation = 1.00, High TD = 6.00

TABLE 58

TECHNICAL TASKS PERFORMED BY 20 PERCENT OR MORE OF AIR NATIONAL GUARD F-16 CREW CHIEF PERSONNEL AND NOT REFERENCED TO THE STS

TASKS		PERCENT MEMBERS PERFORMING		F-16 TNG EMPH	F-16 TASK DIFF
		5-SKILL LEVEL (N=283)	7-SKILL LEVEL (N=271)		
H383	Direct fueling operations	89	94	6.43	3.62
H408	Perform aircraft periodic inspections	75	66	5.75	4.71
H405	Perform aircraft calendar inspections	63	74	5.27	4.36
J529	Inspect EPUs	51	54	5.08	4.37
I467	Adjust landing gear door latching mechanisms or linkages	37	56	4.98	5.04
I466	Adjust landing gear door actuating mechanisms	35	57	4.96	4.96
G273	Clean aircraft interiors	75	79	4.94	2.99
G312	Operationally check flightcrew seat adjustments	48	56	4.69	3.07
K603	Remove or install flight control accumulators	36	43	4.63	5.33
G341	Remove or install interior trim or kick panels	34	66	4.59	4.28
G285	Inspect aircraft-installed ground service connections	71	75	4.53	3.19
Q897	Don or doff chemical warfare personal protective clothing	47	48	4.45	3.96
G340	Remove or install horizontal or vertical stabilizer leading edges	36	55	4.41	5.77
J517	Adjust jet fuel starter (JFS) exhaust components	19	39	4.37	5.21
H431	Remove snow or ice from aircraft	53	69	4.24	3.48

Mean TE Rating is 2.48, and Standard Deviation is 1.81 (High TE = 4.29)
Average TD = 5.00, Standard Deviation = 1.00, High TD = 6.00

TABLE 59

EXAMPLES OF STS ELEMENTS NOT SUPPORTED BY AIR NATIONAL GUARD A-10 OSR DATA (LESS THAN 20 PERCENT MEMBERS PERFORMING)

STS REFERENCE/TASKS		3-LEVEL COURSE PROF CODE	A-10 TNG EMPH	PERCENT MEMBERS PERFORMING 5-SKILL LEVEL (N=25)	PERCENT MEMBERS PERFORMING 7-SKILL LEVEL (N=32)	A-10 TASK DIFF
7j.	BOROSCOPE EQUIPMENT	A				
O778	Perform engine flex boroscope inspections		3.20	4	9	6.11
O783	Perform engine rigid boroscope inspections		1.70	4	6	5.65
7l(3).	REMOVE/INSTALL COMPONENTS	2b				
O788	Remove or install aircraft engine computers, such as TEMS or data collection units (DCUs)		2.10	4	0	5.44
O847	Upload or download aircraft engine computers, such as TEMS or DCUs		1.80	8	3	3.97
O791	Remove or install aircraft recorders, such as TEMSs or MSRs		1.60	4	0	4.34
7l(4)(a).	TRIM ENGINES	-				
O833	Trim installed engines		3.30	4	3	5.72

Mean TE Rating is 2.65, and Standard Deviation is 1.65 (High TE = 4.30)
Average TD = 5.00, Standard Deviation = 1.00, High TD = 6.00

TABLE 60

TECHNICAL TASKS PERFORMED BY 20 PERCENT OR MORE OF AIR NATIONAL GUARD A-10 CREW CHIEF PERSONNEL AND NOT REFERENCED TO THE STS

TASKS		PERCENT MEMBERS PERFORMING		A-10 TNG EMPH	A-10 TASK DIFF
		5-SKILL LEVEL (N=25)	7-SKILL LEVEL (N=32)		
H412	Perform aircraft quick-turn inspections	98	88	7.10	4.87
H436	Service aircraft windshield washer systems	88	91	6.80	4.16
H459	Service pneumatic systems	48	50	6.60	4.11
I479	Inspect landing gear down-lock mechanisms	92	94	6.10	3.96
G269	Adjust engine cowling latches	56	78	6.00	4.64
I477	Inspect landing gear braces. drag pins. or bushings	80	84	5.90	4.32
G304	Maintain self-contained crew entry ladders	84	88	5.70	3.79
Q897	Don or doff chemical warfare personal protective clothing	60	66	5.70	4.21
J528	Inspect desiccant dehydrators	20	66	5.50	3.95
J541	Operationally check APUs	88	91	5.30	4.42
G341	Remove or install interior trim or kick panels	56	75	5.20	3.47
J554	Remove or install desiccant dehydrators	12	56	5.10	3.88
G338	Remove or install glare shields	24	63	5.00	3.88
Q928	Prepare personal clothing and equipment for deployment	40	59	5.00	3.42
Q900	Identify or practice identifying chemical warfare agents	28	63	4.90	4.84

Mean TE Rating is 2.65, and Standard Deviation is 1.65 (High TE = 4.30)
Average TD = 5.00, Standard Deviation = 1.00, High TD = 6.00

TABLE 61

EXAMPLES OF STS ELEMENTS NOT SUPPORTED BY AIR NATIONAL GUARD F-16 OSR DATA (LESS THAN 20 PERCENT MEMBERS PERFORMING)

STS REFERENCE/TASKS		3-LEVEL COURSE PROF CODE	F-16 TNG EMPH	PERCENT MEMBERS PERFORMING 3-SKILL LEVEL (N=20)	5-SKILL LEVEL (N=70)	7-SKILL LEVEL (N=35)	F-16 TASK DIFF
13h(6)(a).	DIGITAL ELECTRONIC ENGINE CONTROL (DEEC)	-					
O799	Remove or install engine electronic controls		2.63	0	13	14	5.67
O788	Remove or install aircraft engine computers, such as TEMS or data collection units (DCUs)		1.51	0	13	17	5.74
13h(6)(b).	ELECTRONIC ENGINE CONTROL (EEC)	-					
O799	Remove or install engine electronic controls		2.63	0	13	14	5.67
O788	Remove or install aircraft engine computers, such as TEMS or data collection units (DCUs)		1.51	0	13	17	5.74
13h(25).	FUNCTION BOX	-					
O806	Remove or install engine junction boxes		1.78	0	1	0	5.24
13h(30)(f).	SPEED SENSORS (JFS/PTO)	-					
O817	Remove or install engine revolutions-per-minute (RPM) indicating components		2.24	0	9	6	4.83

Mean TE Rating is 2.48, and Standard Deviation is 1.81 (High TE = 4.29)
Average TD = 5.00, Standard Deviation = 1.00, High TD = 6.00

TABLE 62

TECHNICAL TASKS PERFORMED BY 20 PERCENT OR MORE OF AIR NATIONAL GUARD F-16 CREW CHIEF PERSONNEL AND NOT REFERENCED TO THE STS

TASKS		PERCENT MEMBERS PERFORMING				
		3-SKILL LEVEL (N=20)	5-SKILL LEVEL (N=70)	7-SKILL LEVEL (N=35)	F-16 TNG EMPH	F-16 TASK DIFF
H408	Perform aircraft periodic inspections	65	81	74	5.75	4.71
H405	Perform aircraft calendar inspections	40	59	66	5.27	4.36
J529	Inspect EPUs	50	60	60	5.08	4.37
I467	Adjust landing gear door latching mechanisms or linkages	35	61	71	4.98	5.04
I466	Adjust landing gear door actuating mechanisms	40	64	77	4.96	4.96
G273	Clean aircraft interiors	75	77	74	4.94	2.99
G312	Operationally check flightcrew seat adjustments	55	47	60	4.69	3.07
K603	Remove or install flight control accumulators	25	63	66	4.63	5.33
G341	Remove or install interior trim or kick panels	30	47	63	4.59	4.28
G285	Inspect aircraft-installed ground service connections	80	61	74	4.53	3.19
Q897	Don or doff chemical warfare personal protective clothing	50	63	71	4.45	3.96
G340	Remove or install horizontal or vertical stabilizer leading edges	50	54	57	4.41	5.77
J517	Adjust jet fuel starter (JFS) exhaust components	30	54	66	4.37	5.21
H431	Remove snow or ice from aircraft	30	44	60	4.24	3.49

Mean TE Rating is 2.48, and Standard Deviation is 1.81 (High TE = 4.29)
Average TD = 5.00, Standard Deviation = 1.00, High TD = 6.00

TABLE 63

EXAMPLES OF STS ELEMENTS NOT SUPPORTED BY AIR NATIONAL GUARD A-10 OSR DATA (LESS THAN 20 PERCENT MEMBERS PERFORMING)

STS REFERENCE/TASKS		3-LEVEL COURSE PROF CODE	A-10 TNG EMPH	PERCENT MEMBERS PERFORMING 5-SKILL LEVEL (N=13)	PERCENT MEMBERS PERFORMING 7-SKILL LEVEL (N=8)	A-10 TASK DIFF
1a(5).	CRASH DAMAGED OR DISABLED AIRCRAFT RECOVERY (CDDAR)	A				
H384	Direct or participate in crash recovery operations		3.10	15	0	7.02
H423	Position crash recovery equipment within crash sites or disabled aircraft areas		2.50	8	0	5.28
H392	Inspect crash recovery equipment, such as lifting bags or slings		2.10	0	0	5.28
H396	Lift aircraft with air bags		1.90	0	0	4.97
H397	Lift aircraft with cranes		1.90	0	0	6.03
20s(3).	USE	-				
H423	Position crash recovery equipment within crash sites or disabled aircraft areas		2.50	8	0	5.28

Mean TE Rating is 2.65, and Standard Deviation is 1.65 (High TE = 4.30)
Average TD = 5.00, Standard Deviation = 1.00, High TD = 6.00

TABLE 64

TECHNICAL TASKS PERFORMED BY 20 PERCENT OR MORE OF AIR NATIONAL GUARD A-10 CREW CHIEF PERSONNEL AND NOT REFERENCED TO THE STS

TASKS		PERCENT MEMBERS PERFORMING		A-10 TNG EMPH	A-10 TASK DIFF
		5-SKILL LEVEL (N=13)	7-SKILL LEVEL (N=8)		
H412	Perform aircraft quick-turn inspections	77	75	7.10	4.87
H436	Service aircraft windshield washer systems	46	88	6.80	4.16
H459	Service pneumatic systems	46	88	6.60	4.11
I479	Inspect landing gear down-lock mechanisms	77	75	6.10	3.96
G269	Adjust engine cowling latches	92	75	6.00	4.64
I477	Inspect landing gear braces, drag pins, or bushings	85	75	5.90	4.32
G304	Maintain self-contained crew entry ladders	54	88	5.70	3.79
Q897	Don or doff chemical warfare personal protective clothing	69	75	5.70	4.21
J528	Inspect desiccant dehydrators	31	50	5.50	3.95
I541	Operationally check APUs	62	75	5.30	4.42
G341	Remove or install interior trim at kick panels	62	63	5.20	3.47
J554	Remove or install desiccant dehydrators	23	63	5.10	3.88
G338	Remove or install glare shields	54	75	5.00	3.88
Q928	Prepare personal clothing and equipment for deployment	54	63	5.00	3.42
Q900	Identify or practice identifying chemical warfare agents	69	75	4.90	4.84

Mean TE Rating is 2.65, and Standard Deviation is 1.65 (High TE = 4.30)
Average TD = 5.00, Standard Deviation = 1.00, High TD = 6.00

TABLE 65

TECHNICAL TASKS PERFORMED BY 30 PERCENT OR MORE OF ACTIVE DUTY F-15 CREW CHIEF PERSONNEL AND NOT REFERENCED TO POI J3AQR2A333A

TASKS		F-15 TNG EMPH	ATI	PERCENT MEMBERS PERFORMING 1ST JOB (N=168)	PERCENT MEMBERS PERFORMING 1ST ENL (N=304)	F-15 TASK DIFF
G278	Initiate or annotate aircraft flight or maintenance records	7.15	18	68	73	4.14
G282	Inspect aircraft canopy system	5.81	18	63	72	4.21
G308	Operationally check aircraft canopies	5.11	18	70	77	4.21
G345	Remove or install radomes	4.30	18	36	53	4.57
G360	Review aircraft flight or maintenance records	6.26	18	69	75	4.43
H374	Bleed aircraft hydraulic systems	6.70	18	89	92	4.65
H409	Perform aircraft phase inspections	3.74	18	46	56	5.39
H412	Perform aircraft quick-turn inspections	5.70	18	76	81	4.11
H413	Perform aircraft recovery checklist procedures	5.63	18	77	84	4.00
H414	Perform aircraft special inspections. such as over-G or lightning-strike inspection	4.67	18	51	64	5.43
I491	Operationally check landing gear indicator systems	4.67	18	37	52	4.88
I505	Remove or install nosewheel steering system components	4.93	18	43	59	5.71
K585	Operationally check aileron, flaperon, or elevon systems	3.52	18	45	55	4.79
K589	Operationally check rudder systems or horizontal stabilizer systems	3.41	18	41	51	4.91
K590	Operationally check speed brake or decelerons	3.89	18	47	54	4.62

Mean TE Rating is 1.73, and Standard Deviation is 1.66 (High TE = 3.39)
Average TD = 5.00, Standard Deviation = 1.00, High TD = 6.00

TABLE 66

TECHNICAL TASKS PERFORMED BY 30 PERCENT OR MORE OF ACTIVE DUTY F-15 CREW CHIEF PERSONNEL AND NOT REFERENCED TO POI J3ABP2A333A

TASKS		F-15 TNG EMPH	ATI	PERCENT MEMBERS PERFORMING 1ST JOB (N=168)	PERCENT MEMBERS PERFORMING 1ST ENL (N=304)	F-15 TASK DIFF
G278	Initiate or annotate aircraft flight or maintenance records	7.15	18	68	73	4.14
G282	Inspect aircraft canopy systems	5.81	18	63	72	4.21
G308	Operationally check aircraft canopies	5.ll	18	70	77	4.21
G316	Perform flightcrew seat or ejection seat safety inspections	4.70	18	44	50	4.26
G345	Remove or install radomes	4.30	18	36	53	4.57
G360	Review aircraft flight or maintenance records	6.26	18	68	75	4.43
H373	Apply external hydraulic power to aircraft	7.33	18	95	97	4.20
H374	Bleed aircraft hydraulic systems	6.70	18	89	92	4.65
H409	Perform aircraft phase inspections	3.74	18	46	56	5.39
H412	Perform aircraft quick-turn inspections	5.70	18	76	81	4.11
H414	Perform aircraft special inspections. such as over-G or lightning-strike inspections	4.67	18	51	64	5.43
H440	Service arresting hooks	5.41	18	73	81	4.55
H457	Service landing gear shock struts	6.44	18	79	84	4.96
I471	Bleed aircraft brake systems	5.07	18	79	86	4.46
I472	Clean or inspect aircraft brake assemblies	4.22	18	86	90	4.03

Mean TE Rating is 1.73, and Standard Deviation is 1.66 (High TE = 3.39)
Average TD = 5.00, Standard Deviation = 1.00, High TD = 6.00

TABLE 67

EXAMPLES OF POI J3AQR2A333B ELEMENTS NOT SUPPORTED BY OSR DATA (LESS THAN 30 PERCENT MEMBERS PERFORMING)

POI REFERENCE/TASKS		F-16 TNG EMPH	ATI	PERCENT MEMBERS PERFORMING 1ST JOB (N=119)	PERCENT MEMBERS PERFORMING 1ST ENL (N=313)	F-16 TASK DIFF
II 10r.	Given TOs. an aircraft or engine trainer, and necessary equipment, remove and install engine plumbing without error					
O797	Remove or install engine bleed-air system components	2.45	2	12	15	5.67
II 10V.	Given TOs- an aircraft or engine trainer, and necessary equipment, remove and install divergent nozzle segment without error					
O819	Remove or install engine variable exhaust nozzle system components	1.76	2	10	15	5.70
III 14c	Given TOs, an aircraft, and necessary equipment, perform a fire and overheat operational check without error					
J554	Remove or install desiccant dehydrators	1.29	2	3	2	4.35
III 14d.	Given TOs, an aircraft, and necessary equipment, remove and install the halon reservoir without error					
J559	Remove or install fire extinguisher or fire suppression system components	1.71	2	6	12	5.05

Mean TE Rating is 2.48, and Standard Deviation is 1.81 (High TE = 4.29)
Average TD = 5.00, Standard Deviation = 1.00, High TD = 6.00

TABLE 68

TECHNICAL TASKS PERFORMED BY 30 PERCENT OR MORE OF ACTIVE DUTY F-16 CREW CHIEF PERSONNEL AND NOT REFERENCED TO POI J3AQR2A333B

TASKS		F-16 TNG EMPH	ATI	PERCENT MEMBERS PERFORMING 1ST JOB (N=119)	PERCENT MEMBERS PERFORMING 1ST ENL (N=313)	F-16 TASK DIFF
G340	Remove or install horizontal or vertical stabilizer leading edges	4.41	18	34	50	5.77
G341	Remove or install interior trim of kick panels	4.59	18	49	65	4.28
G353	Remove or install wing leading edges	5.06	18	39	59	5.77
H382	Direct defueling operations	6.20	18	37	65	4.06
H397	Dispose of hazardous chemicals	4.31	18	44	57	5.12
H405	Perform aircraft calendar inspections	5.27	18	45	54	4.36
H408	Perform aircraft periodic inspections	5.75	18	57	64	4.71
H409	Perform aircraft phase inspections	5.61	18	49	56	5.42
H412	Perform aircraft quick-turn inspections	6.15	18	55	67	4.26
H413	Perform aircraft recovery checklist procedures	6.76	18	83	83	4.09
H416	Perform aircraft time-replacement-item inspections	4.65	18	36	52	4.38
I466	Adjust landing gear door actuating mechanisms	4.96	18	29	53	4.96
I471	Bleed aircraft brake systems	6.12	18	90	89	4.24
I477	Inspect landing gear braces, drag pins, or bushings	6.57	18	87	86	4.23
I497	Operationally check aircraft brake systems	5.71	18	72	82	4.54

Mean TE Rating is 2.48, and Standard Deviation is 1.81 (High TE = 4.29)
Average TD = 5.00, Standard Deviation = 1.00, High TD = 6.00

TABLE 69

TECHNICAL TASKS PERFORMED BY 30 PERCENT OR MORE OF ACTIVE DUTY F-16 CREW CHIEF PERSONNEL AND NOT REFERENCED TO POI J3ABP2A333B

TASKS		F-16 TNG EMPH	ATI	PERCENT MEMBERS PERFORMING 1ST JOB (N=119)	PERCENT MEMBERS PERFORMING 1ST ENL (N=313)	F-16 TASK DIFF
G340	Remove or install horizontal or vertical stabilizer leading edges	4.41	18	34	50	5.77
G341	Remove or install interior trim or kick panels	4.59	18	49	65	4.28
G353	Remove or install wing leading edges	5.06	18	39	58	5.77
H379	Defuel aircraft	6.73	18	90	95	4.22
H382	Direct defueling operations	6.20	18	37	65	4.06
H387	Dispose of hazardous chemicals	4.31	18	44	57	5.12
H405	Perform aircraft calendar inspections	5.27	18	45	54	4.36
H408	Perform aircraft periodic inspections	5.75	18	57	64	4.71
H409	Perform aircraft phase inspections	5.61	18	49	56	5.42
H412	Perform aircraft quick-turn inspections	6.35	18	55	67	4.26
H416	Perform aircraft time-replacement-item inspections	4.65	18	36	52	4.38
H443	Service emergency power units (EPUs)	6.43	18	70	76	4.07
H457	Service landing gear shock struts	6.67	18	74	82	4.64
I466	Adjust landing gear door actuating mechanisms	4.96	18	29	53	4.96
I471	Bleed aircraft brake system	6.12	18	80	88	4.24

Mean TE Rating is 2.48, and Standard Deviation is 1.81 (High TE = 4.29)
Average TD = 5.00, Standard Deviation = 1.00, High TD = 6.00

TABLE 70

PERCENTAGE OF TIME SPENT ON DUTIES BY MAJCOM GROUPS

DUTIES	USAFE (N=373)	AETC (N=668)	AFRES (N=211)	PACAF (N=611)	ACC (N=1,566)	AFMC (N=229)	ANG (N=875)
A ORGANIZING AND PLANNING	7	6	4	8	7	8	3
B DIRECTING AND IMPLEMENTING	4	4	3	4	4	4	2
C EVALUATING AND INSPECTING	6	6	3	6	6	7	2
D TRAINING	4	7	3	3	3	4	1
E PERFORMING GENERAL ADMINISTRATIVE AND TECHNICAL DATA ACTIVITIES	3	2	1	3	3	3	1
F PERFORMING SUPPLY AND EQUIPMENT ACTIVITIES	5	5	3	5	5	6	4
G PERFORMING GENERAL AIRFRAME OR AIRCRAFT MAINTENANCE ACTIVITIES	12	13	17	12	13	13	17
H PERFORMING AIRCRAFT GROUND HANDLING OR SERVICING TASKS	19	18	23	19	18	16	27
I MAINTAINING LANDING GEAR SYSTEMS	10	10	12	9	9	10	13
J MAINTAINING UTILITY SYSTEMS	2	2	3	2	3	2	3
K MAINTAINING FLIGHT CONTROL SYSTEMS	5	4	5	4	5	5	4
L MAINTAINING HYDRAULIC OR PNEUMATIC SYSTEMS	3	2	2	2	2	3	2
M MAINTAINING FUEL SYSTEMS	3	2	3	2	2	2	3
N MAINTAINING ELECTRICAL SYSTEMS	2	2	3	2	2	2	3
O PERFORMING GENERAL ENGINE MAINTENANCE ACTIVITIES	7	9	9	9	9	9	7
P PERFORMING CORE AUTOMATED MAINTENANCE SYSTEM (CAMS) ACTIVITIES	6	5	3	5	6	4	4
Q PERFORMING MOBILITY AND CONTINGENCY ACTIVITIES	3	1	4	4	3	1	3

* Denotes less than .5 percent

JOB SATISFACTION ANALYSIS

An examination of the job satisfaction indicators of various groups can give career ladder managers a better understanding of some of the factors which may affect the job performance of airmen in the career ladder. Questions covering job interest, perceived utilization of talents and training, sense of accomplishment from work, and reenlistment intentions were included in the survey booklet to provide indications of job satisfaction.

Table 71 presents job satisfaction data for AFSC 2A3X3 TAFMS groups, together with TAFMS data for a comparative sample of mission equipment management career ladders surveyed in 1995. Over 70 percent of all three TAFMS groups find their jobs interesting and are satisfied with the sense of accomplishment gained from the job. DAFSC 2A3X3 personnel rate their job satisfaction consistently higher than the 1995 comparative sample.

In Table 72, review of the job satisfaction data for personnel in the specialty jobs identified in this survey reveals that the job people in this career ladder are performing has an impact on how they perceive their level of satisfaction. The specialty jobs rated highest in job satisfaction are MRT Instructor, Repair and Reclamation, and Quality Assurance. Those that reported low job satisfaction ratings were Support, Wheel and Tire, and Mobility.

Table 73 shows AFSC 2A3X3 job satisfaction ratings according to component status. Active duty members consistently rated lower job satisfaction than guardsmen and reservists. This is especially evident when considering that only 67 percent of active duty members plan to reenlist at the end of their current enlistment, while 88 and 86 percent of ANG and AFRES members, respectively, plan to reenlist.

IMPLICATIONS

From the standpoint of the data gathered during the occupational survey, the AFSC 2A3X3 career ladder structure reflects a fairly homogeneous sample with the Crew Chief/Mechanic Job comprising 60 percent of the sample. Aside from the supervisory cluster of jobs, the remainder of the career ladder serve across a broad spectrum of jobs, ranging from Repair and Reclamation, Wheel and Tire, Support, and Mobility, to Quality Assurance and Maintenance Operations Control. There were also two training jobs identified: Formal Instructor and MRT Instructor. Job progression showed a distinct pattern as one moves from the 3- to the 7-skill level. The AFMAN 36-2108 *Specialty Description* broadly describes all jobs performed. A thorough review of the STS and POI found that both documents are generally supported, but several areas and proficiency codes need to be reviewed. Finally, the job satisfaction analysis showed that members are very content overall, but guardsmen and reservists provided higher ratings than their active duty counterparts.

TABLE 71

COMPARISON OF JOB SATISFACTION INDICATORS OF ACTIVE DUTY PERSONNEL BY TAFMS GROUPS (PERCENT MEMBERS RESPONDING)

	1-48 MONTHS		49-96 MONTHS		97+ MONTHS	
	1996 2A3X3 (N=937)	COMP SAMPLE* (N=1,280)	1996 2A3X3 (N=591)	COMP SAMPLE* (N=805)	1996 2A3X3 (N=1,934)	COMP SAMPLE* (N=1,693)
EXPRESSED JOB INTEREST:						
INTERESTING	75	74	74	73	78	75
SO-SO	17	15	17	17	15	15
DULL	8	11	8	10	6	9
PERCEIVED UTILIZATION OF TALENTS:						
FAIRLY GOOD TO PERFECT	83	81	86	82	89	83
NOT AT ALL/VERY LITTLE	17	19	14	18	11	17
PERCEIVED UTILIZATION OF TRAINING:						
FAIRLY WELL TO PERFECT	92	86	89	83	85	76
NOT AT ALL/VERY LITTLE	8	14	11	17	15	24
SENSE OF ACCOMPLISHMENT GAINED FROM WORK:						
SATISFIED	72	58	73	71	77	73
NEUTRAL	14	42	14	28	10	10
DISSATISFIED	13	*	12	*	12	16
REENLISTMENT INTENTIONS:						
YES, OR PROBABLY YES	53	72	71	71	73	72
NO, OR PROBABLY NO	47	13	29	11	7	9
WILL RETIRE	0	15	0	17	19	19

* Denotes less than .5 percent

** Comparative sample of mission equipment management career ladders surveyed in 1995 (includes AFSCs 2A0X1A, Avionics Test Stations & Components - F-15/F-111; 2A3X1A/B/C, F-15/F-111 Avionics Systems; 2E1X2, Meteorological & Navigational Systems; 2E7X3, Telephone & Data Circuitry Equipment; 2M0X3, Missile & Space Facilities)

TABLE 72

COMPARISONS OF JOB SATISFACTION INDICATORS BY SPECIALTY JOBS (PERCENT MEMBERS RESPONDING)

	CREW CHIEF/ MECHANIC (ST506, N=2740)	SUPRVSORY CLUSTER (ST061, N=595)	FORMAL INSTR (ST467, N=36)	MRT INSTR (ST714, N=10)	REPAIR AND RECLMATN (ST227, N=197)	SUPPORT (ST127, N=97)
EXPRESSED JOB INTEREST:						
INTERESTING	81	83	81	100	90	47
SO-SO	14	13	3	0	8	28
DULL	5	4	17	0	2	23
PERCEIVED UTILIZATION OF TALENTS:						
FAIRLY GOOD TO PERFECT	90	91	89	100	92	60
LITTLE OR NOT AT ALL	10	9	11	0	8	40
PERCEIVED UTILIZATION OF TRAINING:						
FAIRLY GOOD TO PERFECT	94	85	86	100	95	47
LITTLE OR NOT AT ALL	6	15	14	0	5	53
SENSE OF ACCOMPLISHMENT GAINED FROM WORK:						
SATISFIED	79	80	75	100	84	54
NEUTRAL	11	8	14	0	6	21
DISSATISFIED	10	11	11	0	9	25
REENLISTMENT INTENTIONS:						
YES, OR PROBABLY YES	74	65	75	80	78	48
NO, OR PROBABLY NO	21	7	3	10	16	34
WILL RETIRE	4	28	22	10	5	15

TABLE 72 (CONTINUED)

COMPARISONS OF JOB ATISFACTION INDICATORS BY SPECIALTY JOBS (PERCENT MEMBERS RESPONDING)

	MAINTENANCE OPERATIONS CONTROL (ST100, N=72)	TRANSIENT ALERT (GP054, N=70)	QUALITY ASSURANCE (ST312, N=45)	WHEEL AND TIRE (GP055, N=32)	MOBILITY (ST392, N=17)
EXPRESSED JOB INTEREST:					
INTERESTING	79	74	87	63	65
SO-SO	8	11	7	13	29
DULL	13	14	7	25	6
PERCEIVED UTILIZATION OF TALENTS:					
FAIRLY GOOD TO PERFECT	82	61	98	62	82
LITTLE OR NOT AT ALL	18	39	2	38	18
PERCEIVED UTILIZATION OF TRAINING:					
FAIRLY GOOD TO PERFECT	68	64	98	56	59
LITTLE OR NOT AT ALL	32	36	2	44	41
SENSE OF ACCOMPLISHMENT GAINED FROM WORK:					
SATISFIED	69	63	82	63	82
NEUTRAL	14	17	11	13	12
DISSATISFIED	17	20	7	25	0
REENLISTMENT INTENTIONS:					
YES, OR PROBABLY YES	78	76	93	75	47
NO, OR PROBABLY NO	13	20	2	22	0
WILL RETIRE	8	4	4	3	47

TABLE 73

COMPARISONS OF JOB SATISFACTION INDICATORS BY COMPONENT STATUS (PERCENT MEMBERS RESPONDING)

	ACTIVE DUTY (N=3,462)	AIR NATIONAL GUARD (N=874)	AIR FORCE RESERVE (N=211)
EXPRESSED JOB INTEREST:			
INTERESTING	77	90	86
SO-SO	16	7	10
DULL	7	3	3
PERCEIVED UTILIZATION OF TALENTS:			
FAIRLY GOOD TO PERFECT	87	90	91
LITTLE OR NOT AT ALL	13	10	9
PERCEIVED UTILIZATION OF TRAINING:			
FAIRLY GOOD TO PERFECT	88	93	90
LITTLE OR NOT AT ALL	12	7	10
SENSE OF ACCOMPLISHMENT GAINED FROM WORK:			
SATISFIED	75	86	83
NEUTRAL	12	8	9
DISSATISFIED	13	7	7
REENLISTMENT INTENTIONS:			
YES, OR PROBABLY YES	67	88	86
NO, OR PROBABLY NO	22	6	8
WILL RETIRE	11	6	6

APPENDIX A

SELECTED REPRESENTATIVE TASKS PERFORMED BY MEMBERS OF CAREER LADDER JOBS

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TABLE A1

CREW CHIEF/MECHANIC
(ST506, N=2,740)

TASKS		PERCENT MEMBERS PERFORMING
H372	Apply external electrical power to aircraft	97
H393	Jack aircraft using axle jacks	96
H377	Clean up fuel, oil, or hydraulic spills	95
H379	Defuel aircraft	95
H373	Apply external hydraulic power to aircraft	94
H395	Jack aircraft using tripod jacks	94
H422	Perform wing or tail walker duties	94
I473	Inspect aircraft tires	94
G286	Inspect areas for foreign object damage (FOD)	93
H400	Marshal aircraft	93
G303	Lubricate aircraft components	92
H430	Remove or install safety devices, such as seat pins, gear locks, intake covers, or engine component safety devices	92
H383	Direct fueling operations	91
H374	Bleed aircraft hydraulic systems	91
H446	Service engine oil systems	91
H433	Service aircraft accumulators	91
H411	Perform aircraft preflight inspections	90
H391	Fuel aircraft using single-point methods	90
H415	Perform aircraft thruflight inspections	90
H410	Perform aircraft postflight inspections	90
H434	Service aircraft tires	89
H420	Perform safe-for-maintenance inspections	89
H407	Perform aircraft launch checklist procedures	89
G327	Remove or install aircraft hardware, such as screws or fasteners	88
G284	Inspect aircraft windows, windscreens, aft transparencies, or canopies	88
I476	Inspect aircraft-installed landing gear shock struts	88
I495	Remove or install aircraft wheel assemblies	87
H428	Remove or install liquid oxygen (LOX) converters	87
I494	Remove or install aircraft brake assemblies	87

TABLE A2

SUPERVISORY CLUSTER
(ST061, N=595)

TASKS		PERCENT MEMBERS PERFORMING
A10	Determine or establish work priorities	88
A27	Participate in general meetings, such as staff meetings, briefings, conferences, and workshops, other than conducting	85
A1	Assign personnel to work areas or duty positions, other than mobility positions	79
A32	Plan or schedule work assignments or priorities	79
C112	Write EPRs	70
B45	Counsel subordinates concerning personal matters	70
A26	Establish work schedules	70
C74	Conduct performance feedback evaluation sessions	69
B68	Supervise Tactical Aircraft Maintenance Journeymen (AFSC 2A353)	69
A23	Establish performance standards for subordinates	69
C104	Inspect personnel for compliance with military standards	67
C114	Write recommendations for awards or decorations	67
B69	Supervise Tactical Aircraft Maintenance Craftsmen (AFSC 2A373)	65
C94	Evaluate personnel for compliance with performance standards	65
A14	Develop or establish work methods or procedures	63
A5	Coordinate maintenance with maintenance control or other agencies, other than for parts cannibalization	62
C70	Analyze workload requirements	60
P850	Access core automated maintenance system (CAMS) menus and data screens	57
A38	Schedule personnel for temporary duty (TDY) assignments, leaves, or passes	57
B44	Conduct supervisory orientations of newly assigned personnel	57
B63	Interpret policies, directives, or procedures for subordinates	55
B67	Supervise Tactical Aircraft Maintenance Apprentices (AFSC 2A333)	54

TABLE A3

FORMAL INSTRUCTOR
(ST467, N=36)

TASKS		PERCENT MEMBERS PERFORMING
H381	Direct aircraft jacking operations	100
H372	Apply external electrical power to aircraft	97
H434	Service aircraft tires	97
D130	Counsel trainees on training progress	94
H420	Perform safe-for-maintenance inspections	94
H373	Apply external hydraulic power to aircraft	94
H395	Jack aircraft using tripod jacks	94
H393	Jack aircraft using axle jacks	94
I471	Bleed aircraft brake systems	94
I473	Inspect aircraft tires	94
H377	Clean up fuel, oil, or hydraulic spills	92
H385	Direct towing operations	92
I494	Remove or install aircraft brake assemblies	92
H374	Bleed aircraft hydraulic systems	89
H418	Perform nonpowered AGE pre-use inspections	89
H419	Perform powered AGE pre-use inspections	89
H433	Service aircraft accumulators	89
D117	Administer or score tests	86
I489	Operationally check landing gear	86
H457	Service landing gear shock struts	86
I495	Remove or install aircraft wheel assemblies	83
H446	Service engine oil systems	83
H428	Remove or install liquid oxygen (LOX) converters	83
H411	Perform aircraft preflight inspections	83
O752	Inspect engine magnetic chip detectors	83
I488	Operationally check arresting hook systems	83
D140	Develop or prepare lesson plans	81
H410	Perform aircraft postflight inspections	81
I476	Inspect aircraft-installed landing gear shock struts	81

TABLE A4

MISSION READY TECHNICIAN (MRT) INSTRUCTOR
(ST714, N=10)

TASKS		PERCENT MEMBERS PERFORMING
H407	Perform aircraft launch checklist procedures	100
H410	Perform aircraft postflight inspections	100
H411	Perform aircraft preflight inspections	100
H415	Perform aircraft thruflight inspections	100
H391	Fuel aircraft using single-point methods	100
H400	Marshal aircraft	100
H372	Apply external electrical power to aircraft	100
G286	Inspect areas for foreign object damage (FOD)	100
I477	Inspect landing gear braces, drag pins, or bushings	100
H413	Perform aircraft recovery checklist procedures	90
C72	Clear Red-X conditions	90
H430	Remove or install safety devices, such as seat pins, gear locks, intake covers, or engine component safety devices	90
I473	Inspect aircraft tires	90
I476	Inspect aircraft-installed landing gear shock struts	90
I478	Inspect landing gear door mechanisms	90
O752	Inspect engine magnetic chip detectors	90
H383	Direct fueling operations	90
H446	Service engine oil systems	90
I483	Inspect landing gear up-lock mechanisms	90
I482	Inspect landing gear structural components, other than shock struts	90
B67	Supervise Tactical Aircraft Maintenance Apprentices (AFSC 2A333)	80
C94	Evaluate personnel for compliance with performance standards	80
O832	Take JOAP samples	80
C74	Conduct performance feedback evaluation sessions	80
H418	Perform nonpowered AGE pre-use inspections	80
G281	Inspect aircraft antennas	80
H377	Clean up fuel, oil, or hydraulic spills	80

TABLE A5

REPAIR AND RECLAMATION
(ST227, N=197)

TASKS		PERCENT MEMBERS PERFORMING
H372	Apply external electrical power to aircraft	98
H373	Apply external hydraulic power to aircraft	97
K589	Operationally check rudder systems or horizontal stabilizer systems	94
K583	Measure flight control surface travel	93
G267	Adjust aircraft canopy latching mechanisms or linkages	93
G329	Remove or install aircraft windows or canopies	92
G282	Inspect aircraft canopy systems	91
K585	Operationally check aileron, flaperon, or elevon systems	90
K637	Rig rudders or rudder control mechanisms	87
K581	Inspect flight control cables or cable components	87
G308	Operationally check aircraft canopies	87
K588	Operationally check flight control trim systems	86
K605	Remove or install flight control cables or cable components	86
G327	Remove or install aircraft hardware, such as screws or fasteners	84
G363	Troubleshoot aircraft canopy systems	84
G326	Remove or install aircraft canopy latching mechanisms or linkages	84
K650	Troubleshoot rudder systems or horizontal stabilizer systems	83
H392	Inspect crash recovery equipment, such as lifting bags or slings	82
K631	Rig ailerons or aileron control mechanisms	81
H384	Direct or participate in crash recovery operations	81
H420	Perform safe-for-maintenance inspections	80
I489	Operationally check landing gear	80
H377	Clean up fuel, oil, or hydraulic spills	80
K576	Adjust pitch trim systems	77
H423	Position crash recovery equipment within crash sites or disabled aircraft areas	77
K577	Adjust roll trim systems	77
K584	Measure force feel of control sticks	77
I467	Adjust landing gear door latching mechanisms or linkages	77

TABLE A6

SUPPORT
(ST127, N=97)

TASKS		PERCENT MEMBERS PERFORMING
F234	Inventory CTKs	96
F231	Inspect equipment, tools, or supplies, such as CTKs	91
F235	Inventory equipment, tools, or supplies, other than CTKs	84
F246	Maintain tool cribs	76
F261	Store equipment, tools, or supplies	76
F236	Issue or log turn-ins of equipment, tools, or supplies, other than CTKs	69
F241	Maintain equipment control listings (ECLs)	61
F224	Evaluate serviceability of equipment, tools, or supplies	54
F243	Maintain precision measurement equipment (PME) calibration schedules	48
Q925	Perform pallet build-up activities	43
Q927	Prepare equipment for deployments	43
F219	Coordinate obtaining parts with base supply	42
P850	Access core automated maintenance system (CAMS) menus and data screens	42
F237	Maintain benchstock parts	40
F249	Pick up or deliver equipment, supplies, or tools from or to support points	40
Q914	Palletize mobility or contingency equipment for shipment or movement	40
F250	Prepare documentation to turn in excess or surplus property	40
F239	Maintain documentation on items requiring periodic inspections	39
F245	Maintain property custodian authorization/custody receipt listings (CA/CRLs)	37
A24	Establish procedures for accountability of equipment, tools, or supplies	34
F257	Research technical orders to identify components or items of equipment	34
F253	Prepare requisitions for equipment, tools, or supplies, other than for local purchase	34
F259	Schedule equipment for PME calibrations	33

TABLE A7

MAINTENANCE OPERATIONS CONTROL (MOC)
(ST100, N=72)

	TASKS	PERCENT MEMBERS PERFORMING
P850	Access core automated maintenance system (CAMS) menus and data screens	97
P888	Verify accuracy of CAMS daily inputs	72
P851	Analyze CAMS data	71
P863	Correct CAMS work unit codes	61
P878	Retrieve CAMS historical reports	60
A37	Review flight schedules	53
P861	Correct CAMS errors noted during daily verification process	50
E168	Compile information for records, reports, or logs	49
A10	Determine or establish work priorities	49
A5	Coordinate maintenance with maintenance control or other agencies, other than for parts cannibalization	47
A3	Coordinate aircraft maintenance or launch and recovery times with flight crews or other agencies	47
P855	Clear or close out completed maintenance discrepancies in CAMS	47
P853	Change CAMS workcenter event narratives	47
A27	Participate in general meetings, such as staff meetings, briefings, conferences, and workshops, other than conducting	46
D122	Conduct on-the-job training (OJT)	44
P880	Schedule equipment maintenance discrepancies in CAMS	40
P856	Conduct CAMS delayed discrepancy inquiries prior to, during, or after scheduling maintenance	40
Q897	Don or doff chemical warfare personal protective clothing	39
P884	Update CAMS historical reports	38
P871	Initiate equipment maintenance discrepancies in CAMS	36
P852	Change CAMS performing workcenter codes	35
B46	Direct development or maintenance of status indicators, such as boards, graphs, or charts	33

TABLE A8

TRANSIENT ALERT
(GP054, N=70)

TASKS		PERCENT MEMBERS PERFORMING
H400	Marshal aircraft	96
H391	Fuel aircraft using single-point methods	96
H372	Apply external electrical power to aircraft	94
H390	Fuel aircraft using over-the-wing methods	94
H437	Service aircraft with LOX	91
H383	Direct fueling operations	87
H430	Remove or install safety devices, such as seat pins, gear locks, intake covers, or engine component safety devices	84
H418	Perform nonpowered AGE pre-use inspections	84
H419	Perform powered AGE pre-use inspections	84
H434	Service aircraft tires	81
H407	Perform aircraft launch checklist procedures	80
H385	Direct towing operations	80
H422	Perform wing or tail walker duties	79
H377	Clean up fuel, oil, or hydraulic spills	77
H446	Service engine oil systems	77
H428	Remove or install liquid oxygen (LOX) converters	76
F234	Inventory CTKs	71
H413	Perform aircraft recovery checklist procedures	71
H420	Perform safe-for-maintenance inspections	71
H384	Direct or participate in crash recovery operations	71
H424	Position portable lighting equipment	71
H415	Perform aircraft thruflight inspections	67
I473	Inspect aircraft tires	67
D122	Conduct on-the-job training (OJT)	66
H463	Tow aircraft, other than with spotting dollies	66
H411	Perform aircraft preflight inspections	64
G286	Inspect areas for foreign object damage (FOD)	63
H417	Perform end-of-runway (EOR) inspections	63
H393	Jack aircraft using axle jacks	61
O832	Take JOAP samples	60

TABLE A9

QUALITY ASSURANCE (QA)
(ST312, N=45)

TASKS		PERCENT MEMBERS PERFORMING
C108	Perform quality verification inspections (QVIs), other than engine QVIs or completed maintenance inspections	96
C103	Inspect flightline maintenance activities	93
I481	Inspect landing gear hydraulic system components	93
I482	Inspect landing gear structural components, other than shock struts	93
I478	Inspect landing gear door mechanisms	91
I476	Inspect aircraft-installed landing gear shock struts	91
I483	Inspect landing gear up-lock mechanisms	89
I473	Inspect aircraft tires	89
I480	Inspect landing gear electrical system components	89
G286	Inspect areas for foreign object damage (FOD)	87
C80	Evaluate aircraft inspection workcards	87
I479	Inspect landing gear down-lock mechanisms	87
G284	Inspect aircraft windows, windscreens, aft transparencies, or canopies	84
I485	Inspect nosewheel steering systems	84
I477	Inspect landing gear braces, drag pins, or bushings	84
N708	Inspect aircraft wiring or connectors	84
O745	Inspect engine bays	82
G282	Inspect aircraft canopy systems	82
A27	Participate in general meetings, such as staff meetings, briefings, conferences, and workshops, other than conducting	82
E205	Review technical order changes	82
I474	Inspect aircraft wheel assemblies	82
J532	Inspect LOX systems	82
G279	Inspect access or stress panels	80
J521	Inspect aircraft fire and overheat detection systems	80
J520	Inspect air-conditioning ducting	80
N712	Inspect external power receptacles	78

TABLE A10

WHEEL AND TIRE
(GP055, N=32)

TASKS		PERCENT MEMBERS PERFORMING
I473	Inspect aircraft tires	100
I474	Inspect aircraft wheel assemblies	94
I475	Inspect aircraft wheel bearings	91
I493	Pack or repack aircraft wheel bearings	84
F234	Inventory CTKs	84
P855	Clear or close out completed maintenance discrepancies in CAMS	78
I469	Assemble or disassemble aircraft wheel or tire assemblies	69
H434	Service aircraft tires	69
P850	Access core automated maintenance system (CAMS) menus and data screens	69
F231	Inspect equipment, tools, or supplies, such as CTKs	59
C71	Certify status of parts, such as repairable, serviceable, or condemned	53
H392	Inspect crash recovery equipment, such as lifting bags or slings	50
F237	Maintain benchstock parts	50
H396	Lift aircraft with air bags	41
F248	Perform operator maintenance on unit vehicles	41
Q897	Don or doff chemical warfare personal protective clothing	41
F235	Inventory equipment, tools, or supplies, other than CTKs	38
F261	Store equipment, tools, or supplies	38
H397	Lift aircraft with cranes	38
Q900	Identify or practice identifying chemical warfare agents	38
P853	Change CAMS workcenter event narratives	38
F255	Process DIFM items	34
P881	Start or stop CAMS job following events	34
F232	Inspect parts from storage or supply	34
H384	Direct or participate in crash recovery operations	34
F224	Evaluate serviceability of equipment, tools, or supplies	34
Q928	Prepare personal clothing and equipment for deployment	34
F243	Maintain precision measurement equipment calibration schedules (PME)	31

TABLE A11

MOBILITY
(ST392, N=17)

	TASKS	PERCENT MEMBERS PERFORMING
Q894	Determine equipment or personnel requirements for mobility exercises or deployments	100
Q916	Participate in mobility exercise planning meetings	94
A33	Plan personnel or equipment deployments	88
B52	Implement contingency or mobility plans	88
Q893	Coordinate mobility exercise or contingency requirements with appropriate agencies	88
A27	Participate in general meetings, such as staff meetings, briefings, conferences, and workshops, other than conducting	88
Q889	Assign personnel to mobility positions	82
A13	Develop inputs to mobility, contingency, disaster preparedness, or unit emergency or alert plans	82
C91	Evaluate mobility, contingency, disaster preparedness, or unit emergency or alert plans	82
Q902	Inspect packed or palletized mobility or contingency equipment prior to transport	82
B64	Maintain or update contingency or mobility plans	76
Q914	Palletize mobility or contingency equipment for shipment or movement	71
Q927	Prepare equipment for deployments	65
Q892	Conduct mobility training	59
Q901	Inspect mobility bags or kits	59
Q925	Perform pallet build-up activities	59
Q890	Conduct mobility exercise or deployment site surveys	53
Q895	Develop workcenter pyramid recall plans	53
Q897	Don or doff chemical warfare personal protective clothing	53
E199	Prepare or maintain standby rosters or workcenter pyramid recall rosters	47
E172	Coordinate obtaining TDY orders, passports, or visas with appropriate agencies	47