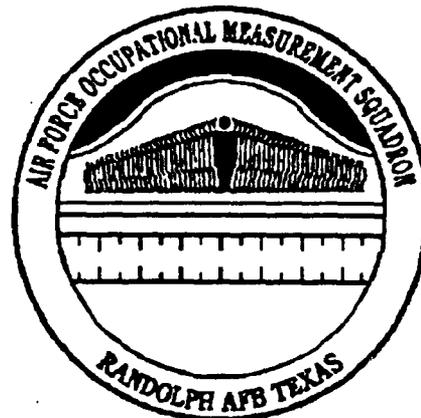




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**UNITED STATES
AIR FORCE**

**OCCUPATIONAL
SURVEY REPORT**

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HELICOPTER MAINTENANCE

**AFSC 2A5X2
(FORMERLY AFSC 457X1)**

AFPT 90-457-989

MARCH 1994

94-14838



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

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PREFACE

This report presents the results of an occupational survey of the Helicopter Maintenance career ladder, AFSC 2A5X2 (formerly AFSC 457X1). Authority for conducting occupational surveys is found in AFI 36-2623. Computer products used in this report are available for use by operations and training officials.

Lieutenant Ty K. Sills, Occupational Analyst, developed the survey instrument, analyzed the data, and wrote the final report. Mr Wayne Fruge provided programming support, and Ms Raquel A. Soliz provided administrative support. This report has been reviewed and approved for release by Major Randall C. Agee, Chief, Airman Analysis Section, Occupational Analysis Flight, Air Force Occupational Measurement Squadron.

Copies of this report are distributed to Air Staff sections, major commands, and other interested training and management personnel. Additional copies may be requested from the Air Force Occupational Measurement Squadron, Attention: Chief, Occupational Analysis Flight (OMY), 1550 5th Street East, Randolph AFB, Texas 78150-4449.

ROGER W. BARNES, Lt Col, USAF
Commander
Air Force Occupational Measurement
Squadron

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

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SUMMARY OF RESULTS

1. **Survey Coverage:** This report is based on responses from 586 AFSC 2A5X2 (457X1) respondents representing 61 percent of all assigned AFSC 2A5X2 personnel.
2. **Specialty Jobs:** Structure analysis identified one job cluster and five independent jobs: Crew Chief cluster, Tool Crib job, Core Automated Maintenance System (CAMS) job, Maintenance Supervision job, Quality Assurance Evaluator (QAE) job, and Training Instructor job. The cluster and independent jobs are discussed within this report.
3. **Career Ladder Progression:** AFSC 2A5X2 personnel follow an orderly skill-level progression. The 3-skill level personnel primarily perform basic technical tasks, while the 5-skill level personnel have a slightly broader job. The 7-skill level personnel have a more extensive job, with supervisory, administrative, and managerial tasks accounting for 36 percent of their time.
4. **AFMAN 36-2108 Specialty Descriptions:** The AFMAN 36-2108 Specialty Descriptions for the Helicopter Maintenance career ladder (Specialist and Technician) were reviewed. They provide an accurate description of the jobs performed by each skill level.
5. **Training:** An analysis of the current AFSC 2A5X2 STS and J3ABR45731 Plan of Instruction (POI) shows that both documents are extremely sound. Only two Specialty Training Standard (STS) items, relating to assembling and disassembling helicopters for air shipment, were not supported by survey data. All of the POI learning objectives were supported; however, numerous technical tasks were not referenced to either document. A list of tasks not referenced to each document should be reviewed by training personnel to ensure that both documents are complete.
6. **Job Satisfaction:** Overall, AFSC 2A5X2 respondents are satisfied with their jobs. When compared to other aerospace maintenance specialties surveyed in 1992, AFSC 2A5X2 personnel show relatively higher job satisfaction. When compared to the 1986 (AFSC 431XOC/D) Occupational Survey Report (OSR), survey data indicate that job satisfaction has improved across all total active federal military service (TAFMS) groups. A comparison of major jobs identified in the current sample reveals that members in the Crew Chief cluster have the highest level of job satisfaction, while personnel in the Tool Crib, and QAE job groups are the least satisfied.
7. **Implications:** The Helicopter Maintenance (AFSC 2A5X2) career ladder has not changed much since the last survey in 1986. The jobs still involve technical maintenance and standard support functions. Career ladder progression is typical, and the AFMAN 36-2108 *Specialty Descriptions* are accurate. The technical training program is sound, and both the STS and POI are well supported by survey data. Job satisfaction data show the members of the career ladder are generally satisfied with their jobs. Two major changes to the career field are expected. The Air Force is projected to strike the H-3 model helicopter from its inventory, and the technical training course will join with the Army training course, beginning in April 1994.

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**OCCUPATIONAL SURVEY REPORT
HELICOPTER MAINTENANCE
AFSC 2A5X2**

INTRODUCTION

This is a report of an occupational survey of the Helicopter Maintenance career ladder (AFSC 2A5X2, formerly AFSC 457X1). This survey was conducted to collect current data for use in validating training documents. The current STS is dated 15 August, 1993, and the POI for the entry-level course is dated 30 September, 1991. The last occupational survey for this career ladder was published in May 1986.

Background

As described in the AFMAN 36-2108 Specialty Descriptions, DAFSCs 2A532 and 2A552 airmen are responsible for performing inspections, functional checks, and maintenance on helicopter aircraft and installed equipment. These duties include functionally checking helicopter aircraft systems, such as hydraulic, electrical, and fuel systems. Furthermore, they perform launch and recovery duties, maintain inspection and maintenance records, and maintain support equipment.

In addition to these duties, 7-skill level members advise on problems concerning repairing, maintaining, servicing, and inspecting helicopter aircraft. They also perform supervisory and maintenance staff functions.

Initial 3-skill level training is provided through a 16-week course at Sheppard AFB TX. The Apprentice Helicopter Maintenance Specialist course, J3ABR2A532-000, includes instruction in the fundamentals of mechanics with emphasis on the maintenance, servicing, and inspection of helicopter aircraft. The course also covers basic flightline safety practices, use of support equipment, and care and use of special tools.

The course is projected to be consolidated with the Army course. This consolidation is expected to begin in April 1994 with H-53 block instruction. H-60 block instruction is expected to be consolidated in April 1995. Under this proposal, the basic fundamentals of helicopter maintenance will be instructed jointly with the Army, while specific airframe courses will continue to be taught separately.

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SURVEY METHODOLOGY

Inventory Development

Data for this survey were collected using USAF Job Inventory (JI) Air Force Personnel Test (AFPT) 90-457-989, dated October 1992. A preliminary task list was prepared after reviewing career ladder documents, tasks from the previous Helicopter Maintenance job inventory, and data from the previous Occupational Survey Report (OSR). This preliminary task list was then validated through interviews with 15 subject-matter experts (SMEs) at the following organizations:

<u>BASE</u>	<u>ORGANIZATIONS VISITED</u>
Sheppard AFB TX	3760 TCHTS/TTSRP
Kirtland AFB NM	42 AGS/MAA2H
Eglin AFB FL	655 SOMS/MAAH
Hurlburt AFB FL	1 SOW/MAST

The final JI contains 884 tasks grouped under 12 duty headings with standard background questions asking respondents to indicate paygrade, duty title, time in service, time in present job, time in career field, and job satisfaction. Additional background questions concerning inspections, equipment, and forms usage were asked. Responses to these questions are of use to functional and training personnel.

Survey Administration

Eligible survey respondents were selected from Uniform Airmen Record data tapes supplied by the Air Force Military Personnel Center (AFMPC). From February to June 1993, Base Personnel Flights at operational bases worldwide administered the JI to Helicopter Maintenance personnel.

Each individual who filled out an inventory first completed the identification and biographical information section. Next, respondents answered questions in the background portion of the inventory. They were then instructed to go through the booklet and check each task they perform in their current job. Finally, they were asked to go back and rate the relative amount of time spent on each task performed using a 9-point scale. Time-spent ratings range from 1 (indicating a very small amount of time spent) to 9 (indicating a very large amount of time spent).

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

Survey Sample

The final sample includes responses from 586 AFSC 2A5X2 respondents. Tables 1 and 2 compare the MAJCOM and paygrade distributions of all assigned personnel to that of the sample. Table 1 shows a disparity in the sample representations of AETC and AMC. This is due to the re-distribution of Air Force personnel across MAJCOMs. At the time of the survey, the 542nd Crew Training Wing, located at Kirtland AFB NM, was assigned to AMC. Shortly after the data were gathered, this unit was reassigned to AETC. This resulted in a large shift in the member distribution across MAJCOMs, as the unit accounts for approximately 18 percent of the career field. Considering the unit realignments which occurred during the survey administration, the sample is representative of the total population.

Task Factor Administration

Job descriptions alone do not provide sufficient data for making decisions about career ladder documents or training programs. Task factor data were collected by asking selected E-6 and E-7 NCOs to complete either a training emphasis (TE) or task difficulty (TD) booklet. These booklets are processed separately from the JIs, and the TE and TD data are considered when analyzing other issues in the study.

Training Emphasis (TE). TE is defined as the amount of structured training first-enlistment personnel need to perform tasks successfully. Structured training is defined as training provided by resident technical schools, field training detachments (FTDs), mobile training teams (MTTs), formal OJT, or any other organized training method. Twenty-eight experienced AFSC 2A5X2 respondents rated the tasks in the inventory on a 10-point scale ranging from 0 (no training required) to 9 (extremely high TE). Interrater agreement for these 28 raters was acceptable. The average TE rating is 1.72, with a standard deviation of 1.41. Any task with a TE rating of 3.13 or greater is considered to have a high TE.

Task Difficulty (TD). TD is defined as an estimate of the length of time the average airman takes to learn how to perform a task. Fifty experienced NCOs rated the difficulty of tasks on a 9-point scale ranging from 1 (easy to learn) to 9 (very difficult to learn). Interrater agreement was again acceptable. TD ratings are normally adjusted so tasks have an average difficulty value of 5.0, with a standard deviation of 1.0. Thus, any task with a TD rating of 6.00 or above is considered difficult to learn. TE and TD ratings, when used with percent members performing values, can provide insight into first-enlistment training requirements, help validate the need for structured training, and aid in the evaluation of the plan of instruction (POI) for a career ladder.

TABLE 1

MAJCOM REPRESENTATION OF SAMPLE
AFSC 2A5X2

<u>COMMAND</u>	<u>PERCENT ASSIGNED (N=965)</u>	<u>PERCENT OF SAMPLE (N=586)</u>
AFSOC	43	33
ACC	16	18
AETC	18	2
PACAF	8	11
AMC	7	24
AFMC	4	9
USAFE	2	3
AFSPACECOM	2	0

Total Assigned = 965
 Total Surveyed = 899
 Total in Survey Sample = 586
 Percent of Assigned in Sample = 61%
 Percent of Surveyed in Sample = 65%

NOTE: Assigned strength as of August 1993

TABLE 2
 PAYGRADE DISTRIBUTION OF SAMPLE
 AFSC 2A5X2

<u>PAYGRADE</u>	PERCENT ASSIGNED* (N=965)	PERCENT IN SAMPLE (N=586)
E-1 to E-3	27	30
E-4	25	23
E-5	24	25
E-6	15	15
E-7	8	7
E-8	*	0
E-9	0	0

*Denotes less than 1 percent

NOTE: Assigned strength as of August 1993

CAREER LADDER STRUCTURE

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

The basic grouping in the hierarchical clustering process is the Job. When there is a substantial degree of similarity between jobs, they are grouped together and identified as a Cluster. The structure of the Helicopter Maintenance career ladder is defined in terms of the jobs that the 586 respondents perform.

Overview

Analysis of the data shows AFSC 2A5X2 personnel perform work related to one cluster and five independent jobs. Most members in the career ladder perform jobs that fall in the Crew Chief cluster. The remaining jobs involve work related to Tool Crib, Core Automated Maintenance System (CAMS), Supervisory, Quality Assurance Evaluator (QAE), and Training functions.

The job structure is displayed graphically in Figure 1 and in the outline presented below. The stage (STG) number listed beside each job title is a reference number assigned by CODAP, while the letter "N" refers to the number of respondents performing the job.

AFSC 2A5X2 CAREER LADDER JOBS

- I. CREW CHIEF CLUSTER (STG 36, N=445)
 - A. H-53 CREW CHIEF (STG 85, N=151)
 - B. H-3 CREW CHIEF (STG86, N=31)
 - C. H-60 CREW CHIEF (STG77, N=132)
 - D. H-1 CREW CHIEF (STG76, N=110)

- II. TOOL CRIB INDEPENDENT JOB (STG63, N=11)

- III. CORE AUTOMATED MAINTENANCE SYSTEMS (CAMS) INDEPENDENT JOB (STG70, N=8)
- IV. MAINTENANCE SUPERVISION JOB (STG 44, N=38)
- V. QUALITY ASSURANCE EVALUATOR (QAE) INDEPENDENT JOB (STG107, N=10)
- VI. TRAINING INSTRUCTOR INDEPENDENT JOB (STG49, N=5)

Eighty-five percent of all survey respondents grouped into the cluster or one of the jobs. The remaining 15 percent, based on task performance, do not clearly fit into one specific job.

AFSC 2A5X2 CAREER LADDER JOBS

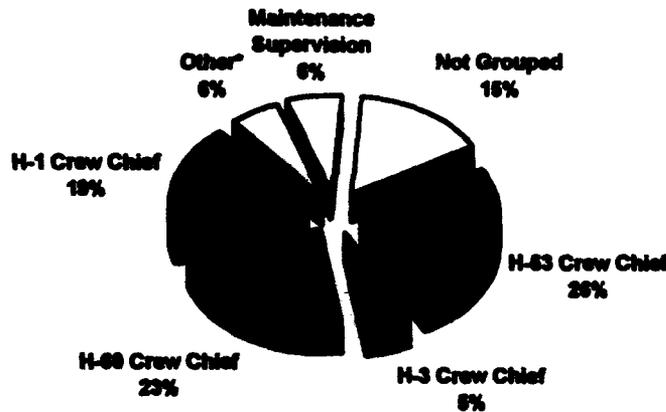


FIGURE 1

*Other includes: Tool Crib (2%)
 QAE (1%)
 CAMS (1%)
 TT Instructor (1%)

The amount of time that members of career ladder jobs spend on duties is presented in Table 3, while selected background data are presented in Table 4. Brief descriptions of each job are presented below, while representative tasks performed are listed in Appendix A.

TABLE 3

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

CREW CHIEF CLUSTER

DUTIES	CREW CHIEF CLUSTER									
	H-53 CREW CHIEF (N=151)	H-3 CREW CHIEF (N=31)	H-60 CREW CHIEF (N=132)	H-1 CREW CHIEF (N=110)	TOOL CRIB (N=11)	CAMS (N=8)	MAINT SUPER (N=38)	QAE (N=10)	TT INST (N=5)	
A ORGANIZING AND PLANNING	1	1	1	2	12	9	16	8	1	
B DIRECTING AND IMPLEMENTING	1	2	2	2	4	11	17	8	4	
C INSPECTING AND EVALUATING	1	*	*	1	10	5	11	13	2	
D TRAINING	1	1	1	1	4	2	7	*	66	
E PERFORMING ADMINISTRATIVE AND SUPPLY FUNCTIONS	2	3	3	3	21	18	12	9	8	
F PERFORMING CORE AUTOMATED MAINTENANCE SYSTEMS (CAMS) ACTIVITIES	6	5	6	5	10	53	15	1	0	
G PERFORMING GENERAL HELICOPTER MAINTENANCE OR SUPPORT ACTIVITIES	48	48	37	35	3	*	11	14	7	
H PERFORMING H-1 HELICOPTER MAINTENANCE	*	0	2	47	0	0	*	42	0	
I PERFORMING H-3 HELICOPTER MAINTENANCE	*	36	*	0	0	0	2	0	4	
J PERFORMING H-53 HELICOPTER MAINTENANCE	36	*	*	0	*	0	2	0	4	
K PERFORMING H-60 HELICOPTER MAINTENANCE	0	0	43	*	*	0	4	0	0	
L MAINTAINING TOOLS AND GROUND SUPPORT EQUIPMENT	3	3	4	4	35	1	2	4	4	

*Denotes less than 1 percent

TABLE 4

SELECTED BACKGROUND DATA ON PERSONNEL IN CAREER LADDER JOBS

	CREW CHIEF CLUSTER										TOOL CRIB	CAMS	MAINT SUP	OAE	TT INST
	H-53		H-3		H-60		H-1		H-1						
	CREW CHIEF	CREW CHIEF	CREW CHIEF	CREW CHIEF	CREW CHIEF	CREW CHIEF	CREW CHIEF	CREW CHIEF	CREW CHIEF	CREW CHIEF					
NUMBER IN GROUP	151	31	132	110	11	8	38	5							
PERCENT OF TOTAL SAMPLE	26%	6%	23%	19%	2%	1%	6%	1%							
PERCENT IN CONUS	95%	55%	63%	85%	73%	100%	71%	100%							

DAFSC DISTRIBUTION:

45731	26%	23%	20%	16%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
45751	52%	51%	58%	42%	45%	50%	8%	0%	0%	0%	0%	0%	0%	0%	0%
45771	22%	26%	22%	42%	55%	50%	92%	50%	50%	92%	100%	20%	20%	20%	20%

PAYGRADE DISTRIBUTION:

AIRMEN	H-53	H-3	H-60	H-1	TOOL CRIB	CAMS	MAINT SUP	OAE	TT INST
E-4	43%	29%	31%	29%	10%	0%	0%	0%	0%
E-5	28%	32%	30%	18%	18%	49%	3%	0%	0%
E-6	22%	29%	27%	35%	36%	25%	8%	0%	40%
E-7	6%	10%	12%	16%	36%	13%	39%	70%	40%
E-8	1%	0%	0%	2%	0%	13%	50%	30%	20%
E-9	0%	0%	0%	0%	0%	0%	0%	0%	0%

AVERAGE MONTHS IN PRESENT JOB	37	35	36	44	29	36	33	19	36
AVERAGE MONTHS TAFMS	68	80	81	102	157	119	196	175	154
PERCENT FIRST ENLISTMENT	54%	32%	42%	34%	9%	25%	0%	0%	0%
PERCENT SUPERVISING	42%	44%	47%	38%	72%	63%	92%	30%	20%
AVERAGE NUMBER OF TASKS PERFORMED	214	236	238	215	37	31	96	40	23

Included with each job description is also a listing of task modules that represents tasks likely to be coperformed by job members. Each listing displays the number of tasks in the module, the percent of job time members spend performing tasks within the module (PERCENT TIME SPENT SUM), and the weighted average time spent on each individual task within the module (PERCENT TIME SPENT AVG). A complete listing of the tasks that comprise each module is presented for reference in Appendix B.

I. CREW CHIEF CLUSTER (STG36, N=445): The Crew Chief cluster members perform a broad range of technical activities associated with maintaining the Air Force's helicopter fleet in a high state of operational readiness. Within the cluster, four distinct jobs were identified, each unique to the airframe maintained. All four jobs involve a large number of general maintenance tasks that are relatively common across the four airframes. Examples of these tasks include towing activities; removing and installing access panels, hatches, and passenger seats; and maintaining support equipment.

A. H-53 CREW CHIEF (STG85, N=151): The largest group of respondents in the Crew Chief cluster work on this airframe. Table 3 shows that the majority of job time (59 percent) involves general maintenance and support activities, while the remainder is primarily spent on H-53 Helicopter maintenance (36 percent). Most members perform general maintenance and servicing tasks such as jacking and towing helicopters, connecting external electrical power to helicopters, and servicing tires and transmissions. Members perform an average of 214 tasks each, suggesting a very broad range of responsibilities. Representative tasks include:

- Jack helicopters
- Remove or install chip detectors on helicopters
- Connect or disconnect external electrical power to helicopters
- Remove or install airframe access panels, hatches, or cowlings on helicopters
- Tow helicopters
- Service helicopter hydraulic systems
- Remove or install main rotor blades on H-3 or H-53 helicopters
- Remove or install armor platings
- Service helicopter tires
- Service helicopter transmissions

The following representative task modules show that, in addition to performing general maintenance and servicing tasks, members of this job spend a great deal of job time working on rotor blades and performing CAMS-related functions.

<u>TM</u>	<u>TITLE</u>	<u>TASKS</u>	<u>PERCENT TIME SPENT</u>	
			<u>SUM</u>	<u>AVG</u>
10	SUPPORT EQUIPMENT MAINTENANCE	12	6	.47
11	GENERAL MAINTENANCE AND SERVICING	54	23	.43
06	GENERAL ROTOR BLADE MAINTENANCE	65	27	.42
07	CAMS UPDATE AND COORDINATION	13	5	.40
01	H-3, H-53 LANDING GEAR AND ROTOR BLADE MAINTENANCE	8	3	.32
09	REMOVE, REPLACE, AND INSPECT H-53 COMPONENTS	19	6	.31

Fifty-four percent of H-53 Crew Chiefs are in their first enlistment, and 52 percent hold the 5-skill level. Other background data can be found in Table 4. MAJCOM analysis shows that a large percentage of this work is performed in the Air Force Special Operations Command (AFSOC). Table 5 depicts a complete breakdown of time spent across duties by MAJCOM members. Table 6 shows which specific H-53 airframes are supported by MAJCOM members.

B. H-3 CREW CHIEF (STG86, N=31): Only a small number of members in the Crew Chief cluster perform work in this job due to the fact that this helicopter is being phased out of the Air Force inventory, and very few remained operational at the time of the survey. Like H-53 Crew Chief incumbents, members of this job perform general and servicing-related work and, on average, perform a large number of tasks (236). The division of time is spent on general maintenance and support equipment duties, and on airframe-specific responsibilities. Following are representative tasks performed by the H-3 Crew Chief:

- Tow helicopters
- Inspect visible turbine blades
- Refuel helicopters using pressure procedures
- Remove or install airframe access panels, hatches, or cowlings on helicopters
- Operationally check rotor brake systems on helicopters
- Service helicopter rotor brake systems
- Service helicopter hydraulic systems
- Service helicopter tires
- Operationally check hydraulic rescue hoists
- Remove or install main rotor blades on H-3 or H-53 helicopters

TABLE 5

TIME SPENT ACROSS DUTIES BY MAJCOM MEMBERS
(RELATIVE PERCENT OF TIME SPENT)

DUTIES	ACC (N=104)	AETC (N=13)	AFMC (N=52)	AFSOC (N=194)	AMC (N=145)	PACAF (N=63)	USAFE (N=15)
A ORGANIZING AND PLANNING	6	4	6	3	4	4	3
B DIRECTING AND IMPLEMENTING	6	5	4	3	4	5	4
C INSPECTING AND EVALUATING	5	1	1	2	3	3	1
D TRAINING	2	39	2	2	2	2	2
E PERFORMING ADMINISTRATIVE AND SUPPLY FUNCTIONS	7	7	4	5	4	6	5
F PERFORMING CORE AUTOMATED MAINTENANCE SYSTEMS (CAMS) ACTIVITIES	9	3	6	7	8	7	5
G PERFORMING GENERAL HELICOPTER MAINTENANCE OR SUPPORT ACTIVITIES	27	16	31	41	35	32	30
H PERFORMING H-1 HELICOPTER MAINTENANCE	12	6	29	0	18	1	45
I PERFORMING H-3 HELICOPTER MAINTENANCE	7	6	*	*	0	7	0
J PERFORMING H-53 HELICOPTER MAINTENANCE	0	5	3	23	9	0	0
K PERFORMING H-60 HELICOPTER MAINTENANCE	12	3	8	9	8	29	0
L MAINTAINING TOOLS AND GROUND SUPPORT EQUIPMENT	7	5	6	4	5	4	5

*Denotes less than 1 percent

TABLE 6

**AIRCRAFT SUPPORTED BY MAJCOM MEMBERS
(PERCENT MEMBERS RESPONDING)**

<u>AIRCRAFT</u>	<u>ACC (N=104)</u>	<u>AETC (N=13)</u>	<u>AFMC (N=52)</u>	<u>AFSOC (N=194)</u>	<u>AMC (N=145)</u>	<u>PACAF (N=63)</u>	<u>USAFE (N=15)</u>
HH-1H	9	31	2	0	2	0	7
UH-1N	27	38	75	0	52	0	93
CH-3	2	31	0	1	2	0	0
HH-3	21	31	0	1	3	24	0
CH-53	0	31	6	7	25	2	0
MH-53	0	8	12	71	30	2	0
HH-60G	33	8	12	3	12	62	0
MH-60G	13	8	19	24	24	14	0
UH-60A	1	8	15	2	14	0	0
UH-60L	3	8	21	9	23	0	0

The representative task modules indicate that, in addition to general tasks, the members of this job spend a great deal of time working on rotor blades and landing gear. They also spend considerable time performing CAMS functions.

<u>TM</u>	<u>TITLE</u>	<u>TASKS</u>	<u>PERCENT TIME SPENT</u>	
			<u>SUM</u>	<u>AVG</u>
10	SUPPORT EQUIPMENT MAINTENANCE	12	5	.42
06	GENERAL ROTOR BLADE MAINTENANCE	65	27	.41
07	CAMS UPDATE AND COORDINATION	13	5	.39
01	H-3, H-53 LANDING GEAR AND ROTOR BLADE MAINTENANCE	8	3	.32
15	H-3 MAINTENANCE	124	36	.29
08	MAINTAIN APPs, APUs, AND RELATED COMPONENTS	6	2	.27

Thirty-five percent of H-3 Crew Chiefs are in their first enlistment, and 52 percent hold the 5-skill level. Almost half of these respondents report being assigned to a base outside of the Continental United States (CONUS). Other background data can be found in Table 4. H-3 work is performed almost exclusively by members of Air Combat Command (ACC), Air Education and Training Command (AETC), and Pacific Air Force (PACAF). Table 5 depicts a complete breakdown of time spent across duties by MAJCOM members. Table 6 shows which specific H-3 airframes are supported by MAJCOM members.

C. H-60 CREW CHIEF (STG77, N=132): The second largest number of members of the Crew Chief cluster perform work in this job. The work involves general inspection and maintenance tasks. Table 3 shows that members spend 43 percent of their time performing H-60 specific maintenance duties, a greater proportion of job time dedicated to airframe-specific tasks than seen in the previous two jobs. These duties involve performing tasks such as launching H-60 helicopters, and inspecting engines and landing gear on H-60 helicopter aircraft. Representative tasks include:

- Launch H-60 helicopters
- Inspect engines on H-60 helicopters
- Inspect elastomeric bearing assemblies on H-60 helicopters
- Inspect landing gear systems on H-60 helicopters
- Attach or detach towing devices on helicopters
- Connect or disconnect external electrical power to helicopters
- Remove or install helicopter passenger seats
- Inspect flight control systems on H-60 helicopters

Remove or install airframe access panels, hatches, or cowlings on helicopters
 Inspect flight control systems on H-60 helicopters

An examination of prevalent task modules indicates that members of this job group perform many general tasks. A close look at the module data shows that members spend 43 percent of their time performing the 168 tasks within the H-60 task module; however, little time is spent performing each individual task and hence the lower average rating.

<u>TM</u>	<u>TITLE</u>	<u>TASKS</u>	<u>PERCENT TIME SPENT</u>	
			<u>SUM</u>	<u>AVG</u>
06	GENERAL MAINTENANCE AND SERVICING	65	25	.39
01	SUPPORT EQUIPMENT MAINTENANCE	8	3	.37
07	GENERAL ROTOR BLADE MAINTENANCE	13	4	.30
09	REMOVE, REPLACE, AND INSPECT H-53 COMPONENTS	19	6	.29
13	H-60 MAINTENANCE	168	43	.26

Forty-two percent of H-60 Crew Chiefs are in their first enlistment, and 58 percent hold the 5-skill level. Thirty-seven respondents reported being assigned to a base outside of the CONUS. Other background data can be found in Table 4. MAJCOM analysis shows that the work involved is performed across all commands, except United States Air Force in Europe (USAFE), with the greatest concentration of work performed in the PACAF realm. Table 5 depicts a complete breakdown of time spent across duties by MAJCOM members. Table 6 shows which specific H-60 airframes are supported by MAJCOM members.

D. H-1 CREW CHIEF (STG76, N=110): This is the final job of the Crew Chief cluster. The majority of work involves general maintenance and servicing, along with specific airframe-related maintenance. Table 3 shows a breakdown of duty time by members of this job. The H-1 Crew Chief job, of all the Crew Chief jobs, exhibits the greatest concentration of job time on airframe-specific duties. Work in these duties involves tasks such as launching H-1 helicopters, and inspecting rotor systems and landing gear. Some representative tasks include:

Launch H-1 helicopters
 Attach or detach ground handling wheels on H-1 helicopters
 Inspect rotor systems on H-1 helicopters
 Inspect landing gear on H-1 helicopters
 Remove or install helicopter passenger seats
 Service helicopter transmissions
 Service helicopter engine oil systems

Remove or install airframe access panels, hatches, or cowlings on helicopters
 Tie down blades on H-1 helicopters, other than for mooring
 Inspect flight control systems on H-1 helicopters

Representative task modules show that H-1 job members spend the majority of their time specializing in task modules that relate to rotor blade and landing gear maintenance. Note also that these members spend a great deal of time working on tasks that relate to H-3 and H-53 maintenance. The majority of job time (48 percent), however, is spent on H-1 maintenance, as can be seen by the PERCENT TIME SPENT SUM rating.

<u>TM</u>	<u>TITLE</u>	<u>TASKS</u>	<u>PERCENT TIME SPENT</u>	
			<u>SUM</u>	<u>AVG</u>
06	GENERAL ROTOR BLADE MAINTENANCE	65	27	.41
01	H-3, H-53 LANDING GEAR AND ROTOR BLADE MAINTENANCE	8	3	.38
14	H-1 MAINTENANCE	151	48	.32
09	REMOVE, REPLACE, AND INSPECT H-53 COMPONENTS	19	5	.26

Thirty-four percent of H-1 Crew Chiefs are in their first enlistment, and 42 percent of all incumbents hold the 5-skill level. Other background data can be found in Table 4. MAJCOM analysis shows that the work involved in this job is performed across all commands, except Air Force Special Operations Command (AFSOC), with the greatest concentration of work performed in USAFE. Table 5 depicts a complete breakdown of time spent across duties by MAJCOM members. Table 6 shows which specific H-1 airframes are supported by MAJCOM members.

II. TOOL CRIB INDEPENDENT JOB (STG63, N=11): Members of this support-oriented job spend 35 percent of their time maintaining tools and ground support equipment. Other duties frequently performed involve administrative and supply functions, and organizing and planning functions. This job is substantially more narrowly defined than the crew chief jobs, as indicated by the much smaller average number of tasks performed (37). A detailed account of time spent across duties is presented in Table 3. Typical work in this independent job involves inspecting, cleaning, issuing, and accounting for tools and tool kits. Some representative tasks include the following:

Inspect tools or tool kits
 Receive turn-ins of equipment, tools, tool kits, or supplies

- Clean handtools or special equipment
- Issue equipment, tools, tool kits, or supplies
- Inventory equipment, tools, tool kits, or supplies
- Complete status tags for condition of property
- Schedule periodic calibrations of special handtools or equipment
- Order parts by voice communication
- Determine work priorities
- Inspect nonpowered support equipment

Task module analysis shows the work is strongly related to the areas of tool issue and maintenance, and support equipment maintenance. Representative task modules include the following:

<u>TM</u>	<u>TITLE</u>	<u>TASKS</u>	<u>PERCENT TIME SPENT</u>	
			<u>SUM</u>	<u>AVG</u>
04	TOOL ISSUE AND MAINTENANCE	5	15	2.96
01	SUPPORT EQUIPMENT MAINTENANCE	8	18	2.23

Only nine percent of Tool Crib job incumbents are in their first enlistment, and 55 percent hold the 7-skill level. Seventy-two percent report that they supervise at least one individual.

III. CORE AUTOMATED SYSTEMS (CAMS) INDEPENDENT JOB (STG70, N=8): The work of this independent job is primarily administrative in nature. Incumbents spend 53 percent of their time performing Core Automated Maintenance Systems (CAMS) activities. The remainder of work involves general administrative and supervisory tasks. Table 3 shows a specific breakdown of time spent across duties. The strong focus on CAMS related work can be seen in the following representative tasks:

- Maintain daily status reports
- Access core automated maintenance system (CAMS) menus and data screens
- Change CAMS workcenter event narratives
- Create equipment maintenance discrepancies in CAMS
- Change CAMS errors noted during daily verification processes
- Change CAMS job standard narratives
- Verify accuracies of daily inputs in CAMS
- Clear or close out completed maintenance discrepancies in CAMS

Perform CAMS inquiries to monitor delayed discrepancies prior to, during, or after scheduling maintenance
 Perform CAMS inquiries for uncompleted maintenance event listings

Representative task modules show the majority of job time is spent performing tasks that relate to updating, coordinating, reviewing, and initiating CAMS data.

<u>TM</u>	<u>TITLE</u>	<u>TASKS</u>	<u>PERCENT TIME SPENT</u>	
			<u>SUM</u>	<u>AVG</u>
09	CAMS UPDATE AND COORDINATION	19	39	2.04
01	CAMS REVIEW AND INITIATION	7	12	1.65

Twenty-five percent of CAMS job incumbents are in their first enlistment, and half of all members hold the 7-skill level. All respondents reported being assigned in the CONUS. Sixty-three percent of the members reported they supervise at least one individual.

IV. MAINTENANCE SUPERVISION INDEPENDENT JOB (STG44, N=38): This job involves work related to supervisory and CAMS duties. Members spend 17 percent of their time performing directing and implementing activities. A considerable amount of work time also involves performing organizing and planning, and administrative and supply functions. Very few members of this job supervise H-1 helicopter crews, while other airframes are evenly represented. See Table 3 for a detailed account of time members spend across duties. The supervisory work related to this job involves tasks such as preparing Enlisted Performance Reports (EPRs), counseling personnel, and coordinating maintenance activities. Representative tasks include:

- Prepare EPRs
- Counsel personnel on personal or military-related problems
- Coordinate work with related maintenance activities
- Supervise Helicopter Mechanics (AFSC 45751)
- Determine work priorities
- Assign personnel to duty positions
- Access core automated maintenance systems (CAMS) menus and data screens
- Supervise Helicopter Technicians (AFSC 45771)
- Plan work assignments
- Interpret policies, directives, or procedures for subordinates

Representative task modules indicate that nearly three quarters of job time is spent performing CAMS, and administrative and supervisory duties.

<u>TM</u>	<u>TITLE</u>	<u>TASKS</u>	<u>PERCENT TIME SPENT</u>	
			<u>SUM</u>	<u>AVG</u>
09	CAMS UPDATE AND COORDINATION	19	13	.69
16	ADMINISTRATIVE, SUPERVISORY, AND MANAGEMENT	96	58	.61

The members of this job reported having the greatest number of months of total active military service (TAFMS), with an average of 196 months of service. Ninety-two percent of incumbents hold the 7-skill level, and 92 percent reported that they supervise at least one individual.

V. QUALITY ASSURANCE EVALUATOR (QAE) INDEPENDENT JOB (STG107, N=10): The work related to this independent job involves performing inspections on H-1 Helicopter aircraft. This job is necessary due to the fact that many H-1 Helicopters are maintained by contract maintenance crews. QAE job incumbents inspect the work of contract maintenance personnel and rarely perform hands-on maintenance. Table 3 shows time spent across duties by QAE personnel. Representative tasks show that incumbents inspect areas such as rotor systems, transmissions, engines, hydraulic systems, and flight controls on H-1 Helicopters. Several of the representative tasks include the following:

- Inspect rotor systems on H-1 helicopters
- Inspect transmissions on H-1 helicopters
- Inspect transmission drive systems on H-1 helicopters
- Inspect engines on H-1 helicopters
- Inspect hydraulic systems on H-1 helicopters
- Inspect flight control systems on H-1 helicopters
- Inspect landing gears on H-1 helicopters
- Inspect fire extinguisher systems on H-1 helicopters
- Inspect engine drive shafts on H-1 helicopters
- Inspect fuel systems on H-1 helicopters

Representative task modules show that, in addition to performing support equipment maintenance and inspecting H-1 helicopters, members of this job group perform administrative, supervisory, and managerial duties.

<u>TM</u>	<u>TITLE</u>	<u>TASKS</u>	<u>PERCENT TIME SPENT</u>	
			<u>SUM</u>	<u>AVG</u>
01	SUPPORT EQUIPMENT MAINTENANCE	8	4	.53
16	ADMINISTRATIVE, SUPERVISORY, AND MANAGEMENT	96	36	.37
14	H-1 MAINTENANCE	151	42	.28

The members of this job cluster reported having the second greatest number of months of TAFMS, with an average of 175 months. All of the incumbents hold the 7-skill level, and only 30 percent reported that they supervise at least one individual.

VI. TRAINING INSTRUCTOR INDEPENDENT JOB (STG49, N=5): The final job in the career ladder involves work related to technical training. Members of this job spend 66 percent of their time performing training activities. A detailed account of time spent across duties by members of this job can be found in Table 3. Training duties include evaluating the progress of resident course students; evaluating training methods; writing, administering, and scoring tests; and counseling trainees on training progress. These and other representative tasks include the following:

- Evaluate progress of resident course students
- Evaluate training methods or techniques
- Demonstrate how to locate technical information
- Write test questions
- Conduct resident course classroom training
- Score tests
- Administer tests
- Counsel trainees on training progress
- Determine resident course training requirements
- Develop resident course or career development course
(CDC) curriculum materials
- Maintain training records, charts, or graphs

The representative task modules show that job members spend the majority of their time performing tasks related to maintaining support equipment, and performing administrative, supervisory, and managerial duties. They also frequently perform maintenance on H-1 helicopters.

<u>TM</u>	<u>TITLE</u>	<u>TASKS</u>	<u>PERCENT TIME SPENT</u>	
			<u>SUM</u>	<u>AVG</u>
01	SUPPORT EQUIPMENT MAINTENANCE	8	4	.53
16	ADMINISTRATIVE, SUPERVISORY, AND MANAGEMENT	96	36	.37
14	H-1 MAINTENANCE	151	42	.28

The members of this job cluster have an average of 154 months' TAFMS. Eighty percent of the incumbents hold the 5-skill level, and only 20 percent reported that they supervise at least one individual.

Comparison Of Current Group Descriptions To Previous Survey

The results of the specialty job analysis were compared to the previous OSR, AFPT 90-431-530, dated May 1986. Table 7 lists the major jobs identified in the current report and their equivalent jobs from the previous OSR. A review of the jobs performed by the current sample indicates that only the CAMS Independent Job does not match to the previous survey. One job found in the previous survey, Ground Support and Servicing Personnel, was not identified in the current survey.

The CAMS Independent Job was not identified in the previous survey because CAMS was not yet established in 1986. The Ground Support and Servicing Personnel job was not specifically identified in the current survey, as it was subsumed within the individual job variations of the Crew Chief cluster.

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 various skill levels. This information may be used to evaluate how well career ladder documents, such as AFMAN 36-2108 Specialty Descriptions and Specialty Training Standards (STSs), reflect what career ladder personnel are actually doing in the field.

The distribution of skill-level groups across career ladder jobs is displayed in Table 8, while Table 9 offers another perspective as it displays percent time spent on each duty across skill-level groups. The majority of members perform work in the Crew Chief cluster. Fewer members perform work in the H-3 Crew Chief variation, relative to the other variations of this cluster, because this helicopter is being phased out of the Air Force inventory. A typical pattern

TABLE 7

JOB SPECIALTY COMPARISON BETWEEN CURRENT AND 1986 SURVEY

CURRENT (N=286)	PERCENT OF SAMPLE 1986 (N=965)	PERCENT OF SAMPLE
I. H-53 Crew Chief	26	20
II. H-3 Crew Chief	6	23
III. H-60 Crew Chief	23	2
IV. H-1 Crew Chief	19	35
V. Tool Crib Independent Job	2	*
VI. CAMS Independent Job	1	.
VII. Maintenance Supervision Independent Job	6	16
VIII. QAE Independent Job	2	2
IX. TT Instructor Independent Job	1	1
X. Not Identified	.	1



*Denotes less than 1 percent

TABLE 8

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

<u>CAREER LADDER JOBS</u>	<u>2A532</u> <u>(N=110)</u>	<u>2A552</u> <u>(N=261)</u>	<u>2A572</u> <u>(N=215)</u>
I. H-53 Crew Chief (N=151)	36	30	16
II. H-3 Crew Chief (N=31)	6	6	4
III. H-60 Crew Chief (132)	39	29	14
IV. H-1 Crew Chief (N=110)	16	18	21
V. Tool Crib Independent Job (N=11)	0	2	3
VI. CAMS Independent Job (N=8)	0	2	2
VII. Maintenance Supervision Independent Job (N=38)	0	1	16
VIII. QAE Independent Job (N=10)	0	0	5
IX. Training Instructor Independent Job (N=5)	0	2	1
X. Not Grouped (N=90)	3	10	18

CREW
CHIEF
CLUSTER

TABLE 9

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

<u>DUTIES</u>	<u>2A532</u> <u>(N=110)</u>	<u>2A552</u> <u>(N=261)</u>	<u>2A572</u> <u>(N=215)</u>
A. ORGANIZING AND PLANNING	*	2	9
B. DIRECTING AND IMPLEMENTING	*	2	9
C. INSPECTING AND EVALUATING	*	*	6
D. TRAINING	*	3	4
E. PERFORMING ADMINISTRATIVE AND SUPPLY FUNCTIONS	3	4	8
F. PERFORMING CORE AUTOMATED MAINTENANCE SYSTEM (CAMS) ACTIVITIES	6	8	8
G. PERFORMING GENERAL HELICOPTER MAINTENANCE OR SUPPORT ACTIVITIES	50	38	23
H. PERFORMING H-1 HELICOPTER MAINTENANCE	7	10	13
I. PERFORMING H-3 HELICOPTER MAINTENANCE	3	3	2
J. PERFORMING H-53 HELICOPTER MAINTENANCE	13	12	6
K. PERFORMING H-60 HELICOPTER MAINTENANCE	11	13	8
L. MAINTAINING TOOLS AND GROUND SUPPORT EQUIPMENT	6	5	4

*Denotes less than 1 percent

of career ladder progression is noted within AFSC 2A5X2, with 3-skill level personnel spending most of their time on technical tasks, while 5-skill level personnel are performing technical jobs along with some training and administrative duties. Seven-skill level personnel perform fewer technical duties and spend 36 percent of their time on administrative, supervisory, and managerial related tasks.

Skill-Level Descriptions

DAFSC 2A532: The 110 airmen in the 3-skill level group, representing 19 percent of the survey sample, perform an average of 136 tasks. As shown in Table 8, 97 percent of these airmen are in the Crew Chief cluster. They spend approximately 50 percent of their time performing general helicopter maintenance or support activities, while the remainder of their time is spent almost exclusively on performing specific airframe-related maintenance activities (see Table 9).

Examples of tasks likely to be performed by 3-skill level personnel include: connecting or disconnecting electrical power to helicopters, and removing or installing airframe access panels, hatches, or cowlings. Table 10 displays selected representative tasks performed by a majority of these airmen.

DAFSC 2A552: The 261 airmen in the 5-skill level group represent 45 percent of the total survey sample and perform an average of 201 tasks. Table 9 shows that 5-skill level personnel spend 38 percent of their time performing general helicopter maintenance or support activities. They spend the remainder of their time primarily on specific airframe-related maintenance; however, in addition to these technical duties, they spend approximately 11 percent of their time performing administrative, supervisory, and managerial related tasks. Representative tasks performed by 5-skill level incumbents are listed in Table 11.

Five-skill level personnel are differentiated from 3-skill level personnel based upon the level of complexity of technical tasks they perform, as well as by percent of job time spent on training and supervisory related tasks. Table 12 gives examples of tasks which best differentiate the 5-skill level personnel from their junior counterparts.

DAFSC 2A572: Seven-skill level personnel represent 36 percent of the survey sample and perform an average of 172 tasks. Thirty-six percent of their relative job time is spent on tasks in supervisory, managerial, training, and administrative duties (more than three times that of 5-skill level personnel). The remainder of their time is dedicated to technical duties (see Table 9). Table 13 lists representative tasks for these incumbents.

Tasks which best distinguish 7-skill level personnel from their junior counterparts are presented in Table 14. As expected, the key difference is a much greater emphasis on supervisory functions.

TABLE 10
 REPRESENTATIVE TASKS PERFORMED
 BY 2A532 PERSONNEL

TASKS	PERCENT MEMBERS PERFORMING (N=110)
G196 Jack helicopters	93
G177 Connect or disconnect electrical power to helicopters	92
G172 Clean helicopter surfaces or compartments	90
G227 Remove or install airframe access panels, hatches, or cowlings on helicopters	89
G168 Attach or detach towing devices on helicopters	88
G288 Tow helicopters	87
G279 Service helicopter hydraulic systems	87
G222 Recover helicopters	86
G215 Position fire extinguishers	85
G217 Position or spot powered aircraft equipment	82
G282 Service helicopter transmissions	82
G186 Inspect fire extinguishers	79
G281 Service helicopter tires	79
G216 Position or spot nonpowered aircraft support equipment	78
G278 Service helicopter engine oil systems	78
G246 Remove or install helicopter passenger seats	76
G234 Remove or install chip detectors on helicopters	75
G230 Remove or install batteries on helicopters	74
L868 Inventory equipment, tools, tool kits, or supplies	73
G183 Identify presence of corrosion on helicopters	72
L867 Inspect tools or tool kits	71
G262 Remove or install main rotor pitch control rods on helicopters	71
G221 Prepare reparable or serviceable parts for turn-ins	70
G225 Refuel helicopters using pressure procedures	69
G179 Defuel helicopters using pressure procedures on H-1, H-53, or H-60 helicopters	69
G267 Remove or install tail rotor assemblies on helicopters	67
G218 Position or spot vehicles	66
L865 Clean handtools or special equipment	66
G200 Lubricate airframe components on helicopters	65
G167 Apply corrosion preventatives or preservatives	65

TABLE 11
 REPRESENTATIVE TASKS PERFORMED
 BY 2A552 PERSONNEL

<u>TASKS</u>	<u>PERCENT MEMBERS PERFORMING (N=261)</u>
G168 Attach or detach towing devices on helicopters	85
G177 Connect or disconnect electrical power to helicopters	85
G196 Jack helicopters	85
G227 Remove or install airframe access panels, hatches, or cowlings on helicopters	84
G288 Tow helicopters	84
G172 Clean helicopter surfaces or compartments	84
G215 Position fire extinguishers	82
G246 Remove or install helicopter passenger seats	81
G279 Service helicopter hydraulic systems	81
G282 Service helicopter transmissions	81
G234 Remove or install chip detectors on helicopters	81
G278 Service helicopter engine oil systems	80
G262 Remove or install main rotor pitch control rods on helicopters	80
G217 Position or spot powered aircraft equipment	80
G222 Recover helicopters	79
F131 Clear or close out completed maintenance discrepancies in CAMS	78
G186 Inspect fire extinguishers	78
G183 Identify presence of corrosion on helicopters	78
G267 Remove or install tail rotor assemblies on helicopters	78
G221 Prepare reparable or serviceable parts for turn-ins	77
G230 Remove or install batteries on helicopters	77
G163 Adjust tail rotor pitch control links on helicopters	75
F123 Access core automated maintenance system (CAMS) menus and data screens	75
G281 Service helicopter tires	75
G164 Adjust windshields wiper blade arms on helicopters	75
G200 Lubricate airframe components on helicopters	74
G167 Apply corrosion preventatives or preservatives	74
G217 Position or spot powered aircraft support equipment	73

TABLE 12

**TASKS WHICH BEST DIFFERENTIATE BETWEEN
DAFSC 2A532 AND DAFSC 2A552 PERSONNEL
(PERCENT MEMBERS PERFORMING)**

<u>TASKS</u>	<u>2A232 (N=110)</u>	<u>2A552 (N=261)</u>	<u>DIFFERENCE</u>
D74 Conduct OJT	5	42	-37
B46 Supervise Apprentice Helicopter Mechanics (AFSC 45731)	6	39	-33
G292 Troubleshoot drive shaft assemblies on helicopters	18	50	-32
G291 Troubleshoot chip detector systems on helicopters	33	64	-31
F137 Defer equipment maintenance discrepancies in CAMS	24	54	-30
B48 Supervise Helicopter Mechanics (AFSC 45751)	0	30	-30
G297 Troubleshoot windshield wiper systems on H-3, H-53, or H-60 helicopters	16	46	-30
D78 Demonstrate how to locate technical information	9	38	-29
G175 Color code helicopter rotor assemblies	33	62	-29
G245 Remove or install helicopter APUs or APPs	15	44	-29
D77 Counsel trainees on training progress	1	29	-28

TABLE 13

REPRESENTATIVE TASKS PERFORMED
BY 2A572 PERSONNEL

<u>TASKS</u>	<u>PERCENT MEMBERS PERFORMING (N=215)</u>
C67 Prepare EPRs	76
A3 Coordinate work with related maintenance activities	73
A5 Determine work priorities	73
F123 Access core automated maintenance system (CAMS) menus and data screens	70
B25 Counsel personnel on personal or military related problems	67
B48 Supervise Helicopter Mechanics (AFSC 2A552)	65
G196 Jack helicopters	63
G177 Connect or disconnect external electrical power to helicopters	61
F131 Clear or close out completed maintenance discrepancies in CAMS	60
G288 Tow helicopters	60
G168 Attach or detach towing devices on helicopters	60
G227 Remove or install airframe access panels, hatches, or cowlings on helicopters	60
E94 Complete status tags for condition of property	60
G216 Position or spot nonpowered aircraft support equipment	59
B43 Interpret policies, directives, or procedures for subordinates	58
E108 Prepare aircraft flight or maintenance records, such as AFTO Forms 781-series forms	58
G186 Inspect fire extinguishers	58
G183 Identify presence of corrosion on helicopters	58
L867 Inspect tools or tool kits	58
G221 Prepare reparable or servicable parts for turn-ins	57
G215 Position fire extinguishers	56
G246 Remove or install helicopter passenger seats	56
A19 Plan work assignments	55
G184 Inspect caution advisory panels on helicopters	55
G185 Inspect electrical system components	55
G163 Adjust tail rotor pitch control links on helicopters	55
C58 Evaluate personnel compliance with performance standards	54
D74 Conduct OJT	54

TABLE 14

TASKS WHICH BEST DIFFERENTIATE BETWEEN
DAFSC 2A552 AND DAFSC 2A572 PERSONNEL
(PERCENT MEMBERS PERFORMING)

TASKS	2A552 (N=261)	2A572 (N=215)	DIFFERENCE
G172 Clean helicopter surfaces or compartments	84	47	37
G281 Service helicopter tires	75	40	35
G282 Service helicopter transmissions	81	51	30
G279 Service helicopter hydraulic systems	81	52	29
G234 Remove or install chip detectors on helicopters	81	52	29
G262 Remove or install main rotor pitch control rods on helicopters	80	51	29
G222 Recover helicopters	79	50	29
G269 Remove or install tail rotor drive shafts on H-3, H-53, or H-60 helicopters	61	33	28
G278 Service helicopter engine oil systems	80	52	28
G270 Remove or install tail rotor drive thomas coupling assemblies on H-3, H-53, or H-60 helicopters	59	31	28
<hr/>			
B25 Counsel personnel on personal or military-related problems	25	67	-42
A5 Determine work priorities	34	73	-39
A19 Plan work assignments	18	56	-38
A3 Coordinate work with related maintenance activities	35	73	-38
B43 Interpret policies, directives, or procedures for subordinates	21	58	-37
C58 Evaluate personnel compliance with performance standards	18	54	-36
B49 Supervise Helicopter Technicians (AFSC 2A572)	9	44	-35
B48 Supervise Helicopter Mechanics (AFSC 2A552)	30	65	-35
B29 Direct flightline maintenance	18	51	-33
A1 Assign personnel to duty positions	19	50	-31

Summary

Normal career ladder progression within the AFSC 2A5X2 career ladder is evident, with personnel at the 3-skill level spending the vast majority of their job time performing technical tasks. A moderate shift towards supervisory function occurs at the 5-skill level, with members still spending more than 85 percent of their duty time performing technical functions. Personnel at the 7-skill level still primarily perform technical functions; however, they spend considerably more duty time on supervisory functions than their junior counterparts.

ANALYSIS OF AFMAN 36-2108 SPECIALTY DESCRIPTIONS

Survey data were compared to the AFMAN 36-2108 Specialty Descriptions for Helicopter Maintenance Specialists and Technicians, dated 30 April 1991. The descriptions for the 3-, 5-, and 7-skill levels were generally accurate, depicting the highly technical aspects of the job, as well as an increase in supervisory responsibilities previously described in the DAFSC analysis.

TRAINING ANALYSIS

Occupational survey data are sources of information which can be used to assist in the development of relevant training programs for entry-level personnel. Factors used to evaluate entry-level Helicopter Maintenance training include jobs performed by first-enlistment (1-48 months TAFMS) personnel, overall distribution of first-enlistment personnel across career ladder jobs, percent first-enlistment members performing specific tasks or using specific equipment items, ratings of how much TE tasks should receive in formal training, and ratings of relative TD.

First-Enlistment Personnel

The survey data captured the responses of 220 first-enlistment personnel, representing 38 percent of the survey sample. As displayed in Table 15, approximately 97 percent of their duty time is devoted to technical or administrative task performance, the majority of which is contained in four duties: Performing General Helicopter Maintenance or Support Activities (45 percent); Performing H-53 Helicopter Maintenance (15 percent); Performing H-60 Helicopter Maintenance (12 percent); and performing H-1 Helicopter Maintenance (9 percent). Table 16 displays some of the tasks performed by first-enlistment personnel. Examples include: jack helicopters, and connect or disconnect external electrical power to helicopters. Table 17 displays the helicopter aircraft maintained by first-enlistment personnel. Forty-three percent of all first-enlistment

TABLE 15

RELATIVE PERCENT OF TIME SPENT ACROSS DUTIES BY
FIRST-ENLISTMENT AFSC 2A5X2 PERSONNEL

<u>DUTIES</u>	<u>PERCENT TIME SPENT</u>
A. ORGANIZING AND PLANNING	1
B. DIRECTING AND IMPLEMENTING	1
C. INSPECTING AND EVALUATING	*
D. TRAINING	*
E. PERFORMING ADMINISTRATIVE AND SUPPLY FUNCTIONS	3
F. PERFORMING CORE AUTOMATED MAINTENANCE SYSTEM (CAMS) ACTIVITIES	6
G. PERFORMING GENERAL HELICOPTER MAINTENANCE OR SUPPORT ACTIVITIES	45
H. PERFORMING H-1 HELICOPTER MAINTENANCE	9
I. PERFORMING H-3 HELICOPTER MAINTENANCE	2
J. PERFORMING H-53 HELICOPTER MAINTENANCE	15
K. PERFORMING H-60 HELICOPTER MAINTENANCE	12
L. MAINTAINING TOOLS AND GROUND SUPPORT EQUIPMENT	5

*Denotes less than 1 percent

TABLE 16

**REPRESENTATIVE TASKS PERFORMED BY FIRST-ENLISTMENT
AFSC 2A5X2 PERSONNEL**

<u>TASKS</u>	<u>PERCENT MEMBERS PERFORMING (N=220)</u>
G196 Jack helicopters	90
G177 Connect or disconnect external electrical power to helicopters	89
G227 Remove or install airframe access panels, hatches, or cowlings on helicopters	88
G168 Attach or detach towing devices on helicopters	87
G172 Clean helicopter surfaces or compartments	87
G279 Service helicopter hydraulic systems	85
G288 Tow helicopters	84
G222 Recover helicopters	84
G215 Position fire extinguishers	84
G282 Service helicopter transmissions	82
G281 Service helicopter tires	80
G216 Position or spot nonpowered aircraft support equipment	79
G246 Remove or install helicopter passenger seats	79
G234 Remove or install chip detectors on helicopters	79
G278 Service helicopter engine oil systems	79
G186 Inspect fire extinguishers	78
G230 Remove or install batteries on helicopters	77
G217 Position or spot powered aircraft support equipment	76
G183 Identify presence of corrosion on helicopters	75
G179 Defuel helicopters using pressure procedures on H-1, H-53, or H-60 helicopters	72
L867 Inspect tools or tool kits	70
G218 Position or spot vehicles	70
G200 Lubricate airframe components on helicopters	70
L868 Inventory equipment, tools, tool kits, or supplies	69
G225 Refuel helicopters using pressure procedures	69
F123 Access core automated maintenance system (CAMS) menus and data screens	67
L865 Clean handtools or special equipment	65
L866 Inspect nonpowered support equipment	63
F131 Clear or close out completed maintenance discrepancies in CAMS	62
E108 Prepare aircraft flight or maintenance records, such as AFTO Forms 781-series forms	56

TABLE 17

AIRCRAFT MAINTAINED BY
FIRST-ENLISTMENT PERSONNEL

<u>EQUIPMENT</u>	<u>PERCENT MEMBERS RESPONDING</u>
MH-53	43
MH-60G	20
UH-1N	18
HH-60G	14
UH-60L	8
CH-53	7
HH-3	5
UH-60	5
HH-1H	2
CH-3	1

respondents reported maintaining the MH-53, while 20 percent reported they maintain the MH-60G model helicopter.

Table 18 shows standard or special tools and equipment used by more than 50 percent of first-enlistment members, while Table 19 depicts aircraft support equipment used by more than 50 percent of these incumbents. Frequently used tools and support equipment include torque wrenches, tow-bars, maintenance stands, and electrical power units.

First-term personnel were present in all of the groups identified in the **SPECIALTY JOBS** section of this report, except the Maintenance Supervision, QAE, and Training Instructor jobs. Figure 2 shows that 84 percent of all first-term members are grouped in the Crew Chief cluster.

JOBS PERFORMED BY FIRST-ENLISTMENT AFSC 2A5X2 PERSONNEL

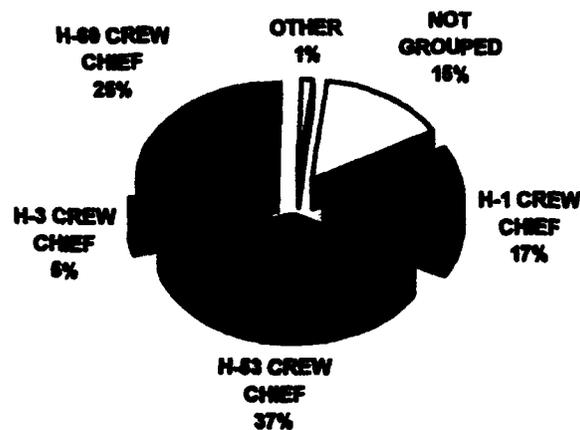


FIGURE 2

TE and TD Data

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

TABLE 18

STANDARD OR SPECIAL TOOLS AND EQUIPMENT
ITEMS USED BY MORE THAN 50 PERCENT
OF FIRST-ENLISTMENT PERSONNEL

<u>EQUIPMENT</u>	<u>PERCENT MEMBERS RESPONDING</u>
Torque Wrenches	95
Tow-Bars	95
Headsets	93
Feeler or Thickness Gauges	92
Jacks	92
Crowfoot Attached Socket Wrench Sets	90
Maintenance Stands	90
Tire Servicing Kits	88
Slings	87
Screwdriver Bit Sets	86
Dial Indicators	84
Light Wands	79
Spanner Wrenches	79
Strap Wrenches	78
Tensiometers	75
Rigging Sets	74
Spring Scales	74
Engine Wash Carts	71
Auxiliary Power Units	70
Portable Lighting Equipment	70
Rotor Balance Equipment	67
Hoists or A-Frames	65
Main Rotor Head Wrenches	65
Strobex or Vibrex Equipment	65
Propeller Protractors	64
Micrometers	63
Torque Adapters	61
Main Rotor Blade Check and Fill Units	59
Main Rotor Damper Servicing Units	59
Depth Gauges	58
Nitrogen Regulators	56
Portable Power Tools	52
Damper Wrenches	51
Pullers	51

TABLE 19

AIRCRAFT SUPPORT EQUIPMENT USED BY MORE THAN
50 PERCENT OF FIRST-ENLISTMENT PERSONNEL

	<u>PERCENT MEMBERS RESPONDING</u>
B-1 Maintenance Stands	90
Hobart Electrical Power Units	89
Hydraulic Servicing Carts	78
B-4 Maintenance Stands	77
C-1 Maintenance Stands	74
Engine Washcarts	74
Nitrogen Servicing Units	72
Tripod Jacks	69
Universal Tow Bars	65
MC-1A Air Compressors	55
Rotor Head Trailors	55
Industrial Warehouse Tugs	53

receiving high task factor ratings, but low percentages of performance, may be more appropriately planned for OJT. Low task factor ratings may highlight tasks which should be omitted from entry-level training, however, this decision must be weighed against percentages of personnel performing tasks, command concerns, and criticality of tasks.

To help in this determination, an Automated Training Indicator (ATI) is computed for each task in the inventory. ATI combines first-enlistment percent members performing with TE and TD data to compute training decisions based on ATCR 52-22, Atch 1. The computed ATI is numbered 1 to 18, with 18 being the highest level of training indicated. An ATI of 7 or less leads to a training decision of OJT only. To illustrate how ATI is computed, if a task has received high TE and TD ratings, and also has a high percentage of first-term members performing, then a high rating is assigned to the task. With a high ATI rating, strong recommendations can be made to emphasize training the task in a resident training course.

Tasks having the highest TE ratings are listed in Table 20. Included for each task are the percentage of first-job and first-enlistment personnel performing and TD rating. As illustrated in the table, most of these tasks relate to common, technical maintenance. Furthermore, many of them have a high percent members performing rating, as well as a high TD rating.

Table 21 lists the tasks having the highest TD ratings. The percentage of first-enlistment, 5-, and 7-skill level personnel performing, and TE ratings are also included. These tasks are primarily complex, technical functions. The majority of tasks exhibit low TE and are performed by relatively low percentages of 5- and 7- skill level members.

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

Specialty Training Standard (STS)

Technical school personnel from the Sheppard Training Center matched JI tasks to sections and subsections of the Helicopter Maintenance STS. A listing of the STS was then produced, showing tasks matched, percent members performing the tasks, and TE, TD, and ATI ratings for each task. These listings are included in the TRAINING EXTRACT. Any element with matched tasks performed by 20 percent or more of members from at least one of the career ladder job groups is considered to be supported and should be part of the STS.

TABLE 20

EXAMPLE OF TASKS WITH HIGHEST TRAINING EMPHASIS RATINGS

TASKS	TNG EMPH	IST JOB	PERCENT MEMBERS PERFORMING	IST ENL	TASK DIFF
G163	6.21	55	65	4.75	Adjust tail rotor pitch control links on helicopters
E108	6.07	49	56	4.40	Prepare aircraft flight or maintenance records, such as AFTO Forms 781-series forms
G267	5.93	67	73	6.56	Remove or install tail rotor assemblies on helicopters
F131	5.68	51	62	5.12	Clear or close out completed maintenance discrepancies in CAMS
G200	5.64	68	70	3.31	Lubricate airframe components on helicopters
G196	5.64	93	87	4.11	Jack helicopters
G224	5.64	45	86	3.79	Refuel helicopters using gravity procedures
G171	5.50	47	50	4.50	Clean and repack helicopter drive system components
F123	5.39	59	81	4.30	Access core automated maintenance system (CAMS) menus and data screens
H398	5.39	18	79	5.68	Remove or install mast assemblies on H-1 helicopters
H397	5.36	17	88	6.30	Remove or install main transmissions on H-1 helicopters
G183	5.32	72	90	4.05	Identify presence of corrosion on helicopters
F147	5.29	23	32	4.83	Perform CAMS inquiries to monitor delayed discrepancies prior to, during, or after scheduling maintenance
H392	5.25	16	17	5.59	Remove or install main rotor assemblies on H-1 helicopters
G288	5.18	84	84	3.42	Tow helicopters
H396	5.11	18	18	5.59	Remove or install main rotor swashplates on H-1 helicopters
H405	5.00	16	16	5.22	Remove or install tail rotor control components on H-1 helicopters
H393	4.96	16	16	5.41	Remove or install main rotor blades on H-1 helicopters
H410	4.89	18	18	5.30	Remove or install 90-degree or tail rotor gearboxes on H-1 helicopters
G222	4.89	84	84	3.96	Recover helicopters

TE MEAN = 1.72 S.D. = 1.41 (High = 3.13)

TD MEAN = 5.00 S.D. = 1.00

TABLE 21

EXAMPLE OF TASKS WITH HIGHEST TRAINING DIFFICULTY RATINGS

TASKS	TASK DIFF	IST JOB	IST ENL	PERCENT MEMBERS PERFORMING			TNG EMPH
				2A552	2A572		
A10	7.95	2	5	5	11		.18
I451	7.46	0	0	2	1		.25
J667	7.39	23	27	30	15		-
G266	7.39	45	42	36	19		-
A6	7.32	2	5	7	11		.43
J574	7.31	31	30	26	15		1.11
J668	7.28	22	25	28	15		-
I453	7.24	0	1	3	1		.25
I545	7.16	4	5	6	3		.36
I452	7.08	0	1	3	2		.25
J647	7.05	36	35	30	16		-
I503	7.04	4	4	5	4		.32
H335	7.04	14	15	18	20		-
I526	7.01	5	5	7	2		.29
J649	7.00	28	30	28	16		-
I528	6.98	2	4	5	2		.36
I546	6.97	4	4	6	4		.36
H305	6.95	11	10	11	18		3.68
A11	6.94	2	4	7	26		.36

TD MEAN = 5.00 S.D. = 1.00

TE MEAN = 1.72 S.D. = 1.41 (High = 3.13)

AFSC 2A5X2 STS

Paragraphs 1 through 10 deal with general topics of safety, supervision, training, technical publications, maintenance management, and general equipment usage. Because these paragraphs deal with general topics, they were not reviewed. Paragraphs 11 through 15 cover the common aspects of the career ladder. These paragraphs include over 900 individual entries, the majority of which have tasks matched.

The AFSC 2A5X2 STS is specifically broken down into sections by airframe. Because of this, the standard criteria for STS analysis, which is based on percentages of first-job, first enlistment, 5-, and 7-skill level 2A5X2 members performing matched tasks, were not used. A more appropriate method, based on career ladder jobs, shows the percentages of members of specific career ladder jobs performing matched tasks. Based on this criteria, only two items are not supported by survey data. These items deal with assembling and disassembling H-1 helicopters for air shipment. The tasks matched to these items have slightly above average TD ratings and average TE ratings. They also exhibit very low percent members performing ratings (see below).

			TE	TD	ATI	H-53	H-3	H-60	H-1
12c(8)	Disassemble helicopters for air shipment	A B							
H308	Assemble or disassemble H-1 helicopters for or after C-141 air transport		1.96	6.43	9	0	0	1	13
H309	Assemble or disassemble H-1 helicopters for or after C-5 air transport		1.86	5.57	3	0	0	1	12
12c(9)	Reassemble helicopters for air shipment	A B							
H308	Assemble or disassemble H-1 helicopters for or after C-141 air transport		1.96	6.43	9	0	0	1	13
H309	Assemble or disassemble H-1 helicopters for or after C-5 air transport		1.86	5.57	3	0	0	1	12

Many technical tasks performed by more than 20 percent of at least one job group are not matched to STS elements (see Table 22). Very few of these tasks exhibit high ATI ratings. Furthermore, they are generally sub-tasks which are related to other matched tasks. Training personnel should, however, review the list of unmatched tasks presented in the TRAINING EXTRACT to ensure the STS is complete.

TABLE 22

EXAMPLES OF TECHNICAL TASKS PERFORMED BY 20 PERCENT OR MORE AFSC 2ASX2
JOB MEMBERS AND NOT REFERENCED TO THE STS

TASKS	PERCENT MEMBERS PERFORMING				TNG EMPH	TASK DIFF	ATI
	H-53 IJ (N=151)	H-3 IJ (N=31)	H-60 IJ (N=132)	H-1 IJ (N=110)			
G267 Remove or install tail rotor assemblies on helicopters	90	97	84	90	5.93	6.56	18
G160 Adjust door or window latch mechanism on helicopters	74	84	87	80	6.31	3.96	16
G168 Attach or detach towing devices on helicopters	95	97	95	91	4.82	2.39	16
G174 Clean transmission oil filters on helicopters	84	84	53	74	4.46	4.23	16
G180 Drain fuel sumps on helicopters	78	90	73	85	4.29	2.78	16
G182 Drain or flush transmission oil systems on helicopters	79	84	68	78	4.71	3.56	16
G185 Inspect electrical system components	70	84	77	85	4.25	4.56	16
G186 Inspect fire extinguishers	81	94	94	91	4.57	2.73	16
G191 Inspect transmission oil screens	72	87	55	63	4.29	3.93	16
G192 Inspect visible turbine blades	77	100	67	31	4.07	4.32	16
G221 Prepare reparable or serviceable parts for turn-ins	88	94	96	96	4.29	3.93	16
G280 Service helicopter rotor brake systems procedures	85	100	31	83	4.36	3.29	16
	46	52	54	46	6.27	5.99	16

TE MEAN = 1.72 S.D. = 1.41 (High = 3.13)
TD MEAN = 5.00 S.D. = 1.00

Plan of Instruction (POI)

JI tasks were matched, by technical school instructors, to related learning objectives in POI J3ABR45731, dated 30 September 1991. The method employed was similar to that of the STS analysis. The data examined included percent members performing data by job for first-enlistment (1-48 months TAFMS) personnel, as well as TE, TD, and ATI ratings.

POI blocks, units of instruction, and learning objectives were compared to the standards set forth in Attachment 1, ATCR 52-22, dated 17 February 1989 (30 percent or more of the criterion first-enlistment group members performing tasks). The AFSC 2A5X2 POI, like the STS, is organized by airframe. To account for this, the analysis is based on first-enlistment job members rather than on first-enlistment members at large. By this guidance, learning objectives which do not meet these criteria should be considered for elimination from the formal course, unless justified on some other acceptable basis. However, the POI is aimed at all specialty personnel and therefore some substantial amount of over training occurs.

Review of the tasks matched to the POI reveals that all of the over 400 matched learning objectives are supported by OSR data. Many technical tasks performed by more than 30 percent of at least one first-enlistment job group, however, are not matched to POI objectives (see Table 23). Very few of these tasks exhibit high ATI ratings, and those that do are generally sub-tasks related to other matched areas. Training personnel should review the list of tasks not referenced to the J3ABR45731 POI, presented in the TRAINING EXTRACT, for possible course inclusion determinations.

JOB SATISFACTION ANALYSIS

An examination of job satisfaction indicators can give career ladder managers a better understanding of factors that may affect job performance of career ladder airmen. Therefore, AFSC 2A5X2 TAFMS groups e, the survey booklet included attitude questions covering job interest, perceived utilization of talents and training, sense of accomplishment from work, and reenlistment intentions. The responses of the current survey sample were then analyzed by making several comparisons: (1) among A and a comparative sample of personnel from other Aerospace Maintenance career ladders surveyed in 1992 (AFSCs 2E2X1, 2E5X1, 2M0X1A, 2A6X6, 2A5X1E/K/L, 2A5X1B, 2A5X1J, 2W2X1), (2) between current and previous survey TAFMS groups, and (3) across specialty groups identified in the SPECIALTY JOBS section of this report.

Table 24 compares first-enlistment (1-48 months TAFMS), second-enlistment (49-96 months TAFMS), and career (97+ months TAFMS) group data to corresponding enlistment groups from other Aerospace Maintenance AFSCs surveyed during the previous calendar year. These data give a relative measure of how the job satisfaction of AFSC 2A5X2 personnel compares with similar Air Force specialties. Helicopter Maintenance personnel reported generally

TABLE 23

EXAMPLES OF TECHNICAL TASKS PERFORMED BY 30 PERCENT OR MORE
AFSC 2A5X2 FIRST-ENLISTMENT JOB MEMBERS AND NOT REFERENCED TO THE POI

TASKS	PERCENT MEMBERS PERFORMING					TNG EMP	TASK DIF	ATI
	H-53 IEL (N=82)	H-3 IEL (N=10)	H-60 IEL (N=57)	H-1 IEL (N=37)				
G267 Remove or install tail rotor assemblies on helicopters	84	90	82	81	5.93	6.56	18	
E108 Prepare aircraft flight or maintenance records, such as AFTO Forms 781	51	60	63	76	6.07	4.40	16	
G160 Adjust door or window latch mechanisms on helicopters	65	70	86	57	4.21	3.83	16	
G168 Attach or detach towing devices on helicopters	96	90	95	86	4.82	2.39	16	
G171 Clean and repack helicopter drive system components	73	70	39	73	5.5	4.5	16	
G174 Clean transmission oil filters on helicopters	84	80	58	49	4.46	4.23	16	
G180 Drain fuel sumps on helicopters	67	70	61	76	4.29	2.78	16	
G182 Drain or flush transmission oil systems on helicopters	67	80	63	59	4.71	3.56	16	
G186 Inspect fire extinguishers	79	80	95	86	4.57	2.73	16	
G191 Inspect transmission oil screens	68	80	58	27	4.29	3.93	16	
G192 Inspect visible turbine blades	74	100	60	14	4.07	4.32	16	
G221 Prepare reparable or serviceable parts for turn-ins	83	100	79	78	4.29	3.93	16	

TE MEAN = 1.72 S.D. = 1.41 (High = 3.13)

TD MEAN = 5.00 S.D. = 1.00

TABLE 24

COMPARISON OF JOB SATISFACTION INDICATORS FOR AFSC 2A5X2
TAFMS GROUPS IN CURRENT STUDY TO A COMPARATIVE SAMPLE
(Percent Members Responding)

	1-48 MOS TAFMS (N=220)		49-96 MOS TAFMS (N=99)		97+ MOS TAFMS (N=6421)	
	CURRENT	SAMPLE	CURRENT	SAMPLE	CURRENT	SAMPLE
<u>EXPRESSED JOB INTEREST:</u>						
Interesting	85	74	87	72	81	75
So-So	5	16	11	17	11	16
Dull	10	10	2	11	8	9
<u>PERCEIVED USE OF TALENTS:</u>						
Fairly Well to Excellent	89	80	90	80	86	82
Little or Not at All	11	20	10	20	14	18
<u>PERCEIVED USE OF TRAINING:</u>						
Fairly Well to Excellent	97	86	89	81	87	79
Little or Not at All	3	14	11	19	13	21
<u>SENSE OF ACCOMPLISHMENT:</u>						
Satisfied	84	74	85	72	75	73
Neutral	8	12	8	11	13	10
Dissatisfied	8	14	7	17	12	17
<u>REENLISTMENT INTENTIONS:</u>						
Plan to Reenlist	65	59	86	70	77	75
Plan Not to Reenlist	35	41	14	30	7	7
Plan to Retire	0	0	0	0	16	18

Comparative data are from 8 Aerospace Maintenance AFSCs surveyed in 1992

higher job satisfaction than members of the comparative sample. The Helicopter Maintenance first-job incumbents expressed more interest in their jobs and felt that their training was well used, relative to the comparative sample. First-term personnel also exhibited considerably greater job interest and felt that they received a greater sense of accomplishment from their jobs. They furthermore demonstrated much greater intentions to reenlist. The responses of the career group were closer to those of its counterpart. Members of the career ladder, based on personal interviews, maintain that job satisfaction is high because they are able to work on all aspects of the helicopter aircraft and hence are more well-rounded than technicians that specialize in one aspect of maintenance, such as bench-checking specific components.

An indication of changes in job satisfaction perceptions within the career ladder is provided in Table 25, which presents TAFMS group data for 1993 respondents and data from respondents to the last OSR. Generally, perceptions associated with job satisfaction have improved for all TAFMS groups. Members in the first-enlistment group feel a much greater sense of accomplishment, and reenlistment intentions are more positive in all areas, except the current career group members who exhibited slightly lower reenlistment intentions than their D-Shred predecessors.

Table 26 presents job satisfaction data for the major jobs identified in the career ladder structure. An examination of these data can reveal the influences of performing certain jobs on overall job satisfaction. All of the job groups, with the exception of the Tool Crib and QAE groups, find their jobs interesting. Tool Crib personnel are in a support role and may feel too far removed from the technical aspects of the career field. Members with the QAE job generally do not perform hands-on maintenance and hence find their jobs dull. The Tool Crib, CAMS, and QAE job incumbents exhibit generally lower perceived use of talent and training ratings. The Training Instructor job members also feel that their training is not well used. The same groups, with the exception of the CAMS job group, do not feel a strong sense of accomplishment with their jobs. All of the other job groups appear to find their jobs satisfying. Finally, reenlistment intentions are good in all jobs except the H-1 Crew Chief job and the CAMS and Maintenance Supervision jobs. The fact that the Maintenance Supervision incumbents have been in the career field a considerably longer time probably accounts for the fact that they are closer to retirement. The CAMS job members are generally not satisfied with their jobs, and this may account for their poor reenlistment intentions. It should be noted that the groups that exhibited poor job satisfaction are generally support jobs and do not constitute a very large percentage of the career field.

IMPLICATIONS

The Helicopter Maintenance (AFSC 2A5X2) career ladder has not changed much since the last survey in 1986. The jobs still involve technical maintenance and standard support functions. The advancement of CAMS technology has added new responsibilities centering around CAMS-related functions.

TABLE 26

COMPARISON OF JOB SATISFACTION INDICATORS FOR MEMBERS
OF AFSC 2A5X2 SPECIALTY JOBS
(PERCENT MEMBERS RESPONDING)

DUTIES	CREW CHIEF CLUSTER									
	H-53 CREW CHIEF (N=11)	H-3 CREW CHIEF (N=31)	H-60 CREW CHIEF (N=132)	H-1 CREW CHIEF (N=10)	TOOL CRJB (N=11)	CAMS (N=8)	MAINT SUPER (N=38)	QAE (N=10)	TT INST (N=5)	
EXPRESSED JOB INTEREST:										
Interesting	85	84	90	80	64	75	92	50	80	
So-So	12	16	5	10	18	0	5	10	20	
Dull	3	0	5	10	18	25	3	40	0	
PERCEIVED USE OF TALENTS:										
Fairly Well to Excellent	89	97	92	88	64	63	90	50	80	
Little or Not at All	11	3	8	12	36	37	10	50	20	
PERCEIVED USE OF TRAINING:										
Fairly Well to Excellent	95	96	94	92	73	63	89	70	60	
Little or Not At All	5	4	6	8	27	37	11	30	40	

TABLE 26 (CONTINUED)

COMPARISON OF JOB SATISFACTION INDICATORS FOR MEMBERS
OF AFSC 2A5X2 SPECIALTY JOBS
(PERCENT MEMBERS RESPONDING)

CREW CHIEF CLUSTER

DUTIES	<u>CREW CHIEF CLUSTER</u>									
	H-53 CREW CHIEF (N=151)	H-3 CREW CHIEF (N=31)	H-60 CREW CHIEF (N=132)	H-1 CREW CHIEF (N=10)	TOOL CRIB (N=11)	CAMS (N=8)	MAINT SUPER (N=38)	QAE (N=10)	TT INST (N=5)	
<u>SENSE OF ACCOMPLISHMENT:</u>										
Satisfied	85	84	85	74	45	75	87	50	40	
Neutral	5	16	10	10	18	13	10	30	20	
Dissatisfied	10	0	5	16	27	12	3	20	40	
<u>REENLISTMENT INTENTIONS:</u>										
Plan to Reenlist	75	74	80	69	73	62	63	80	80	
Plan Not to Reenlist	21	23	17	22	9	25	3	0	20	
Plan to Retire	4	3	3	9	18	13	34	20	0	

Career ladder progression is typical, with 3- and 5-skill level technicians primarily performing technical functions. The 7-skill level personnel, due to the technical nature of the career ladder, also perform many technical functions, along with a great deal of supervisory duties.

The AFMAN 36-2108 Specialty Descriptions are accurate and the technical training program is sound, as both the STS and POI are well supported by survey data. Job satisfaction data show that members of the career field are generally very satisfied with their jobs.

The Air Force is projected to strike the H-3 model helicopter from its inventory, and the technical training course will join with the Army course, beginning in April of 1994. Aside from these changes, the career ladder should remain stable in the coming years.

APPENDIX A
REPRESENTATIVE TASKS PERFORMED BY
MEMBERS OF CAREER LADDER JOBS

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TABLE A1
H-53 CREW CHIEF
(STG85)

<u>Task</u>	<u>Task Statement</u>	<u>Percent Members Performing</u>
G177	Connect or disconnect external electrical power to helicopters	97
G234	Remove or install chip detectors on helicopters	97
G196	Jack helicopters	97
G227	Remove or install airframe access panels, hatches, or cowlings on helicopters	96
G288	Tow helicopters	96
G279	Service helicopter hydraulic systems	96
G261	Remove or install main rotor blades on H-3 or H-53 helicopters	96
G229	Remove or install armor platings	96
G281	Service helicopter tires	96
G168	Attach or detach towing devices on helicopters	95
G269	Remove or install tail rotor drive shafts on H-3, H-53, or H-60 helicopters	95
J664	Remove or install wheels or tire assemblies on H-53 helicopters	95
G282	Service helicopter transmissions	95
G179	Defuel helicopters using pressure procedures on H-1, H-53, or H-60 helicopters	95
G258	Remove or install landing gear components or assemblies on H-3 or H-53 helicopters	95
G215	Position fire extinguishers	94
G225	Refuel helicopters using pressure procedures	94
G190	Inspect landing gear systems on H-3 or H-53 helicopters	94
J576	Bleed hydraulic systems on H-53 helicopters	94
G172	Clean helicopter surfaces or compartments	93
G266	Remove or install rotor heads on H-3 or H-53 helicopters	93
J662	Remove or install wheel brake assemblies on H-53 helicopters	93
G216	Position or spot nonpowered aircraft support equipment	93
J582	Fold tail pylons on H-53 helicopters	92
J595	Install main rotor assemblies on H-53 helicopters	92

TABLE A2

H-3 CREW CHIEF
(STG86)

<u>Task</u>	<u>Task Statement</u>	<u>Percent Members Performing</u>
G288	Tow helicopters	100
G227	Remove or install airframe access panels, hatches, or cowlings on helicopters	100
G211	Operationally check rotor break systems on helicopters	100
G280	Service helicopter rotor brake systems	100
G279	Service helicopter hydraulic systems	100
G281	Service helicopter tires	100
G261	Remove or install main rotor blades on H-3 or H-53 helicopters	100
G284	Service main rotor blades on H-3, H-53, or H-60 helicopters	100
G246	Remove or install helicopter passenger seats	100
G196	Jack helicopters	100
G207	Operationally check flight controls on helicopters	100
G192	Inspect visible turbine blades	100
G208	Operationally check hydraulic rescue hoists	100
G217	Position or spot powered aircraft support equipment	100
G216	Position or spot nonpowered aircraft support equipment	100
G225	Refuel helicopters using pressure procedures	100
I468	Inspect main rotor systems on H-3 helicopters	97
I462	Inspect engines on H-3 helicopters	97
I471	Inspect transmissions on H-3 helicopters	97
I479	Operationally check aircraft lighting systems on H-3 helicopters	97
G168	Attach or detach towing devices on helicopters	97
G172	Clean helicopter surfaces or compartments	97
G190	Inspect landing gear systems on H-3 or H-53 helicopters	97
G202	Lubricate landing gear components on H-3 or H-53 helicopters	97
I457	Clean engine compressors on H-3 helicopters	97
G278	Service helicopter engine oil systems	97

TABLE A3

H-60 CREW CHIEF
(STG77)

<u>Task</u>	<u>Task Statement</u>	<u>Percent Members Performing</u>
K731	Launch H-60 helicopters	96
K710	Inspect elastomeric bearing assemblies on H-60 helicopters	96
K720	Inspect landing gear systems on H-60 helicopters	96
K712	Inspect engines on H-60 helicopters	96
G281	Service helicopter tires	96
G168	Attach or detach towing devices on helicopters	95
G177	Connect or disconnect external electrical power to helicopters	95
K714	Inspect flight control systems on H-60 helicopters	95
G227	Remove or install airframe access panels, hatches, or cowlings on helicopters	95
G246	Remove or install helicopter passenger seats	95
G278	Service helicopter engine oil systems	94
G196	Jack helicopters	94
G222	Recover helicopters	94
G186	Inspect fire extinguishers	94
K724	Inspect rotor systems on H-60 helicopters	93
K717	Inspect hydraulic systems on H-60 helicopters	93
K795	Remove or install main rotor blades on H-60 helicopters	93
G288	Tow helicopters	93
G234	Remove or install chip detectors on helicopters	92
K713	Inspect fire extinguisher systems on H-60 helicopters	91
G187	Inspect first aid kits	91
K748	Operationally check refueling probes on H-60 helicopters	91
G215	Position fire extinguishers	90
K715	Inspect fuel systems on H-60 helicopters	89
G172	Clean helicopter surfaces or compartments	89
K711	Inspect engine drive shafts on H-60 helicopters	89
G225	Refuel helicopters using pressure procedures	89
K727	Inspect transmissions on H-60 helicopters	89
G262	Remove or install main rotor pitch control rods on helicopters	89
K796	Remove or install main rotor dampers on H-60 helicopters	89
G279	Service helicopter hydraulic systems	88

TABLE A4

H-1 CREW CHIEF
(STG76)

<u>Task</u>	<u>Task Statement</u>	<u>Percent Members Performing</u>
H337	Launch H-1 helicopters	97
H311	Attach or detach ground handling wheels on H-1 helicopters	96
H373	Remove or install doors on H-1 helicopters	96
H395	Remove or install main rotor stabilizer bars on H-1 helicopters	96
H331	Inspect rotor systems on H-1 helicopters	95
H327	Inspect landing gears on H-1 helicopters	95
H396	Remove or install main rotor swashplates on H-1 helicopters	95
G246	Remove or install helicopter passenger seats	94
G282	Service helicopter transmissions	94
G278	Service helicopter engine oil systems	94
H392	Remove or install main rotor assemblies on H-1 helicopters	94
G196	Jack helicopters	94
H402	Remove or install rotor heads on H-1 helicopters	94
H404	Remove or install tail rotor blades on H-1 helicopters	94
H394	Remove or install main rotor dampers on H-1 helicopters	94
H334	Inspect transmissions on H-1 helicopters	93
H323	Inspect fire extinguisher systems on H-1 helicopters	93
H326	Inspect hydraulic systems on H-1 helicopters	93
H397	Remove or install main transmissions on H-1 helicopters	93
H410	Remove or install 90-degree or tail rotor gearboxes on H-1 helicopters	93
G227	Remove or install airframe access panels, hatches, or cowlings on helicopters	92
H422	Tie down blades on H-1 helicopters, other than for mooring	92
H324	Inspect flight control systems on H-1 helicopters	92
H341	Operationally check aircraft lighting systems on H-1 helicopters	92
G230	Remove or install batteries on helicopters	92

TABLE A5

TOOL CRIB
(STG63)

<u>Task</u>	<u>Task Statement</u>	<u>Percent Members Performing</u>
L867	Inspect tools or tool kits	100
L881	Receive turn-ins of equipment, tools, tool kits, or supplies	100
L865	Clean handtools or special equipment	100
L869	Issue equipment, tools, tool kits, or supplies	90
L868	Inventory equipment, tools, tool kits, or supplies	90
F123	Access core automated maintenance system (CAMS) menus and data screens	90
E94	Complete status tags for condition of property	90
L882	Schedule periodic calibrations of special handtools or equipment	81
E107	Order parts by voice communication	81
A5	Determine work priorities	72
L866	Inspect nonpowered support equipment	63
E117	Research supply information for special requisitions, issues, or turn-in slips	63
A4	Determine requirements for space, personnel, equipment, or supplies	63
C67	Prepare EPRs	63
A9	Develop work methods or procedures	63
E103	Maintain stock levels of office forms or supplies	54
A12	Establish performance standards for subordinates	54
C59	Evaluate procedures for storage, inventory, or inspection of property items	54
E105	Maintain TO files	54
B43	Interpret policies, directives, or procedures for subordinates	54
L870	Maintain -21 support equipment	36
E111	Prepare requests for authorizations of materials	36
E102	Maintain standard publication files	36
A19	Plan work assignments	36

TABLE A6

CAMS
(STG70)

<u>Task</u>	<u>Task Statement</u>	<u>Percent Members Performing</u>
E99	Maintain daily status reports	100
F123	Access core automated maintenance system (CAMS) menus and data screens	100
F129	Change CAMS workcenter event narratives	100
F134	Create equipment maintenance discrepancies in CAMS	88
F125	Change CAMS errors noted during daily verification processes	88
F126	Change CAMS job standard narratives	88
F157	Verify accuracies of daily inputs in CAMS	75
F131	Clear or close out completed maintenance discrepancies in CAMS	75
F147	Perform CAMS inquiries to monitor delayed discrepancies prior to, during, or after scheduling maintenance	75
F146	Perform CAMS inquiries for uncompleted maintenance event listings	75
F128	Change CAMS work unit codes	63
F127	Change CAMS performing workcenter codes	63
F137	Defer equipment maintenance discrepancies in CAMS	63
F124	Analyze CAMS data	63
F132	Conduct CAMS training	63
E122	Update or maintain work progress charts or status boards	50
E95	Coordinate estimated times in commission (ETICs) of maintenance jobs with job control	50
A3	Coordinate work with related maintenance activities	50
B26	Direct development or maintenance of status boards, graphs, or charts	50
E122	Update or maintain work progress charts or status reports	50
F149	Schedule equipment maintenance discrepancies in CAMS	50
E95	Coordinate estimated times in commission (ETICs) of maintenance jobs with job control	50
F154	Update CAMS automated historical reports	50

TABLE A7
 MAINTENANCE SUPERVISION
 (STG44)

<u>Task</u>	<u>Task Statement</u>	<u>Percent Members Performing</u>
C67	Prepare EPRs	94
B25	Counsel personnel on personal or military-related problems	92
A3	Coordinate work with related maintenance activities	89
B48	Supervise Helicopter Mechanics (AFSC 45751)	86
A5	Determine work priorities	84
A1	Assign personnel to duty positions	84
F123	Access core automated maintenance system (CAMS) menus and data screens	81
B49	Supervise Helicopter Technicians (AFSC 45771)	78
A19	Plan work assignments	78
B43	Interpret policies, directives, or procedures for subordinates	78
A16	Plan maintenance or inspections of helicopters	76
C58	Evaluate personnel compliance with performance standards	73
E95	Coordinate estimated times in commission (ETICs) of maintenance jobs with job control	73
B32	Direct scheduled inspections	73
B50	Supervise military personnel with AFSCs other than 457X1	71
C56	Evaluate maintenance or use of workspace, equipment, or supplies	71
D88	Maintain training records, charts, or graphs	71
F124	Analyze CAMS data	68
B29	Direct flightline maintenance	68
A4	Determine requirements for space, personnel, equipment, or supplies	68
A9	Develop work methods or procedures	66
A23	Schedule leaves or passes	66
C51	Analyze workload requirements	63
E119	Schedule helicopter maintenance	63
C64	Evaluate work schedules	58

TABLE A8

QAE
(STG107)

<u>Task</u>	<u>Task Statement</u>	<u>Percent Members Performing</u>
H331	Inspect rotor systems on H-1 helicopters	100
H334	Inspect transmissions on H-1 helicopters	100
H333	Inspect transmission drive systems on H-1 helicopters	100
H322	Inspect engines on H-1 helicopters	100
H326	Inspect hydraulic systems on H-1 helicopters	100
H324	Inspect flight control systems on H-1 helicopters	100
H327	Inspect landing gears on H-1 helicopters	100
H323	Inspect fire extinguisher systems on H-1 helicopters	100
H321	Inspect engine drive shafts on H-1 helicopters	90
H325	Inspect fuel systems on H-1 helicopters	90
C56	Evaluate maintenance or use of workspace, equipment, or supplies	80
A16	Plan maintenance or inspections of helicopters	80
L867	Inspect tools or tool kits	80
C58	Evaluate personnel compliance with performance standards	70
G185	Inspect electrical system components	70
G184	Inspect caution advisory panels on helicopters	70
G189	Inspect instrument cover glasses for slippage or breakage	70
G186	Inspect fire extinguishers	70
G187	Inspect first aid kits	70
B37	Implement or follow-up on quality assurance (QA) programs	70
H328	Inspect main rotor riggings on H-1 helicopters	60
C59	Evaluate procedures for storage, inventory, or inspection of property items	60
H332	Inspect tail rotor riggings on H-1 helicopters	60
H329	Inspect minimum blade angles on H-1 helicopters	50
F121	Type correspondence, records, reports, or forms	50

TABLE A9
TRAINING INSTRUCTOR
(STG49)

<u>Task</u>	<u>Task Statement</u>	<u>Percent Members Performing</u>
D86	Evaluate progress of resident course students	100
D87	Evaluate training methods or techniques	100
D78	Demonstrate how to locate technical information	100
D92	Write test questions	100
D75	Conduct resident course classroom training	80
D91	Score tests	80
D71	Administer tests	80
D77	Counsel trainees on training progress	80
D80	Determine resident course training requirements	80
D81	Develop resident course or career development course (CDC) curriculum materials	60
D88	Maintain training records, charts, or graphs	60
D83	Direct or implement training programs, other than OJT	60
B25	Counsel personnel on personal or military-related problems	60
D76	Conduct training conferences or briefings	40
E104	Maintain supply records	40
D90	Procure training aids, space, or equipment	40
D93	Write training reports	20
B46	Supervise Apprentice Helicopter Mechanics (AFSC 45731)	20
B49	Supervise Helicopter Technicians (AFSC 45771)	20
E106	Maintain work records or work order files	20

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APPENDIX B

LISTING OF MODULES AND TASK STATEMENTS

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These task modules (TMs) were developed in order to organize and summarize the extensive task information for this specialty. The TMs were derived by statistical clustering of the tasks in terms of which tasks are performed by the same incumbents. For example, if an individual performs one Support Equipment Maintenance task, the probability is very high that he or she also will perform other Support Equipment Maintenance tasks. Thus, the group of Support Equipment Maintenance tasks can be considered a "natural group" of associated or related tasks (see TM 0001 below). The statistical clustering generally approximates these "natural groupings."

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

0001 Support Equipment Maintenance

- L868 Inventory equipment, tools, tool kits, or supplies
- L867 Inspect tools or tool kits
- L865 Clean handtools or special equipment
- L866 Inspect nonpowered support equipment
- L879 Perform pre-use inspections on aircraft support equipment
- L880 Perform pre-use inspections on specialized support equipment
- L884 Transport powered aircraft support equipment from one location to another
- L883 Transport nonpowered aircraft support equipment

0002 Remove, Replace and Troubleshoot H-53 Components

- J645 Remove or install hydraulic system pumps on H-53 helicopters
- J631 Remove or install engine drive shafts on H-53 helicopters
- J670 Service emergency landing gear systems on H-53 helicopters
- J643 Remove or install generators on H-53 helicopters
- J621 Remove or install auxiliary fuel tank pylons on H-53 helicopters
- J573 Align transmission drive systems on H-53 helicopters
- J674 Service wheel brake assemblies on H-53 helicopters
- J609 Operationally check transmission drive systems on H-53 helicopters
- J579 Clean engine compressors on H-53 helicopters
- J626 Remove or install cyclic control system components on H-53 helicopters
- J653 Remove or install primary servos on H-53 helicopters
- J611 Operationally check windshield anti-ice systems on H-53 helicopters
- J685 Troubleshoot hydraulic systems on H-53 helicopters
- J624 Remove or install collective control system components on H-53 helicopters
- J689 Troubleshoot main rotor systems on H-53 helicopters

0002 Remove, Replace, and Troubleshoot H-53 Components (Continued)

- J657 Remove or install tail rotor tandem servos on H-53 helicopters
- J682 Troubleshoot flight control systems on H-53 helicopters
- J644 Remove or install hydraulic manifolds on H-53 helicopters
- J687 Troubleshoot landing gear systems on H-53 helicopters
- J691 Troubleshoot rotor brakes on H-53 helicopters
- J655 Remove or install tail pylons on H-53 helicopters
- J683 Troubleshoot fuel systems on H-53 helicopters
- J602 Operationally check cargo hooks on H-53 helicopters
- J677 Troubleshoot airframe systems on H-53 helicopters
- J693 Troubleshoot tail rotor systems on H-53 helicopters
- J635 Remove or install engines on H-53 helicopters
- J661 Remove or install transmission oil pumps on H-53 helicopters
- J676 Troubleshoot accessory gearboxes on H-53 helicopters
- J688 Troubleshoot main gearbox assemblies on H-53 helicopters
- J623 Remove or install cargo hook assemblies on H-53 helicopters
- J629 Remove or install emergency landing gear components on H-53 helicopters
- J678 Troubleshoot cabin heating or ventilating systems on H-53 helicopters
- J580 Connect or disconnect engine controls on H-53 helicopters
- J669 Service corotating shimmy dampers on H-53 helicopters
- J673 Service rotating shimmy dampers on H-53 helicopters
- J630 Remove or install engine control system components on H-53 helicopters
- J581 Flush hydraulic systems on H-53 helicopters
- J692 Troubleshoot tail gearboxes on H-53 helicopters
- J658 Remove or install tip cap lights on H-53 helicopters
- J663 Remove or install wheel brake system master cylinders on H-53 helicopters
- J620 Remove or install AFCS components on H-53 helicopters
- J632 Remove or install engine fire detection system components on H-53 helicopters
- J634 Remove or install engine starters on H-53 helicopters
- J665 Remove or install windshield anti-icing system components on H-53 helicopters
- J640 Remove or install external engine oil system components on H-53 helicopters
- J666 Rig engine controls on H-53 helicopters
- J638 Remove or install external engine fuel system components on H-53 helicopters

0003 CAMS Review and Initiation

- F151 Start or stop CAMS job following events
- F130 Change equipment maintenance schedules in CAMS
- F132 Conduct CAMS training
- F157 Verify accuracies of daily inputs in CAMS
- F153 Track equipment maintenance discrepancies in CAMS
- F152 Track CAMS job following events
- F154 Update CAMS automated historical reports

0004 **Tool Issue and Maintenance**

- L869** Issue equipment, tools, tool kits, or supplies
- L870** Maintain -21 support equipment
- L881** Receive turn-ins of equipment, tools, tool kits, or supplies
- L871** Maintain air transport kits on H-60 helicopters
- L882** Schedule periodic calibrations of special handtools or equipment

0005 **Conduct Resident Course Training**

- D91** Score tests
- D71** Administer tests
- D87** Evaluate training methods or techniques
- D90** Procure training aids, space, or equipment
- D83** Direct or implement training programs, other than OJT
- D76** Conduct training conferences or briefings
- D75** Conduct resident course classroom training
- D86** Evaluate progress of resident course students
- D80** Determine resident course training requirements
- D92** Write test questions
- D81** Develop resident course or career development course (CDC) curriculum materials
- D93** Write training reports

0006 **General Maintenance and Servicing**

- G288** Tow helicopters
- G168** Attach or detach towing devices on helicopters
- G227** Remove or install airframe access panels, hatches, or cowlings on helicopters
- G177** Connect or disconnect external electrical power to helicopters
- G172** Clean helicopter surfaces or compartments
- G222** Recover helicopters
- G215** Position fire extinguishers
- G216** Position or spot nonpowered aircraft support equipment
- G279** Service helicopter hydraulic systems
- G225** Refuel helicopters using pressure procedures
- G246** Remove or install helicopter passenger seats
- G217** Position or spot powered aircraft support equipment
- G196** Jack helicopters

0006 General Maintenance and Servicing (Continued)

- G282 Service helicopter transmissions
- G186 Inspect fire extinguishers
- G278 Service helicopter engine oil systems
- G281 Service helicopter tires
- G200 Lubricate airframe components on helicopters
- G234 Remove or install chip detectors on helicopters
- G183 Identify presence of corrosion on helicopters
- G179 Defuel helicopters using pressure procedures on H-1, H-53, or H-60 helicopters
- G230 Remove or install batteries on helicopters
- G218 Position or spot vehicles
- G221 Prepare reparable or serviceable parts for turn-ins
- G262 Remove or install main rotor pitch control rods on helicopters
- G267 Remove or install tail rotor assemblies on helicopters
- G187 Inspect first aid kits
- G239 Remove or install engine access panels or cowlings on helicopters
- G189 Inspect instrument cover glasses for slippage or breakage
- G184 Inspect caution advisory panels on helicopters
- G167 Apply corrosion preventives or preservatives
- G185 Inspect electrical system components
- G287 Take joint oil analysis program (JOAP) samples from helicopters
- G207 Operationally check flight controls on helicopters
- G206 Observe ground operation checks of helicopter engines
- G290 Treat minor corrosion on helicopters or components
- G237 Remove or install electrical lighting components or bulbs on helicopters
- G180 Drain fuel sumps on helicopters
- G257 Remove or install jettisonable windows on helicopters
- G163 Adjust tail rotor pitch control links on helicopters
- G160 Adjust door or window latch mechanisms on helicopters
- G248 Remove or install helicopter windshields or nonjettisonable windows
- G171 Clean and repack helicopter drive system components
- G235 Remove or install cockpit seats on helicopters
- G271 Remove or install windshield wiper system components on helicopters
- G212 Operationally check windshield wiper systems on helicopters
- G164 Adjust windshield wiper blade arms on helicopters
- G280 Service helicopter rotor brake systems
- G211 Operationally check rotor brake systems on helicopters
- G188 Inspect helicopter engine oil filters
- G174 Clean transmission oil filters on helicopters
- G252 Remove or install hydraulic system tubing, hoses, filters, or valves on helicopters
- G191 Inspect transmission oil screens
- G182 Drain or flush transmission oil systems on helicopters
- G255 Remove or install instruments on helicopters
- G264 Remove or install portable fire extinguishers
- G213 Pack or unpack helicopter components or assemblies
- G265 Remove or install rotor brake assemblies on helicopters

0006 General Maintenance and Servicing (Continued)

- G241 Remove or install engine hoses, tubing, or electrical connectors on helicopters
- G219 Prepare helicopters for nondestructive inspections
- G244 Remove or install external transmission oil filters on helicopters
- G256 Remove or install intermediate gearboxes on helicopters
- G173 Clean or replace helicopter fuel system filters or purifiers
- G175 Color code helicopter rotor assemblies
- G273 Remove or replace lighting assemblies on helicopters

0007 General Rotor Blade Maintenance

- G269 Remove or install tail rotor drive shafts on H-3, H-53, or H-60 helicopters
- G192 Inspect visible turbine blades
- G236 Remove or install crash-worthy auxiliary fuel tanks on helicopters
- G260 Remove or install main rotor blade tip caps on helicopters
- G270 Remove or install tail rotor drive thomas coupling assemblies on H-3, H-53, or H-60 helicopters
- G208 Operationally check hydraulic rescue hoists
- G284 Service main rotor blades on H-3, H-53, or H-60 helicopters
- G277 Service APP or APU accumulators
- G205 Moor helicopters
- G158 Adjust auto rotation on H-3, H-53, or H60 helicopters
- G162 Adjust pretracks on helicopters
- G285 Service tail drive shaft viscous dampers on H-3, H-53, or H-60 helicopters
- G233 Service hydraulic rescue hoists

0008 Maintain APPs, APUs, and Related Components

- G228 Remove or install APP or APU components on helicopters
- G293 Troubleshoot helicopter APPs or APUs
- G297 Troubleshoot windshield wiper systems on H-3, H-53, or H-60 helicopters
- G296 Troubleshoot lighting systems on H-3, H-53, or H-60 helicopters
- G245 Remove or install helicopter APUs or APPs
- G165 Align helicopter auxiliary power plants (APPs) or auxiliary power units (APUs)

0009 CAMS Update and Coordination

- F131 Clear or close out completed maintenance discrepancies in CAMS
- E108 Prepare aircraft flight or maintenance records, such as AFTO Forms 781 series forms
- F123 Access core automated maintenance system (CAMS) menus and data screens

0009 CAMS Update and Coordination (Continued)

- F134 Create equipment maintenance discrepancies in CAMS
- E94 Complete status tags for condition of property
- F149 Schedule equipment maintenance discrepancies in CAMS
- F146 Perform CAMS inquiries for uncompleted maintenance event listings
- F137 Defer equipment maintenance discrepancies in CAMS
- F129 Change CAMS workcenter event narratives
- F145 Perform CAMS inquiries for training status
- F147 Perform CAMS inquiries to monitor delayed discrepancies prior to, during, or after scheduling maintenance
- F128 Change CAMS work unit codes
- F127 Change CAMS performing workcenter codes
- F124 Analyze CAMS data
- E107 Order parts by voice communication
- F125 Change CAMS errors noted during daily verification processes
- F126 Change CAMS job standard narratives
- F148 Perform CAMS interface with base supply systems
- F143 Input supply data in CAMS

0010 H-3, H-53 Landing Gear and Rotor Blade Maintenance

- G190 Inspect landing gear systems on H-3 or H-53 helicopters
- G261 Remove or install main rotor blades on H-3 or H-53 helicopters
- G203 Lubricate main rotor heads on H-3 or H-53 helicopters
- G226 Remove main rotor assemblies from H-3 or H-53 helicopters
- G232 Remove or install cabin heating or ventilating system components on H-3 or H-53 helicopters
- G202 Lubricate landing gear components on H-3 or H-53 helicopters
- G266 Remove or install rotor heads on H-3 or H-53 helicopters
- G258 Remove or install landing gear components or assemblies on H-3 or H-53 helicopters
- G268 Remove or install tail rotor control components on H-3 or H-53 helicopters
- G201 Lubricate flight controls on H-3 or H-53 helicopters
- G263 Remove or install main rotor sleeves and spindles on H-3 or H-53 helicopters
- G209 Operationally check in-flight blade inspection systems (IBISs) on H-3 or H-53 helicopters

0011 Remove, Replace, and Inspect H-53 Components

- J597 Launch H-53 helicopters
- J591 Inspect rotor systems on H-53 helicopters
- J664 Remove or install wheels or tire assemblies on H-53 helicopters
- J589 Inspect hydraulic systems on H-53 helicopters

0011 Remove, Replace, and Inspect H-53 Components (Continued)

- J594 Inspect transmissions on H-53 helicopters
- J576 Bleed hydraulic systems on H-53 helicopters
- J675 Tie down blades on H-53 helicopters, other than for mooring
- J587 Inspect flight control systems on H-53 helicopters
- J595 Install main rotor assemblies on H-53 helicopters
- J656 Remove or install tail rotor blades on H-53 helicopters
- J593 Inspect transmission drive systems on H-53 helicopters
- J622 Remove or install auxiliary fuel tanks on H-53 helicopters
- J646 Remove or install input drive shaft multiple-disc couplings on H-53 helicopters
- J585 Inspect engines on H-53 helicopters
- J574 Assemble or disassemble H-53 helicopters for or after air transport
- J662 Remove or install wheel brake assemblies on H-53 helicopters
- J616 Quick-rig main rotor flight controls on H-53 helicopters
- J617 Quick-rig tail rotor flight controls on H-53 helicopters
- J647 Remove or install main gearboxes on H-53 helicopters
- J652 Remove or install oil cooler drive shafts on H-53 helicopters
- J586 Inspect fire extinguisher systems on H-53 helicopters
- J596 Install tail rotor assemblies on H-53 helicopters
- J600 Operationally check aircraft lighting systems on H-53 helicopters
- J584 Inspect engine drive shafts on H-53 helicopters
- J633 Remove or install engine input drive shafts on H-53 helicopters
- J672 Service main rotor assemblies on H-53 helicopters
- J648 Remove or install main rotor dampers on H-53 helicopters
- J607 Operationally check hydraulic systems on H-53 helicopters
- J608 Operationally check inflight refueling probes on H-53 helicopters
- J651 Remove or install oil cooler and blower assemblies on H-53 helicopters
- J619 Remove or install accessory gearbox drive shafts on H-53 helicopters
- J583 Inspect automatic flight control systems on H-53 helicopters
- J598 Operate cargo ramps or doors on H-53 helicopters
- J627 Remove or install doors on H-53 helicopters
- J588 Inspect fuel systems on H-53 helicopters
- J667 Rig main rotor flight controls on H-53 helicopters
- J590 Inspect main rotor riggings on H-53 helicopters
- J610 Operationally check wheel brake systems on H-53 helicopters
- J671 Service landing gear struts on H-53 helicopters
- J592 Inspect tail rotor riggings on H-53 helicopters
- J668 Rig tail rotor flight controls on H-53 helicopters
- J578 Bleed wheel brake systems on H-53 helicopters
- J649 Remove or install main rotor swashplates on H-53 helicopters
- J601 Operationally check cabin heating or ventilating systems on H-53 helicopters
- J599 Operationally check AC electrical power systems on H-53 helicopters
- J606 Operationally check H-53 helicopter main fuel systems
- J605 Operationally check H-53 helicopter auxiliary fuel systems
- J577 Bleed rotor brake assemblies on H-53 helicopters

0011 Remove, Replace, and Inspect H-53 Components (Continued)

- J618 Remove or install accessory drive gearboxes on H-53 helicopters
- J604 Operationally check engine fire detection systems on H-53 helicopters
- J628 Remove or install EAPS systems on H-53 helicopters
- J654 Remove or install tail gearboxes on H-53 helicopters
- J614 Prepare H-53 helicopters for fuel cell maintenance
- J603 Operationally check DC electrical power systems on H-53 helicopters

0012 H-53 Electrical System Component Maintenance

- J612 Oversee helicopter inspection or maintenance activities during cross-country missions on H-53 helicopters
- J684 Troubleshoot H-53 helicopter systems during flight
- J681 Troubleshoot engines on H-53 helicopters
- J686 Troubleshoot instrument systems on H-53 helicopters
- J690 Troubleshoot nose gearboxes on H-53 helicopters
- J659 Remove or install torque pickups on H-53 helicopters
- J660 Remove or install transformer rectifiers on H-53 helicopters
- J680 Troubleshoot engine fire detection systems on H-53 helicopters
- J679 Troubleshoot electrical distribution systems on H-53 helicopters
- J650 Remove or install nose gearboxes on H-53 helicopters
- J642 Remove or install fuel quantity transmitters on H-53 helicopters
- J639 Remove or install external engine ignition system components on H-53 helicopters
- J696 Troubleshoot windshield anti-icing equipment on H-53 helicopters
- J625 Remove or install current limiters on H-53 helicopters
- J694 Troubleshoot torque shafts on H-53 helicopters
- J636 Remove or install external engine actuating system IGV components on H-53 helicopters
- J637 Remove or install external engine anti-icing system components on H-53 helicopters
- J695 Troubleshoot transformer rectifiers on H-53 helicopters
- J641 Remove or install fuel cells on H-53 helicopters

0013 H-60 Maintenance

- K731 Launch H-60 helicopters
- K712 Inspect engines on H-60 helicopters
- K710 Inspect elastomeric bearing assemblies on H-60 helicopters
- K720 Inspect landing gear systems on H-60 helicopters
- K724 Inspect rotor systems on H-60 helicopters
- K714 Inspect flight control systems on H-60 helicopters
- K717 Inspect hydraulic systems on H-60 helicopters
- K713 Inspect fire extinguisher systems on H-60 helicopters
- K711 Inspect engine drive shafts on H-60 helicopters
- K715 Inspect fuel systems on H-60 helicopters

0013 H-60 Maintenance (Continued)

- K727 Inspect transmissions on H-60 helicopters
- K718 Inspect inlet particle separators (IPs) on H-60 helicopters
- K726 Inspect transmission drive systems on H-60 helicopters
- K733 Lubricate landing gear components on H-60 helicopters
- K795 Remove or install main rotor blades on H-60 helicopters
- K748 Operationally check refueling probes on H-60 helicopters
- K743 Operationally check engine fire detection systems on H-60 helicopters
- K796 Remove or install main rotor dampers on H-60 helicopters
- K746 Operationally check hydraulic systems on H-60 helicopters
- K744 Operationally check flight controls on H-60 helicopters
- K749 Operationally check wheel brake systems on H-60 helicopters
- K705 Clean engine compressors on H-60 helicopters
- K738 Operationally check aircraft lighting systems on H-60 helicopters
- K730 Install tail rotor assemblies on H-60 helicopters
- K709 Inspect automatic flight control systems on H-60 helicopters
- K771 Remove or install doors on H-60 helicopters
- K801 Remove or install paddles on H-60 helicopters
- K737 Operationally check AC electrical power systems on H-60 helicopters
- K833 Service main landing gear struts on H-60 helicopters
- K824 Remove or install wheels or tire assemblies on H-60 helicopters
- K729 Install main rotor assemblies on H-60 helicopters
- K719 Inspect junction boxes on H-60 helicopters
- K835 Service tail landing gear struts on H-60 helicopters
- K722 Inspect pitch trim on H-60 helicopters
- K723 Inspect roll and yaw trim on H-60 helicopters
- K716 Inspect generator control units (GCUs) on H-60 helicopters
- K789 Remove or install inner or outer retention plates on H-60 helicopter tail rotors
- K742 Operationally check DC electrical power systems on H-60 helicopters
- K732 Lubricate flight controls on H-60 helicopters
- K721 Inspect main rotor riggings on H-60 helicopters
- K815 Remove or install stabilators on H-60 helicopters
- K828 Remove or replace fuel transfer pumps on H-60 helicopters
- K739 Operationally check auxiliary tanks on H-60 helicopters
- K747 Operationally check prime boost pumps on H-60 helicopters
- K757 Remove main rotor assemblies from H-60 helicopters
- K725 Inspect tail rotor riggings on H-60 helicopters
- K762 Remove or install auxiliary fuel tanks on H-60 helicopters
- K703 Bleed hydraulic systems on H-60 helicopters
- K741 Operationally check cockpit heating and defrosting systems on H-60 helicopters
- K745 Operationally check H-60 helicopter main fuel systems
- K829 Remove tail rotor assemblies on H-60 helicopters
- K728 Install engines on H-60 helicopters
- K837 Tie down blades on H-60 helicopters, other than for mooring
- K798 Remove or install main rotor spindles on H-60 helicopters
- K734 Maintain gustlock assemblies on H-60 helicopters

0013 H-60 Maintenance (Continued)

- K740** Operationally check cargo hooks on H-60 helicopters
- K812** Remove or install rotor heads on H-60 helicopters
- K792** Remove or install landing gear components or assemblies on H-60 helicopters
- K822** Remove or install wheel brake assemblies on H-60 helicopters
- K819** Remove or install transmission oil filters on H-60 helicopters
- K834** Service main rotor assemblies on H-60 helicopters
- K758** Remove or install hydraulic pumps on H-60 helicopters
- K704** Bleed wheel brake systems on H-60 helicopters
- K708** Fold tailbooms on H-60 helicopters
- K756** Remove engines from H-60 helicopters
- K797** Remove or install main rotor elastomeric bearing assemblies on H-60 helicopters
- K750** Operationally check windshield anti-ice systems on H-60 helicopters
- K800** Remove or install oil cooler and blower assemblies on H-60 helicopters
- K700** Assemble or disassemble H-60 helicopters for or after C-5 air transport
- K814** Remove or install stabilator actuators on H-60 helicopters
- K816** Remove or install tail rotor control components on H-60 helicopters
- K772** Remove or install electric rescue hoists on H-60 helicopters
- K755** Quick-rig tail rotors on H-60 helicopters
- K706** Connect or disconnect engine controls on H-60 helicopters
- K799** Remove or install main rotor swashplates on H-60 helicopters
- K836** Service wheel brake systems on H-60 helicopters
- K763** Remove or install backup hydraulic pumps on H-60 helicopters
- K831** Rig main rotor flight controls on H-60 helicopters
- K856** Troubleshoot main rotor systems on H-60 helicopters
- K846** Troubleshoot flight control systems on H-60 helicopters
- K702** Balance main rotor systems on H-60 helicopters using dynamic methods
- K774** Remove or install engine drive shafts on H-60 helicopters
- K850** Troubleshoot hydraulic systems on H-60 helicopters
- K788** Remove or install hydraulic transfer modules on H-60 helicopters
- K766** Remove or install cargo hook assemblies on H-60 helicopters
- K832** Service electrical rescue hoists on H-60 helicopters
- K844** Troubleshoot engines on H-60 helicopters
- K807** Remove or install primary servos on H-60 helicopters
- K863** Troubleshoot windshield wiper systems on H-60 helicopters
- K697** Adjust stabilator actuators on H-60 helicopters
- K830** Rig engine controls on H-60 helicopters
- K813** Remove or install shaft extensions on H-60 helicopters
- K852** Troubleshoot instrument systems on H-60 helicopters
- K785** Remove or install fuel system filters on H-60 helicopters
- K787** Remove or install generators on H-60 helicopters
- K761** Remove or install APU generators on H-60 helicopters
- K817** Remove or install tail rotor tandem servos on H-60 helicopters
- K853** Troubleshoot landing gear systems on H-60 helicopters

0013 H-60 Maintenance (Continued)

- K773 Remove or install engine control system components on H-60 helicopters**
- K752 Prepare H-60 helicopters for fuel cell maintenance**
- K847 Troubleshoot fuel systems on H-60 helicopters**
- K791 Remove or install IPS blowers on H-60 helicopters**
- K759 Remove or install accessory modules on H-60 helicopters**
- K777 Remove or install engine starters on H-60 helicopters**
- K735 Monitor helicopter inspection or maintenance activities during cross-country missions on H-60 helicopters**
- K861 Troubleshoot tail rotor systems on H-60 helicopters**
- K765 Remove or install cabin heating or ventilating system components on H-60 helicopters**
- K805 Remove or install primary generators on H-60 helicopters**
- K810 Remove or install roll and yaw trim on H-60 helicopters**
- K794 Remove or install main modules on H-60 helicopters**
- K858 Troubleshoot roll and yaw trim on H-60 helicopters**
- K811 Remove or install roll stabilization augmentation system (SAS) servos on H-60 helicopters**
- K790 Remove or install input modules on H-60 helicopters**
- K804 Remove or install pitch trim on H-60 helicopters**
- K768 Remove or install collective control system components on H-60 helicopters**
- K760 Remove or install AFCS on H-60 helicopters**
- K803 Remove or install pilot-assist servos on H-60 helicopters**
- K826 Remove or install yaw boost servos on H-60 helicopters**
- K823 Remove or install wheel brake system master cylinders on H-60 helicopters**
- K845 Troubleshoot extended fuel range systems on H-60 helicopters**
- K775 Remove or install engine fire detection system components on H-60 helicopters**
- K857 Troubleshoot pitch trim on H-60 helicopters**
- K802 Remove or install pilot-assist manifolds on H-60 helicopters**
- K842 Troubleshoot electrical distribution systems on H-60 helicopters**
- K848 Troubleshoot H-60 helicopter systems during flight**
- K770 Remove or install cyclic control system components on H-60 helicopters**
- K862 Troubleshoot utility systems on H-60 helicopters**
- K841 Troubleshoot cabin heating or ventilating systems on H-60 helicopters**
- K821 Remove or install utility modules on H-60 helicopters**
- K843 Troubleshoot engine fire detection systems on H-60 helicopters**
- K767 Remove or install collective boost servos on H-60 helicopters**
- K840 Troubleshoot bleed air system valves on H-60 helicopters**
- K783 Remove or install fuel boost pumps on H-60 helicopters**
- K779 Remove or install external engine anti-icing system components on H-60 helicopters**
- K780 Remove or install external engine fuel system components on H-60 helicopters**
- K809 Remove or install reservoir fill pumps on H-60 helicopters**
- K864 Tune airframe vibration absorbers**
- K825 Remove or install windshield anti-icing system components on H-60 helicopters**
- K776 Remove or install engine high-speed drive shafts on H-60 helicopters**
- K786 Remove or install GCUs on H-60 helicopters**
- K860 Troubleshoot tail rotor drive shaft assemblies on H-60 helicopters**

0013 H-60 Maintenance (Continued)

- K855** Troubleshoot main modules on H-60 helicopters
- K698** Align transmission drive systems on H-60 helicopters
- K806** Remove or install primary servo manifolds on H-60 helicopters
- K859** Troubleshoot tail gearboxes on H-60 helicopters
- K854** Troubleshoot main drive shaft assemblies on H-60 helicopters
- K782** Remove or install external engine oil system components on H-60 helicopters
- K838** Troubleshoot accessory gearboxes on H-60 helicopters
- K808** Remove or install prime boost pumps on H-60 helicopters
- K764** Remove or install battery analyzers on H-60 helicopters
- K849** Troubleshoot high-speed drive shaft assemblies on H-60 helicopters
- K820** Remove or install transmission oil pumps on H-60 helicopters
- K781** Remove or install external engine ignition system components on H-60 helicopters
- K851** Troubleshoot input modules on H-60 helicopters
- K839** Troubleshoot battery analyzers on H-60 helicopters
- K827** Remove or replace engine fuel selector valves on H-60 helicopters
- K736** Operate air start compressors on H-60 helicopters
- K769** Remove or install converters on H-60 helicopters
- K818** Remove or install tailbooms on H-60 helicopters
- K707** Flush hydraulic systems on H-60 helicopters
- K754** Prepare H-60 helicopters for temporary storage
- K701** Assemble or disassemble H-60 helicopters for or after ground transport
- K751** Prepare H-60 helicopters for flyable storage
- K784** Remove or install fuel quantity transmitters on H-60 helicopters
- K793** Remove or install logic modules on H-60 helicopters
- K753** Prepare H-60 helicopters for intermediate storage
- K778** Remove or install external engine actuating system IGV components on H-60 helicopters
- K699** Assemble or disassemble H-60 helicopters for or after C-141 air transport

0014 H-1 Maintenance

- H311** Attach or detach ground handling wheels on H-1 helicopters
- H337** Launch H-1 helicopters
- H422** Tie down blades on H-1 helicopters, other than for mooring
- H322** Inspect engines on H-1 helicopters
- H331** Inspect rotor systems on H-1 helicopters
- H327** Inspect landing gears on H-1 helicopters
- H324** Inspect flight control systems on H-1 helicopters
- H334** Inspect transmissions on H-1 helicopters
- H341** Operationally check aircraft lighting systems on H-1 helicopters
- H333** Inspect transmission drive systems on H-1 helicopters
- H323** Inspect fire extinguisher systems on H-1 helicopters
- H326** Inspect hydraulic systems on H-1 helicopters

0014 H-1 Maintenance (Continued)

- H339 Lubricate main rotor heads on H-1 helicopters
- H321 Inspect engine drive shafts on H-1 helicopters
- H362 Remove or install airframe or engine covers on H-1 helicopters
- H325 Inspect fuel systems on H-1 helicopters
- H336 Install tail rotor assemblies on H-1 helicopters
- H345 Operationally check direct current (DC) electrical power systems on H-1 helicopters
- H373 Remove or install doors on H-1 helicopters
- H392 Remove or install main rotor assemblies on H-1 helicopters
- H338 Lubricate flight controls on H-1 helicopters
- H340 Lubricate tail rotor assemblies on H-1 helicopters
- H402 Remove or install rotor heads on H-1 helicopters
- H355 Perform engine compressor washes on H-1 helicopters
- H395 Remove or install main rotor stabilizer bars on H-1 helicopters
- H396 Remove or install main rotor swashplates on H-1 helicopters
- H407 Remove or install tail rotor drive shafts on H-1 helicopters
- H404 Remove or install tail rotor blades on H-1 helicopters
- H346 Operationally check engine fire detection systems on H-1 helicopters
- H377 Remove or install engine drive shafts on H-1 helicopters
- H393 Remove or install main rotor blades on H-1 helicopters
- H335 Install engines on H-1 helicopters
- H397 Remove or install main transmissions on H-1 helicopters
- H394 Remove or install main rotor dampers on H-1 helicopters
- H399 Remove or install mixing levers on H-1 helicopters
- H342 Operationally check alternating current (AC) electrical power systems on H-1 helicopters
- H371 Remove or install cyclic or collective servos on H-1 helicopters
- H349 Operationally check H-1 helicopter main fuel systems
- H405 Remove or install tail rotor control components on H-1 helicopters
- H379 Remove or install engine fire walls on H-1 helicopters
- H410 Remove or install 90-degree or tail rotor gearboxes on H-1 helicopters
- H398 Remove or install mast assemblies on H-1 helicopters
- H406 Remove or install tail rotor drive couplings on H-1 helicopters
- H370 Remove or install cyclic control system components on H-1 helicopters
- H403 Remove or install synchronized elevators on H-1 helicopters
- H348 Operationally check H-1 helicopter auxiliary fuel systems
- H360 Remove engines from H-1 helicopters
- H314 Balance tail rotors on H-1 helicopters using dynamic methods
- H390 Remove or install landing gear skid shoes on H-1 helicopters
- H367 Remove or install collective control system components on H-1 helicopters
- H391 Remove or install landing gear skid tubes on H-1 helicopters
- H313 Balance stabilizer bars on H-1 helicopters
- H332 Inspect tail rotor riggings on H-1 helicopters
- H312 Balance main rotor assemblies on H-1 helicopters using dynamic methods
- L873 Maintain ground handling wheels
- H424 Track tail rotor blades on H-1 helicopters using strobox equipment

0014 H-1 Maintenance (Continued)

- H389 Remove or install landing gear cross tubes on H-1 helicopters**
- H419 Service main rotor assemblies on H-1 helicopters**
- H358 Prepare H-1 helicopters for fuel cell maintenance**
- H299 Adjust auto rotation on H-1 helicopter main rotor systems**
- H400 Remove or install oil cooler and blower assemblies on H-1 helicopters**
- H350 Operationally check hydraulic systems on H-1 helicopters**
- H328 Inspect main rotor riggings on H-1 helicopters**
- H366 Remove or install cargo hook assemblies on H-1 helicopters**
- H301 Adjust main rotor blade trim tabs on H-1 helicopters**
- H414 Rig cyclic control systems on H-1 helicopters**
- H356 Perform landing gear deflection checks on H-1 helicopters**
- H413 Rig collective control systems on H-1 helicopters**
- H361 Remove or install air management systems on H-1 helicopters**
- H440 Troubleshoot main rotor systems on H-1 helicopters**
- H388 Remove or install inverters on H-1 helicopters**
- H420 Service rotor brake reservoirs on H-1 helicopters**
- H445 Troubleshoot tail rotor systems on H-1 helicopters**
- H421 Sweep main rotor blades on H-1 helicopters**
- H317 Bleed rotor brake assemblies on H-1 helicopters**
- H319 Connect or disconnect engine controls on H-1 helicopters**
- H430 Troubleshoot flight control systems on H-1 helicopters**
- H343 Operationally check cabin heating or ventilating systems on H-1 helicopters**
- H417 Rig tail rotor flight controls on H-1 helicopters**
- H431 Troubleshoot H-1 helicopter airframe systems**
- H368 Remove or install combining gearboxes on H-1 helicopters**
- H439 Troubleshoot main drive shaft assemblies on H-1 helicopters**
- H352 Operationally check transmission drive systems on H-1 helicopters**
- H387 Remove or install hydraulic system pumps on H-1 helicopters**
- H330 Inspect rescue hoists on H-1 helicopters**
- H444 Troubleshoot tail rotor drive shaft assemblies on H-1 helicopters**
- H344 Operationally check cargo suspension equipment on H-1 helicopters**
- H329 Inspect minimum blade angles on H-1 helicopters**
- H372 Remove or install DC starter generators on H-1 helicopters**
- H435 Troubleshoot hydraulic systems on H-1 helicopters**
- H401 Remove or install rotor brake hydraulic system master cylinders on H-1 helicopters**
- H441 Troubleshoot main transmission assemblies on H-1 helicopters**
- H363 Remove or install antitorque servos on H-1 helicopters**
- H433 Troubleshoot H-1 helicopter fuel systems**
- H378 Remove or install engine fire detection system components on H-1 helicopters**
- H351 Operationally check rescue hoists on H-1 helicopters**
- H318 Clean internal transmission oil filters on H-1 helicopters**
- H416 Rig synchronized elevators on H-1 helicopters**
- H443 Troubleshoot rotor brakes on H-1 helicopters**
- H382 Remove or install fuel boost pumps on H-1 helicopters**

0014 H-1 Maintenance (Continued)

- H375 Remove or install engine air particle separator (EAPS) systems on H-1 helicopters
- H 59 Remove or install components of ventilating systems on H-1 helicopters
- H438 Troubleshoot lighting systems on H-1 helicopters
- H446 Troubleshoot windshield wiper systems on H-1 helicopters
- H437 Troubleshoot landing gear systems on H-1 helicopters
- H374 Remove or install electric rescue hoists on H-1 helicopters
- H448 Troubleshoot 90-degree gearboxes on H-1 helicopters
- H432 Troubleshoot H-1 helicopter engines
- H425 Troubleshoot cabin heating or defrosting systems on H-1 helicopters
- H302 Adjust main rotor grip spacings on H-1 helicopters
- H306 Align transmission drive systems on H-1 helicopters
- H316 Bleed hydraulic systems on H-1 helicopters
- H447 Troubleshoot 42-degree gearboxes on H-1 helicopters
- H315 Balance tail rotors on H-1 helicopters using static methods
- H436 Troubleshoot instrument systems on H-1 helicopters
- H376 Remove or install engine control system components on H-1 helicopters
- H304 Adjust voltage regulators on H-1 helicopters
- H305 Align tail rotor hanger mounts on H-1 helicopters
- H426 Troubleshoot cabin ventilating systems on H-1 helicopters
- H409 Remove or install transmission oil pumps on H-1 helicopters
- H381 Remove or install external engine oil system components on H-1 helicopters
- H427 Troubleshoot combining gearboxes on H-1 helicopters
- H385 Remove or install grip assemblies on H-1 helicopters
- H434 Troubleshoot H-1 helicopter systems during flight
- H365 Remove or install cabin heating or defrosting system components on H-1 helicopters
- H415 Rig manual throttle controls on H-1 helicopters
- H412 Rig automatic throttle controls on H-1 helicopters
- H380 Remove or install external engine fuel system components on H-1 helicopters
- H408 Remove or install tailbooms on H-1 helicopters
- H384 Remove or install fuel quantity transmitters on H-1 helicopters
- H428 Troubleshoot electrical distribution systems on H-1 helicopters
- H354 Parallel generators on H-1 helicopters
- H307 Align 42-degree gearboxes on H-1 helicopters
- H320 Flush hydraulic systems on H-1 helicopters
- H429 Troubleshoot engine fire detection systems on H-1 helicopters
- H423 Track tail rotor blades on H-1 helicopters using stick methods
- H303 Adjust transmission oil pressures on H-1 helicopters
- H442 Troubleshoot rescue hoists on H-1 helicopters
- H411 Repair rescue hoists on H-1 helicopters
- H364 Remove or install auxiliary fuel tanks on H-1 helicopters
- H353 Oversee helicopter inspection or maintenance activities during cross-country missions on H-1 helicopters

0014 H-1 Maintenance (Continued)

- H383 Remove or install fuel cells on H-1 helicopters
- H418 Service electrical rescue hoists on H-1 helicopters
- H359 Prepare H-1 helicopters for temporary storage
- H386 Remove or install hydraulic rescue hoists on H-1 helicopters
- H347 Operationally check external storage systems on helicopters
- H300 Adjust fuel density settings on fuel control flow dividers on H-1 helicopters
- H357 Prepare H-1 helicopters for flyable storage
- H310 Assemble or disassemble H-1 helicopters for or after ground transport
- H308 Assemble or disassemble H-1 helicopters for or after C-141 air transport
- H309 Assemble or disassemble H-1 helicopters for or after C-5 air transport

0015 H-3 Maintenance

- I479 Operationally check aircraft lighting systems on H-3 helicopters
- I457 Clean engine compressors on H-3 helicopters
- I542 Remove or install wheels or tire assemblies on H-3 helicopters
- I470 Inspect transmission drive systems on H-3 helicopters
- I488 Operationally check inflight refueling probes on H-3 helicopters
- I552 Tie down blades on H-3 helicopters, other than for mooring
- I466 Inspect hydraulic systems on H-3 helicopters
- I487 Operationally check hydraulic systems on H-3 helicopters
- I463 Inspect fire extinguisher systems on H-3 helicopters
- I472 Install engines on H-3 helicopters
- I464 Inspect flight control systems on H-3 helicopters
- I478 Operationally check AC electrical power systems on H-3 helicopters
- I537 Remove or install tail rotor blades on H-3 helicopters
- I455 Bleed rotor brake assemblies on H-3 helicopters
- I483 Operationally check DC electrical power systems on H-3 helicopters
- I465 Inspect fuel systems on H-3 helicopters
- I522 Remove or install generators on H-3 helicopters
- I484 Operationally check engine fire detection systems on H-3 helicopters
- I460 Inspect automatic flight control systems on H-3 helicopters
- I469 Inspect tail rotor riggings on H-3 helicopters
- I467 Inspect main rotor riggings on H-3 helicopters
- I498 Quick-rig tail rotor flight controls on H-3 helicopters
- I526 Remove or install main gearboxes on H-3 helicopters
- I473 Install main rotor assemblies on H-3 helicopters
- I490 Operationally check wheel brake systems on H-3 helicopters
- I549 Service main rotor assemblies on H-3 helicopters
- I454 Bleed hydraulic systems on H-3 helicopters
- I485 Operationally check H-3 helicopter auxiliary fuel systems
- I499 Remove engines from H-3 helicopters

0015 H-3 Maintenance (Continued)

- I474 Install tail rotor assemblies on H-3 helicopters**
- I477 Operate cargo ramps on H-3 helicopters**
- I497 Quick-rig main rotor flight controls on H-3 helicopters**
- I524 Remove or install hydraulic system pumps on H-3 helicopters**
- I502 Remove or install auxiliary fuel tanks on H-3 helicopters**
- I480 Operationally check cabin heating or ventilating systems on H-3 helicopters**
- I530 Remove or install oil cooler drive belts on H-3 helicopters**
- I486 Operationally check H-3 helicopter main fuel systems**
- I540 Remove or install wheel brake assemblies on H-3 helicopters**
- I567 Troubleshoot rotor brakes on H-3 helicopters**
- I456 Bleed wheel brake systems on H-3 helicopters**
- I492 Perform retraction checks of landing gear on H-3 helicopters**
- I534 Remove or install tail drive shaft multiple-disc couplings on H-3 helicopters**
- I547 Service emergency landing gear systems on H-3 helicopters**
- I548 Service main landing gear struts on H-3 helicopters**
- I546 Rig tail rotor flight controls on H-3 helicopters**
- I545 Rig main rotor flight controls on H-3 helicopters**
- I494 Prepare H-3 helicopters for fuel cell maintenance**
- I550 Service nose landing gear struts on H-3 helicopters**
- I461 Inspect engine drive shafts on H-3 helicopters**
- I561 Troubleshoot hydraulic systems on H-3 helicopters**
- I481 Operationally check cargo sling equipment on H-3 helicopters**
- I507 Remove or install doors on H-3 helicopters**
- I551 Service wheel brake systems on H-3 helicopters**
- I505 Remove or install collective control system components on H-3 helicopters**
- I557 Troubleshoot H-3 helicopter airframe systems**
- I506 Remove or install cyclic control system components on H-3 helicopters**
- I504 Remove or install cargo hook assemblies on H-3 helicopters**
- I532 Remove or install primary servos on H-3 helicopters**
- I536 Remove or install tail pylons on H-3 helicopters**
- I531 Remove or install panel packages on H-3 helicopters**
- I535 Remove or install tail gearboxes on H-3 helicopters**
- I513 Remove or install engine starters on H-3 helicopters**
- I566 Troubleshoot main rotor systems on H-3 helicopters**
- I559 Troubleshoot H-3 helicopter fuel systems**
- I553 Troubleshoot cabin heating or ventilating systems on H-3 helicopters**
- I500 Remove or install automatic flight control system (AFCS) components on H-3 helicopters**
- I511 Remove or install engine fire detection system components on H-3 helicopters**
- I458 Connect or disconnect engine controls on H-3 helicopters**
- I558 Troubleshoot H-3 helicopter engines**
- I489 Operationally check transmission drive systems on H-3 helicopters**
- I510 Remove or install engine drive shafts on H-3 helicopters**
- I563 Troubleshoot landing gear systems on H-3 helicopters**
- I512 Remove or install engine fire walls on H-3 helicopters**

0015 H-3 Maintenance (Continued)

- I523 Remove or install gimbal ring assemblies on H-3 helicopters
- I556 Troubleshoot flight control systems on H-3 helicopters
- I509 Remove or install engine control system components on H-3 helicopters
- I538 Remove or install transformer rectifiers on H-3 helicopters
- I503 Remove or install auxiliary servos on H-3 helicopters
- I501 Remove or install auxiliary fuel tank pylons on H-3 helicopters
- I533 Remove or install rotor brake hydraulic system master cylinders on H-3 helicopters
- I544 Rig engine controls on H-3 helicopters
- I525 Remove or install inverters on H-3 helicopters
- I570 Troubleshoot tail rotor systems on H-3 helicopters
- I555 Troubleshoot engine fire detection systems on H-3 helicopters
- I571 Troubleshoot transformer rectifiers on H-3 helicopters
- I541 Remove or install wheel brake system master cylinders on H-3 helicopters
- I491 Operationally check windshield anti-ice systems on H-3 helicopters
- I527 Remove or install main rotor dampers on H-3 helicopters
- I569 Troubleshoot tail rotor drive shaft assemblies on H-3 helicopters
- I508 Remove or install emergency landing gear components on H-3 helicopters
- I565 Troubleshoot main gearbox assemblies on H-3 helicopters
- I554 Troubleshoot electrical distribution systems on H-3 helicopters
- I564 Troubleshoot main drive shaft assemblies on H-3 helicopters
- I529 Remove or install oil cooler and blower assemblies on H-3 helicopters
- I568 Troubleshoot tail gearboxes on H-3 helicopters
- I539 Remove or install transmission oil pumps on H-3 helicopters
- I562 Troubleshoot instrument systems on H-3 helicopters
- I459 Flush hydraulic systems on H-3 helicopters
- I516 Remove or install external engine fuel system components on H-3 helicopters
- I449 Adjust transmission oil pressures on H-3 helicopters
- I528 Remove or install main rotor swashplates on H-3 helicopters
- I450 Align transmission drive systems on H-3 helicopters
- I515 Remove or install external engine anti-icing system components on H-3 helicopters
- I560 Troubleshoot H-3 helicopter systems during flight
- I572 Troubleshoot windshield anti-icing equipment on H-3 helicopters
- I521 Remove or install fuel quantity transmitters on H-3 helicopters
- I476 Monitor helicopter inspection or maintenance activities during cross-country missions on H-3 helicopters
- I543 Remove or install windshield anti-icing system components on H-3 helicopters
- I518 Remove or install external engine oil system components on H-3 helicopters
- I519 Remove or install fuel boost pumps on H-3 helicopters
- I517 Remove or install external engine ignition system components on H-3 helicopters
- I496 Prepare helicopter engines for preservation runs
- I482 Operationally check cargo winches on H-3 helicopters

0015 H-3 Maintenance (Continued)

- I520 Remove or install fuel cells on H-3 helicopters**
- I452 Assemble or disassemble H-3 helicopters for or after C-5 air transport**
- I514 Remove or install external engine actuating system internal guide vanes (IGVs) on H-3 helicopters**
- I453 Assemble or disassemble H-3 helicopters for or after ground transport**
- I493 Prepare H-3 helicopters for flyable storage**
- I495 Prepare H-3 helicopters for temporary storage**
- I451 Assemble or disassemble H-3 helicopters for or after C-141 air transport**

0016 Administrative, Supervisory, and Management

- D74 Conduct OJT**
- B46 Supervise Apprentice Helicopter Mechanics (AFSC 45731)**
- B48 Supervise Helicopter Mechanics (AFSC 45751)**
- A5 Determine work priorities**
- A3 Coordinate work with related maintenance activities**
- D78 Demonstrate how to locate technical information**
- C67 Prepare EPRs**
- D88 Maintain training records, charts, or graphs**
- E119 Schedule helicopters' maintenance**
- B50 Supervise military personnel with AFSCs other than 457X1**
- D85 Evaluate OJT trainees**
- D77 Counsel trainees on training progress**
- B29 Direct flightline maintenance**
- B25 Counsel personnel on personal or military-related problems**
- A12 Establish performance standards for subordinates**
- A16 Plan maintenance or inspections of helicopters**
- E95 Coordinate estimated times in commission (ETICs) of maintenance jobs with job control**
- A19 Plan work assignments**
- E116 Request support of aircraft support equipment**
- B43 Interpret policies, directives, or procedures for subordinates**
- E117 Research supply information for special requisitions, issues, or turn-in slips**
- C58 Evaluate personnel compliance with performance standards**
- E120 Schedule nondestructive inspections**
- A1 Assign personnel to duty positions**
- E118 Review inspection checklists for current requirements**
- B32 Direct scheduled inspections**
- B33 Direct special inspections**
- B49 Supervise Helicopter Technicians (AFSC 45771)**
- A9 Develop work methods or procedures**
- A4 Determine requirements for space, personnel, equipment, or supplies**
- E99 Maintain daily status reports**
- E100 Maintain mission-essential equipment records**

0016 Administrative Supervisory and Management (Continued)

- D89 Plan OJT
- E122 Update or maintain work progress charts or status boards
- B34 Direct utilization of equipment
- E101 Maintain publication files, other than technical order (TO) files or standard publication files
- B27 Direct dock inspections or maintenance
- E104 Maintain supply records
- C53 Evaluate individuals for promotion, demotion, or reclassification
- D79 Determine OJT requirements
- E102 Maintain standard publication files
- C56 Evaluate maintenance or use of workspace, equipment, or supplies
- D72 Assign on-the-job training (OJT) trainers
- A23 Schedule leaves or passes
- D82 Direct or implement OJT programs
- B39 Implement safety programs
- E110 Prepare or maintain duty rosters
- E106 Maintain work records or work order files
- B36 Implement or follow-up on foreign object damage (FOD) programs
- C51 Analyze workload requirements
- B26 Direct development or maintenance of status boards, graphs, or charts
- A14 Plan briefings
- C64 Evaluate work schedules
- E121 Type correspondence, records, reports, or forms
- B28 Direct field maintenance
- C54 Evaluate inspection reports or procedures
- B38 Implement or maintain corrosion control programs
- C68 Select individuals for specialized training
- C65 Indorse enlisted performance reports (EPRs)
- E111 Prepare requests for authorizations of materials
- A17 Plan safety programs
- E103 Maintain stock levels of office forms or supplies
- B40 Implement security programs
- A2 Assign sponsors for newly assigned personnel
- B37 Implement or follow-up on quality assurance (QA) programs
- B45 Review man-hour reporting forms
- E112 Prepare requests for special orders
- A11 Establish organ policies, maintenance operating instructions (MOIs), or standard operating procedures (SOPs)
- C60 Evaluate safety programs
- A13 Establish publications libraries
- C59 Evaluate procedures for storage, inventory, or inspection of property items
- E97 Draft correspondence or reports
- A8 Develop quality control programs
- E98 Maintain correspondence files
- C55 Evaluate job descriptions

0016 Administrative, Supervisory, and Management

- A20 Prepare job descriptions
- B41 Implement suggestion programs
- C61 Evaluate security programs
- A7 Develop organizational charts
- B30 Direct maintenance of administrative files
- D84 Establish study reference files
- B35 Implement cost reduction programs
- A18 Plan security programs
- B42 Initiate personnel action requests
- C62 Evaluate suggestions
- C70 Write staff studies, surveys, or special reports
- C66 Investigate accidents or incidents
- A15 Plan layouts of facilities
- B44 Maintain contingency plans
- B24 Conduct staff meetings
- C52 Evaluate budget or financial requirements
- A21 Prepare monthly maintenance plans
- A10 Draft budget or financial requirements
- A22 Prepare unit emergency plans
- C63 Evaluate unit emergency plans
- C69 Write civilian performance ratings or supervisory appraisals

0017 Tasks Not Referenced

- G194 Interpret helicopter markings
- G170 Brief pilots or crews on status of aircraft
- G224 Refuel helicopters using gravity procedures
- G229 Remove or install armor platings
- G204 Measure helicopter vibrations
- G195 Interpret schematics
- G178 Defuel helicopters using gravity procedures
- G193 Interpret diagrams
- E105 Maintain TO files
- G291 Troubleshoot chip detector systems on helicopters
- J582 Fold tail pylons on H-53 helicopters
- G197 Level helicopters
- G247 Remove or install helicopter shoulder harnesses
- G181 Drain moisture from pitot-static lines on helicopters
- G233 Remove or install caution advisory panels on helicopters
- G276 Research or record data for issue or turn-in slips
- G238 Remove or install electrical or lighting system panels on helicopters
- G292 Troubleshoot drive shaft assemblies on helicopters

0017 Tasks Not Referenced (Continued)

- G254 Remove or install instrument or transmitter hoses, tubing, wiring, or connectors on helicopters
- G198 Load or off-load cargo
- G243 Remove or install engine oil filters on helicopters
- G199 Load or off-load litters
- G159 Adjust cargo hook releases on helicopters
- G251 Remove or install hydraulic system accumulators on helicopters
- G223 Refuel helicopters using closed-circuit procedures on H-1 or H-60 helicopters
- G169 Balance tail rotors on H-3, H-53, or H-60 helicopters using dynamic methods
- L877 Perform operator maintenance on tow vehicles
- G286 Service windshield wiper system reservoirs on H-3 or H-53 helicopters
- G298 Weigh helicopters
- G249 Remove or install hydraulic heat exchangers on H-3 or H-53 helicopters
- G253 Remove or install inflight refueling probes on H-3 or H-53 helicopters
- G231 Remove or install biflars on H-3 or H-60 helicopters
- G295 Troubleshoot intermediate gearboxes on helicopters
- G250 Remove or install hydraulic rescue hoists on H-3 or H-53 helicopters
- G210 Operationally check pitot-static heaters
- G272 Remove or replace cockpit instrument markings or decals
- L875 Perform operator maintenance on aircraft or engine cleaning equipment
- G289 Track tail rotor blades on H-3 or H-53 helicopters
- G259 Remove or install landing gear hydraulic system actuators on H-3 or H-53 helicopters
- L878 Perform operator maintenance on transportation vehicles
- F133 Create equipment identification numbers in CAMS
- G275 Research numerical index requirement tables (NIRTs) to locate TO numbers or titles
- G274 Remove scratches from transparent surfaces
- G214 Perform duties of aircrew observer or scanner
- L876 Perform operator maintenance on powered aircraft support equipment
- G220 Prepare installed engines for depreservation runs on H-1, H-3, or H-53 helicopters
- J575 Assemble or disassemble H-53 helicopters for or after ground transport
- G242 Remove or install engine main oil system components on H-3 or H-53 helicopters
- G294 Troubleshoot IBISs on H-3 or H-53 helicopters
- G240 Remove or install engine auxiliary oil system components on H-3 or H-53 helicopters
- G166 Align main landing gear on H-3 or H-53 helicopters
- J613 Prepare H-53 helicopters for flyable storage
- F140 Establish CAMS job standard narratives
- F141 Establish equipment maintenance schedules in CAMS
- F138 Determine CAMS training requirements
- G161 Adjust fuel density settings on fuel controls on H-3 or H-53 helicopters
- F135 Create equipment preventive maintenance inspection (PMI) schedules in CAMS
- F139 Establish CAMS automated historical reports
- J615 Prepare H-53 helicopters for temporary storage
- L874 Maintain portable maintenance cranes
- F150 Schedule training in CAMS
- F144 Maintain training data bases in CAMS

0017 Tasks Not Referenced (Continued)

- G176 Conduct crash recovery procedures**
- F155 Update CAMS workcenter training products**
- F136 Create maintenance personnel records in CAMS**
- F142 Implement CAMS workcenter training programs**
- L872 Maintain crash recovery kits**
- B47 Supervise civilians**
- F156 Update CAMS personnel data files**
- A6 Develop mobility programs**
- E96 Coordinate reviews of class-II modification records**
- B31 Direct mobility programs**
- E109 Prepare Class-II modification records**
- E113 Prepare security clearance confirmations**
- D73 Assign resident course instructors**
- C57 Evaluate mobility programs**
- E115 Prepare unsatisfactory reports (URs)**
- E114 Prepare statements of charges**