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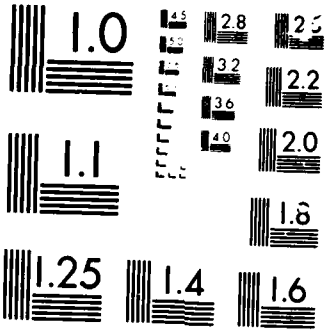
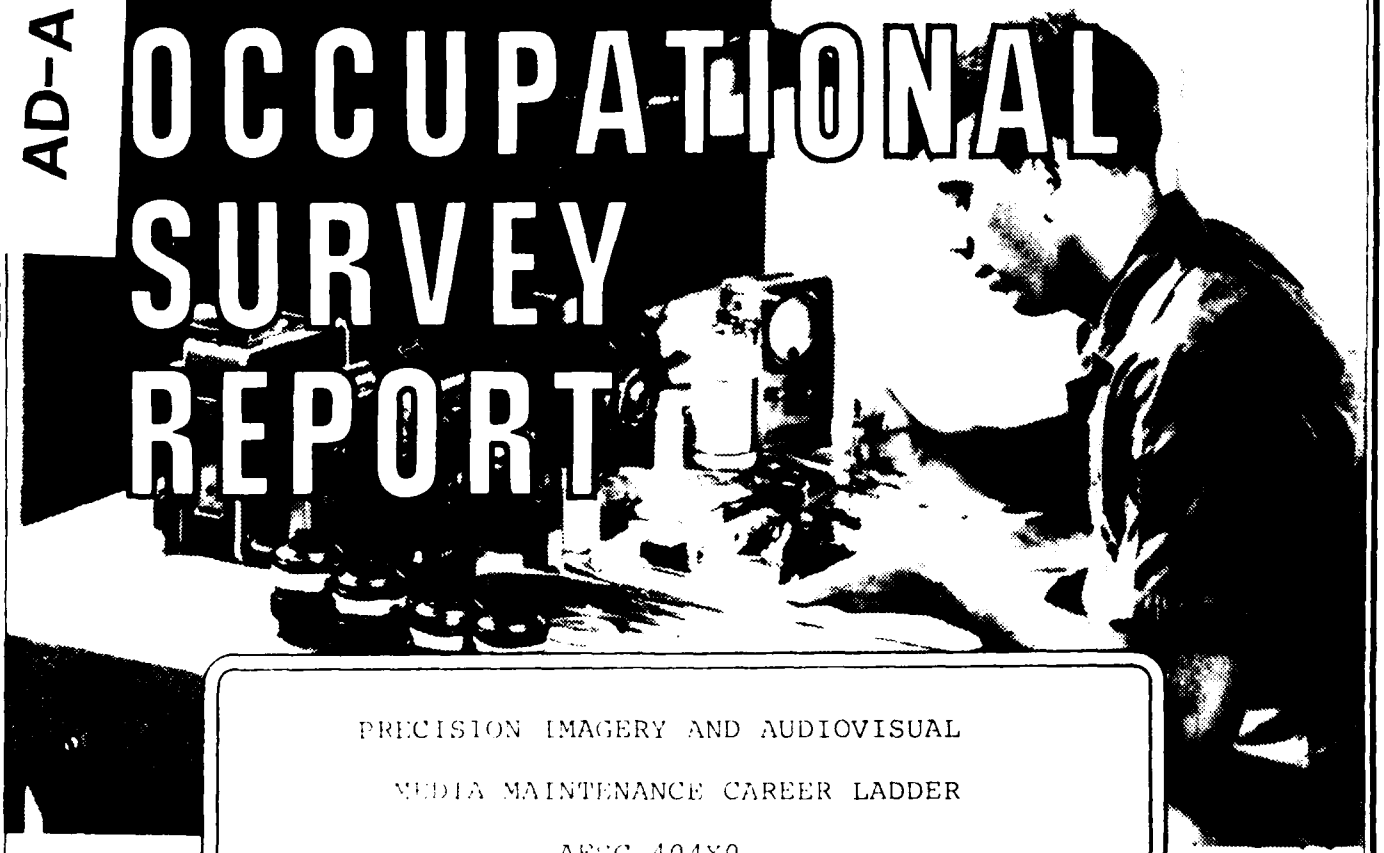


UNITED STATES AIR FORCE

OCCUPATIONAL SURVEY REPORT



PRECISION IMAGERY AND AUDIOVISUAL

MEDIA MAINTENANCE CAREER LADDER

AFSC 404X0

AFPT 90-404-546

MAY 1986

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

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PREFACE

This report presents the results of an Air Force occupational survey of the Precision Imagery and Audiovisual Media Maintenance specialty (AFSC 404X0). This survey was requested by the AFSC 404X0 Training Staff Officer (TSO), DCS/Technical Training, HQ Air Training Command (HQ ATC/TTQL), to determine the amount and type of electronics principles training necessary for individuals entering the AFSC, due to a substantial influx of electronic equipment entering the field.

The survey instrument used in this project was developed by Captain Beverly C. Handy, Inventory Development Specialist. Ms Becky Hernandez provided computer support for this project. Chief Master Sergeant James T. Duffy analyzed the survey data and wrote the report. Administrative support was provided by Ms Anita R. Carter. This report was reviewed and approved by Lieutenant Colonel Charles D. Gorman, Chief, Airman Analysis Branch, Occupational Analysis Division, USAF Occupational Measurement Center.

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

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SUMMARY OF RESULTS

1. Survey Coverage: Of the 352 enlisted members in the 404X0 career ladder, 267, or 84 percent of the total specialty population, were in the final survey sample. Eighty-nine percent of personnel sampled were assigned to SAC, MAC, and the Tactical Air Forces.

2. Specialty Jobs: Analysis of the Precision Imagery and Audiovisual Media Maintenance career ladder identified two clusters and five independent job types (IJT):

Base Photo Lab and Audiovisual Maintenance Cluster
Photographic Support Systems Cluster
Photo Reconnaissance/ARP Supervisors IJT
Motion Picture Camera Maintenance Personnel IJT
Resident Course Instructor Personnel IJT
Apprentice Light Table Maintenance Personnel IJT
Apprentice Projector Maintenance Personnel IJT

A majority of incumbents were found to be performing maintenance tasks related to photo labs, audiovisual libraries, or photographic support systems. Only the Photo Reconnaissance/ARP Supervisors are performing primarily supervisory tasks, but they represent less than 1 percent of the survey sample.

3. Career Ladder Progression: The 3- and 5-skill level jobs are highly technical, with little responsibility for supervision or management. While reporting performing some supervisory task performance, the majority of 7-skill members perform a job that is also technically oriented.

4. AFR 39-1 Specialty Descriptions: The 3-, 5-, and 7-skill level descriptions accurately reflected the jobs in the career ladder which involved maintenance on large numbers of photographic and audiovisual equipment items.

5. Training: The career ladder training documents (STS and POI) may require adjustments to insure structured training supports jobs performed by 404X0 personnel in the field.

5. Electronics Principles: When compared to the 1984 Lowry EPI, the G3ABR40430 POI adequately supports the needs of the career field.

OCCUPATIONAL SURVEY REPORT
PRECISION IMAGERY AND AUDIOVISUAL MEDIA MAINTENANCE
(AFSC 404X0)

INTRODUCTION

This is a report of an occupational survey of the Precision Imagery and Audiovisual Media Maintenance career ladder completed by the Occupational Analysis Division, USAF Occupational Measurement Center, in April 1986. The specialty was last surveyed in May 1981. A specific issue to be considered in this report is the evaluation of the amount and type of electronics principles training necessary due to a substantial influx of electronics equipment entering the field.

Along with the training issue, many other areas will be analyzed in this occupational survey report (OSR). Some of these include specialized job identification, major command differences, continental United States (CONUS) versus overseas differences, as well as differences by paygrade, total active federal military service (TAFMS), and duty AFSC skill level groups. Job satisfaction data, such as perceived utilization of talents and reenlistment intentions, will also be reviewed.

Background

As described in the AFR 39-1 specialty description for this AFSC, Precision Imagery and Audiovisual Media Maintenance specialists are responsible for in-shop maintenance of all Air Force ground electronic precision imagery and audiovisual equipment. This includes items such as processors, printers, projectors, still or motion picture cameras, and duplicating and processing graphics equipment.

History

The 404X0 career ladder was created 30 September 1964 from the 402X0, Photographic Repairman Specialty. Originally titled Precision Photographic Systems Specialty, the career ladder was changed 30 April 1978 to Precision Imagery and Audiovisual Media Specialty, still with the AFSC designation of 404X0.

Technical Training

AFSC 404X0 Precision Imagery and Audiovisual Media Maintenance personnel receive basic resident training from the 3400 TCHTW, Lowry AFB, Colorado. Since this is a Category "A" AFSC, course attendance is mandatory for award of the 3-skill level. The course is 78 days in duration, with the first 5 weeks consisting of electronics principles training.

SURVEY METHODOLOGY

Inventory Development

The data collection instrument for this survey was USAF Job Inventory AFPT 90-404-546, dated September 1984. A tentative task list was prepared by the Inventory Developer after reviewing pertinent career ladder publications and directives, tasks from previous survey instruments, and data from the last OSR. To ensure full coverage of the variety of tasks performed by members of the career ladder, critical bases were identified and visited by the Inventory Developer. This step is important, since visiting bases which maintain the same or similar systems and overlooking bases which maintain unique or different systems may bias the task list and invalidate the results. Those bases and the reason visited are as follows:

Lowry AFB CO - - - -	Technical School
Hurlburt Field FL -	Maintains unique Mobile Facility
Beale AFB CA - - - -	Maintains processing equipment associated with SR-71 Reconnaissance Aircraft
Vandenberg AFB CA -	Maintains high speed precision tracking equipment used to film missile launches
Norton AFB CA - - -	Responsible for all Air Force films, i.e., AF Now, Recruiting and Training; thus maintains a wide variety of audiovisual equipment
Offutt AFB NE - - -	Maintains full range of photographic interpretation and other strategic intelligence-related equipment
Bergstrom AFB TX -	Maintains the WS-430 Relocatable Facility

A total of 30 career ladder members participated in the interviews at the above locations. The Air Force Functional Manager, Training Staff Officer, MAJCOM Functional Manager, Classification and Standards, and Assignments personnel for the field were also contacted.

An instrument consisting of 1,194 tasks listed under 14 major duty headings is the final result of this exhaustive effort. The survey instrument also included a background section that requested information such as job title, duty area, major command of assignment, and job satisfaction data.

Data Collection

From November 1984 to April 1985, consolidated base personnel offices (CBPO) at operational units worldwide administered the inventory to personnel

holding the 404X0 Air Force Specialty. Participants were selected from a computer-generated mailing list obtained from personnel data tapes maintained by the Air Force Human Resources Laboratory (AFHRL).

Each individual who was administered the inventory first completed an identification and biographical information section and then checked each task performed in his current job. The participants then rated the tasks checked, on a 9-point scale, showing the relative time spent on that task as compared to all other tasks. The time spent ratings are measured on a scale which ranges from 1 (Very small amount of time) through 5 (About average amount of time) to 9 (Very large amount of time).

Time spent is defined as a relative measure of how much time individuals perceive themselves to spend on each task, as compared to all other tasks checked in the survey. To calculate time spent, all of an incumbent's ratings are assumed to account for 100 percent of his or her time spent on the job. The rating for each task is divided by the sum of all ratings, then multiplied by 100 to provide a relative percentage of time for each task. This procedure provides a basis for comparing tasks in terms of both percent members performing (where a task is checked by an incumbent) and relative time spent (based on the calculations from the 1-9 scale).

Survey Sample

Personnel were selected to participate in this survey to ensure an accurate representation across major commands and paygrade groups. All eligible DAFSC 404X0 personnel were mailed survey booklets. To be eligible for the survey, personnel must have held a DAFSC of 40430, 40450, or 40470, and have worked in their present job for at least 6 weeks. Those ineligible, and not mailed booklets, include personnel in hospital status, retiring, or being discharged.

Table 1 shows the percentage distribution, by major command, of assigned personnel in the career ladder as of November 1984. Also listed in this table is the percentage distribution, by MAJCOM, of respondents in the final survey. The 267 respondents included in the final sample represent 84 percent of those eligible. Table 2 reflects the paygrade group distribution. As reflected in these tables, the survey sample provides excellent representation of the career ladder population.

TABLE 1

COMMAND REPRESENTATION OF SURVEY SAMPLE

COMMAND	PERCENT OF ASSIGNED	PERCENT OF SAMPLE
SAC	25	24
TAC	24	25
MAC	20	21
USAFE	14	14
ATC	9	10
PACAF	6	5
OTHER	2	*
TOTAL	100	99**

TOTAL ASSIGNED: 352
TOTAL ELIGIBLE: 317
FINAL SAMPLE: 267
PERCENT OF ASSIGNED: 76%
PERCENT OF ELIGIBLE: 84%

* Less than 1 percent
** Does not equal 100 percent due to rounding

TABLE 2

PAYGRADE DISTRIBUTION OF SURVEY SAMPLE

PAYGRADE	PERCENT OF ASSIGNED	PERCENT OF SAMPLE
AIRMAN	43	44
E-4	14	14
E-5	24	25
E-6	12	11
E-7	7	6

Task Factor Administration

In addition to the job inventory, selected senior personnel in AFSC 404X0 completed a second booklet which provided separately processed information concerning either task difficulty (TD) or training emphasis (TE) ratings. TD refers to the length of time required for the average job incumbent to learn to do the task. TE refers to the importance of structured training for first-enlistment personnel. Structured training is training provided through any organized training method, such as resident technical school, field training detachments, mobile training teams, or formal OJT.

Task Difficulty (TD). Each individual completing a TD booklet rated each task with which they were familiar. Tasks were rated on a 9-point scale, ranging from 1 (extremely low relative difficulty) to 9 (extremely high relative difficulty). The interrater reliability (as assessed through components of variance of standardized group means) of the TD data provided by 31 senior NCOs was .92, indicating good agreement among raters. TD ratings were adjusted to give a rating of 5.00 for a task of average difficulty, with a standard deviation of 1.00. Data are then used to rank-order the inventory tasks in terms of relative difficulty.

Job Difficulty Index (JDI). Task difficulty is also used to compute a JDI for job groups identified in the analysis of the survey, to provide a relative measure of the difficulty of jobs in comparison to each other. The JDI is computed using the number of tasks performed and the average difficulty per unit time spent. (Thus a group will have a higher JDI as a result of spending more time on difficult tasks and performing more tasks.) After measurements are standardized, the index ranges from 1.0 for a very simple job to 25.0 for a very complex job, with an average of 13.0.

Training Emphasis (TE). Individuals completing TE booklets were asked to rate all tasks on a 10-point scale from no training required to extremely heavy training required. Training emphasis ratings by 404X0 subject-matter

specialists showed high disagreement among raters. As a result, interrater reliability was too low to allow utilization of TE emphasis data. Consequently, training emphasis is not addressed in this report.

SPECIALTY JOBS
(Career Ladder Structure)

An important function of the USAF occupational analysis program is to examine the career ladder structure within a specialty. Based on responses to survey questions, the computer clustering program clusters individuals together based on similarity of tasks performed and the amount of time spent on those tasks. Analysis of the distinct jobs performed within the career ladder and their relationship to each other results in a display of the structure of work within the specialty. This information can be used to understand current utilization of personnel to identify job satisfaction trends that may impact management decisions, or to examine such career ladder documents as AFR 39-1 Specialty Descriptions, Specialty Training Standards (STS), or course Plan of Instruction (POI).

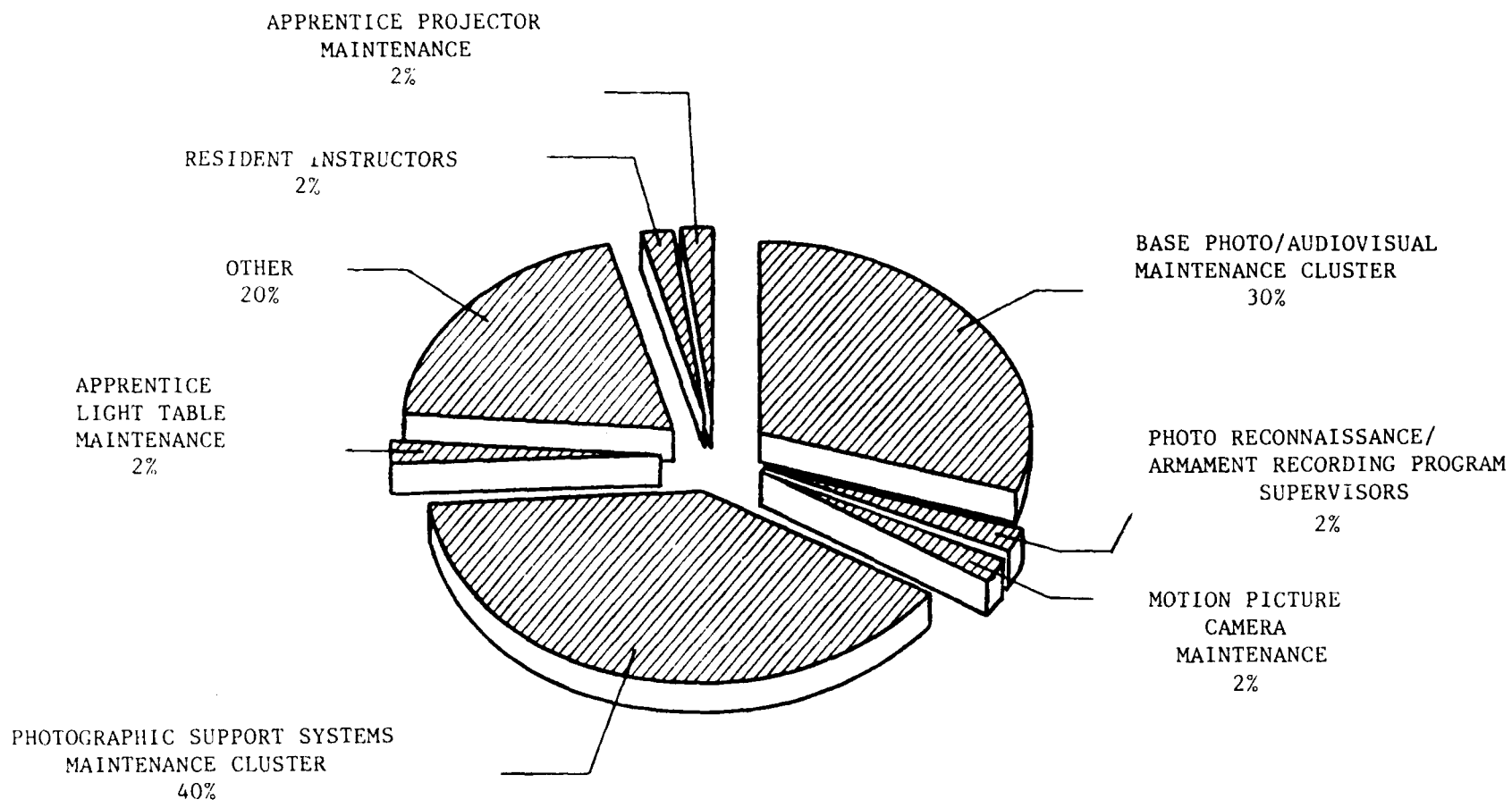
Specialty Overview

The Precision Imagery and Audiovisual Media Maintenance career ladder divides into two major functional areas, one related to maintenance of equipment found in base photo labs or audiovisual libraries (representing 30 percent of the total sample) and one related to the repairing of equipment common to photographic support systems (representing 40 percent of the total sample). Those members performing tasks related to base photo labs and audiovisual libraries perform tasks on a wide range of photographic, photographic support systems, and audiovisual multimedia sound equipment, and usually are integrated with other AFSCs in one workcenter. In this environment, the average number of people being supervised is very few (average 2); hence, these personnel normally will perform supervisory tasks only in the accomplishment of their technical jobs. On the other hand, those job groups within the photographic support systems functions also perform tasks on a wide variety of equipment, but mainly where that equipment supports a reconnaissance or tactical fighter operation, both relocatable and nonrelocatable. Personnel in supervisory functions in this group are usually NCOICs or superintendents of shops and perform those tasks associated with upper level supervisors. Analysis identified two clusters (groups of related jobs) and five independent job types (groups of personnel performing essentially the same job, but too dissimilar from other job types to be included in a cluster) within the Precision Imagery and Audiovisual Multimedia career ladder (See Figure 1). As listed below, the group (GRP) number refers to computer-printed information, and the number of personnel in the group is represented by the letter "N".

1. BASE PHOTO LAB AND AUDIOVISUAL MAINTENANCE CLUSTER (GRP023, N =

Figure 1

SPECIALTY JOB GROUP REPRESENTATION



A. Base Photographic Lab Maintenance Personnel (GRP147, N=17)
B. Base Audiovisual and Multimedia Sound Equipment Repairmen (GRP148, N=5)
C. Camera Maintenance Personnel (GRP074, N=8)

II. PHOTOGRAPHIC SUPPORT SYSTEMS CLUSTER (GRP030, N=109)

A. Relocatable Facility Maintenance Personnel (GRP117, N=23)
B. Nonrelocatable Facility Maintenance Personnel (GRP110, N=24)
C. Processor Maintenance Personnel (GRP067, N=5)
D. Printer Maintenance Personnel (GRP100, N=5)
E. Armament Recording Program (ARP) Personnel (GRP077, N=8)
F. Junior Relocatable Facility Maintenance Personnel (GRP102, (N=7)

III. PHOTO RECONNAISSANCE/ARP SUPERVISORS (GRP145, N=7)

IV. MOTION PICTURE CAMERA MAINTENANCE PERSONNEL (GRP058, N=5)

V. RESIDENT COURSE INSTRUCTOR PERSONNEL (GRP096, N=5)

VI. APPRENTICE LIGHT TABLE MAINTENANCE PERSONNEL (GRP068, N=5)

VII. APPRENTICE PROJECTOR MAINTENANCE PERSONNEL (GRP075, N=5)

Eighty percent of the survey respondents clustered into the above job groups. Of the remaining 20 percent, most formed groups too small to be identified as a distinct job type in the analysis, and the functions they performed were too dissimilar to be grouped with other job types. Examples of these jobs are: (1) NCOIC, Special Projects; (2) Assistant NCOIC Intelligence; (3) Resource Manager; and (4) Quality Control Technician. Most of these personnel performed a set of tasks related in some way to administration.

Group Descriptions

The following narratives describe the clusters and independent job types identified in the analysis. Tables 3 and 4 provide selected background and job satisfaction data for these groups. (Selected background and job satisfaction data, together with representative tasks for all identified groups, are listed in Appendix A.)

I. BASE PHOTO LAB AND AUDIOVISUAL MAINTENANCE CLUSTER (GRP023). This cluster contains 79 members, representing 30 percent of the total sample. The cluster was formed based on the performance of a wide range of tasks (an average of 282 are performed by group members) concerning photo lab and audiovisual library equipment maintenance. These personnel are an integral part of either a base photo lab, audiovisual library, or a combination of both. Group members utilize hand and special tools on test-and-shop equipment to clean,

TABLE 3

SELECTED BACKGROUND INFORMATION FOR SPECIALTY JOB GROUPS

	BASE PHOTO LAB/ AUDIOVISUAL MAINT CLUSTER	PHOTOGRAPHIC SUPPORT SYS CLUSTER	PHOTO RECON/ARP SUPERVISORS	MOTION PICTURE CAMERA MAINT	RESIDENT COURSE INSTRUCTOR PERS	APPRENTICE LIGHT TABLE MAINTENANCE	APPRENTICE PROJECTOR MAINTENANCE
NUMBER IN GROUP	79	109	7	5	5	5	5
PERCENT OF SAMPLE	30%	40%	*	*	*	*	*
AVERAGE NUMBER OF TASKS	282	136	212	13.3	12	35	64
JOB DIFFICULTY INDEX	15.9	12.7	16.5	14.3	9.4	6.4	8.3
MAJCOM (PERCENT)							
MAC	44%	8%	0	100%	0	0	0
SAC	24%	23%	14%	0	0	100%	40%
TAC	23%	23%	57%	0	0	0	40%
ATC	3%	8%	0	0	100%	0	0
PACAF	3%	6%	14%	0	0	0	0
USAFE	0	29%	14%	0	0	0	0
OTHER	3%	3%	1%	0	0	0	20%
DAFSC (PERCENT)							
40430	14%	26%	0	40%	0	60%	60%
40450	46%	62%	14%	60%	20%	40%	40%
40470	39%	13%	71% **	0	80%	0	0
AVERAGE GRADE	E-4	E-4	E-6	E-3	E-5	E-2	E-3
AVERAGE TIGF (MONTHS)	72	49	166	20	85	9	12
AVERAGE TAFMS (MONTHS)	87	58	204	23	87	11	16
PERCENT FIRST ENLISTMENT	37%	64%	0	80%	0	100%	100%

* Indicates less than 1 percent
** Includes 14 percent of DAFSC 40490

TABLE 4

JOB SATISFACTION INDICATORS BY SPECIALTY JOB GROUPS
(PERCENT MEMBERS RESPONDING)

	BASE PHOTO LAB AUDIOVISUAL MAINT CLUSTER	PHOTOGRAPHIC SUPPORT CLUS CLUSTER	PHOTO RECON LAB SUPERVISORS	MOTION PICTURE CAMERA MAINT	RESIDENT COURSE INSTRUCTOR PERS	APPRENTICE LIGHT TABLE MAINTENANCE	APPRENTICE PROJECTOR MAINTENANCE
EXPRESSED JOB INTEREST							
INTERESTING	82	72	[illegible]	80	80	80	80
SO-SO	11	24		20	20	20	20
DULL	6	4	4	0	0	0	0
PERCEIVED USE OF TALENTS							
FAIRLY WELL TO PERFECTLY	81	89	100	100	80	100	80
LITTLE OR NOT AT ALL	19	11	0	0	20	0	20
PERCEIVED USE OF TRAINING							
FAIRLY WELL TO PERFECTLY	87	89	86	100	100	100	100
LITTLE OR NOT AT ALL	13	11	14	0	0	0	0
SENSE OF JOB ACCOMPLISHMENT							
SATISFIED	76	81	86	100	40	100	80
NEUTRAL	10	11	14	0	60	0	20
DISSATISFIED	14	8	0	0	0	0	0
REENLISTMENT INTENTIONS							
WILL/PROBABLY WILL REENLIST	68	71	43	60	100	60	80
WILL NOT PROBABLY WILL NOT REENLIST	29	27	28	40	0	40	20
WILL RETIRE	3	2	28	0	0	0	0

inspect, isolate malfunctions, remove and replace components and component parts, and operationally check those items of equipment common to base photo labs and audiovisual libraries. The average paygrade for group members is E-4, with 6 years (72 months) being the average time in career field, and over 7 years (87 months) average for Total Active Federal Military Service (TAFMS). Group members spend 49 percent of their relative job time on tasks in technical duties involving the installation and maintenance of photographic support systems equipment (slide mounters, timers, print dryers, etc.), maintenance of audiovisual and multimedia sound equipment (projectors, cassette tape recorders-players, etc.), and camera maintenance (still, motion picture, and general camera equipment). Additionally, 11 percent of their time is devoted to the administration and supply-oriented aspects of the job. A sampling of the tasks performed includes:

isolate malfunctions in slide mounters
perform operational checks on timers
adjust slide projectors
adjust sound motion picture projectors
inspect electronic flash units
perform operational checks on still or copy cameras
locate part or stock numbers
maintain maintenance record files

The three jobs identified within this cluster are differentiated from one another by the specific equipment maintained and the average number of tasks performed.

A. Base Photographic Lab Maintenance Personnel (GRP147). Seventeen people perform an average of 383 tasks, with the majority of their time being spent on photographic support systems and still camera equipment maintenance. It should be pointed out that a lesser amount of time is also spent repairing and maintaining audiovisual and multimedia sound equipment. Members of this group are the senior personnel (E-5) of the cluster, averaging over 9 years in the service (115 months).

B. Base Audiovisual and Multimedia Sound Equipment Repairmen (GRP148). These five people spend more of their time performing tasks associated with repairing and maintaining audiovisual equipment than they do on tasks pertaining to installing and maintaining photographic support systems. An average of 408 tasks are performed by group members; average paygrade is E-4, with an average of 68 months TAFMS. Of the 5 members in the group, 3 are 5-skill level and 2 are 7-skill level.

C. Camera Maintenance Personnel (GRP074). This group of eight people perform by far the largest number of tasks (509) of any group in this cluster. They also differ from the other two groups in that the majority of their time is spent maintaining still and motion picture cameras and associated camera equipment. A small amount of their time is spent repairing

audiovisual and multimedia sound equipment. This group's job is also relatively difficult. This finding is supported by the fact that they have the highest Job Difficulty Index (JDI) (20.3) of all the groups identified in the total sample.

II. PHOTOGRAPHIC SUPPORT SYSTEMS CLUSTER (GRP030). The 109 members (40 percent of the total sample) in this cluster have maintenance responsibilities in support of tactical and strategical reconnaissance units located around the world. They spend 70 percent of their time performing tasks on photographic support systems and photographic processing equipment installed in relocatable and nonrelocatable facilities. Also included in this group are personnel who maintain equipment utilized in Armament Recording Program (ARP) labs (Aircraft Gun Camera Film Processing Units). Comprising the largest group identified in the career ladder, these personnel perform an average of 136 tasks. Examples of these tasks are:

remove or replace processor rollers or roller bearing system components
perform operational checks on processors
perform corrosion control on relocatable facilities
inspect relocatable facilities
perform corrosion control on hydromixers
remove or replace chemical mixing pumps
inspect continuous contact printers
adjust continuous contact printers
isolate malfunctions in processor electrical components
measure and cut copper, stainless steel, or PVC tubing

With an average grade of E-4 and an average of 4 years in the career ladder, the cluster is dominated by 5-skill level personnel (62 percent) and contains representatives from the major commands having reconnaissance functions (TAC, SAC, USAFE, and PACAF). The cluster, while representing job performance of this career ladder, includes identifiable job differences which are described in greater detail below.

A. Relocatable Facility Maintenance Personnel (GRP117). The 23 airmen forming this group are distinguished from the overall cluster by their higher percentage of time spent on tasks involving the installation and maintenance of photographic support systems and maintenance of relocatable facilities. Individuals indicated that 60 percent of their relative job time is devoted to tasks related to maintenance of the equipment (processors, printers, etc.) located in relocatable facilities and the upkeep of the relocatable facility itself (corrosion control, inspections, etc.). They average just over 4 years (50.5 months) TAFMS and have an average grade of E-4. Personnel in this group are assigned to the three major commands possessing relocatable facilities (TAC - 47.8 percent, USAFE - 43.5 percent, and PACAF - 8.7 percent). Group members perform a larger number of tasks (an average of 206 versus 136 for the cluster), with 78 percent being 5-skill level.

B. Nonrelocatable Facility Maintenance Personnel (GRP110). These personnel also perform a greater number of tasks (an average of 249 versus 136 for the cluster). Unlike the relocatable facilities maintenance group above, these personnel spend 63 percent of their time installing and maintaining photographic support systems and photographic processing equipment in permanent facilities. Seventy-nine percent of the members are assigned to reconnaissance units that do not utilize relocatable facilities in the performance of their missions. Of the 24 members in this group, 21 percent are 3-skill level, 58 percent are 5-skill level, and the remaining 21 percent are 7-skill level. Group members spend a small amount of time (13 percent) maintaining printer systems.

C. Processor Maintenance Personnel (GRP067). Members of this group have an average grade of E-3, with 60 percent at the 3-skill level. The majority of their job time (40 percent) is spent performing tasks on photographic processing equipment. These tasks include inspecting, performing corrosion control, adjusting, connecting and disconnecting components and lines, and cleaning processors and processor equipment. They average 106 tasks and 80 percent are assigned to overseas locations.

D. Printer Maintenance Personnel (GRP100). This group spends more time (35 percent) performing tasks associated with maintaining printers than do any of the groups identified in the cluster. Of the 5 members of this group, 100 percent indicate they perform tasks on manual contact, continuous contact, and manual projection printers, while 80 percent perform maintenance on electronic projection printers. Their average grade is E-4 with two 3-skill level, one 5-skill level, and two 7-skill level members.

E. Armament Recording Program (ARP) Personnel (GRP077). This group contains 8 members assigned to TAC. Seven of the 8 personnel perform tasks pertaining to the maintenance of photographic support systems and photographic processing equipment necessary to support fighter aircraft gun camera film processing. Averaging over 7 years in the career ladder, 75 percent of the members hold a 5-skill level. The average grade is E-4. Additionally, 16 percent of their relative job time is spent in administration and supply functions such as locating part or stock numbers and making entries on and reviewing AFTO Forms 95 (Historical Records).

F. Junior Relocatable Facility Maintenance Personnel (GRP102). Members in this group average just over 1 year (16 months) TAFMS and have an average grade of E-3. Five of the 7 members of this group are assigned to USAFE, with the other 2 members assigned to TAC. They spend 58 percent of their job time maintaining relocatable facilities and photographic support systems. Due to their limited experience (averaging only 14 months in the career field), they perform substantially fewer tasks (an average of 90) than any of the groups identified in the cluster. Tasks performed by 100 percent of the group include: (1) performing corrosion control; (2) inspecting relocatable facilities; and (3) inspecting and performing corrosion control on relocatable facility leveling jacks.

III. PHOTO RECONNAISSANCE/ARP SUPERVISORS (GRP145). The 7 members of this independent job type spend 65 percent of their time on supervisory and

administrative tasks. They are the most senior group identified in the survey sample (averaging 17 years in service, with an average paygrade of E-6). These personnel function as supervisors in either a reconnaissance wing, squadron, or in an armament recording program (ARP) lab. Tasks indicative of their job include:

plan work assignments
determine work priorities
advise DCM on status of equipment, personnel, or training needs
review daily document registers
evaluate corrosion control programs
direct maintenance or utilization of equipment
maintain training records, charts, or graphs
determine OJT training requirements

While supervising an average of 5 personnel, these group members spend an additional 16 percent of their job time maintaining photographic support systems. Performing an average of 212 tasks, these senior NCOs tend to be assigned to large shops (where a greater number of 404X0 military personnel are assigned) rather than in a base photo lab or audiovisual library environment.

IV. MOTION PICTURE CAMERA MAINTENANCE PERSONNEL (GRP058). This independent job type of 5 members are all assigned to MAC's audiovisual service (1 at HQ AAVS, Norton AFB CA, and 4 at Vandenberg AFB CA). With an average paygrade of E-3, airmen in this group indicated 100 percent performance on tasks associated with motion picture camera maintenance. They perform an average of 133 tasks, including:

perform operational checks on motion picture cameras
clean motion picture camera housings
isolate malfunctions in external magazines
clean and lubricate film takeup assemblies
inspect external magazines
perform corrosion control on motion picture cameras

Averaging just under 2 years (23 months) TAFMS, 60 percent of these personnel are 5-skill level and 40 percent 3-skill level.

V. RESIDENT COURSE INSTRUCTOR PERSONNEL (GRP096). This independent job type is comprised of 5 NCOs (average paygrade of E-5) who spend 75 percent of their time conducting resident course training. An additional 21 percent of their time is spent performing administrative tasks in support of formal training. Examples of tasks performed by instructor personnel include:

conduct resident course classroom training
administer tests
evaluate progress of resident course students
score tests
maintain training records, charts, or graphs
counsel trainees

Members of this group perform a limited number of tasks (average of only 12). Eighty percent are 7-skill level and 20 percent are 5-skill level. They average over 7 years (87 months) TAFMS.

VI. APPRENTICE LIGHT TABLE MAINTENANCE PERSONNEL (GRP068). All 5 personnel in this independent job type hold a 40430 or 40450 DAFSC and average under 1 year (11 months) in the service. They spend 50 percent of their time on light table maintenance and all are assigned to SAC. Due to limited experience (averaging only 9 months in the career ladder), they perform substantially fewer tasks (an average of 35) than most of the job groups in the survey sample. A sampling of the tasks performed include:

inspect light tables
isolate malfunctions in light table electronic components
calibrate light tables
clean and lubricate light tables
remove or replace light table electromechanical components

VII. APPRENTICE PROJECTOR MAINTENANCE PERSONNEL (GRP075). This group differs from the apprentice light table maintenance group in that they spend 50 percent of their time performing tasks on maintenance of projectors (slide, overhead, and sound motion picture). They perform a few more tasks (an average of 64) and average about the same amount of time in the career field (12 months), as the group above. With an average grade of E-3, 60 percent are 3-skill level and 40 percent are 5-skill level. Examples of the tasks performed include:

perform operational checks on slide projectors
isolate malfunctions in sound motion picture projectors
clean and lubricate overhead projectors
remove or replace slide projector components
adjust sound motion picture projectors
inspect slide projectors

Comparison of Specialty Jobs

In addition to individual descriptions of each job, a comparison of some differences and similarities in the groups helps promote a better understanding of the career ladder structure. Two areas of comparison of particular interest are job difficulty and job satisfaction indicators.

Job Difficulty. As previously mentioned, there are two major jobs in this career ladder; one relating to the maintenance of base photo lab/audiovisual library equipment, and the other relating to photographic support systems maintenance. The Job Difficulty Index (JDI), based on the number of tasks performed and the relative difficulty per unit time spent (see Task Factor Administration section), can be used to compare the difficulty of the different job groups. Those jobs related to the maintenance of base photo lab/audiovisual library equipment tend to have a higher JDI due to the greater average number of tasks performed in these jobs than in most of the photographic support systems maintenance- related job groups (see Table 3 for a complete comparison). Camera maintenance personnel have the highest JDI at 20.3--close to standard limit of 25.0. This high JDI stems from the high number of tasks these members perform; they average 509 tasks, over 100 more than the next highest group. The base photographic maintenance and base audiovisual maintenance groups have an average JDI of 19.6. They average performing 383 and 408 tasks, respectively, which tends to support the reason for high JDIs in this group.

The jobs with the lowest JDI are the apprentice light table and apprentice projector maintenance groups, with JDIs of 6.4 and 8.3, respectively. These low JDIs may be due to the low number of tasks performed (35 and 60, respectively), as well as the nature of the job. The tasks they perform tend to have lower TD ratings overall.

Job Satisfaction. As part of the background section of the survey, job incumbents were asked to respond to several questions, indicating how interesting they found their job; their perception on how well their job utilized their talents and training; how satisfied they were with the sense of accomplishment gained from their work; and their intention to reenlist. Answers from these questions may help managers identify problem areas of concern.

Members of the groups discussed indicated the jobs performed are interesting, with all groups showing 75 percent or more responding positively. Utilization of talents for each group was also high, with 80 percent responding positively. Responses pertaining to the sense of accomplishment were also positive for all groups (75 percent). Perceived use of training responses by all groups were high, with only one group (Motion Picture Camera Maintenance) showing less than 80 percent positive response. In view of the highly positive responses across the range of jobs, it is not surprising that each of the groups reflects positive reenlistment intent by an average of 69 percent. (See Table 4 for group comparisons.)

In summary, this analysis supports the current classification structure. Job satisfaction question responses indicate that individuals and training received are well matched to the job characteristics of the career ladder as it

consequently, a rather large percentage of the airmen in the sample expressed positive reenlistment intentions.

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 analysis project. The DAFSC analysis identifies differences in tasks performed at the various skill levels. This information can be used to evaluate how well career ladder documents, such as AFR 39-1 Specialty Descriptions and the Specialty Training Standards (STS) reflect what career ladder personnel actually are doing in the field.

A comparison of task performance between DAFSCs 40430 and 40450 indicate that, while there are minor differences, by and large the jobs they perform are essentially the same. They will be discussed as a combined group in this report.

The distribution of skill level groups across career ladder jobs is displayed in Table 5, while Table 6 offers another perspective by displaying the relative percent time spent on each duty across skill level groups. A typical pattern of progression is present, with personnel spending more of their relative time on duties involving supervisory, managerial, and administrative tasks (see Table 6, Duties A, B, C, D, and E) as they move upward to the 7-skill level.

Skill Level Descriptions

DAFSC 40430/40450. The 208 airmen in the 3- and 5-skill level group (representing 78 percent of the survey sample) perform an average of 180 tasks, with 157 tasks accounting for over 50 percent of their job time. Performing a highly technical job, 78 percent of their relative duty time is devoted to tasks covering maintenance of photographic support systems equipment, such as performing corrosion control; performing operational checks on processors; inspecting hydromixers, manual contact printers, and sinks; as well as performing the various tasks on relocatable facilities. Tasks pertaining to administrative and supply actions accounted for an additional 13 percent of their duty time. Table 7 displays representative tasks performed by these airmen.

DAFSC 40470. Seven-skill level personnel, representing 22 percent of the survey sample, perform an average of 166 tasks, with 102 tasks accounting for over 50 percent of their relative job time. Eighty-four percent of the group report supervisory responsibilities, with 55 percent of their relative job time being spent on tasks in the usual supervisory, managerial, training and administrative, or supply duty areas. Table 8 displays some representative tasks performed by these 7-skill level airmen, while Table 9 shows tasks which best differentiate between DAFSC 40430, 40450, and 40470.

TABLE 5

DISTRIBUTION OF DAFSC GROUP MEMBERS ACROSS
CAREER LADDER CLUSTERS AND INDEPENDENT JOB TYPES

JOB GROUP	DAFSC 40430/50 (N=208) NUMBER	PERCENT	DAFSC 40470 (N=59) NUMBER	PERCENT
I. BASE PHOTO LAB/AUDIOVISUAL MAINTENANCE CLUSTER (N=79)	66	32%	13	22%
II. PHOTOGRAPHIC SUPPORT SYSTEMS CLUSTER (N=109)	95	46%	14	24%
III. PHOTO RECONNAISSANCE/ARP SUPERVISORS (N=7)	1	*	6	10%**
IV. MOTION PICTURE CAMERA MAINTENANCE PERSONNEL (N=5)	5	2%	0	0
V. RESIDENT COURSE INSTRUCTOR PERSONNEL (N=5)	1	*	4	7%
VI. APPRENTICE LIGHT TABLE MAINTENANCE PERSONNEL (N=5)	5	2%	0	0
VII. APPRENTICE PROJECTOR MAINTENANCE PERSONNEL (N=5)	5	2%	0	0
NOT GROUPED	30	14%	22	37%

* Less than 1 percent
** Includes one 40490

TABLE 6

AVERAGE PERCENT TIME SPENT PERFORMING DUTIES BY DAFSC GROUPS

DUTIES	DAFSC 40430/50 (N=208)	DAFSC 40470 (N=59)
A ORGANIZING AND PLANNING	2	9
B DIRECTING AND IMPLEMENTING	2	9
C INSPECTING AND EVALUATING	1	9
D TRAINING	2	11
E PERFORMING ADMINISTRATIVE FUNCTIONS	13	17
F INSTALLING AND MAINTAINING PHOTOGRAPHIC PROCESSING EQUIPMENT	15	8
G INSTALLING AND MAINTAINING PHOTOGRAPHIC SUPPORT SYSTEMS	29	16
H MAINTAINING PRINTER SYSTEMS	6	4
I MAINTINING STILL CAMERA SYSTEMS	5	3
J MAINTAINING MOTION PICTURE CAMERAS	3	2
K MAINTAINING GENERAL CAMERA EQUIPMENT	5	2
L MAINTAINING AUDIOVISUAL AND MULTIMEDIA SOUND EQUIPMENT	9	4
M MAINTAINING RELOCATABLE FACILITIES	6	4
N MAINTAINING GRAPHICS EQUIPMENT	1	*

* Less than 1 percent

TABLE 7

REPRESENTATIVE TASKS PERFORMED BY DAFSC 40430/50 PERSONNEL

TASKS		PERCENT PERFORMING
F203	PERFORM CORROSION CONTROL ON PROCESSORS	77
E137	MAKE ENTRIES ON AFTO FORMS 349 (MAINTENANCE DATA COLLECTION RECORD)	75
F187	INSPECT PROCESSORS	72
E113	INVENTORY EQUIPMENT, TOOLS, OR SUPPLIES	70
F205	PERFORM OPERATIONAL CHECKS ON PROCESSORS	70
E115	MAINTAIN MAINTENANCE RECORD FILES	64
F194	ISOLATE MALFUNCTIONS IN PROCESSOR ELECTRICAL SYSTEMS	62
F200	MEASURE AND CUT COPPER, STAINLESS STEEL, OR PVC TUBING	62
G314	PERFORM OPERATIONAL CHECKS ON TIMERS	58
G379	PERFORM CORROSION CONTROL ON HYDROMIXERS	56
G298	INSPECT HYDROMIXERS	56
H513	INSPECT MANUAL CONTACT PRINTERS	56
G309	INSPECT SINKS	53
H514	INSPECT MANUAL PROJECTION PRINTERS	51
G246	CALIBRATE DENSITOMETERS	50
H506	CLEAN AND LUBRICATE MANUAL CONTACT PRINTERS	50
G295	INSPECT FILM DRYERS	50
H536	PERFORM OPERATIONAL CHECKS ON MANUAL CONTACT PRINTERS	50
F195	ISOLATE MALFUNCTIONS IN PROCESSOR ELECTRONIC COMPONENTS	50
G416	PERFORM OPERATIONAL CHECKS ON LIGHT TABLES	50

TABLE 8

REPRESENTATIVE TASKS PERFORMED BY DAFSC 40470 PERSONNEL

TASKS		PERCENT PERFORMING
B33	COUNSEL PERSONNEL ON PERSONAL OR MILITARY-RELATED PROBLEMS	66
E151	REVIEW AFTO FORMS 95 (SIGNIFICANT HISTORICAL DATA)	66
F187	INSPECT PROCESSORS	63
A5	DETERMINE WORK PRIORITIES	61
C79	WRITE APR	61
E115	MAINTAIN MAINTENANCE RECORD FILES	61
B27	ADVISE CHIEF OF MAINTENANCE ON STATUS OF EQUIPMENT, PERSONNEL, OR TRAINING NEEDS	59
C59	EVALUATE CORROSION CONTROL PROGRAMS	59
C73	INSPECT PERSONNEL FOR COMPLIANCE WITH REGULATIONS	54
A4	DETERMINE REQUIREMENTS FOR SPACE, PERSONNEL, EQUIPMENT, OR SUPPLIES	51
B49	SUPERVISE PRECISION IMAGERY AND AUDIOVISUAL MEDIA MAINTENANCE SPECIALISTS (AFSC 40450)	51
B30	COORDINATE MAINTENANCE OF EQUIPMENT OR COMPONENTS WITH OTHER MILITARY SECTIONS OR UNITS	51
A7	DEVELOP WORK METHODS OR PROCEDURES	51
D88	DEMONSTRATE HOW TO LOCATE TECHNICAL INFORMATION	49
A9	ESTABLISH ORGANIZATIONAL POLICIES, OFFICE INSTRUCTIONS (OI), OR STANDING OPERATING PROCEDURES (SOP)	49
D104	MAINTAIN TRAINING RECORDS, CHARTS, OR GRAPHS	49
E152	REVIEW CUSTODIAN ACCOUNT AND RECEIPT LISTINGS (CA/CRL)	49
F205	PERFORM OPERTIONAL CHECKS ON PROCESSORS	49
E131	MAKE ENTRIES ON AFTO FORM 110 (TECHNICAL ORDER DISTRIBUTION RECORD)	47
C61	EVALUATE INSPECTION REPORTS OR PROCEDURES	47

TABLE 9

TASKS WHICH BEST DIFFERENTIATE DAFSC 40430, 40450, AND 40470 PERSONNEL

TASKS	PERCENT MEMBERS PERFORMING: 40430/50 PERSONNEL (N=208)	40470 PERSONNEL (N=59)	DIFFERENCE
PERFORM CORROSION CONTROL ON PROCESSORS	77	46	+31
PERFORM LUBRICATION CHECKLIST PROCEDURES ON PROCESSORS	68	42	+26
REMOVE OR REPLACE PROCESSOR PLUMBING SYSTEM COMPONENTS	61	35	+26
MEASURE AND CUT COPPER, STAINLESS STEEL, OR PVC TUBING	62	37	+25
ADJUST PROCESSOR DRIVE CHAINS	60	36	+24
CONNECT OR DISCONNECT PROCESSOR CHEMICAL REPLENISHMENT SUPPLY LINES	56	32	+24
PERFORM OPERATIONAL CHECKS ON PROCESSORS	70	49	+21
PERFORM OPERATOR MAINTENANCE ON HAND OR SPECIAL TOOLS	58	37	+21
PERFORM OPERATIONAL CHECKS ON TIMERS	58	40	+18
INSPECT MANUAL CONTACT PRINTERS	57	41	+16
COUNSEL PERSONNEL ON PERSONAL OR MILITARY-RELATED PROBLEMS	25	66	-41
WRITE APR	22	61	-39
ADVISE CHIEF OF MAINTENANCE ON STATUS OF EQUIPMENT, PERSONNEL, OR TRAINING NEEDS	22	59	-37
EVALUATE CORROSION CONTROL PROGRAMS	22	59	-37
INSPECT PERSONNEL FOR COMPLIANCE WITH REGULATIONS	18	54	-36
PARTICIPATE IN STAFF MEETINGS	22	51	-29
COORDINATE MAINTENANCE OF EQUIPMENT WITH CONTRACTORS	12	39	-27
INTERPRET POLICIES, DIRECTIVES, OR PROCEDURES FOR SUBORDINATES	12	39	-27
WRITE CORRESPONDENCE	19	41	-22
DIRECT MAINTENANCE OR UTILIZATION OF EQUIPMENT	22	42	-20

Summary

Career ladder progression is normal, with personnel at the 3- and 5-skill levels spending the vast majority of their job time performing technical tasks. At the 7-level, the shift to supervisory functions is quite clear as the transition from the 5-skill level to the 7-skill level is marked by an increase in supervisory, managerial, and training responsibilities.

AFR 39-1 SPECIALTY DESCRIPTIONS

Survey data for 3-, 5-, and 7-skill level members were compared to the AFR 39-1 Specialty Descriptions for the Precision Imagery and Audiovisual Media Maintenance Specialist (AFSC 40410/40430/40450) and the Precision Imagery and Audiovisual Media Maintenance Technician (AFSC 40470), dated 1 January 1982. Based on the findings of this OSR, these descriptions appear to be complete and accurately reflect the range of duties and responsibilities of the career ladder at the time of the occupational survey.

ANALYSIS OF TAFMS GROUPS

To determine how jobs change with time and experience, utilization patterns for survey respondents in different Total Active Federal Military Service (TAFMS) groups were reviewed. As is typical in most career ladders, as time in service increases, there is a corresponding increase in the performance of duties involving supervisory and managerial tasks (see Table 10). As time in supervisory and managerial duties increases, performance time on tasks in maintenance-related duties decreases. Note that for junior personnel (1-48 months), the greatest percentage of time is spent installing and maintaining photographic support systems. This greater percentage is a reflection of the number of personnel (208) in the survey sample (297 in total sample), as well as the amount of time first-enlistment personnel spend performing maintenance.

First-Enlistment Personnel

First-enlistment personnel were also examined both on the basis of common tasks performed and various background information. Table 11 lists those tasks performed by the greatest percentages of 404X0 first-enlistment personnel. The most common tasks involve some aspect of general or preventive maintenance, such as corrosion control, performing lubrication checklist, inspecting, and performing operational checks on a variety of components or component parts.

Although the tasks listed in Table 11 are characteristic of most first-enlistment personnel, other functions performed by these incumbents vary

TABLE 10

RELATIVE PERCENT TIME SPENT ON DUTIES BY TAFMS GROUPS

DUTY	1-48 MOS (N=208)	49-96 MOS (N=89)	97+ MOS (N=88)
A ORGANIZING AND PLANNING	1	2	8
B DIRECTING AND IMPLEMENTING	2	4	7
C INSPECTING AND EVALUATING	*	2	7
D TRAINING	*	8	7
E PERFORMING ADMINISTRATIVE FUNCTIONS	11	14	16
F INSTALLING AND MAINTAINING PHOTOGRAPHIC PROCESSING EQUIPMENT	18	11	10
G INSTALLING AND MAINTAINING PHOTOGRAPHIC SUPPORT SYSTEMS	32	23	18
H MAINTAINING PRINTER SYSTEMS	7	5	5
I MAINTAINING STILL CAMERA SYSTEMS	4	5	4
J MAINTAINING MOTION PICTURE CAMERAS	3	4	2
K MAINTAINING GENERAL CAMERA EQUIPMENT	4	5	4
L MAINTAINING AUDIOVISUAL AND MULTIMEDIA SOUND EQUIPMENT	9	9	6
M MAINTAINING RELOCATABLE FACILITIES	7	3	4
N MAINTAINING GRAPHICS EQUIPMENT	*	2	1

* Less than 1 percent

TABLE 11

REPRESENTATIVE TASKS PERFORMED BY FIRST-ENLISTMENT (1-48 MONTHS) TAFMS PERSONNEL

TASKS		PERCENT PERFORMING
E114	LOCATE PART OR STOCK NUMBERS	81
F203	PERFORM CORROSION CONTROL ON PROCESSORS	79
E137	MAKE ENTRIES ON AFTO FORMS 349 (MAINTENANCE DATA COLLECTION RECORD)	75
E138	MAKE ENTRIES ON AFTO FORMS 350 (REPARABLE ITEM PROCESSING TAG)	75
F187	INSPECT PROCESSORS	71
F204	PERFORM LUBRICATION CHECKLIST PROCEDURES ON PROCESSORS	70
F205	PERFORM OPERATIONAL CHECKS ON PROCESSORS	67
F200	MEASURE AND CUT COPPER, STAINLESS STEEL, OR PVC TUBING	64
F219	REMOVE OR REPLACE PROCESSOR ROLLERS OR ROLLER BEARING SYSTEM COMPONENTS	63
F159	ADJUST PROCESSOR DRIVE CHAINS	61
F218	REMOVE OR REPLACE PROCESSOR PLUMBING SYSTEM COMPONENTS	58
F177	CONNECT OR DISCONNECT PROCESSOR INTERNAL PLUMBING	58
F213	REMOVE OR REPLACE PROCESSOR ELECTRICAL COMPONENTS	58
F173	CONNECT OR DISCONNECT PROCESSOR CHEMICAL REPLENISHMENT SUPPLY LINES	58
F194	ISOLATE MALFUNCTIONS IN PROCESSOR ELECTRICAL SYSTEMS	57
G430	PERFORM OPERATIONAL CHECKS ON TIMERS	55
G314	INSPECT TIMERS	55
G416	PERFORM OPERATIONAL CHECKS ON LIGHT TABLES	54
G298	INSPECT HYDROMIXERS	54
G379	PERFORM CORROSION CONTROL ON HYDROMIXERS	54
G300	INSPECT LIGHT TABLES	53
H513	INSPECT MANUAL CONTACT PRINTERS	52
G246	CALIBRATE DENSITOMETERS	52
F156	ADJUST FILM TRACKING	50
G414	PERFORM OPERATIONAL CHECKS ON HYDROMIXERS	50

somewhat, depending on the job they perform. Figure 2 presents the distribution of 404X0 first-enlistment personnel across job groups identified in the Career Ladder Structure section. As expected, over 70 percent of first-enlistment personnel are identified in either the Photographic Support Systems or Base Photo Lab/Audiovisual Maintenance clusters.

Job Satisfaction

Job satisfaction indices for personnel in the first-enlistment (1-48 months TAFMS), second enlistment (49-96 months TAFMS) and career (97+ months TAFMS) groups were also examined. Job interest, perceived utilization of talents and training, and reenlistment intentions are presented in Table 12, along with the comparative sample for personnel from all related career ladders analyzed in 1985. When compared to the comparative sample, 404X0 first-enlistment personnel have higher job satisfaction indicators and feel their talents are being used fairly well. The 404X0 personnel in their second-enlistment have a somewhat higher percentage who feel their training and talents are better utilized than in the comparative sample.

Eighty-one percent of the 404X0 second-enlistment group expressed plans to reenlist, which is slightly higher than the 49-96 months TAFMS comparative sample (73 percent). Finally, career 404X0 personnel (97+ months TAFMS) indicate a higher feeling of job satisfaction than the comparative sample in all indicators except reenlistment intent. Sixty-eight percent of 404X0 career personnel indicate they will reenlist, which is less than those career personnel in the comparative sample. It must be pointed out that 20 percent of 404X0 career ladder personnel indicated intent to retire.

TRAINING ANALYSIS

Occupational survey data are one of the many sources of information which can be used to assist training managers in the development of training programs. Proper use of these data will produce training programs which are more relevant to the needs of personnel working in their first assignments in a career ladder. Factors which may be used in evaluating training include the overall description of the jobs being performed by first-enlistment personnel and their overall distribution across career ladder jobs, percentages of first-job (1-24 months TAFMS) or first-enlistment (1-48 months TAFMS) members performing specific tasks, and task difficulty ratings (previously explained in the SURVEY METHODOLOGY section).

To assist specifically in the evaluation of the Specialty Training Standard (STS) and the Plan of Instruction (POI), subject-matter specialists (SMSs) from the Lowry Technical Training Center, Lowry Air Force Base, Colorado, matched job inventory tasks to the appropriate paragraphs and subparagraphs of the STS and POI for Course G3ABR40430 000. It is this task matching upon which comparison to those documents is based. A complete computer listing displaying the percent members performing tasks, task

DISTRIBUTION OF FIRST-ENLISTMENT PERSONNEL ACROSS SPECIALITY JOB GROUPS
(Percent Members Responding)

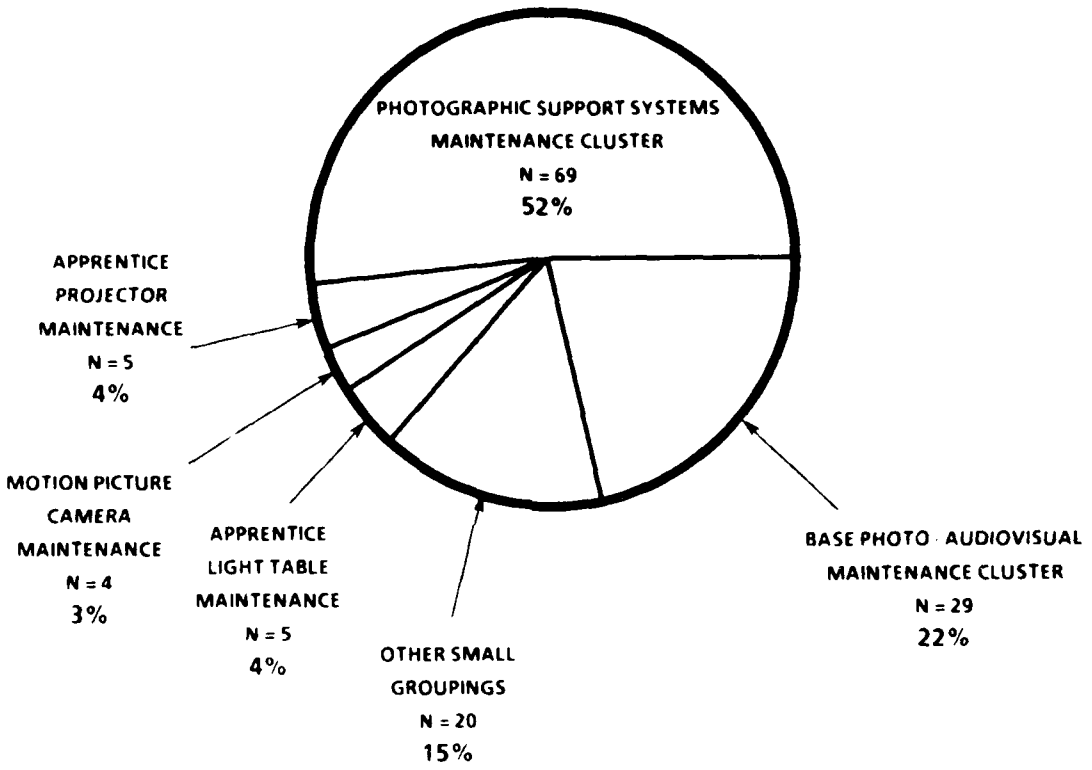


Fig. 2

TABLE 12

JOB SATISFACTION INDICATORS BY TAFMS GROUPS
(PERCENT MEMBERS PERFORMING)*

	1-48 MONTHS TAFMS		49-96 MONTHS TAFMS		97+ MONTHS TAFMS	
	404X0 (N=132)	COMP SAMPLE** (N=2,321)	404X0 (N=47)	COMP SAMPLE** (N=3,015)	404X0 (N=88)	COMP SAMPLE** (N=3,790)
EXPRESSED JOB INTEREST:						
INTERESTING	75	61	70	68	78	74
SO-SO	14	22	25	19	17	14
DULL	10	16	4	12	5	11
PERCEIVED UTILIZATION OF TALENTS:						
FAIRLY WELL TO PERFECTLY	78	64	83	69	88	65
LITTLE OR NOT AT ALL	22	28	17	22	12	19
PERCEIVED UTILIZATION OF TRAINING:						
FAIRLY WELL TO PERFECTLY	83	72	85	70	78	66
LITTLE OR NOT AT ALL	17	16	15	17	19	20
REENLISTMENT INTENTIONS:						
WILL NOT/PROBABLY WILL NOT REENLIST	35	40	19	25	11	10
WILL/PROBABLY WILL REENLIST	65	57	81	73	68	74

* Columns may not add to 100 percent due to nonresponse or rounding
** Comparative sample of Mission Equipment Maintenance career ladders surveyed in 1985 includes: AFSCs 30XXX, 31XXX, 32XXX, 34XXX, 36XXX, 40XXX, 42XXX, 43XXX, 44XXX, and 46XXX

difficulty ratings for each task, along with STS and POI matchings, has been forwarded to the technical school for their use in further detailed reviews of training documents. Summaries of the above-mentioned data and information are given below.

Specialty Training Standard (STS)

A comprehensive review of STS 404X0, dated November 1985, compared STS items to survey data. STS paragraphs and subparagraphs containing general knowledge information or subject-matter knowledge requirements were not evaluated. Overall, the STS more than provides comprehensive coverage of the work performed by personnel in the field. However, there are subparagraphs of the STS that require review by training personnel and subject-matter specialists to determine the appropriateness of their inclusion in the STS. For example, Table 13 displays data pertaining to paragraph 17b, Small Format Cameras, that has 7 technical subparagraphs which reflect low percent members performing (less than 20 percent).

A second area of analysis involves examining tasks not matched to any items in the STS. Unreferenced tasks, with at least 20 percent of a group performing them, such as first-enlistment personnel, are performed to an extent great enough (20 percent or more) that they should be included in the text of the document. There were 565 tasks not matched to any paragraphs or subparagraphs in the STS. Several of these had high percentages of first-enlistment, 5-skill level, and 7-skill level personnel performing them. For example, 56 unmatched tasks were performed by 20 percent or more 404X0 personnel, and 33 of these were performed by over 30 percent. Table 14 gives examples of unreferenced tasks performed by a substantial percentage of personnel. In reviewing the computer-generated listing, which has been forwarded to the technical school, training specialists should pay special attention to these unreferenced tasks.

Plan of Instruction (POI)
G3ABR40430

Based on the previously mentioned assistance from technical school subject-matter specialists in matching tasks to the G3ABR40430 POI, dated March 1986, a computer product was generated displaying the results of the matching process. Information furnished for consideration includes percent members performing data for first-job and first-enlistment personnel and secondary factor TD ratings. As in the STS, general knowledge information or subject-matter knowledge requirements were not evaluated.

A thorough analysis of the 80 technical 40430 POI objectives revealed 27 objectives (See Appendix B for a complete listing), with less than 30 percent of first-enlistment personnel performing matched tasks. Over one-half (14) of these objectives deal with repairing the Nikon F3 small format camera. These, along with the remaining objectives, showing less than 30 percent performing, may indicate a need for training personnel to review these areas for possible deletion from retention in the POI.

TABLE 12

EXAMPLES OF STS SUBPARAGRAPHS WITH LESS THAN 20 PERCENT PERFORMING
FIRST-ENLISTMENT PERSONNEL

SUBPARAGRAPH		1ST JOB	1ST ENL	40450	40470	TASK DIFF
17B(4)(A).	TROUBLESHOOT REWIND MECHANISM ON SMALL FORMAT CAMERAS					
	K855 ISOLATE MALFUNCTIONS IN REWIND MECHANISMS	12.4	13.6	10.1	10.2	5.02
17B(4)(B).	TROUBLESHOOT LIGHT METER ON SMALL FORMAT CAMERAS					
	1635 ISOLATE MALFUNCTIONS IN STILL CAMERA EXPOSURE METERS	7.9	10.6	19.7	11.9	6.63
	K852 ISOLATE MALFUNCTIONS IN LIGHT METERS	12.4	13.6	21.7	13.6	6.01
17B(4)(I).	TROUBLESHOOT FLASH SYNCHRONIZATION ON SMALL FORMAT CAMERAS					
	1647 ISOLATE MALFUNCTIONS IN FLASH SYNCHRONIZATION MECHANISMS	6.7	9.1	17.1	10.2	6.18
17B(5)(B).	CLEAN REWIND MECHANISM ON SMALL FORMAT CAMERAS					
	K871 CLEAN AND LUBRICATE REWIND MECHANISMS	14.6	16.7	19.1	11.9	5.03
17B(6)(B).	ADJUST APERTURE ON SMALL FORMAT CAMERAS					
	1659 ADJUST STILL CAMERA MANUAL EXPOSURE CONTROL SYSTEMS	4.5	6.8	14.5	10.2	6.25
	K870 ADJUST APERTURE DIAPHRAMS	5.6	7.6	13.2	5.1	6.45
17B(6)(C).	ADJUST FOCAL PLANE SHUTTER ON SMALL FORMAT CAMERAS					
	1657 ADJUST FOCAL PLANE SHUTTERS	10.1	11.4	14.5	10.2	6.98
	1659 ADJUST STILL CAMERA MANUAL EXPOSURE CONTROL SYSTEMS	4.5	6.8	14.5	10.2	6.25
	1676 CALIBRATE FOCAL PLANE SHUTTERS	7.9	6.8	11.8	8.5	6.93
17B(6)(E).	ADJUST FLASH SYNCHRONIZATION MECHANISM ON SMALL FORMAT CAMERAS					
	1660 ADJUST FLASH SYNCHRONIZATION MECHANISMS	5.6	8.3	13.8	8.5	6.46

TABLE 14

EXAMPLES OF UNREFERENCED TASKS PERFORMED BY 20 PERCENT OR MORE 404X0 PERSONNEL

TASKS		1ST JOB	1ST ENL	40450	40470	TASK DIFF
E115	MAINTAIN MAINTENANCE RECORD FILES	50.6	56.8	67.8	61.0	4.21
E139	MAKE ENTRIES ON AFTO FORMS 95 (SIGNIFICANT HISTORICAL DATA)	49.4	53.0	66.4	62.7	3.29
F213	REMOVE OR REPLACE PROCESSOR ELECTRICAL COMPONENTS	53.9	57.6	65.8	42.4	5.75
G298	INSPECT HYDROMIXERS	48.3	53.8	60.5	39.0	3.72
F214	REMOVE OR REPLACE PROCESSOR ELECTRONIC COMPONENTS	48.3	50.8	55.3	44.1	6.02
G295	INSPECT FILM DRYERS	42.7	43.2	55.3	35.6	3.50
G309	INSPECT SINKS	43.8	48.5	55.3	45.8	2.96
G266	CLEAN AND LUBRICATE PRINT DRYERS	39.3	43.9	53.9	28.8	4.03
F195	ISOLATE MALFUNCTIONS IN PROCESSOR ELECTRONIC COMPONENTS	38.2	45.5	53.3	40.7	6.99
E151	REVIEW AFTO FORMS 95 (SIGNIFICANT HISTORICAL DATA)	30.3	35.6	52.6	66.1	3.50
L940	INSPECT SLIDE PROJECTORS	34.8	37.9	50.0	30.5	4.62
G411	PERFORM OPERATIONAL CHECKS ON FILM DRYERS	34.8	37.1	49.3	25.4	3.78
G354	ISOLATE MALFUNCTIONS IN SINKS	38.2	43.2	49.3	27.1	3.23
G319	INSPECT WATER MIXING VALVES	33.7	37.9	48.7	37.3	3.64
L219	CLEAN AND LUBRICATE SLIDE PROJECTORS	33.7	37.1	48.0	30.5	4.95

MEAN TD = 5.00, SD = 1.00

Analysis of the 404X0 STS also revealed 47 STS subparagraphs and supporting tasks where 30 percent or more first-enlistment personnel are performing associated tasks, but which are not included in the POI. Subject-matter specialists should review this series of tasks (complete listing in Appendix C) to determine the necessity for training and the most effective method to accomplish such training, either structured or nonstructured OJT or in a formal course of instruction.

A review of tasks not referenced to the POI identified 113 tasks performed by more than 30 percent of first-enlistment 404X0 personnel. Additionally, 16 of these tasks have average or high TD ratings, indicating a need for review for possible inclusion in the POI. Table 15 lists these unreferenced tasks.

Training Summary

Generally the 404X0 STS, which is a new training document, dated November 1985, was found to be a comprehensive product which should fulfill the needs of OJT supervisors in the field. Some possible problems were noted and they have been highlighted in this section.

The current POI was completed in March 1986. At the time of this rewrite of the POI, technical training school personnel did not have access to this OSR data. The product produced was based on information available to training personnel at that time. The publication of current OSR data should provide training personnel with the means to fine-tune the POI.

404X0 MAJCOM GROUP COMPARISONS

Tasks performed in various Precision Imagery and Audiovisual Media Maintenance duty areas and background data for personnel of the major command (MAJCOM) with the largest 404X0 population were compared to determine whether job content varied as a function of MAJCOM assignment.

Generally, jobs performed across the commands were similar, with the largest percentage of duty time in each command spent in the performance of installing and maintaining photographic processing equipment, photographic support systems, and administrative functions (see Table 16). Some variations were noted, with members of the Tactical Air Forces (TAF) - USAFE, PACAF, and TAC, reporting more job time spent on maintaining relocatable facilities than the other MAJCOMs, as previously mentioned in the SPECIALTY JOBS section of this report. Additionally, MAC airmen also indicated the greatest involvement with maintaining motion picture cameras.

TABLE 15

TASKS NOT REFERENCED TO POI GABR40430 WITH AVERAGE OR HIGHER TD AND OVER 30 PERCENT PERFORMING

TASKS		PERCENT MEMBERS PERFORMING 1ST JOB	1ST ENL	TASK DIFF*
F203	PERFORM CORROSION CONTROL ON PROCESSORS	78	79	5.03
F213	REMOVE OR REPLACE PROCESSOR ELECTRICAL COMPONENTS	54	58	5.75
F214	REMOVE OR REPLACE PROCESSOR ELECTRONIC COMPONENTS	48	51	6.02
F156	ADJUST FILM TRACKING	44	50	5.00
F195	ISOLATE MALFUNCTIONS IN PROCESSOR ELECTRONIC COMPONENTS	38	46	6.99
H522	ISOLATE MALFUNCTIONS IN MANUAL CONTACT PRINTERS	36	44	5.26
G464	REMOVE OR REPLACE LIGHT TABLE ELECTRONIC COMPONENTS	39	42	5.40
G343	ISOLATE MALFUNCTIONS IN LIGHT TABLE ELECTRONIC COMPONENTS	39	42	6.34
H523	ISOLATE MALFUNCTIONS IN MANUAL PROJECTION PRINTERS	34	39	5.37
E117	MAINTAIN TECHNICAL ORDER (TO) OR COMMERCIAL PUBLICATIONS FILES	34	38	5.12
G344	ISOLATE MALFUNCTIONS IN LIGHTING EQUIPMENT	35	35	5.08
G355	ISOLATE MALFUNCTIONS IN SLIDE MOUNTERS	33	34	5.59
G361	ISOLATE MALFUNCTIONS IN TIMER ELECTRONIC COMPONENTS	21	32	6.15
G238	ADJUST SLIDE MOUNTERS	28	31	5.36
G250	CALIBRATE TIMERS	21	31	5.36
G236	ADJUST SENSITOMETERS	25	30	5.56

* MEAN TD = 5.00, SD = 1.00

TABLE 16

PERCENTAGE OF TIME SPENT ON DUTIES BY 404X0 MAJCOM GROUPS

DUTIES	SAC (N=63)	TAC (N=66)	MAC (N=57)	USAFE (N=37)	ATC (N=27)	PACAF (N=12)
A ORGANIZING AND PLANNING	3	4	4	2	5	4
B DIRECTING AND IMPLEMENTING	3	5	4	3	4	6
C INSPECTING AND EVALUATING	3	3	3	3	3	5
D TRAINING	2	2	2	2	20	3
E PERFORMING ADMINISTRATIVE FUNCTIONS	17	15	12	12	9	15
F INSTALLING AND MAINTAINING PHOTOGRAPHIC PROCESSING EQUIPMENT	17	16	8	19	8	16
G INSTALLING AND MAINTAINING PHOTOGRAPHIC SUPPORT SYSTEMS	31	23	20	36	23	24
H MAINTAINING PRINTER SYSTEMS	7	4	5	7	8	6
I MAINTAINING STILL CAMERA SYSTEMS	3	3	8	*	9	2
J MAINTAINING MOTION PICTURE CAMERAS	*	2	9	*	1	2
K MAINTAINING GENERAL CAMERA EQUIPMENT	3	4	8	*	6	2
L MAINTAINING AUDIOVISUAL AND MULTIMEDIA SOUND EQUIPMENT	9	11	12	*	1	4
M MAINTAINING RELOCATABLE FACILITIES	1	7	4	14	*	11
N MAINTAINING GRAPHICS EQUIPMENT	*	*	2	*	*	*

* Denotes less than 1 percent

ANALYSIS OF CONUS VERSUS OVERSEAS GROUPS

A comparison was made between tasks performed and background data for DAFSC 40450 personnel assigned within the CONUS versus those assigned to overseas locations. Overall, jobs performed by the two groups are very similar with respect to task performance and time spent on those tasks. DAFSC 40450 personnel in CONUS perform an average of 160 tasks, while their overseas counterparts perform an average of 153 tasks. Overseas respondents, however, seem to spend slightly more time on maintaining relocatable facilities, presumably due to the difference in mission requirements for overseas reconnaissance units.

COMPARISON TO PREVIOUS SURVEY

The results of this survey were compared to those of the previous occupational survey report (AFPT 90-404-423), dated May 1981. This analysis can help identify changes in the career ladder due to new missions, changing management policies, new equipment, and other areas and functions which might change over time. While the actual jobs performed have changed little over time, the names given those jobs in the two separate surveys have. For example, in the 1986 survey, Base Photo Lab and Audiovisual Maintenance personnel basically are doing the same job as those individuals identified in the 1981 survey as Photographic Support Systems and Audiovisual Equipment Maintenance Personnel. The few differences noted appeared in the following areas:

In the 1986 survey, three new job groups were identified. These new job groups are: (1) Armament Recording Program (ARP) Personnel, (2) Apprentice Light Table Maintenance Personnel, and (3) Apprentice Projector Maintenance Personnel. Another difference is that the Photo Reconnaissance/ARP Supervisors group does not include supervisors from base photo/audiovisual labs or higher management functions. Additionally, Quality Control NCOICs and Maintenance Schedulers job groups from the 1981 survey were not identified in this survey. They are, however, intermixed within the job groups identified by the 1986 survey. These differences are minor, and the overall career ladder structure is relatively stable.

Job satisfaction data were reviewed for both 1981 and 1986 first-, second-, and career-enlistment groups (see Table 17). Personnel in the 1 to 48 months enlistment group expressed a higher job satisfaction than the 1981 respondents, while personnel in the 49 to 96 months indicated slightly lower job satisfaction than previous respondents. Responses to talents and training utilized increased in almost all TAFMS groups, with the only exception being in the 97+ months group where perception of training utilized remained the same.

TABLE 17

COMPARISON OF CURRENT SURVEY AND 1981 SURVEY TAFMS GROUPS

	1-48 MONTHS		49-96 MONTHS		97+ MONTHS	
	1981 (N=115)	1986 (N=132)	1981 (N=47)	1986 (N=47)	1981 (N=115)	1986 (N=88)
JOB SATISFACTION INFORMATION						
JOB FAIRLY INTERESTING OR BETTER	70	75	75	70	85	78
TALENTS UTILIZED FAIRLY WELL OR BETTER	70	78	76	83	82	88
TRAINING UTILIZED FAIRLY WELL OR BETTER	73	83	74	85	78	78

ELECTRONICS PRINCIPLES

An Electronics Principles Inventory (EPI) is a knowledge-based inventory which identifies the range of electronics principles personnel must understand to perform any electronics-oriented job. Such an EPI was completed in April 1984 (AFPT 90-EPI-490) and included Precision Imagery and Audiovisual Media Maintenance personnel, along with 32 other AFSCs whose training is conducted at Lowry Technical Training Center.

Findings from the April 1984 EPI indicate that 404X0 personnel were a "low use" specialty. That is, members of this AFSC responded to less than 300 of the 1,366 knowledge items listed. A careful review of those knowledge items used, and a subsequent comparison between these data and the current training documents was performed (see Table 18). Findings indicate adequate coverage of EPI knowledges in initial skills training for 404X0 personnel.

This area is one of great concern and was one reason for this OSR being conducted. Further information may be desired by classification and training personnel at various levels. The AFPT number cited in the first paragraph of this discussion is provided so complete EPI data may be obtained by written request (including AFPT number) to: Chief, Airman Analysis Branch (OMYO), Randolph AFB, Texas 78150-5000.

IMPLICATIONS

A special topic of interest and one reason for this OSR being conducted is the area of Electronics Principles (EP), due to an influx of electronic equipment into the career specialty. A thorough review of EP knowledge items indicates the current 404X0 training documents adequately cover EP in initial skills training.

A thorough review of the current STS and POI indicate a need for review and a comparison made with current OSR survey data so that technical objectives in these training documents can be fine-tuned.

Job satisfaction indicators for first-enlistment, second-enlistment, and career TAFMS groups are higher than the 1985 comparative sample, indicating 404X0 personnel enjoy the work they perform and other career ladder conditions.

Career ladder progression is normal, with 3- and 5-skill level personnel performing mainly technical tasks. The transition from the 5-skill to the 7-skill level clearly shows an increase in supervisory responsibilities, though 7-skill level personnel, as is often found in mechanical AFSCs, still perform many technical tasks.

TABLE 18

1984 LOWRY EPI RESPONSES MATCHED TO
COURSE G3ABR40430 EP TRAINING

EPI SUBJECT AREA	PERCENT OF 404X0* RESPONDING (N=33)	G3ABR40430 EP OJBECTIVES
1. MATHEMATICS	51.5	BLK I, 4c
2. DIRECT CURRENT	90.9	BLK I, 4a,4c,5b
3. RESISTANCE/RESISTANCE CIRCUITS	93.9	BLK I, 5a
4. METERS/MULTIMETERS	97.0	BLK I, 5a,5b BLK III, 3b,5d
5. ALTERNATING CIRCUIT	51.5	BLK II, 1a,1b,1c, 1d,1e
6. INDUCTORS/INDUCTIVE REACTANCE	36.4	BLK II, 2c
7. COUPLING/SOLDERING OR SOLDERLESS CONNECTIONS	93.9	BLK VII, 4a,4b,4c
8. RELAYS	97.0	BLK II, 3a,4b
9. SEMICONDUCTOR DIODES	66.7	BLK III, 1a,2a
10. TRANSISTORS	78.8	BLK III, 1b
11. SOLIDSTATE SPECIAL PURPOSE DEVICES	78.8	BLK III, 1b
12. POWER SUPPLIES	69.7	BLK III, 3b
13. MOTORS AND GENERATORS	84.8	BLK II, 3b
14. METER MOVEMENTS	90.9	BLK I, 5a,5b BLK III, 3b,5d
15. CAPACITORS/CAPACITIVE REACTANCE	93.9	BLK II, 2d
16. TRANSFORMERS	63.6	BLK II, 4a

* Percent shown is highest percent reported for a task within subject area

APPENDIX A

SELECTED REPRESENTATIVE TASKS

FOR

CAREER LADDER STRUCTURE GROUPS

TABLE A1

GROUP ID NUMBER AND TITLE: GRP023 - BASE PHOTO LAB AND AUDIOVISUAL MAINTENANCE CLUSTER

GROUP SIZE: N=79 PERCENT OF SAMPLE: 30
AVERAGE GRADE: E-4 AVERAGE TICF: 72 MONTHS
AVERAGE TAFMS: 87 MONTHS

THE FOLLOWING ARE IN DESCENDING ORDER BY PERCENT MEMBERS PERFORMING:

TASKS		PERCENT MEMBERS PERFORMING
E114	LOCATE PART OR STOCK NUMBERS	95
E115	MAINTAIN MAINTENANCE RECORD FILES	91
E113	INVENTORY EQUIPMENT, TOOLS, OR SUPPLIES	91
L912	CLEAN AND LUBRICATE SLIDE PROJECTORS	90
L896	ADJUST SLIDE PROJECTORS	90
L935	INSPECT OVERHEAD PROJECTORS	90
E112	ATTACH STATUS TAGS TO EQUIPMENT	89
L962	ISOLATE MALFUNCTIONS IN SLIDE PROJECTORS	87
L940	INSPECT SLIDE PROJECTORS	87
L907	CLEAN AND LUBRICATE OVERHEAD PROJECTORS	87
E139	MAKE ENTRIES ON AFTO FORMS 95 (SIGNIFICANT HISTORICAL DATA)	86
L1006	PERFORM OPERATIONAL CHECKS ON SLIDE PROJECTORS	86
L957	ISOLATE MALFUNCTIONS IN OVERHEAD PROJECTORS	86
G430	PERFORM OPERATIONAL CHECKS ON TIMERS	86
F203	PERFORM CORROSION CONTROL ON PROCESSORS	85
L897	ADJUST SOUND MOTION PICTURE PROJECTORS	84
E138	MAKE ENTRIES ON AFTO FORMS 350 (REPARABLE ITEM PROCESSING TAG)	84
L1001	PERFORM OPERATIONAL CHECKS ON OVERHEAD PROJECTORS	84
E142	MAKE ENTRIES ON DD FORMS 1574 (SERVICEABLE TAG-MATERIEL)	84
G426	PERFORM OPERATIONAL CHECKS ON SLIDE MOUNTERS	84
L891	ADJUST OVERHEAD PROJECTORS	84
G314	INSPECT TIMERS	84
E143	MAKE ENTRIES ON DD FORMS 1577 (UNSERVICEABLE CONDEMNED) TAG MATERIEL)	82
E117	MAINTAIN TECHNICAL ORDER (TO) OR COMMERCIAL PUBLICATION FILES	81
E144	MAKE ENTRIES ON DD FORMS 1577-2 (UNSERVICEABLE (REPARABLE) TAG MATERIEL)	81

TABLE A2

GROUP ID NUMBER AND TITLE: GRP147 - BASE PHOTOGRAPHIC LAB MAINTENANCE PERSONNEL

GROUP SIZE: N=17 PERCENT OF SAMPLE: 6
AVERAGE GRADE: E-5 AVERAGE TICF: 85 MONTHS
AVERAGE TAFMS: 116 MONTHS

THE FOLLOWING ARE IN DESCENDING ORDER BY PERCENT MEMBERS PERFORMING:

TASKS		PERCENT MEMBERS PERFORMING
E138	MAKE ENTRIES ON AFTO FORMS 350 (REPARABLE ITEM PROCESSING TAG)	100
I614	INSPECT STILL CAMERA EXPOSURE METERS	100
H513	INSPECT MANUAL CONTACT PRINTERS	100
G309	INSPECT SINKS	100
H506	CLEAN AND LUBRICATE MANUAL CONTACT PRINTERS	100
K834	INSPECT ELECTRONIC FLASH UNITS	100
K832	INSPECT CAMERA LENS ASSEMBLIES	100
K817	CLEAN CAMERA LENS ASSEMBLIES	100
H536	PERFORM OPERATIONAL CHECKS ON MANUAL CONTACT PRINTERS	100
K823	CLEAN MIRRORS	100
H522	ISOLATE MALFUNCTIONS IN MANUAL CONTACT PRINTERS	100
G430	PERFORM OPERATIONAL CHECKS ON TIMERS	100
I618	INSPECT STILL CAMERA SELF-TIMER MECHANISMS	100
K838	INSPECT MIRRORS	100
H496	ADJUST MANUAL CONTACT PRINTERS	100
I630	ISOLATE MALFUNCTIONS IN FRAME COUNTERS	100
H549	REMOVE OR REPLACE MANUAL CONTACT PRINTER COMPONENTS	100
E114	LOCATE PART OR STOCK NUMBERS	94
F203	PERFORM CORROSION CONTROL ON PROCESSORS	94
I602	INSPECT FILM ADVANCE MECHANISMS	94
K840	INSPECT POWER CORDS	94
I642	PERFORM CORROSION CONTROL ON STILL CAMERA SYSTEMS	94
H514	INSPECT MANUAL PROJECTION PRINTERS	94
I635	ISOLATE MALFUNCTIONS IN STILL CAMERA EXPOSURE METERS	94
I643	PERFORM OPERATIONAL CHECKS ON STILL OR COPY CAMERAS	94

TABLE A3

GROUP ID NUMBER AND TITLE: GRP148 - BASE AUDIOVISUAL AND MULTIMEDIA SOUND EQUIPMENT REPAIRMEN

GROUP SIZE: N=5 PERCENT OF SAMPLE: 2

AVERAGE GRADE: E-4 AVERAGE TICF: 50 MONTHS

AVERAGE TAFMS: 68 MONTHS

THE FOLLOWING ARE IN DESCENDING ORDER BY PERCENT MEMBERS PERFORMING:

TASKS		PERCENT MEMBERS PERFORMING
F187	INSPECT PROCESSORS	100
L896	ADJUST SLIDE PROJECTORS	100
L912	CLEAN AND LUBRICATE SLIDE PROJECTORS	100
L962	ISOLATE MALFUNCTIONS IN SLIDE PROJECTORS	100
E137	MAKE ENTRIES ON AFTO FORMS 349 (MAINTENANCE DATA COLLECTION RECORD)	100
E114	LOCATE PART OR STOCK NUMBERS	100
L1041	REMOVE OR REPLACE SLIDE PROJECTOR COMPONENTS	100
L940	INSPECT SLIDE PROJECTORS	100
L897	ADJUST SOUND MOTION PICTURE PROJECTORS	100
L1044	REMOVE OR REPLACE SOUND MOTION PICTURE PROJECTOR COMPONENTS	100
L963	ISOLATE MALFUNCTIONS IN SOUND MOTION PICTURE PROJECTORS	100
L941	INSPECT SOUND MOTION PICTURE PROJECTORS	100
L907	CLEAN AND LUBRICATE OVERHEAD PROJECTORS	100
L913	CLEAN AND LUBRICATE SOUND MOTION PICTURE PROJECTORS	100
L984	PERFORM CORROSION CONTROL ON SLIDE PROJECTORS	100
L891	ADJUST OVERHEAD PROJECTORS	100
L935	INSPECT OVERHEAD PROJECTORS	100
L957	ISOLATE MALFUNCTIONS IN OVERHEAD PROJECTORS	100
L1032	REMOVE OR REPLACE OVERHEAD PROJECTOR COMPONENTS	100
L1006	PERFORM OPERATIONAL CHECKS ON SLIDE PROJECTORS	100
L1001	PERFORM OPERATIONAL CHECKS ON OVERHEAD PROJECTORS	100
L979	PERFORM CORROSION CONTROL ON OVERHEAD PROJECTORS	100
L985	PERFORM CORROSION CONTROL ON SOUND MOTION PICTURE PROJECTORS	100
E139	MAKE ENTRIES ON AFTO FORMS 95 (SIGNIFICANT HISTORICAL DATA)	100
L1007	PERFORM OPERATIONAL CHECKS ON SOUND MOTION PICTURE PROJECTORS	100

TABLE A4

GROUP ID NUMBER AND TITLE: GRP074 - CAMERA MAINTENANCE PERSONNEL
GROUP SIZE: N=8 PERCENT OF SAMPLE: 3
AVERAGE GRADE: E-4 AVERAGE TICF: 84 MONTHS
AVERAGE TAFMS: 94 MONTHS

THE FOLLOWING ARE IN DESCENDING ORDER BY PERCENT MEMBERS PERFORMING:

TASKS		PERCENT MEMBERS PERFORMING
I616	INSPECT STILL CAMERA MOTOR DRIVE UNITS	100
I643	PERFORM OPERATIONAL CHECKS ON STILL OR COPY CAMERAS	100
K832	INSPECT CAMERA LENS ASSEMBLIES	100
K803	ADJUST BATTERY CHARGERS	100
I593	CLEAN AND LUBRICATE STILL CAMERA MOTOR DRIVE UNITS	100
I600	INSPECT BETWEEN-THE-LENS SHUTTERS	100
J727	INSPECT FILM TAKEUP ASSEMBLIES	100
J723	INSPECT CAMERA HOUSINGS	100
I637	ISOLATE MALFUNCTIONS IN STILL CAMERA MOTOR DRIVE UNITS	100
I614	INSPECT STILL CAMERA EXPOSURE METERS	100
K847	ISOLATE MALFUNCTIONS IN CAMERA LENS ASSEMBLIES	100
I672	REMOVE OR REPLACE STILL CAMERA MOTOR DRIVE UNITS	100
I606	INSPECT FOCAL PLANE SHUTTERS	100
J721	CLEAN MOTION PICTURE CAMERA HOUSINGS	100
K853	ISOLATE MALFUNCTIONS IN MOTOR DRIVE POWER PACKS	100
J747	ISOLATE MALFUNCTIONS IN FILM TAKEUP ASSEMBLIES	100
J738	INSPECT MOTION PICTURE CAMERA SHUTTER ASSEMBLIES	100
K854	ISOLATE MALFUNCTIONS IN POWER CORDS	100
I615	INSPECT STILL CAMERA MANUAL EXPOSURE CONTROL SYSTEMS	100
J749	ISOLATE MALFUNCTIONS IN IRIS EYEPIECES	100
J776	REMOVE OR REPLACE FILM TAKEUP ASSEMBLY COMPONENTS	100
K834	INSPECT ELECTRONIC FLASH UNITS	100
I605	INSPECT FLASH SYNCHRONIZATION MECHANISMS	100
J729	INSPECT IRIS EYEPIECES	100
K852	ISOLATE MALFUNCTIONS IN LIGHT METERS	100

TABLE A5

GROUP ID NUMBER AND TITLE: GRP030 - PHOTOGRAPHIC SUPPORT SYSTEMS PERSONNEL CLUSTER

GROUP SIZE: N=109 PERCENT OF SAMPLE: 40
AVERAGE GRADE: E-4 AVERAGE TICF: 49 MONTHS
AVERAGE TAFMS: 56 MONTHS

THE FOLLOWING ARE IN DESCENDING ORDER BY PERCENT MEMBERS PERFORMING:

TASKS		PERCENT MEMBERS PERFORMING
F187	INSPECT PROCESSORS	94
F203	PERFORM CORROSION CONTROL ON PROCESSORS	93
F204	PERFORM LUBRICATION CHECKLIST PROCEDURES ON PROCESSORS	92
E114	LOCATE PART OR STOCK NUMBERS	90
F219	REMOVE OR REPLACE PROCESSOR ROLLERS OR ROLLER BEARING SYSTEM COMPONENTS	90
F200	MEASURE AND CUT COPPER, STAINLESS STEEL, OR PVC TUBING	90
F205	PERFORM OPERATIONAL CHECKS ON PROCESSORS	88
E137	MAKE ENTRIES ON AFTO FORMS 349 (MAINTENANCE DATA COLLECTION RECORD)	85
F218	REMOVE OR REPLACE PROCESSOR PLUMBING SYSTEM COMPONENTS	85
E112	ATTACH STATUS TAGS TO EQUIPMENT	84
E138	MAKE ENTRIES ON AFTO FORMS 350 (REPARABLE ITEM PROCESSING TAG)	83
F194	ISOLATE MALFUNCTIONS IN PROCESSOR ELECTRICAL SYSTEMS	83
F213	REMOVE OR REPLACE PROCESSOR ELECTRICAL COMPONENTS	83
F177	CONNECT OR DISCONNECT PROCESSOR INTERNAL PLUMBING	82
F173	CONNECT OR DISCONNECT PROCESSOR CHEMICAL REPLENISHMENT SUPPLY LINES	82
F159	ADJUST PROCESSOR DRIVE CHAINS	81
G298	INSPECT HYDROMIXERS	79
F168	CEMENT POLYVINYL-CHLORIDE (PVC) TUBING	79
E121	MAKE ENTRIES ON AF FORMS 2005 (ISSUE/TURN IN REQUEST)	78
F191	ISOLATE MALFUNCTIONS IN PROCESSOR CHEMICAL REPLENISHING SYSTEMS	78
F181	CONNECT OR DISCONNECT PROCESSORS TO OR FROM DRAINS	77
F223	THREAD PVC TUBING	76
F178	CONNECT OR DISCONNECT PROCESSOR WATER MIXING VALVES	76
F176	CONNECT OR DISCONNECT PROCESSOR INTERNAL ELECTRICAL SYSTEMS	75
G445	REMOVE OR REPLACE CHEMICAL MIXING PUMPS	74

TABLE A6

GROUP ID NUMBER AND TITLE: GRP117 - RELOCATABLE FACILITY MAINTENANCE PERSONNEL
GROUP SIZE: N=23 PERCENT OF SAMPLE: 9
AVERAGE GRADE: E-4 AVERAGE TICF: 47 MONTHS
AVERAGE TAFMS: 51 MONTHS

THE FOLLOWING ARE IN DESCENDING ORDER BY PERCENT MEMBERS PERFORMING:

TASKS		PERCENT MEMBERS PERFORMING
M1093	PERFORM CORROSION CONTROL ON RELOCATABLE FACILITIES	100
F187	INSPECT PROCESSORS	100
F203	PERFORM CORROSION CONTROL ON PROCESSORS	100
M1072	INSPECT RELOCATABLE FACILITY LEVELING JACKS	100
M1089	PERFORM CORROSION CONTROL ON LEVELING JACKS	100
F204	PERFORM LUBRICATION CHECKLIST PROCEDURES ON PROCESSORS	100
M1071	INSPECT RELOCATABLE FACILITY DRAIN LINES	100
M1069	INSPECT RELOCATABLE FACILITIES	96
M1102	PERFORM OPERATIONAL CHECKS ON LEVELING JACKS	96
M1059	CONNECT OR DISCONNECT RELOCATABLE FACILITY WATER LINES	96
F218	REMOVE OR REPLACE PROCESSOR PLUMBING SYSTEM COMPONENTS	96
G298	INSPECT HYDROMIXERS	96
G261	CLEAN AND LUBRICATE HYDROMIXERS	96
G300	INSPECT LIGHT TABLES	96
F165	CALIBRATE PROCESSOR SPEED CONTROL INDICATORS	96
E137	MAKE ENTRIES ON AFTO FORMS 349 (MAINTENANCE DATA COLLECTION RECORD)	91
F205	PERFORM OPERATIONAL CHECKS ON PROCESSORS	91
G379	PERFORM CORROSION CONTROL ON HYDROMIXERS	91
F219	REMOVE OR REPLACE PROCESSOR ROLLERS OR ROLLER BEARING SYSTEM COMPONENTS	91
F168	CEMENT POLYVINYL-CHLORIDE (PVC) TUBING	91
F159	ADJUST PROCESSOR DRIVE CHAINS	91
F191	ISOLATE MALFUNCTIONS IN PROCESSOR CHEMICAL REPLENISHING SYSTEMS	91
G414	PERFORM OPERATIONAL CHECKS ON HYDROMIXERS	91
F200	MEASURE AND CUT COPPER, STAINLESS STEEL, OR PVC TUBING	91
M1066	INSPECT HYDRAULIC SYSTEMS ON TRANSPORTERS	91

TABLE A7

GROUP ID NUMBER AND TITLE: GRP110 - NONRELOCATABLE FACILITY MAINTENANCE PERSONNEL

GROUP SIZE: N=24 PERCENT OF SAMPLE: 9
AVERAGE GRADE: E-4 AVERAGE TICF: 62 MONTHS
AVERAGE TAFMS: 70 MONTHS

THE FOLLOWING ARE IN DESCENDING ORDER BY PERCENT MEMBERS PERFORMING:

TASKS		PERCENT MEMBERS PERFORMING
F219	REMOVE OR REPLACE PROCESSOR ROLLERS OR ROLLER BEARING SYSTEM COMPONENTS	100
E112	ATTACH STATUS TAGS TO EQUIPMENT	100
G416	PERFORM OPERATIONAL CHECKS ON LIGHT TABLES	100
G300	INSPECT LIGHT TABLES	100
G404	PERFORM OPERATIONAL CHECKS ON CHEMICAL MIXING PUMPS	100
F177	CONNECT OR DISCONNECT PROCESSOR INTERNAL PLUMBING	100
G430	PERFORM OPERATIONAL CHECKS ON TIMERS	100
E138	MAKE ENTRIES ON AFTO FORMS 350 (REPARABLE ITEM PROCESSING TAG)	96
F205	PERFORM OPERATIONAL CHECKS ON PROCESSORS	96
F194	ISOLATE MALFUNCTIONS IN PROCESSOR ELECTRICAL SYSTEMS	96
F218	REMOVE OR REPLACE PROCESSOR PLUMBING SYSTEM COMPONENTS	96
G262	CLEAN AND LUBRICATE LIGHT TABLES	96
G444	REMOVE OR REPLACE CHEMICAL MIXING PUMP COMPONENTS	96
F213	REMOVE OR REPLACE PROCESSOR ELECTRICAL COMPONENTS	96
G314	INSPECT TIMERS	96
H493	ADJUST CONTINUOUS CONTACT PRINTERS	96
H510	INSPECT CONTINUOUS CONTACT PRINTERS	96
H536	PERFORM OPERATIONAL CHECKS ON MANUAL CONTACT PRINTERS	96
F173	CONNECT OR DISCONNECT PROCESSOR CHEMICAL REPLENISHMENT SUPPLY LINES	96
H513	INSPECT MANUAL CONTACT PRINTERS	96
F204	PERFORM LUBRICATION CHECKLIST PROCEDURES ON PROCESSORS	96
G308	INSPECT SENSITOMETERS	96
F197	ISOLATE MALFUNCTIONS IN PROCESSOR TEMPERATURE CONTROL SYSTEMS	96
H503	CLEAN AND LUBRICATE CONTINUOUS CONTACT PRINTERS	96
E137	MAKE ENTRIES ON AFTO FORMS 349 (MAINTENANCE DATA COLLECTION RECORD)	92

TABLE A8

GROUP ID NUMBER AND TITLE: GRP067 - PROCESSOR MAINTENANCE PERSONNEL
GROUP SIZE: N=5 PERCENT OF SAMPLE: 2
AVERAGE GRADE: E-3 AVERAGE TICF: 26 MONTHS
AVERAGE TAFMS: 41 MONTHS

THE FOLLOWING ARE IN DESCENDING ORDER BY PERCENT MEMBERS PERFORMING:

TASKS		PERCENT MEMBERS PERFORMING
E114	LOCATE PART OR STOCK NUMBERS	100
E113	INVENTORY EQUIPMENT, TOOLS, OR SUPPLIES	100
F181	CONNECT OR DISCONNECT PROCESSORS TO OR FROM DRAINS	100
F203	PERFORM CORROSION CONTROL ON PROCESSORS	100
F172	CONNECT OR DISCONNECT PROCESSOR CHEMICAL CONTROL FLOWRATERS	100
F156	ADJUST FILM TRACKING	100
F159	ADJUST PROCESSOR DRIVE CHAINS	100
F171	CLEAN PROCESSOR ELECTRONIC COMPONENTS	100
F178	CONNECT OR DISCONNECT PROCESSOR WATER MIXING VALVES	100
E138	MAKE ENTRIES ON AFTO FORMS 350 (REPARABLE ITEM PROCESSING TAG)	100
F187	INSPECT PROCESSORS	100
F177	CONNECT OR DISCONNECT PROCESSOR INTERNAL PLUMBING	100
F218	REMOVE OR REPLACE PROCESSOR PLUMBING SYSTEM COMPONENTS	100
F219	REMOVE OR REPLACE PROCESSOR ROLLERS OR ROLLER BEARING SYSTEM COMPONENTS	100
F204	PERFORM LUBRICATION CHECKLIST PROCEDURES ON PROCESSORS	100
F205	PERFORM OPERATIONAL CHECKS ON PROCESSORS	100
F213	REMOVE OR REPLACE PROCESSOR ELECTRICAL COMPONENTS	100
F214	REMOVE OR REPLACE PROCESSOR ELECTRONIC COMPONENTS	100
F176	CONNECT OR DISCONNECT PROCESSOR INTERNAL ELECTRICAL SYSTEMS	100
F200	MEASURE AND CUT COPPER, STAINLESS STEEL, OR PVC TUBING	100
F212	REMOVE OR REPLACE PROCESSOR DIRECT DRIVE SYSTEM COMPONENTS	80
F161	ADJUST PROCESSOR WATER CONTROL METERS	80
F162	ADJUST THICKNESS GAUGES	80
G369	PERFORM CORROSION CONTROL ON CHEMICAL MIXING PUMPS	80
G445	REMOVE OR REPLACE CHEMICAL MIXING PUMPS	80

TABLE A9

GROUP ID NUMBER AND TITLE: GRP100 - PRINTER MAINTENANCE PERSONNEL
GROUP SIZE: N=5 PERCENT OF SAMPLE: 2
AVERAGE GRADE: E-4 AVERAGE TICF: 57 MONTHS
AVERAGE TAFMS: 61 MONTHS

THE FOLLOWING ARE IN DESCENDING ORDER BY PERCENT MEMBERS PERFORMING:

TASKS		PERCENT MEMBERS PERFORMING
G204	PERFORM LUBRICATION CHECKLIST PROCEDURES ON PROCESSORS	100
G430	PERFORM OPERATIONAL CHECKS ON TIMERS	100
H537	PERFORM OPERATIONAL CHECKS ON MANUAL PROJECTION PRINTERS	100
H514	INSPECT MANUAL PROJECTION PRINTERS	100
H533	PERFORM OPERATIONAL CHECKS ON CONTINUOUS CONTACT PRINTERS	100
H510	INSPECT CONTINUOUS CONTACT PRINTERS	100
H497	ADJUST MANUAL PROJECTION PRINTERS	100
H523	ISOLATE MALFUNCTIONS IN MANUAL PROJECTION PRINTERS	100
H503	CLEAN AND LUBRICATE CONTINUOUS CONTACT PRINTERS	100
H507	CLEAN AND LUBRICATE MANUAL PROJECTION PRINTERS	100
H522	ISOLATE MALFUNCTIONS IN MANUAL CONTACT PRINTERS	100
H536	PERFORM OPERATIONAL CHECKS ON MANUAL CONTACT PRINTERS	100
H513	INSPECT MANUAL CONTACT PRINTERS	100
G425	PERFORM OPERATIONAL CHECKS ON SINKS	100
H496	ADJUST MANUAL CONTACT PRINTERS	100
H506	CLEAN AND LUBRICATE MANUAL CONTACT PRINTERS	100
G261	CLEAN AND LUBRICATE HYDROMIXERS	100
G250	CALIBRATE TIMERS	100
F219	REMOVE OR REPLACE PROCESSOR ROLLERS OR ROLLER BEARING SYSTEM COMPONENTS	80
H535	PERFORM OPERATIONAL CHECKS ON ELECTRONIC PROJECTION PRINTERS	80
F187	INSPECT PROCESSORS	80
G300	INSPECT LIGHT TABLES	80
H520	ISOLATE MALFUNCTIONS IN ELECTRONIC PROJECTION PRINTER ELECTROMECHANICAL COMPONENTS	80
H521	ISOLATE MALFUNCTIONS IN ELECTRONIC PROJECTION PRINTER ELECTRONIC COMPONENTS	80
H550	REMOVE OR REPLACE MANUAL PROJECTION PRINTER COMPONENTS	80

TABLE A10

GROUP ID NUMBER AND TITLE: GRP077 - ARMAMENT RECORDING PROGRAM (ARP) PERSONNEL

GROUP SIZE: N=8 PERCENT OF SAMPLE: 3
AVERAGE GRADE: E-4 AVERAGE TICF: 89 MONTHS
AVERAGE TAFMS: 93 MONTHS

THE FOLLOWING ARE IN DESCENDING ORDER BY PERCENT MEMBERS PERFORMING:

TASKS		PERCENT MEMBERS PERFORMING
E114	LOCATE PART OR STOCK NUMBERS	100
E115	MAINTAIN MAINTENANCE RECORD FILES	100
E204	PERFORM LUBRICATION CHECKLIST PROCEDURES ON PROCESSORS	100
E139	MAKE ENTRIES ON AFTO FORMS 95 (SIGNIFICANT HISTORICAL DATA)	100
F205	PERFORM OPERATIONAL CHECKS ON PROCESSORS	100
E151	REVIEW AFTO FORMS 95 (SIGNIFICANT HISTORICAL DATA)	100
F203	PERFORM CORROSION CONTROL ON PROCESSORS	100
F191	ISOLATE MALFUNCTIONS IN PROCESSOR CHEMICAL REPLENISHING SYSTEMS	100
F194	ISOLATE MALFUNCTIONS IN PROCESSOR ELECTRICAL SYSTEMS	100
F173	CONNECT OR DISCONNECT PROCESSOR CHEMICAL REPLENISHMENT SUPPLY LINES	100
E112	ATTACH STATUS TAGS TO EQUIPMENT	100
G461	REMOVE OR REPLACE HYDROMIXER COMPONENTS	100
F177	CONNECT OR DISCONNECT PROCESSOR INTERNAL PLUMBING	100
F172	CONNECT OR DISCONNECT PROCESSOR CHEMICAL CONTROL FLOWRATERS	100
F213	REMOVE OR REPLACE PROCESSOR ELECTRICAL COMPONENTS	100
G246	CALIBRATE DENSITOMETERS	100
F157	ADJUST HEAT-SENSING DEVICES	100
F181	CONNECT OR DISCONNECT PROCESSORS TO OR FROM DRAINS	100
F165	CALIBRATE PROCESSOR SPEED CONTROL INDICATORS	100
G288	INSPECT CHEMICAL MIXING PUMPS	88
F187	INSPECT PROCESSORS	88
E117	MAINTAIN TECHNICAL ORDER (TO) OR COMMERCIAL PUBLICATION FILES	88
G252	CLEAN AND LUBRICATE CHEMICAL MIXING PUMPS	88
E113	INVENTORY EQUIPMENT, TOOLS, OR SUPPLIES	88
G261	CLEAN AND LUBRICATE HYDROMIXERS	88

TABLE A11

GROUP ID NUMBER AND TITLE: GRP102 - JUNIOR RELOCATABLE FACILITY MAINTENANCE PERSONNEL

GROUP SIZE: N=7 PERCENT OF SAMPLE: 3
AVERAGE GRADE: E-3 AVERAGE TICF: 14 MONTHS
AVERAGE TAFMS: 16 MONTHS

THE FOLLOWING ARE IN DESCENDING ORDER BY PERCENT MEMBERS PERFORMING:

TASKS		PERCENT MEMBERS PERFORMING
E137	MAKE ENTRIES ON AFTO FORMS 349 (MAINTENANCE DATA COLLECTION RECORD)	100
M1093	PERFORM CORROSION CONTROL ON RELOCATABLE FACILITIES	100
M1069	INSPECT RELOCATABLE FACILITIES	100
E121	MAKE ENTRIES ON AF FORMS 2005 (ISSUE/TURN IN REQUEST)	100
E114	LOCATE PART OR STOCK NUMBERS	100
M1072	INSPECT RELOCATABLE FACILITY LEVELING JACKS	100
M1089	PERFORM CORROSION CONTROL ON LEVELING JACKS	100
E138	MAKE ENTRIES ON AFTO FORMS 350 (REPARABLE ITEM PROCESSING TAG)	100
F203	PERFORM CORROSION CONTROL ON PROCESSORS	100
G298	INSPECT HYDROMIXERS	100
F159	ADJUST PROCESSOR DRIVE CHAINS	100
M1060	EXPAND OR COLLAPSE RELOCATABLE FACILITIES	86
F219	REMOVE OR REPLACE PROCESSOR ROLLERS OR ROLLER BEARING SYSTEM COMPONENTS	86
F187	INSPECT PROCESSORS	86
E112	ATTACH STATUS TAGS TO EQUIPMENT	86
F168	CEMENT POLYVINYL-CHLORIDE (PVC) TUBING	86
M1110	POSITION RELOCATABLE FACILITIES	86
G461	REMOVE OR REPLACE HYDROMIXER COMPONENTS	86
M1116	REMOVE OR INSTALL RELOCATABLE FACILITY PASSAGEWAYS	86
F218	REMOVE OR REPLACE PROCESSOR PLUMBING SYSTEM COMPONENTS	86
F223	THREAD PVC TUBING	86
G315	INSPECT TITLERS	86
M1078	LEVEL RELOCATABLE FACILITIES	71
G379	PERFORM CORROSION CONTROL ON HYDROMIXERS	71
M1066	INSPECT HYDRAULIC SYSTEMS ON TRANSPORTERS	71

TABLE A12

GROUP ID NUMBER AND TITLE: GRP145 - PHOTO RECONNAISSANCE/ARP SUPERVISORS
GROUP SIZE: N=7 PERCENT OF SAMPLE: 3
AVERAGE GRADE: E-6 AVERAGE TICF: 166 MONTHS
AVERAGE TAFMS: 204 MONTHS

THE FOLLOWING ARE IN DESCENDING ORDER BY PERCENT MEMBERS PERFORMING:

TASKS		PERCENT MEMBERS PERFORMING
A17	PLAN WORK ASSIGNMENTS	100
A5	DETERMINE WORK PRIORITIES	100
E153	REVIEW DAILY DOCUMENT REGISTERS	100
C59	EVALUATE CORROSION CONTROL PROGRAMS	100
E126	MAKE ENTRIES ON AF FORMS 2420 (QUALITY CONTROL INSPECTION SUMMARY)	100
E115	MAINTAIN MAINTENANCE RECORD FILES	100
B36	DIRECT MAINTENANCE OR UTILIZATION OF EQUIPMENT	100
E149	REVIEW AF FORMS 2413 (SUPPLY CONTROL LOG)	100
D104	MAINTAIN TRAINING RECORDS, CHARTS, OR GRAPHS	100
C71	EVALUATE WORK SCHEDULES	100
B43	INTERPRET POLICIES, DIRECTIVES, OR PROCEDURES FOR SUBORDINATES	100
D89	DETERMINE OJT TRAINING REQUIREMENTS	100
B33	COUNSEL PERSONNEL ON PERSONAL OR MILITARY-RELATED PROBLEMS	100
E121	MAKE ENTRIES ON AF FORMS 2005 (ISSUE/TURN IN REQUEST)	100
C79	WRITE APR	100
E148	PARTICIPATE IN STAFF MEETINGS	100
D106	PLAN OJT	100
E137	MAKE ENTRIES ON AFTO FORMS 349 (MAINTENANCE DATA COLLECTION RECORD)	100
A9	ESTABLISH ORGANIZATIONAL POLICIES, OFFICE INSTRUCTIONS (OI), OR STANDING OPERATING PROCEDURES (SOP)	100
B39	IMPLEMENT SAFETY PROGRAMS	100
E151	REVIEW AFTO FORMS 95 (SIGNIFICANT HISTORICAL DATA)	100
E139	MAKE ENTRIES ON AFTO FORMS 95 (SIGNIFICANT HISTORICAL DATA)	100
A24	SCHEDULE LEAVES OR PASSES	100
E138	MAKE ENTRIES ON AFTO FORMS 350 (REPARABLE ITEM PROCESSING TAG)	100
C73	INSPECT PERSONNEL FOR COMPLIANCE WITH REGULATIONS	100

TABLE A13

GROUP ID NUMBER AND TITLE: GRP058 - MOTION PICTURE CAMERA MAINTENANCE PERSONNEL

GROUP SIZE: N=5 PERCENT OF SAMPLE: 2
AVERAGE GRADE: E-3 AVERAGE TICF: 17 MONTHS
AVERAGE TAFMS: 23 MONTHS

THE FOLLOWING ARE IN DESCENDING ORDER BY PERCENT MEMBERS PERFORMING:

TASKS		PERCENT MEMBERS PERFORMING
J721	CLEAN MOTION PICTURE CAMERA HOUSINGS	100
J767	PERFORM OPERATIONAL CHECKS ON MOTION PICTURE CAMERAS	100
J746	ISOLATE MALFUNCTIONS IN EXTERNAL MAGAZINES	100
J705	CLEAN AND LUBRICATE FILM TAKEUP ASSEMBLIES	100
J726	INSPECT EXTERNAL MAGAZINES	100
J727	INSPECT FILM TAKEUP ASSEMBLIES	100
J722	CLEAN MOTION PICTURE CAMERA PRISM ASSEMBLIES	100
J740	INSPECT RACK OVER ASSEMBLIES	100
J738	INSPECT MOTION PICTURE CAMERA SHUTTER ASSEMBLIES	100
J723	INSPECT CAMERA HOUSINGS	100
J728	INSPECT FOOTAGE COUNTER ASSEMBLIES	100
J741	INSPECT SAFETY SWITCHES	100
J742	INSPECT SHUTTLE ASSEMBLIES	100
J765	PERFORM CORROSION CONTROL ON MOTION PICTURE CAMERAS	100
J747	ISOLATE MALFUNCTIONS IN FILM TAKEUP ASSEMBLIES	100
J743	INSPECT TRIGGER SWITCHES	100
J736	INSPECT MOTION PICTURE CAMERA PRISM ASSEMBLIES	100
K832	INSPECT CAMERA LENS ASSEMBLIES	100
J775	REMOVE OR REPLACE FILM TAKEUP ASSEMBLIES	100
J716	CLEAN AND LUBRICATE RACK OVER ASSEMBLIES	100
J731	INSPECT MECHANICAL SPEED CONTROL SYSTEMS	100
J730	INSPECT MECHANICAL FOCUS ASSEMBLIES	100
J683	ADJUST EXTERNAL MAGAZINES	100
J760	ISOLATE MALFUNCTIONS IN RACK OVER ASSEMBLIES	100
J761	ISOLATE MALFUNCTIONS IN SAFETY SWITCHES	100

TABLE A14

GROUP ID NUMBER AND TITLE: GRP096 - RESIDENT COURSE INSTRUCTOR PERSONNEL
GROUP SIZE: N=5 PERCENT OF SAMPLE: 2
AVERAGE GRADE: E-5 AVERAGE TICF: 85 MONTHS
AVERAGE TAFMS: 87 MONTHS

THE FOLLOWING ARE IN DESCENDING ORDER BY PERCENT MEMBERS PERFORMING:

TASKS		PERCENT MEMBERS PERFORMING
D85	CONDUCT RESIDENT COURSE CLASSROOM TRAINING	100
D82	ADMINISTER TESTS	100
D99	EVALUATE PROGRESS OF RESIDENT COURSE STUDENTS	100
D109	SCORE TESTS	100
D104	MAINTAIN TRAINING RECORDS, CHARTS, OR GRAPHS	80
D87	COUNSEL TRAINEES	80
D93	DEVELOP TRAINING AIDS	80
B33	COUNSEL PERSONNEL ON PERSONAL OR MILITARY-RELATED PROBLEMS	80
D88	DEMONSTRATE HOW TO LOCATE TECHNICAL INFORMATION	60
D110	WRITE TEST QUESTIONS	60
C73	INSPECT PERSONNEL FOR COMPLIANCE WITH REGULATIONS	40
E113	INVENTORY EQUIPMENT, TOOLS, OR SUPPLIES	40
D108	PROCURE TRAINING AIDS, SPACE, OR EQUIPMENT	40
D92	DEVELOP RESIDENT COURSE CURRICULA	20
G225	ADJUST BLACK AND WHITE TRANSLATORS	20
B51	WRITE CORRESPONDENCE	20
F221	SOLDER COPPER TUBING	20
C79	WRITE APR	20
E112	ATTACH STATUS TAGS TO EQUIPMENT	20
E114	LOCATE PART OR STOCK NUMBERS	20
E115	MAINTAIN MAINTENANCE RECORD FILES	20
E121	MAKE ENTRIES ON AF FORMS 2005 (ISSUE/TURN IN REQUEST)	20
E135	MAKE ENTRIES ON AFTO FORMS 244 OR 245 (INDUSTRIAL/ SUPPORT EQUIPMENT RECORD)	20
E148	PARTICIPATE IN STAFF MEETINGS	20
E117	MAINTAIN TECHNICAL ORDER (TO) OR COMMERCIAL PUBLICATION FILES	20

TABLE A15

GROUP ID NUMBER AND TITLE: GRP068 - APPRENTICE LIGHT TABLE MAINTENANCE PERSONNEL

GROUP SIZE: N=5 PERCENT OF SAMPLE: 2
AVERAGE GRADE: E-2 AVERAGE TICF: 9 MONTHS
AVERAGE TAFMS: 11 MONTHS

THE FOLLOWING ARE IN DESCENDING ORDER BY PERCENT MEMBERS PERFORMING:

TASKS		PERCENT MEMBERS PERFORMING
G300	INSPECT LIGHT TABLES	100
G343	ISOLATE MALFUNCTIONS IN LIGHT TABLE ELECTRONIC COMPONENTS	100
G247	CALIBRATE LIGHT TABLES	100
G262	CLEAN AND LUBRICATE LIGHT TABLES	100
G342	ISOLATE MALFUNCTIONS IN LIGHT TABLE ELECTROMECHANICAL COMPONENTS	100
G464	REMOVE OR REPLACE LIGHT TABLE ELECTRONIC COMPONENTS	100
E114	LOCATE PART OR STOCK NUMBERS	100
G381	PERFORM CORROSION CONTROL ON LIGHT TABLES	100
G232	ADJUST LIGHT TABLES	80
G416	PERFORM OPERATIONAL CHECKS ON LIGHT TABLES	80
G463	REMOVE OR REPLACE LIGHT TABLE ELECTROMECHANICAL COMPONENTS	80
E112	ATTACH STATUS TAGS TO EQUIPMENT	80
G437	PERFORM OPERATOR MAINTENANCE ON SOLDERING EQUIPMENT	80
L940	INSPECT SLIDE PROJECTORS	80
E137	MAKE ENTRIES ON AFTO FORMS 349 (MAINTENANCE DATA COLLECTION RECORD)	60
E115	MAINTAIN MAINTENANCE RECORD FILES	60
E138	MAKE ENTRIES ON AFTO FORMS 350 (REPARABLE ITEM PROCESSING TAG)	60
L912	CLEAN AND LUBRICATE SLIDE PROJECTORS	60
E113	INVENTORY EQUIPMENT, TOOLS, OR SUPPLIES	60
L957	ISOLATE MALFUNCTIONS IN OVERHEAD PROJECTORS	60
L962	ISOLATE MALFUNCTIONS IN SLIDE PROJECTORS	60
L935	INSPECT OVERHEAD PROJECTORS	60
L1001	PERFORM OPERATIONAL CHECKS ON OVERHEAD PROJECTORS	60
L1006	PERFORM OPERATIONAL CHECKS ON SLIDE PROJECTORS	60
G313	INSPECT STEREOSCOPIC VIEWERS	60

TABLE A16

GROUP ID NUMBER AND TITLE: GRP075 - APPRENTICE PROJECTOR MAINTENANCE PERSONNEL

GROUP SIZE: N=5 PERCENT OF SAMPLE: 2
AVERAGE GRADE: E-3 AVERAGE TICF: 12 MONTHS
AVERAGE TAFMS: 16 MONTHS

THE FOLLOWING ARE IN DESCENDING ORDER BY PERCENT MEMBERS PERFORMING:

TASKS		PERCENT MEMBERS PERFORMING
L1006	PERFORM OPERATIONAL CHECKS ON SLIDE PROJECTORS	100
L1007	PERFORM OPERATIONAL CHECKS ON SOUND MOTION PICTURE PROJECTORS	100
L913	CLEAN AND LUBRICATE SOUND MOTION PICTURE PROJECTORS	100
L912	CLEAN AND LUBRICATE SLIDE PROJECTORS	100
L963	ISOLATE MALFUNCTIONS IN SOUND MOTION PICTURE PROJECTORS	100
L962	ISOLATE MALFUNCTIONS IN SLIDE PROJECTORS	100
L896	ADJUST SLIDE PROJECTORS	100
L897	ADJUST SOUND MOTION PICTURE PROJECTORS	100
L1041	REMOVE OR REPLACE SLIDE PROJECTOR COMPONENTS	100
L1044	REMOVE OR REPLACE SOUND MOTION PICTURE PROJECTOR COMPONENTS	100
E115	MAINTAIN MAINTENANCE RECORD FILES	100
L891	ADJUST OVERHEAD PROJECTORS	100
L907	CLEAN AND LUBRICATE OVERHEAD PROJECTORS	100
L940	INSPECT SLIDE PROJECTORS	80
L941	INSPECT SOUND MOTION PICTURE PROJECTORS	80
F203	PERFORM CORROSION CONTROL ON PROCESSORS	80
L904	CLEAN AND LUBRICATE CASSETTE TAPE RECORDER-PLAYERS	80
L993	PERFORM OPERATIONAL CHECKS ON CASSETTE TAPE RECORDER-PLAYERS	80
E112	ATTACH STATUS TAGS TO EQUIPMENT	80
L957	ISOLATE MALFUNCTIONS IN OVERHEAD PROJECTORS	80
L949	ISOLATE MALFUNCTIONS IN CASSETTE TAPE RECORDER-PLAYERS	80
L935	INSPECT OVERHEAD PROJECTORS	80
L1032	REMOVE OR REPLACE OVERHEAD PROJECTOR COMPONENTS	80
G436	PERFORM OPERATOR MAINTENANCE ON HAND OR SPECIAL TOOLS	60
E137	MAKE ENTRIES ON AFTO FORMS 349 (MAINTENANCE DATA COLLECTION RECORD)	60

APPENDIX B

POI OBJECTIVES WITH 30 PERCENT OR LESS OF FIRST-ENLISTMENT 404X0 PERSONNEL PERFORMING

TABLE B1

POI	OBJECTIVE	FIRST JOB	FIRST ENLISTMENT	TASK DIFFICULTY
086	126. GIVEN A NIKON F3 (SMALL FORMAT CAMERA), A ROLL OF 35MM FILM, AND INSTRUCTION MANUAL: PERFORM AN OPERATIONAL CHECK OF THE CAMERA. A MAXIMUM OF ONE INSTRUCTOR ASSIST IS ALLOWED.			
I643	PERFORM OPERATIONAL CHECKS ON STILL OR COPY CAMERAS	22.0	21.3	4.93
087	127. GIVEN A NIKON F3 (SMALL FORMAT CAMERA) WITH A MALFUNCTIONING REWIND MECHANISM, HANDTOOLS, AND T.O. 10B1-12-8-23; TROUBLESHOOT THE REWIND MECHANISM. A MAXIMUM OF ONE INSTRUCTOR ASSIST IS ALLOWED. 17B(4)(A)			
K855	ISOLATE MALFUNCTIONS IN REWIND MECHANISMS	13.6	12.4	5.02
088	128. GIVEN A NIKON F3 (SMALL FORMAT CAMERA) WITH A MALFUNCTIONING LIGHT METER, HANDTOOLS, SHUTTER MOTION ANALYZER, AND T.O. 10B1-12-8-23; TROUBLESHOOT THE LIGHT METER. A MAXIMUM OF ONE INSTRUCTOR ASSIST IS ALLOWED. 17B(4)(B)			
K852	ISOLATE MALFUNCTIONS IN LIGHT METERS	13.6	12.4	7.07
1635	ISOLATE MALFUNCTIONS IN STILL CAMERA EXPOSURE METERS	10.6	7.9	6.65
089	129. GIVEN A NIKON F3 (SMALL FORMAT CAMERA) WITH A MALFUNCTIONING LENS ASSEMBLY, LENS COLLIMATOR, HANDTOOLS, AND T.O. 10B1-12-11-3; TROUBLESHOOT THE LENS ASSEMBLY. A MAXIMUM OF ONE INSTRUCTOR ASSIST IS ALLOWED. 17B(4)F			
K847	ISOLATE MALFUNCTIONS IN CAMERA LENS ASSEMBLIES	15.2	12.4	6.49

TABLE B1 (CONTINUED)

POI	OBJECTIVE	FIRST JOB	FIRST ENLISTMENT	TASK DIFFICULTY
090	130. GIVEN A NIKON F3 (SMALL FORMAT CAMERA) WITH A MALFUNCTIONING FOCAL PLANE SHUTTER ASSEMBLY, HANDTOOLS, SHUTTER MOTION ANALYZER, AND T.O. 10B1-12-8-23; TROUBLESHOOT THE SHUTTER ASSEMBLY. A MAXIMUM OF TWO INSTRUCTOR ASSISTS ARE ALLOWED. 17B(4)(G)			
I628	ISOLATE MALFUNCTIONS IN FOCAL PLANE SHUTTERS	12.1	10.1	
I636	ISOLATE MALFUNCTIONS IN STILL CAMERA MANUAL EXPOSURE CONTROL SYSTEMS	9.1	6.7	6.18
091	131. GIVEN A NIKON F3 (SMALL FORMAT CAMERA) WITH A MALFUNCTIONING FILM ADVANCE MECHANISM, HANDTOOLS, AND T.O. 10B1-12-8-23; TROUBLESHOOT THE FILM ADVANCE MECHANISM. A MAXIMUM OF TWO INSTRUCTOR ASSISTS ARE ALLOWED. 17B(4)(H)			
I624	ISOLATE MALFUNCTIONS IN FILM ADVANCE MECHANISMS	12.1	9.0	6.01
092	132. GIVEN A NIKON F3 (SMALL FORMAT CAMERA) WITH A MALFUNCTIONING FLASH SYNCHRONIZATION, HANDTOOLS, SHUTTER MOTION ANALYZER, AND T.O. 10B1-12-8-23; TROUBLESHOOT THE FLASH SYNCHRONIZATION. A MAXIMUM OF ONE INSTRUCTOR ASSIST IS ALLOWED. 17B(4)(I)			
I627	ISOLATE MALFUNCTIONS IN FLASH SYNCHRONIZATION MECHANISMS	9.1	6.7	6.36
093	133. GIVEN A NIKON F3 (SMALL FORMAT CAMERA), HANDTOOLS, CLEANING SUPPLIES, AND T.O. 10B1-12-8-23; CLEAN THE REWIND MECHANISM. A MAXIMUM OF ONE INSTRUCTOR ASSIST IS ALLOWED. 17B(5)(B)			
K811	CLEAN AND LUBRICATE REWIND MECHANISMS	16.7	14.6	5.03

TABLE B1 (CONTINUED)

POI	OBJECTIVE	FIRST JOB	FIRST ENLISTMENT	TASK DIFFICULTY
094	134. GIVEN A NIKON F3 (SMALL FORMAT CAMERA) WITH A MISADJUSTED LENS ASSEMBLY, LENS COLLIMATOR, HANDTOOLS, AND T.O. 10B1-12-8-23; ADJUST THE LENS ASSEMBLY. A MAXIMUM OF TWO INSTRUCTOR ASSISTS ARE ALLOWED. 17B(6)(A)			
K804	ADJUST CAMERA LENS ASSEMBLIES	12.9	9.0	6.50
K826	COLLIMATE CAMERA LENSES	5.3	5.6	6.21
095	135. GIVEN A NIKON F3 (SMALL FORMAT CAMERA) WITH A MISADJUSTED APERATURE, SHUTTER MOTION ANALYZER, HANDTOOLS, AND T.O. 10B1-12-8-23; ADJUST THE APERATURE. A MAXIMUM OF TWO INSTRUCTOR ASSISTS ARE ALLOWED. 17B(6)(B)			
K802	ADJUST APERATURE DIAPHRAGMS	7.6	5.6	6.45
I569	ADJUST STILL CAMERA MANUAL EXPOSURE CONTROL SYSTEMS	6.8	4.5	6.25
096	136. GIVEN A NIKON F3 (SMALL FORMAT CAMERA) WITH A MISADJUSTED FILM ADVANCE MECHANISM, HANDTOOLS, AND T.O. 10B1-12-8-23; ADJUST THE FILM ADVANCE MECHANISM. A MAXIMUM OF TWO INSTRUCTOR ASSISTS ARE ALLOWED. 17B(6)(C)			
I557	ADJUST FILM ADVANCE MECHANISMS	20.5	19.1	6.27
097	137. GIVEN A NIKON F3 (SMALL FORMAT CAMERA) WITH A MISADJUSTED FOCAL PLANE SHUTTER, SHUTTER MOTION ANALYZER, HANDTOOLS, AND T.O. 10B1-12-8-23; ADJUST THE SHUTTER. A MAXIMUM OF THREE INSTRUCTOR ASSISTS ARE ALLOWED. 17B(6)(D)			
I561	ADJUST FOCAL PLANE SHUTTERS	11.4	10.1	6.98
I569	ADJUST STILL CAMERA MANUAL EXPOSURE CONTROL SYSTEMS	6.8	4.5	6.25
I576	CALIBRATE FOCAL PLANE SHUTTERS	6.8	7.9	6.93

TABLE B1 (CONTINUED)

POI	OBJECTIVE	FIRST JOB	FIRST ENLISTMENT	TASK DIFFICULTY
098	138. GIVEN A NIKON F3 (SMALL FORMAT CAMERA) WITH A MISADJUSTED FLASH SYNCHRONIZATION MECHANISM, SHUTTER MOTION ANALYZER, HANDTOOLS, AND T.O. 10B1-12-8-23; ADJUST THE FLASH SYNCHRONIZATION MECHANISM. A MAXIMUM OF TWO INSTRUCTOR ASSISTS ARE ALLOWED. 17B(6)(E)			
I560	ADJUST FLASH SYNCHRONIZATION MECHANISMS	8.3	5.6	6.46
099	139. GIVEN A LIST OF STEPS FOR INSPECTING THE NIKON F3 (SMALL FORMAT CAMERA) FOCAL PLANE SHUTTER; NUMBER THE STEPS IN ORDER. A MINIMUM OF 70% MUST BE NUMBERED CORRECTLY. 17B(7)(A)			
I606	INSPECT FOCAL PLANE SHUTTERS	12.9	13.5	5.23
I615	INSPECT STILL CAMERA MANUAL EXPOSURE CONTROL SYSTEMS	9.8	7.9	5.08
104	149. GIVEN T.O. 10C9-4-1, ADJUST A SUBASSEMBLY OF THE DELAWARE FILM TITLER IAW A LOCALLY APPROVED CHECKLIST AND A MAXIMUM OF FOUR INSTRUCTOR ASSISTS. 22E			
G240	ADJUST TITLERS	28.0	27.0	5.77
G251	CALIBRATE TITLERS	18.2	14.6	5.88
105	150. GIVEN T.O. 10C9-4-1 AND A SCHEMATIC DIAGRAM OF THE DELAWARE FILM TITLER, MATCH THE PROCEDURE USED TO ISOLATE THE MALFUNCTION TO THE MALFUNCTION GIVEN. A MINIMUM OF 70% ACCURACY IS REQUIRED. 22F			
G263	ISOLATE MALFUNCTIONS IN TITLERS	28.0	29.2	5.66

TABLE B1 (CONTINUED)

POI	OBJECTIVE	FIRST JOB	FIRST ENLISTMENT	TASK DIFFICULTY
106	151. USING T.O. 10C9-4-1, REMOVE AND REPLACE SPECIFIED DELAWARE FILM TITLER COMPONENTS WITH A MAXIMUM OF TWO INSTRUCTOR ASSISTS. 22G			
G485	REMOVE OR REPLACE TITLER COMPONENTS	27.3	27.0	5.16
112	166. GIVEN A KODAK AF-2 (STILL CAMERA PROJECTOR) AND T.O. 10D1-3-21-2, REMOVE AND REPLACE COMPONENTS ON THE KODAK AF-2 (STILL PICTURE PROJECTOR), WITH A MAXIMUM OF ONE INSTRUCTOR ASSIST. 23B(6)			
L1041	REMOVE OR REPLACE SLIDE PROJECTOR COMPONENTS	28.8	25.8	5.88
L1032	REMOVE OR REPLACE OVERHEAD PROJECTOR COMPONENTS	25.8	28.1	4.47
L1021	REMOVE OR REPLACE FILMSTRIP PROJECTOR COMPONENTS	5.3	6.7	4.71
119	179. GIVEN T.O. 10E8-3-10-1, NIAGRA PRINTER AND 2 ROLLS OF FILM; TROUBLESHOOT THE NIAGRA PRINTER TO DETERMINE THE CAUSE OF MALFUNCTION WITH A MAXIMUM OF TWO INSTRUCTOR ASSISTS. 24B(9)			
H517	ISOLATE MALFUNCTIONS IN CONTINUOUS CONTACT PRINTERS	29.5	29.2	6.35
H518	ISOLATE MALFUNCTIONS IN ELECTRONIC CONTACT PRINTER ELECTRO-MECHANICAL COMPONENTS	20.5	19.1	6.36
H519	ISOLATE MALFUNCTIONS IN ELECTRONIC CONTACT PRINTER ELECTRONIC COMPONENTS	20.5	18.0	6.78

TABLE B1 (CONTINUED)

POI	OBJECTIVE	FIRST JOB	FIRST ENLISTMENT	TASK DIFFICULTY
120	180. GIVEN T.O. 10E8-3-10-1 AND NIAGRA PRINTER, REMOVE AND REPLACE COMPONENTS. NO MORE THAN ONE INSTRUCTOR ASSIST IN REMOVING AND ONE ASSIST IN REPLACING COMPONENTS IS ALLOWED. 24B(8)			
H542	REMOVE OR REPLACE CONTINUOUS CONTACT PRINTER COMPONENTS	25.8	21.3	5.39
H543	REMOVE OR REPLACE ELECTRONIC CONTACT PRINTER ELECTRONIC COMPONENTS	16.7	14.6	5.60
H545	REMOVE OR REPLACE ELECTRONIC CONTACT PRINTER ELECTRO-MECHANICAL COMPONENTS	16.7	14.6	5.59
139	231. GIVEN T.O. 10E5-2-12-1, T.O. 10E5-2-12-3, A LIST OF TRUE OR FALSE STATEMENTS PERTAINING TO TROUBLESHOOTING THE WATER SYSTEM OF THE 11CM-W WIDE FILM (VERSAMAT) PROCESSOR; IDENTIFY WHICH STATEMENTS ARE TRUE AND WHICH ARE FALSE. A MINIMUM OF 75% MUST BE ANSWERED CORRECTLY. 25B(8)(L)			
F196	ISOLATE MALFUNCTIONS IN PROCESSOR PNEUMATIC WATER SYSTEMS	19.7	18.0	5.73
151	242A. GIVEN T.O. 10E5-2-12-1 AND TRUE OR FALSE QUESTIONS RELATING TO THE AIR TUBE DRYER SYSTEM IN THE 11CM-W, ANSWER TRUE OR FALSE. A MINIMUM OF 80% MUST BE ANSWERED CORRECTLY. 25B(10)(F)			
F211	REMOVE OR REPLACE PROCESSOR AIR TUBE OR AIR PLENUM DRYER SYSTEMS	23.5	18.0	4.59

TABLE B1 (CONTINUED)

POI	OBJECTIVE	FIRST JOB	FIRST ENLISTMENT	TASK DIFFICULTY
155	246. GIVEN A LIST OF WORDS AND INCOMPLETE STATEMENTS PERTAINING TO ADJUSTING THE CHAINS IN THE 11CM-W WIDE FILM (VERSAMAT) PROCESSOR, COMPLETE THE STATEMENT BY FILLING IN THE BLANKS. A MINIMUM OF 75% MUST BE ANSWERED CORRECTLY. 25B(12)(B)			
F158	ADJUST PROCESSOR ACCUMULATOR CHAINS	25.8	27.0	4.82
156	247. GIVEN A LIST OF STATEMENTS PERTAINING TO THE ADJUSTMENT OF THE THICKNESS DETECTOR SWITCH IN THE 11CM-W WIDE FILM (VERSAMAT) PROCESSOR, IDENTIFY THOSE STATEMENTS THAT ARE TRUE OR FALSE. A MINIMUM OF 75% MUST BE ANSWERED CORRECTLY. 25B(12)(C)			
F162	ADJUST THICKNESS GAUGES	19.7	15.7	4.13
166	290. GIVEN A LIST OF PROCEDURES OF THE BECKMAN 3500 pH METER, PLACE THE PROCEDURES IN ORDER. A MINIMUM OF 70% CORRECT IS REQUIRED. 27C(2)			
G419	PERFORM OPERATIONAL CHECKS ON pH METERS	22.0	16.9	4.47
167	291. GIVEN A LIST OF PROCEDURES, CORRECTLY SELECT THOSE USED TO ADJUST THE BECKMAN 3500 pH METER. 27C(5)			
G248	CALIBRATE pH METERS	18.2	13.5	6.21
168	292. GIVEN A LIST OF MALFUNCTIONS AND A LIST OF TROUBLES ASSOCIATED WITH THE BECKMAN 3500 pH METER, MATCH THE TROUBLE TO THE MALFUNCTION. A MINIMUM OF 70% CORRECT IS REQUIRED. 27C(6)			
G347	ISOLATE MALFUNCTIONS IN pH METER ELECTRONIC COMPONENTS	13.6	7.9	6.71

APPENDIX C

STS SUBPARAGRAPHS AND SUPPORTING TASKS WITH 30 PERCENT OR MORE 404X0 FIRST-ENLISTMENT PERSONNEL PERFORMING THAT ARE NOT INCLUDED IN THE POI

TABLE C1

SUBPARAGRAPH		FIRST JOB	FIRST ENLISTMENT	TASK DIFFICULTY
19C(1).	OPERATIONALLY CHECK FILM CLEANER (RECONNAISSANCE OR MOTION PICTURE)			
	G410 PERFORM OPERATIONAL CHECKS ON FILM CLEANERS	23.6	31.8	4.37
19C(2).	OPERATIONALLY CHECK FILM CLEANER WAXER (RECONNAISSANCE OR MOTION PICTURE)			
	G410 PERFORM OPERATIONAL CHECKS ON FILM CLEANERS	26.6	31.8	4.37
19D(1).	CLEAN FILM CLEANER (RECONNAISSANCE OR MOTION PICTURE)			
	G257 CLEAN AND LUBRICATE FILM CLEANERS	27.0	34.8	4.32
19E(1).	LUBRICATE FILM CLEANER (RECONNAISSANCE OR MOTION PICTURE)			
	G257 CLEAN AND LUBRICATE FILM CLEANERS	27.0	34.8	4.32
19F(1).	INSPECT CLEANER (RECONNAISSANCE OR MOTION PICTURE)			
	G294 INSPECT FILM CLEANERS	29.2	37.1	3.67
24A(3).	PERFORM OPERATIONAL CHECK ON CONTACT PRINTERS (MANUAL)			
	H536 PERFORM OPERATIONAL CHECKS ON MANUAL CONTACT PRINTERS	37.1	43.2	4.16
24A(4).	INSPECT CONTACT PRINERS (MANUAL)			
	H513 INSPECT MANUAL CONTACT PRINTERS	42.7	51.5	4.28
24A(5).	ADJUST CONTACT PRINTERS (MANUAL)			
	H496 ADJUST MANUAL CONTACT PRINTERS	31.5	38.6	4.71
24A(6).	CLEAN CONTACT PRINTERS (MANUAL)			
	H506 CLEAN AND LUBRICATE MANUAL CONTACT PRINTERS	38.2	43.9	4.25
24A(7).	LUBRICATE CONTACT PRINTERS (MANUAL)			
	H506 CLEAN AND LUBRICATE MANUAL CONTACT PRINTERS	38.2	43.9	4.25

TABLE C1 (CONTINUED)

SUBPARAGRAPH		FIRST JOB	FIRST ENLISTMENT	TASK DIFFICULTY
24C(4).	INSPECT MOTION PICTURE CONTACT PRINTERS (CONTINUOUS NARROW FILM)			
	H510 INSPECT CONTINUOUS CONTACT PRINTERS	38.2	40.9	4.79
24C(5).	CLEAN MOTION PICTURE CONTACT PRINTERS (CONTINUOUS NARROW FILM)			
	H503 CLEAN AND LUBRICATE CONTINUOUS CONTACT PRINTERS	36.0	37.1	4.71
24C(6).	LUBRICATE MOTION PICTURE CONTACT PRINTERS (CONTINUOUS NARROW FILM)			
	H503 CLEAN AND LUBRICATE CONTINUOUS CONTACT PRINTERS	36.0	37.1	4.71
24D(3).	PERFORM OPERATIONAL CHECK ON PROJECTION PRINTERS			
	H537 PERFORM OPERATIONAL CHECKS ON MANUAL PROJECTION PRINTERS	31.5	38.6	4.19
24D(7).	ADJUST PROJECTION PRINTERS			
	H497 ADJUST MANUAL PROJECTION PRINTERS	34.8	42.4	4.82
25A(3).	PERFORM OPERATIONAL CHECK ON NARROW FILM PROCESSORS			
	F205 PERFORM OPERATIONAL CHECKS ON PROCESSORS	60.7	67.4	4.39
25A(7).	INSPECT PROCESSOR (NARROW FILM PROCESSOR)			
	F187 INSPECT PROCESSORS	65.2	71.2	4.73
25A(8)(A).	TROUBLESHOOT ELECTRICAL SYSTEM ON NARROW FILM PROCESSORS			
	F194 ISOLATE MALFUNCTIONS IN PROCESSOR ELECTRICAL SYSTEMS	52.8	56.8	6.62
25A(8)(B).	TROUBLESHOOT MAIN DRIVE SYSTEM ON NARROW FILM PROCESSORS			
	F193 ISOLATE MALFUNCTIONS IN PROCESSOR DIRECT DRIVE SYSTEMS	50.6	53.8	5.15

TABLE C1 (CONTINUED)

SUBPARAGRAPH	FIRST JOB	FIRST ENLISTMENT	TASK DIFFICULTY
25A(10)(C). DISCONNECT AND CONNECT ELECTRICAL POWER ON NARROW FILM PROCESSORS			
F176 CONNECT OR DISCONNECT PROCESSOR INTERNAL ELECTRICAL SYSTEMS	41.6	46.2	4.97
F180 CONNECT OR DISCONNECT PROCESSOR TO OR FROM EXTERNAL ELECTRICAL POWER	37.1	38.6	4.77
25A(10)(D). DISCONNECT AND CONNECT WATER SUPPLIES ON NARROW FILM PROCESSORS			
F179 CONNECT OR DISCONNECT PROCESSOR WATER SUPPLIES	44.9	50.8	3.83
25A(11)(A). REMOVE AND REPLACE PUMP COMPONENTS ON NARROW FILM PROCESSORS			
F218 REMOVE OR REPLACE PROCESSOR PLUMBING SYSTEM COMPONENTS	53.9	58.3	4.51
25A(11)(B). REMOVE AND REPLACE FILTER COMPONENTS ON NARROW FILM PROCESSORS			
F218 REMOVE OR REPLACE PROCESSOR PLUMBING SYSTEM COMPONENTS	53.9	58.3	4.51
25B(6). LEVEL PROCESSOR (WIDE FILM PROCESSOR)			
F199 LEVEL PROCESSORS	34.8	41.7	3.62
25B(8)(G). TROUBLESHOOT WATER TEMPERATURE MIXING VALVE ON WIDE FILM PROCESSOR			
F192 ISOLATE MALFUNCTIONS IN PROCESSOR CONVENTIONAL WATER SYSTEMS	32.6	39.4	4.35
25B(9)(D). DISCONNECT AND CONNECT WATER MIXING VALVE ON WIDE FILM PROCESSOR			
F178 CONNECT OR DISCONNECT WATER MIXING VALVES	46.1	50.8	3.87

TABLE C1 (CONTINUED)

SUBPARAGRAPH	FIRST JOB	FIRST ENLISTMENT	TASK DIFFICULTY
25B(9)(E). DISCONNECT AND CONNECT ELECTRICAL POWER ON WIDE FILM PROCESSORS			
F176 CONNECT OR DISCONNECT PROCESSOR INTERNAL ELECTRICAL SYSTEMS	41.6	51.1	4.97
F180 CONNECT OR DISCONNECT PROCESSORS TO OR FROM EXTERNAL ELECTRICAL POWER	37.1	38.6	4.77
25B(9)(G). DISCONNECT AND CONNECT HEAT EXCHANGER DEVICE ON WIDE FILM PROCESSORS			
F174 CONNECT OR DISCONNECT PROCESSOR HEAT EXCHANGE DEVICES	32.6	34.1	4.07
25B(10)(I). REMOVE AND REPLACE WATER CONSERVATION KITS ON WIDE FILM PROCESSORS			
F218 REMOVE OR REPLACE PROCESSOR PLUMBING SYSTEM COMPONENTS	53.9	58.3	4.51
25B(11)(A). CALIBRATE WATER CONTROL METERS ON WIDE FILM PROCESSORS			
F161 ADJUST PROCESSOR WATER CONTROL METERS	32.6	41.7	4.51
25B(12)(G). ADJUST SQUEEGEE PRESSURE ROLLER ON WIDE FILM PROCESSORS			
F156 ADJUST FILM TRACKING	43.8	50.0	5.0
25B(12)(H). ADJUST FEED PULLOUT BRAKE ON WIDE FILM PROCESSORS			
F156 ADJUST FILM TRACKING	43.8	50.0	5.0
25B(12)(I). ADJUST IDLER ROLLER ON WIDE FILM PROCESSORS			
F156 ADJUST FILM TRACKING	43.8	50.0	5.0
25B(12)(J). ADJUST THERMOSTAT ON WIDE FILM PROCESSORS			
F157 ADJUST HEAT-SENSING DEVICES	32.6	36.4	4.93

TABLE C1 (CONTINUED)

SUBPARAGRAPH		FIRST JOB	FIRST ENLISTMENT	TASK DIFFICULTY
26B(3).	PERFORM OPERATIONAL CHECKS ON DRYERS (PRINT)			
	G422 PERFORM OPERATIONAL CHECKS ON PRINT DRYERS	39.3	42.4	3.69
26B(4).	INSPECT DRYERS (PRINT)			
	G306 INSPECT PRINT DRYERS	46.1	49.2	3.74
26B(5).	ADJUST DRYERS (PRINT)			
	G235 ADJUST PRINT DRYERS	33.7	39.4	4.40
26B(6).	TROUBLESHOOT DRYERS (PRINT)			
	G350 ISOLATE MALFUNCTIONS IN PRINT DRYERS	36.0	40.2	4.57
26B(7).	REMOVE AND REPLACE COMPONENTS ON DRYERS (PRINT)			
	G471 REMOVE OR REPLACE PRINT DRYER COMPONENTS	32.6	36.4	4.43
26C(3).	PERFORM OPERATIONAL CHECK ON MIXER AND DISTRIBUTORS			
	G403 PERFORM OPERATIONAL CHECKS ON CHEMICAL MIXING MOTORS (AGITATORS)	32.6	35.6	3.50
	G404 PERFORM OPERATIONAL CHECKS ON CHEMICAL MIXING PUMPS	42.7	48.5	3.52
	G414 PERFORM OPERATIONAL CHECKS ON HYDROMIXERS	46.1	50.8	3.73
26C(4).	CLEAN HYDROMIXER (MIXERS AND DISTRIBUTORS)			
	G252 CLEAN AND LUBRICATE CHEMICAL MIXING PUMPS	42.7	45.5	4.18
	G261 CLEAN AND LUBRICATE HYDROMIXERS	44.9	51.5	4.19
26C(5).	LUBRICATE HYDROMIXER (MIXERS AND DISTRIBUTORS)			
	G252 CLEAN AND LUBRICATE CHEMICAL MIXING PUMPS	42.7	45.5	4.18
	G261 CLEAN AND LUBRICATE HYDROMIXERS	44.9	51.5	4.19

TABLE C1 (CONTINUED)

SUBPARAGRAPH		FIRST JOB	FIRST ENLISTMENT	TASK DIFFICULTY
26C(7).	TROUBLESHOOT HYDROMIXERS (MIXERS AND DISTRIBUTORS)			
	G340 ISOLATE MALFUNCTIONS IN HYDROMIXERS	42.7	47.0	4.50
26C(8).	REMOVE AND REPLACE HYDROMIXER COMPONENTS (MIXERS AND DISTRIBUTORS			
	G461 REMOVE OR REPLACE HYDROMIXER COMPONENTS	41.6	47.7	4.47
26D(3).	PERFORM OPERATIONAL CHECK ON TIMER			
	G430 PERFORM OPERATIONAL CHECKS ON TIMERS	44.9	54.5	3.50
26D(5).	ADJUST TIMER			
	G250 CALIBRATE TIMERS	21.3	31.1	5.36
26D(6)	TROUBLESHOOT TIMER			
	G360 ISOLATE MALFUNCTIONS IN TIMER ELECTRONIC COMPONENTS	21.3	31.8	6.15

END

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