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Leon J. Tauscher

CONTINUOUS PHOTOPROCESSING/PHOTOPROCESSING  
CONTROL CAREER LADDERS  
AFSCs 23330, 23350, 23370, 23331, 23371, and 23391.

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AFPTs 90-233-235 and 90-233-236

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USAF OCCUPATIONAL MEASUREMENT CENTER  
LACKLAND AFB TEXAS 78236

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## PREFACE

This report presents the results of a detailed Air Force Occupational Survey of the Continuous Photoprocessing/Photoprocessing Control career ladders, AFSCs 23330, 23350, 23370, 23331, 23371, and 23391. The project was directed by USAF Program Technical Training, Volume 2, dated October 1975. Authority for conducting specialty surveys is contained in AFR 35-2. Computer outputs from which this report was produced are available for use by operating and training officials.

The survey instrument was developed by Captain Loretta Lee, Inventory Development Specialist. Captain Leon J. Tauscher analyzed the survey data and wrote the final report. This report has been reviewed and approved by Major Stanley D. Stephenson, Chief, Officer Survey Management Applications Section, USAF Occupational Measurement Center, Lackland AFB, Texas 78236.

Computer programs for analyzing the occupational data were designed by Dr. Raymond E. Christal, Occupational and Manpower Research Division, Air Force Human Resources Laboratory (AFHRL), and were written by the Project Analysis and Programming Branch, Computational Sciences Division, AFHRL.

Because volume reproduction of this report is not feasible, distribution is made on a loan basis to air staff sections and major commands upon request to the USAF Occupational Measurement Center, attention of the Chief, Occupational Survey Branch (OMY), Lackland AFB, Texas 78236.

This report has been reviewed and is approved.

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## SUMMARY OF RESULTS

1. There were 678 members of the AFS 233X0/X1 career ladder who responded to the survey. This represents approximately 60 percent of the assigned manning.
2. Compared to other USAF fields, AFS 233XX personnel reported their jobs being slightly less interesting and utilizing their training slightly less. However, their reenlistment intentions as a group were noticeably higher than for other USAF fields.
3. Twenty-four job types were identified. Twenty of these were contained within four clusters, and the remaining four represented very unique jobs that did not cluster. The largest cluster contained 11 job types and 347 members who perform tasks related to black and white photoprocessing and printing. A second cluster contains four job types and 98 members who perform photoprocessing quality control tasks. The third cluster contains two job types and 67 members who perform color processing and printing functions. The fourth cluster contains three job types and 91 members who perform management and training functions. Two of the four unique job types perform motion picture assembly and printing tasks and contain only 17 members; one job type performs shelter maintenance functions; and the fourth one performs production control functions.
4. AFM 39-1 specialty descriptions of DAFSCs 23330/50/70 and DAFSCs 23331/71 provide good general coverage of most duties and tasks performed by continuous photoprocessing and photoprocessing control personnel. However, the AFM 39-1 job descriptions of each respective career ladder omit the duty of maintaining relocatable photographic facilities, which is performed by a substantial percentage of respondents in each specialty. There are also other tasks and duties performed by lesser but still substantial percentages of respondents in each career ladder which are not covered.
5. The work performed by continuous photoprocessing specialist/technician respondents in DAFSC 23330/50/70 primarily involves both black and white and color film processing and printing tasks in fixed and relocatable facilities. Conversely, the tasks performed by photoprocessing control specialist/technician DAFSC 23331/71 incumbents are basically those related to photoprocessing quality control functions. On the basis of DAFSC alone, the substantial dissimilarities in technical tasks performed provide little support for consolidation of ladders into a single ladder. However, on the basis of the job structure analysis, it is clear that the photoprocessing quality control functions in the AFS 233XX career ladders require further attention due to the fact that 38 percent of the incumbents performing these duties and tasks are AFS 233X0 personnel.

6. With increasing AFMS experience, in both career ladders there is an increase in the performance of supervisory and administrative duties and a decrease in time spent on technical duties. However, compared to DAFSC 233X0 AFMS groups, the DAFSC 233X1 AFMS groups generally perform a larger average number of tasks, perform a broader range of tasks, and perform much more difficult tasks throughout their career enlistments.

7. In both AFS 233X0 and AFS 233X1 career ladders, there were only small differences in duty and task performance for CONUS versus Overseas personnel. For DAFSC 233X0 personnel, there were only small differences in duty and task performance for male versus female personnel. Only one AFS 233X1 respondent was female, so no sex comparisons could be made.

8. The STS for the AFS 233X0 career ladder provides general coverage of the majority of tasks performed by 233X0 personnel except for continuous color reproduction functions. Also, 35 job survey tasks are performed by ten percent or more personnel but are not specified in the STS. All the duties and tasks specified in the STS for the AFS 233X1 career ladder are being performed in the field. However, 106 tasks are performed by ten percent or more of DAFSC 23331/71 personnel but are not specified in the STS.

OCCUPATIONAL SURVEY REPORT  
CONTINUOUS PHOTOPROCESSING/PHOTOPROCESSING CONTROL CAREER LADDER  
AFSCs 23330, 23350, 23370, 23331, 23371, 23391

INTRODUCTION

This is a report of an occupational survey of the Continuous Photoprocessing/Photoprocessing Control career ladders, AFSC's 23330, 23350, 23370, 23331, 23371, and 23391 conducted by the Occupational Survey Branch, USAF Occupational Measurement Center, from January 1976 through March 1977.

The report describes: (1) development and administration of the survey instrument; (2) summaries of tasks performed by airmen grouped by skill level, experience level and similarity of tasks performed; (3) comparisons with current training and career field structure documents; and (4) recommended actions for further study.

INVENTORY DEVELOPMENT AND ADMINISTRATION

The data collection instrument for the occupational survey was USAF Job Inventory AFPTs 90-233-235 and 90-233-236. The inventory booklet was composed of two parts: a background information section in which job incumbents provided information about themselves; and a duty-task list section which assessed the relative amount of time spent on tasks performed in their current jobs. The latter section consisted of 717 tasks grouped under 24 headings. Thorough research of publications and directives, personal interviews with 24 subject-matter specialists at four bases, and written reviews from 102 experienced continuous photoprocessing and photoprocessing control personnel contributed to the development of the survey instrument.

Consolidated base personnel offices in operational units worldwide received the inventory booklets for administration to 1139 job incumbents holding the DAFSC's identified above. Survey administration occurred during June 1976 through September 1976 based upon the April 1976 Uniform Airman Record. Table 1 gives the distribution of assigned personnel in the career ladder as of August 1976 and the percentage, by major command, of inventory booklets returned from the field. The number of booklets represents 60 percent of career ladder members.

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After supplying identification and biographical information, incumbents checked and rated the tasks performed in their current job. Tasks were rated on a 9-point scale showing relative time spent on each task compared to all other tasks performed in the current job. The rating ranged from 1 (very-much-below-average time spent) through 5 (about-average time spent) to 9 (very-much-above-average time spent). Respondents only rated tasks they performed in their current jobs.

TABLE 1  
COMMAND REPRESENTATION IN THE SURVEY SAMPLE

COMMAND	PERCENT ASSIGNED			PERCENT OF SAMPLE		
	233X0	23331/71	23391	233X0	23331/71	23391
MAC	5	4	8	8	8	5
PACAF	10	6	14	11	3	14
SAC	11	10	28	5	3	14
TAC	42	45	25	48	44	33
USAFE	20	16	14	16	16	19
OTHER	12	19	11	12	18	10

SUMMARY OF BACKGROUND INFORMATION

Each USAF job inventory contains a section for background data in which survey respondents provide biographical information about themselves and report their feelings and perceptions about their jobs. Table 2 summarizes background data collected relative to job interest, perceived utilization of training, and reenlistment intentions. For comparisons with other AF personnel, the last column to the right of Table 2 summarizes data collected on career ladders surveyed during 1975. Generally, the figures on background data for this survey of the Photoprocessing career ladders AFS 233XX are less favorable than those of the combined figures for the sample of career ladders surveyed in 1975. Compared to other USAF fields, AFS 233XX personnel reported their jobs being slightly less interesting and utilizing their training slightly less. This was relatively consistent regardless of time in service. Overall, 59 percent of the DAFSC 233XX personnel surveyed found their jobs interesting; 63 percent perceived their training as utilized fairly well or better; and 62 percent indicated they will probably reenlist.

Several interesting findings emerged from analysis of this background data. First, the job interest and perceived utilization of training data for DAFSC 233X0 personnel in their first enlistment closely resembles the data for other Air Force career fields (last column in Table 2). Generally,

TABLE 2

JOB INTEREST, UTILIZATION OF TRAINING, AND REENLISTMENT INTENTION BY AFMS GROUPS

JOB INTEREST	DAFSC 233X0 PERSONNEL YEARS OF SERVICE					DAFSC 233X1 PERSONNEL YEARS OF SERVICE					TOTAL SAMPLE DAFSC 233XX PERSONNEL	OTHER USAF FIELDS*		
	0-4	4-8	8-12	12-16	16-20	20+	4-8	8-12	12-16	16-20			20+	
	31	17	19	10	18	12	17	21	18	13			24	
I FIND MY JOB:														
DULL	19	20	14	19	18	0	17	4	9	17	10	16	15	
SO-SO	50	63	67	71	64	88	66	75	73	70	66	59	69	
INTERESTING														
<u>PERCEIVED UTILIZATION OF TRAINING</u>														
MY JOB UTILIZES MY TRAINING:														
VERY LITTLE OR NOT AT ALL	39	38	40	32	45	18	22	26	36	38	38	37	26**	
FAIRLY WELL OR BETTER	61	62	60	68	55	82	78	74	64	62	62	63	74**	
<u>REENLISTMENT INTENTIONS</u>														
NO OR PROBABLY NO	58	28	5	7	45	82	39	13	5	45	38	38	45	
YES OR PROBABLY YES	42	72	95	93	55	18	61	87	95	55	62	62	55	

\* COMBINED DATA FROM 35 CAREER LADDERS SURVEYED IN 1975.

\*\* DATA ON UTILIZATION OF TRAINING WAS COMBINED WITH PERCEIVED UTILIZATION OF TALENTS IN 1975.

first term personnel differ considerably from longer term enlistment groups on these variables. Another interesting finding is that even though DAFSC 233XX personnel generally reported less job interest and less perceived utilization of their training, as a group their reenlistment intentions were noticeably higher than for other USAF fields. Sixty-two percent indicated they will probably reenlist. Finally, compared to DAFSC 233X1 personnel, the DAFSC 233X0 personnel generally felt their training was not being utilized as well throughout their careers.

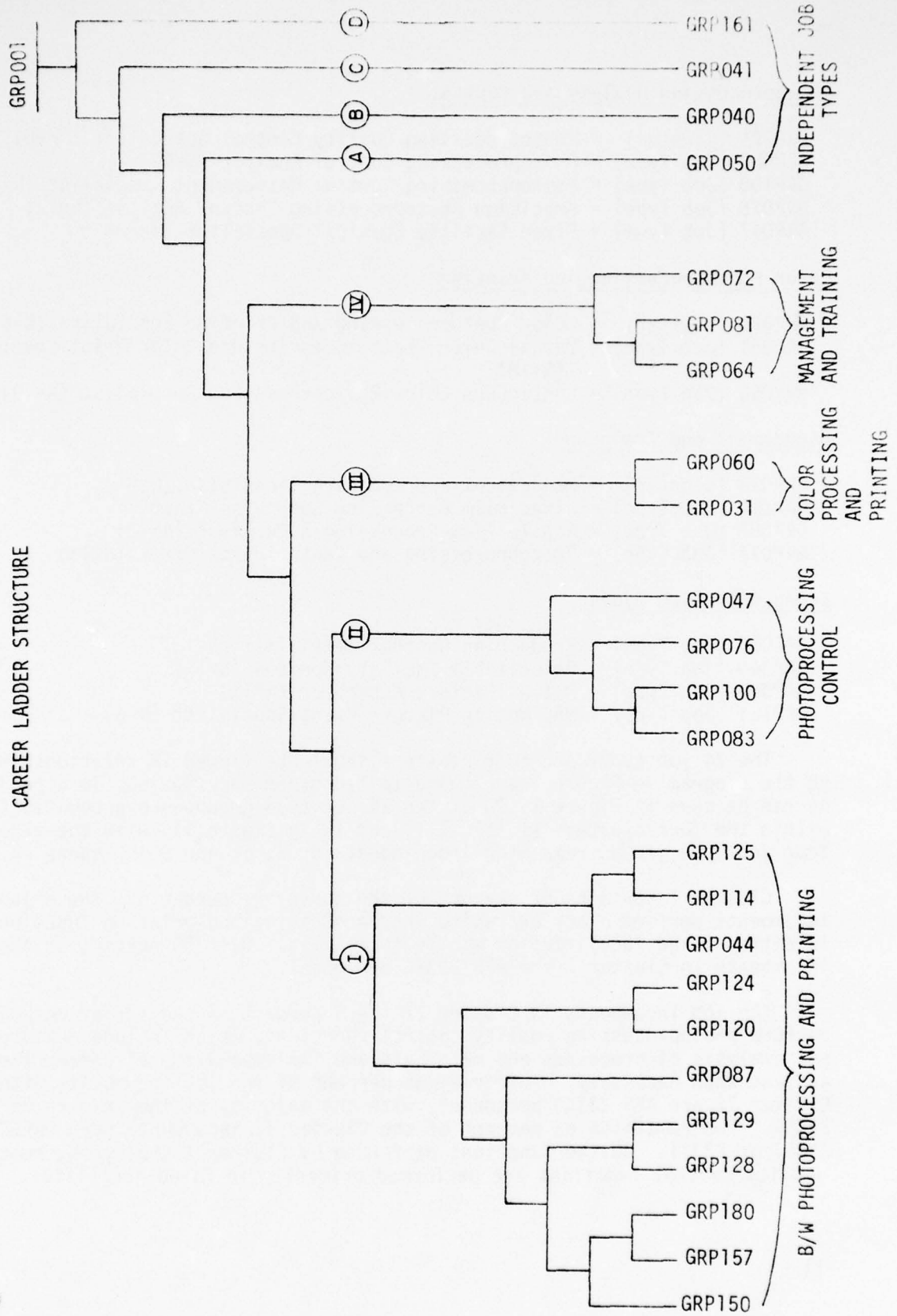
#### CAREER LADDER STRUCTURE

The job structure of the Continuous Photoprocessing and Photoprocessing Control career ladders, AFS 233XX, was determined on the basis of similarity of the survey tasks performed and the time spent on those tasks by respondents. In the process of career ladder structure analysis the computer compares tasks performed and the time spent on the tasks by each person in the survey sample. Individuals with the greatest similarity in job performance are placed in the same group. Groups with the highest degree of overlap form job types; similar job types are combined into clusters. The 20 job types which constitute four clusters and the four independent job types which form the Continuous Photoprocessing and Photoprocessing Control career ladder structure are depicted in a hierarchical grouping in Figure 1. These job types and clusters are listed below by group number, the kind of group, functional title, and number of members in the group. A detailed description of background characteristics and representative duties and tasks for each job-type group is located in Appendix A.

#### Black and White Photoprocessing and Printing

- GRP022 (Cluster) = Black and White Photoprocessing and Printing Specialist (N=347)
- GRP150 (Job Type) = Fixed B/W Continuous Photoprocessing and Select Print Specialist (N=22)
- GRP157 (Job Type) = Mobile Original Photoprocess and Print Specialist (N=45)
- GRP180 (Job Type) = Wing Continuous Photoprocessor and Relocatable Facility Maintainer (N=8)
- GRP128 (Job Type) = Fixed Duplicate Printer, Editor, and Titler (N=16)
- GRP129 (Job Type) = Continuous B/W Photoprocessing Specialist (N=115)
- GRP087 (Job Type) = TAC Gun Camera Photoprocessing Specialist (N=5)
- GRP120 (Job Type) = Continuous B/W and Color Photoprocessing Technician (N=30)
- GRP124 (Job Type) = B/W Photoprocess and Print Supervisor (N=14)
- GRP044 (Job Type) = Precision Titler and Continuous Printer (N=15)
- GRP114 (Job Type) = Select, Manual, and Continuous Print Specialist (N=44)
- GRP125 (Job Type) = Manual Select Print Specialist (N=19)

FIGURE 1  
CAREER LADDER STRUCTURE



### Photoprocessing Quality and Control

- GRP021 (Cluster) = Photoprocessing Quality Control Specialist (N=98)
- GRP083 (Job Type) = Photoprocessing Control Analyst (N=50)
- GRP100 (Job Type) = Photoprocessing Control Measurement Specialist (N=9)
- GRP076 (Job Type) = Precision Photoprocessing Control Analyst (N=11)
- GRP047 (Job Type) = Fixed Facility Chemical Specialist (N=22)

### Color Photoprocessing and Printing

- GRP020 (Cluster) = Color Photoprocessing and Printing Specialist (N=67)
- GRP031 (Job Type) = Manual Color Photoprocessing and Color Print Specialist (N=18)
- GRP060 (Job Type) = Continuous Color Photoprocessing Specialist (N=49)

### Management and Training

- GRP038 (Cluster) = Management and Training Technician (N=91)
- GRP064 (Job Type) = Fixed Film Processing Supervisor (N=55)
- GRP081 (Job Type) = Mobile Film Processing Supervisor (N=13)
- GRP072 (Job Type) = Photoprocessing and Control Instructor (N=13)

### Independent Job Types

- GRP050 (Job Type) = Production Control Specialist (N=10)
- GRP040 (Job Type) = Relocatable Facility Monitor (N=15)
- GRP041 (Job Type) = Motion Picture Assembler (N=11)
- GRP161 (Job Type) = MAC Motion Picture Print Specialist (N=6)

The 24 job types and four clusters should be viewed in relationship to the diagram in Figure 1 and the detailed group descriptions in Appendix A. As can be seen in Figure 1, 20 of the 24 job-type groups are accounted for within the four clusters (I, II, III, and IV in Figure 1), with the other four job-type groups remaining independent (A, B, C, and D in Figure 1).

Cluster I contains 52 percent of the survey respondents. These job incumbents perform black and white photoprocessing and printing functions in either fixed facilities or mobile facilities. Over 95 percent of the incumbents in Cluster I are AFS 233X0 personnel.

The job incumbents in Cluster II (14.5 percent of the survey respondents) perform photoprocessing quality control functions, which include measurement and analysis of processes and materials and implementation of corrective actions when necessary. Thirty-eight percent of the job incumbents within Cluster II are AFS 233X0 personnel, with the majority of them having DAFSC 23350. The remaining 62 percent of the Cluster II incumbents have DAFSC 23331 or 23371. Unlike functions performed by Cluster I job types, most quality control functions are performed primarily in fixed facilities.

Cluster III contains ten percent of the survey respondents. Ninety-eight percent of these incumbents have DAFSC 23350 or 23370, and they primarily process and print color film in fixed facilities.

Management and training functions are performed by the job incumbents in Cluster IV (13.5 percent of the survey respondents). While supervisory functions are also performed by some individuals in other clusters, the managers and supervisors in this cluster perform very few specialty tasks other than supervisory. The instructor job type (GRP072) in Cluster IV contains both technical school instructors and unit level trainers/instructors.

In addition to the four clusters discussed above, four independent job types (accounting for six percent of the survey respondents) were identified. GRP050 (Production Control Specialist) contains ten persons with an average grade of E-5. These incumbents perform an average of only 17 tasks, most of which are associated only with production control functions. GRP040 (Mobile Facility Monitor) contains 15 members who primarily monitor, maintain, and control relocatable facilities. GRP041 (Motion Picture Assembler) contains 11 members and GRP161 (MAC Motion Picture Print Specialist) contains six members who perform motion picture printing, assembling, and distribution functions. Eighty-six percent of these motion picture personnel are from Military Airlift Command.

The photoprocessing quality control functions being performed by incumbents identified in Cluster II require further attention because 38 percent of the personnel performing those duties and tasks have DAFSC 233X0. This is especially important considering that each of the four job types constituting Cluster II contains DAFSC 233X0 personnel, even GRP076 (Precision Photoprocessing Control Analyst) which is the most highly technical and precise photoprocessing control job identified in the analysis. The high numbers of AFS 233X0 personnel who are performing quality control only emerges here in the structure analysis, and not in DAFSC or AFMS group analyses. One reason is that 506 survey respondents have DAFSC 23350 or DAFSC 23370, but only 37 of them (constituting 38 percent of Cluster II) perform primarily quality control functions.

## ANALYSIS OF AFM 39-1 JOB DESCRIPTIONS AND DAFSC GROUPS

### Analysis of AFM 39-1 Job Description

For the analysis of DAFSC groups, a comparison was made between the job descriptions compiled from survey data and the specialty descriptions in AFM 39-1. For the most part the AFM 39-1 specialty descriptions for the 233XX career ladders provide general coverage for most of the tasks and duties

accomplished by continuous photoprocessing and photoprocessing control specialists and technicians. However, in each of the respective AFM 39-1 job descriptions, there are several duties that are not covered but that are being performed in the field.

For the AFM 39-1 job descriptions of DAFSCs 23330/50/70, the largest discrepancy is the omission of tasks involving maintaining relocatable photographic facilities (Duty G). The 3-, 5-, and 7-skill level personnel spent 19, 12, and four percent of their time, respectively, performing such tasks. Further, the DAFSC 233X0 incumbents reported performing the following types of duties which are not specified in AFM 39-1 (see Table 3 for DAFSC percentages): Operating Copy Cameras (Duty H), Maintaining Quality Control (Duty P), Performing Sensitometry and Densitometry Tests (Duty U), and Producing Chemical Mixes and Performing Chemical Analysis (Duty W).

The AFM 39-1 job description for DAFSCs 23331/71 also omits mention of maintaining relocatable photographic facilities. The 3- and 7-skill level personnel in this specialty spent eight and three percent of their time, respectively, performing these tasks. Other AFM 39-1 omissions for DAFSC 23331/71 personnel include the following types of duties (see Table 3 for DAFSC percentages): Processing Black and White Materials by Continuous Methods (Duty I), Processing Color Materials by Continuous Methods (Duty J), Printing Black and White Materials by Continuous Methods (Duty K), Printing Color Materials by Continuous Methods (Duty L), Exposing, Processing, and Finishing Color Prints Manually (Duty R), Editing and Cleaning Processed Imagery (Duty F), and Titling Processed Imagery (Duty T). While the percent time spent in each respective duty is relatively low (except for Duties G and I), DAFSC 23331 personnel spend 31 percent of their time and DAFSC 23371 personnel spend 15 percent of their time performing these duties.

#### Analysis of DAFSC Groups

Table 3 shows the time spent by DAFSC groups of the 233XX career ladders performing tasks within each of the 24 duty categories contained in the survey. The duties in Table 3 are separated on the basis of relatively high versus relatively low percent time spent by DAFSC groups. The most dominant duty reported by the 44 members of DAFSC 23330 is Duty I, Processing Black and White Material by Continuous Methods, which consumes 43 percent of their time. Another 38 percent of their time is spent performing tasks from four other duties: Duty G, Maintaining Relocatable Photographic Facilities (19 percent); Duty O, Exposing, Processing, and Finishing BW Prints Manually (11 percent); Duty T, Titling Processed Imagery (four percent); and Duty K, Printing Black and White Material by Continuous Methods (four percent).

The 408 DAFSC 23350 job incumbents spend 57 percent of their time performing four major duties: Duty I, Processing Black and White Materials by Continuous Methods (25 percent); Duty G, Maintaining Relocatable Photographic

TABLE 3

## PERCENT TIME SPENT ON DUTIES BY DAFSC GROUPS

INVENTORY SECTION	PERCENT TIME SPENT			
	DAFSC 23330 (N=44)	DAFSC 23350 (N=408)	DAFSC 23370 (N=98)	DAFSC 23331 (N=40)
<u>DUTIES WITH FIVE PERCENT OR MORE TIME SPENT:</u>				
A. ORGANIZING AND PLANNING	3	2	10	3
B. DIRECTING AND IMPLEMENTING	4	7	23	9
C. EVALUATING	*	*	7	3
D. TRAINING	*	2	8	3
F. PERFORMING LABORATORY PRODUCTION CONTROL FUNCTIONS	2	2	5	*
G. MAINTAINING RELOCATABLE PHOTOGRAPHIC FACILITIES	19	12	4	8
I. PROCESSING BLACK AND WHITE MATERIALS BY CONTINUOUS METHODS	43	25	9	9
J. PROCESSING COLOR MATERIALS BY CONTINUOUS METHODS	*	10	7	3
O. EXPOSING, PROCESSING, AND FINISHING BW PRINTS MANUALLY	11	10	5	2
P. MAINTAINING QUALITY CONTROL	*	2	*	12
U. PERFORMING SENSITOMETRY AND DENSITOMETRY TESTS	*	3	2	20
V. PERFORMING IMAGE EVALUATION	*	*	*	*
W. PRODUCING CHEMICAL MIXES AND PERFORMING CHEMICAL ANALYSIS	*	5	*	17
<u>DUTIES WITH LESS THAN FIVE PERCENT TIME SPENT:</u>				
E. PERFORMING PHOTOPROCESSING LABORATORIES ADMINISTRATION FUNCTIONS	*	*	2	1
H. OPERATING COPY CAMERAS	1	1	*	1
K. PRINTING BLACK AND WHITE MATERIALS BY CONTINUOUS METHODS	4	4	3	2
L. PRINTING COLOR MATERIALS BY CONTINUOUS METHODS	*	1	1	*
M. PROCESSING BLACK AND WHITE FILM MANUALLY	1	2	1	1
N. PROCESSING COLOR FILM MANUALLY	*	*	1	1
Q. EXPOSING FILM	1	2	1	1
R. EXPOSING, PROCESSING, AND FINISHING COLOR PRINTS MANUALLY	*	1	1	1
T. TITLING PROCESSED IMAGERY	4	3	2	*
X. CONTROLLING CLEAN ROOM AND ENVIRONMENT	*	1	1	*

\* = LESS THAN ONE (1) PERCENT TIME SPENT

Facilities (12 percent); Duty O, Exposing, Processing, and Finishing BW Prints Manually (ten percent); and Duty J, Processing Color Materials by Continuous Methods (ten percent). Another 22 percent of their time is spent performing tasks from the following duties: seven percent Directing and Implementing (Duty B), five percent Producing Chemical Mixes and Performing Chemical Analysis (Duty W), four percent Printing Black and White Materials by Continuous Methods (Duty K), three percent Titling Processed Imagery (Duty T), and three percent Editing and Cleaning Processed Imagery (Duty S).

Table 3 clearly shows that DAFSC 23330 and DAFSC 23350 personnel perform basically the same duties, except that 5-skill level personnel Process Color Materials by Continuous Methods (Duty J) and Produce Chemical Mixes and Perform Chemical Analysis (Duty W). Likewise, Table 4 shows that the most time-consuming tasks representing the jobs being performed by the DAFSC 23330 and DAFSC 23350 incumbents are almost identical. The only substantial differences are that relatively twice as many 3-skill level personnel perform each task as 5-skill level personnel do and they also spend relatively twice as much time on each task. But for both these groups, most tasks being performed by a majority of members deal primarily with operating and caring for continuous photo processors and with the care and maintenance of relocatable facilities. Conversely, Table 5 shows that there are some clear distinctions between DAFSC 23330 and DAFSC 23350 personnel. Whereas higher percentages of DAFSC 23330 personnel perform care and maintenance tasks on relocatable facilities and continuous photoprocessing equipment, the 5-skill level personnel spend relatively higher percentages of their time performing basic supervisory duties, storing and transferring chemicals, and operating color processors.

There is very little functional overlap between the duties and tasks performed by DAFSC 23350 incumbents and DAFSC 23331 respondents. Table 3 shows that the DAFSC 23350 personnel spend 47 percent of their time Processing Black and White Materials by Continuous Methods (Duty I), Maintaining Relocatable Photographic Facilities (Duty G), and Processing Color Materials by Continuous Methods (Duty J). Conversely, the DAFSC 23331 respondents spend 49 percent of their time Performing Sensitometry and Densitometry Tests (Duty U), Producing Chemical Mixes and Performing Chemical Analysis (Duty W), and Maintaining Quality Control (Duty P). The tasks which most clearly differentiate these two groups are consistent with these differences in duties. One other major difference, however, is that DAFSC 23331 personnel perform an average of 124 tasks versus an average of 88 tasks being performed by DAFSC 23350 personnel. Table 6 lists several representative tasks being performed by DAFSC 23331 personnel that overlap considerably with DAFSC 23350 personnel. As can be seen, these high overlap tasks occur in Duty I, Processing Black and White Materials by Continuous Methods.

For both career ladders, AFS 233X0 and 233X1, the transition from specialist (3- and 5-skill level) to technician/supervisor (7-skill level) marks a major change in task performance. As shown in Table 3, the DAFSC 23370 respondents spend 45 percent of their time and the DAFSC 23371 personnel

TABLE 4

HIGH TIME-CONSUMING TASKS REPRESENTING THE JOBS PERFORMED BY BOTH 3- AND 5-SKILL LEVEL 233X0 PERSONNEL

TASK NO.	TASK	PERCENT PERFORMING		AVERAGE PERCENT TIME SPENT	
		3-SKILL	5-SKILL	3-SKILL	5-SKILL
G20	PERFORM SHELTER CORROSION CONTROL PROCEDURES	68	38	1.34	.69
G5	CLEAN SHELTERS	68	43	1.29	.77
I19	INSPECT, CLEAN OR LOAD BW FILM MAGAZINES	68	41	1.26	.72
F6	LOG IN WORK ORDERS OR COMPLETED WORK	18	36	1.24	.73
I63	WIPE DOWN BW PROCESSORS	70	51	1.23	.73
I6	CLEAN BW PROCESSING ROOMS	66	48	1.21	.67
I42	SET OR MAINTAIN BW PROCESSOR TRANSPORT SPEEDS	66	41	1.16	.48
I60	TURN ON BW PROCESSOR MAIN DRIVE	68	51	1.15	.65
I61	TURN ON CHEMICAL REPLENISHMENT FOR BW PROCESSORS	68	46	1.14	.54
I62	TURN ON WATER SUPPLY FOR BW PROCESSORS	68	50	1.13	.63
O6	COMPARE AND FOCUS BW PRINTS USING PROJECTION PRINTERS	35	32	.43	.39
O45	TURN ON MANUAL PRINT DRIERS	39	33	.37	.37

TABLE 5

## TASKS WHICH MOST CLEARLY DISTINGUISH BETWEEN 23330 AND 23350 PERSONNEL

TASK NO.	TASK	PERCENT PERFORMING		DIFFERENCE
		DAFSC 23330	DAFSC 23350	
G8	CLEAN SHELTER PROCESSOR RACKS	61	26	35
G20	PERFORM SHELTER CORROSION CONTROL PROCEDURES	68	38	30
G30	PREPARE PROCESSORS FOR USE OR TRANSPORT	59	29	30
I42	SET OR MAINTAIN BW PROCESSOR TRANSPORT SPEEDS	66	40	26
G5	CLEAN SHELTERS	68	43	25
I29	PERFORM CORROSION CONTROL ON BW PROCESSING EQUIPMENT	64	39	25
I37	RINSE BW PROCESSOR ROLLERS OR RACKS AFTER SHUT DOWN	66	43	23
I39	SET OR MAINTAIN BW CHEMISTRY REPLENISHER RATES	61	39	22
I7	CLEAN BW PROCESSOR ROLLERS	68	47	21
I63	WIPE DOWN BW PROCESSORS	71	51	20
B32	ORIENT NEWLY-ASSIGNED PERSONNEL	11	32	-21
D5	CONDUCT ON-THE-JOB TRAINING	11	32	-21
D8	DEMONSTRATE OPERATION OF EQUIPMENT	20	38	-18
F6	LOG IN WORK ORDERS OR COMPLETED WORK	18	36	-18
B51	SUPERVISE APPRENTICE CONTINUOUS PHOTOPROCESSING SPECIALISTS (AFSC 23330)	6	22	-16
W54	STORE UNMIXED CHEMICALS	2	16	-14
W56	TRANSFER CERTIFIED MIXED CHEMISTRY TO STORAGE TANKS	2	14	-12
J74	TURN ON COLOR PROCESSOR MAIN POWER	2	14	-12
J75	TURN ON COLOR PROCESSOR WATER SUPPLY	4	16	-12

TABLE 6

REPRESENTATIVE TASKS PERFORMED\* BY DAFSC 23331 PERSONNEL WHICH HAVE HIGH OVERLAP  
WITH DAFSC 23350 PERSONNEL

TASK NO.	TASK	PERCENT PERFORMING
I7	CLEAN BW PROCESSOR ROLLERS	20
I9	CLEAN BW PROCESSORS USING SYSTEM CLEANERS	23
I11	CORRECT BW FILM PHYSICAL DEFECTS	22
I13	DRAIN BW PROCESSOR CHEMICAL TANKS	25
I14	DRAIN OR REFILL BW PROCESSOR WASH TANKS	25
I18	FILL PROCESSOR CHEMICAL TANKS WITH BW CHEMISTRY	30
I23	LOG INCOMING BW FILM MISSIONS	28
I29	PERFORM CORROSION CONTROL ON BW PROCESSING EQUIPMENT	23
I31	PREPARE BW MISSION CONTROL AND INSPECTION DOCUMENTS	23
I37	RINSE BW PROCESSOR ROLLERS OR RACKS AFTER SHUT DOWN	20
I41	SET OR MAINTAIN BW PROCESSOR DRYER TEMPERATURE AND HUMIDITY	25
I50	TURN OFF BW PROCESSOR DRYERS	23
I51	TURN OFF BW PROCESSOR DRYER HEATERS	23
I52	TURN OFF BW PROCESSOR MAIN DRIVES	23
I56	TURN ON BW PROCESSOR CHEMICAL RECIRCULATION PUMPS	25
I57	TURN ON BW PROCESSOR DRYERS AND ADJUST TEMPERATURE CONTROLS	23
I58	TURN ON BW PROCESSOR DRYER HEATERS	23
I59	TURN ON BW PROCESSOR MAIN POWER	23
I60	TURN ON BW PROCESSOR MAIN DRIVE	23

spend 49 percent of their time performing supervisory and administrative tasks (Duties A, B, C, D, E, and F). In contrast, the DAFSC 23350 incumbents spend 86 percent and the DAFSC 23331 respondents spend 81 percent of their time performing non-supervisory duties. However, the 7-skill level personnel in both ladders continue to perform a considerable number of technical tasks.

The 7-skill level personnel in both ladders of AFS 233XX reported spending almost 50 percent of their time performing basically the same supervisory and administrative tasks and duties. Tables 7 and 8 contain tasks representative of the jobs being performed by DAFSC 23370 and DAFSC 23371 incumbents. An appreciable distinction between the 7-skill level groups is that DAFSC 23370 incumbents perform primarily photoprocessing and printing specialty tasks while DAFSC 23371 incumbents perform primarily photoprocessing control specialty tasks. Also notable is that DAFSC 23370 perform a larger variety of specialty tasks related to a larger number of duties, but spend less time per tasks. This is illustrated well by taking the four most time-consuming specialty duties for each 7-skill level groups (from Table 3). DAFSC 23370 incumbents spend only 24 percent of their time performing the 230 tasks in Duties I, J, O, and G while DAFSC 23371 incumbents spend 37 percent of their time performing the 181 tasks in Duties W, U, P, and I. One final distinction is that Duty V, Performing Image Evaluation, is unique to DAFSC 23371 personnel. As shown in Table 9, only seven tasks within this duty are performed by an appreciable number of incumbents, and then by only a small percentage of them. However, those DAFSC 23371 members performing image evaluation tasks spend considerable time doing so.

The transition from technician/supervisor (7-skill level) to superintendent (9-skill level) marks another significant change in task performance. Whereas 7-skill level personnel in both career ladders spend about half their time performing supervisory/administrative duties and the other half performing specialty tasks and duties, superintendents spend 97 percent of their time performing supervisory/administrative tasks (Duties A, B, C, D, E, and F). Table 10 compares DAFSC 23370 incumbents with DAFSC 23391 incumbents and Table 11 compares DAFSC 23371 incumbents with DAFSC 23391 incumbents with respect to percent members performing supervisory and managerial tasks. It is clear that superintendents perform very high level, long range, broad, and conceptual supervisory and managerial tasks related to establishing and evaluating requirements, planning functions and goals, and insuring compliance with high level goals and objectives. The 7-skill level personnel from both career ladders direct, implement, and in general perform those tasks designated to carry out actions necessary to meet broad policies, goals, and objectives.

A general comparison between career ladders 233X0 and 233X1 (DAFSC 23391 personnel were removed from the 233X1 sample for this analysis) indicates that each career ladder spends the majority of their time performing very different duties, as clearly shown in Table 3. Of the most time-consuming duties performed by each career ladder, compatible overlap occurs in only one duty, Directing and Implementing (Duty B). As shown in Table 12, there are six duties that are being performed by less than one percent of the

TABLE 7

## REPRESENTATIVE TASKS PERFORMED BY DAFSC 23370 JOB INCUMBENTS

<u>TASK NO.</u>	<u>TASK</u>	<u>PERCENT PERFORMING</u>	<u>PERCENT TIME SPENT</u>
B1	ASSIGN DUTIES TO PERSONNEL	75	1.62
B5	COUNSEL SUBORDINATES ON PERSONAL PROBLEMS	68	.96
D3	BRIEF PERSONNEL ON CHANGES IN METHODS OR PROCEDURES	65	1.12
C9	EVALUATE PERSONNEL PERFORMANCE	63	1.58
A25	PLAN WORK ASSIGNMENTS	57	1.08
A5	ESTABLISH PERFORMANCE STANDARDS	47	.61
I61	TURN ON CHEMICAL REPLENISHMENT FOR BW PROCESSORS	27	.20
O41	SELECT LENSES FOR BW PROJECTION PRINTERS	24	.24
K23	THREAD BW MATERIALS ON CONTINUOUS PRINTERS	23	.19
W1	ADD CHEMICALS TO MIX TANKS	21	.17
J73	TURN ON COLOR PROCESSOR MAIN DRIVE	19	.17

TABLE 8  
 REPRESENTATIVE TASKS PERFORMED BY DAFSC 23371 JOB INCUMBENTS

TASK NO.	TASK	PERCENT PERFORMING	PERCENT TIME SPENT
B1	ASSIGN DUTIES TO PERSONNEL	65	.84
C9	EVALUATE PERSONNEL PERFORMANCE	58	1.27
B5	COUNSEL SUBORDINATES ON PERSONAL PROBLEMS	56	.78
U25	PLOT DATA FROM SENSITOMETRIC STRIPS	56	.67
B18	DIRECT MIXING OF CHEMICALS	55	.62
A21	PLAN QUALITY ASSURANCE STANDARDS	52	.58
P10	DETERMINE SOLUTION PH USING PH METERS	52	.60
U16	DETERMINE GAMMA FROM SENSITOMETRIC STRIPS	52	.57
A5	ESTABLISH PERFORMANCE STANDARDS	50	.75
B3	CONDUCT INVENTORIES OF PHOTOGRAPHIC EQUIPMENT AND SUPPLIES	47	.73
U2	ANALYZE PROCESS CONTROL CHARTS FOR TRENDS TO DETERMINE CORRECTIVE ACTION	45	.54

TABLE 9  
 MAJOR IMAGE EVALUATION TASKS PERFORMED BY 23371 PERSONNEL

<u>TASK NO.</u>	<u>TASKS</u>	<u>PERCENT PERFORMING</u>	<u>PERCENT TIME SPENT</u>
V18	PERFORM IMAGE EVALUATION WITH MICROSCOPES	19	.90
V14	MAKE MICROSCOPIC RESOLUTION EVALUATIONS	19	.88
V15	MAKE SUBJECTIVE MICROSCOPIC IMAGE SHARPNESS EVALUATIONS	18	.83
V20	PREPARE MICROSCOPES FOR IMAGE EVALUATIONS	15	.50
V17	PERFORM IMAGE EVALUATION WITH COMPARATORS	7	.44
V19	PREPARE AND MOUNT SAMPLES FOR OPTICAL EVALUATIONS	15	.28
V13	MAKE MICROSCOPIC GRANULARITY EVALUATIONS	11	.08
	TOTAL TIME		3.91%

TABLE 10

## MOST SIGNIFICANT TASKS DIFFERENTIATING DAFSC 23370 FROM 23391 PERSONNEL

TASK NO.	TASK	PERCENT PERFORMING		DIFFERENCE
		DAFSC 23370	DAFSC 23391	
D8	DEMONSTRATE OPERATION OF EQUIPMENT	52	10	42
D5	CONDUCT ON-THE-JOB TRAINING	51	14	37
B54	SUPERVISE CONTINUOUS PHOTOPROCESSING SPECIALISTS (AFSC 23331)	59	24	35
D20	MAINTAIN TRAINING RECORDS	51	24	27
B51	SUPERVISE APPRENTICE CONTINUOUS PHOTOPROCESSING SPECIALISTS (AFSC 23331)	35	10	25
F6	LOG IN WORK ORDERS OR COMPLETED WORK	35	10	25
F11	PREPARE COMPLETED WORK FOR DISTRIBUTION	25	0	25
A6	ESTABLISH PERSONNEL MANNING REQUIREMENTS	18	81	-63
C2	EVALUATE ACCOMPLISHMENT OF ASSIGNMENTS	9	67	-58
C3	EVALUATE BUDGET REQUIREMENTS	4	57	-53
A1	CONSTRUCT ORGANIZATION OR FUNCTIONAL CHARTS	22	71	-49
C6	EVALUATE JOB DESCRIPTIONS	14	62	-48
A21	PLAN QUALITY ASSURANCE STANDARDS	20	67	-47
A16	PLAN INSPECTION ROUTINES	21	67	-46
A22	PLAN SAFETY PROCEDURES	16	57	-41
C14	EVALUATE TRAINING PROGRAMS	31	72	-41
C5	EVALUATE CONTROL OF CLASSIFIED MATERIALS	9	43	-34
A4	ESTABLISH EQUIPMENT REQUIREMENTS	34	67	-33
A18	PLAN LAYOUT OF FACILITIES	22	52	-30

TABLE 11

## REPRESENTATIVE TASKS DIFFERENTIATING BETWEEN DAFSC 23371 AND 23391

TASK NO.	TASK	PERCENT PERFORMING		DIFFERENCE
		DAFSC 23371	DAFSC 23391	
B18	DIRECT MIXING OF CHEMICALS	55	14	41
D8	DEMONSTRATE OPERATION OF EQUIPMENT	44	10	34
B11	DIRECT CONSTRUCTION OF SENSITOMETRIC CURVES	50	19	31
B21	DIRECT PREPARATION OF SENSITOMETRIC STRIPS	45	14	31
B24	DIRECT QUALITY ASSURANCE PROCEDURES OR FUNCTIONS	53	24	29
D1	ADMINISTER RESIDENT COURSE OR PHASE TESTS	16	0	15
D5	CONDUCT ON-THE-JOB TRAINING	29	14	15
B22	DIRECT PRINTING OPERATIONS	37	23	14
D31	SCORE RESIDENT COURSE OR PHASE TESTS	13	0	13
D20	MAINTAIN TRAINING RECORDS	36	24	12
A6	ESTABLISH PERSONNEL MANNING REQUIREMENTS	21	81	-60
B38	PREPARE JOB DESCRIPTIONS	15	72	-57
C15	EVALUATE WORKLOAD REQUIREMENTS	18	72	-54
B41	PREPARE PERSONNEL ACTION REQUESTS	16	67	-51
A2	ESTABLISH BUDGET REQUIREMENTS	16	67	-51
C3	EVALUATE BUDGET REQUIREMENTS	9	57	-48
A12	PLAN AND CONDUCT POLICY OR MAINTENANCE MEETINGS	9	57	-48
C6	EVALUATE JOB DESCRIPTIONS	15	62	-47
A22	PLAN SAFETY PROCEDURES	36	72	-46
A16	PLAN INSPECTION ROUTINES	31	76	-45
C8	EVALUATE MAINTENANCE OF FACILITIES	19	62	-43

TABLE 12

## COMPARISON OF THE LEAST TIME-CONSUMING DUTIES BY CAREER LADDER

DUTY	CAREER LADDER			
	233X0 LESS THAN 1%	3% OR LESS	233X1 LESS THAN 1%	3% OR LESS
E. PERFORMING PHOTOPROCESSING LABORATORIES ADMINISTRATION FUNCTIONS	*			2%
H. OPERATING COPY CAMERAS	*		*	
L. PRINTING COLOR MATERIALS BY CONTINUOUS METHODS	*		*	
M. PROCESSING BLACK AND WHITE FILM MANUALLY		2%	*	
N. PROCESSING COLOR FILM MANUALLY	*		*	
Q. EXPOSING FILM	*		*	
R. EXPOSING, PROCESSING, AND FINISHING COLOR PRINTS MANUALLY	*		*	
S. EDITING AND CLEANING PROCESSED IMAGERY		2%	*	
T. TITLING PROCESSED IMAGERY		3%	*	
V. PERFORMING IMAGE EVALUATION	*			3
X. CONTROLLING CLEAN ROOM AND ENVIRONMENT	*		*	
TOTAL NUMBER DUTIES	8	3	9	2

personnel in each respective career ladder. These duties are Operating Copy Cameras (Duty H), Printing Color Materials by Continuous Methods (Duty L), Processing Color Film Manually (Duty N), Exposing Film (Duty Q), Exposing, Processing, and Finishing Color Prints Manually (Duty R), and Controlling Clean Room and Environment (Duty X). Table 12 lists five other major duties that consume less than three percent of the time spent by incumbents in each respective career ladder.

#### ANALYSIS OF ACTIVE FEDERAL MILITARY SERVICE (AFMS) GROUPS

Task performance comparisons in this section are made between groups of DAFSC 233X0 personnel and DAFSC 233X1 personnel with varying amounts of active federal military service (AFMS). Analysis of the changes in jobs performed by personnel in each respective career ladder with respect to time in service parallel job changes that were noted with DAFSC skill upgrading. However, where changes in tasks performed associated with skill upgrading were abrupt, the transition between enlistment periods is much more gradual. Incumbents gradually move away from performing strictly technical tasks to performing more supervisory tasks with increasing time in service. Table 13 (DAFSC 233X0 job incumbents) and Table 14 (DAFSC 233X1 job incumbents) list the percent time spent on each duty for groups of personnel with varying amounts of active duty time ranging from 1-48 months to more than 240 months. Because DAFSC 233X1 personnel cross-train into that career ladder after they have attained a 5-skill level in DAFSC 233X0, Table 14 contains varying amounts of active duty time ranging from 49 - 96 months to more than 240 months. As expected, in both career ladders the most striking trend is an increase in the performance of supervisory and administrative duties and a decrease in time spent on technical duties with increasing AFMS experience.

As shown in Table 13, first enlistment DAFSC 233X0 survey respondents spend 69 percent of their time performing five technical duties: 30 percent Processing Black and White Materials by Continuous Methods (Duty I), 15 percent Maintaining Relocatable Photographic Facilities (Duty G), 12 percent Exposing, Processing, and Finishing BW Prints Manually (Duty O), seven percent Processing Color Materials by Continuous Methods (Duty J), and five percent Printing Black and White Materials by Continuous Methods (Duty K). The shift from a preponderance of time spent in these technical duties to a preponderance of time spent in supervisory duties is quite gradual, with the first large change occurring in the fourth enlistment group (145 to 192 months AFMS). From that point on the emphasis continues to shift even more towards strict performance of supervisory and administrative duties and tasks. Individuals with more than 240 months AFMS spend 87 percent of their time performing strictly supervisory and managerial duties and tasks.

TABLE 13

## PERCENT TIME SPENT ON DUTIES BY AFMS GROUPS IN DAFSC 233X0

INVENTORY SECTION	1-48		49-96		97-144		145-192		193-240		240 +	
	Months	Months	Months	Months	Months	Months	Months	Months	Months	Months	Months	Months
A. ORGANIZING AND PLANNING	1	2	2	2	7	14	20	7	14	20	20	20
B. DIRECTING AND IMPLEMENTING	3	8	12	12	22	20	39	22	20	39	39	39
C. EVALUATING	*	2	3	3	6	7	11	6	7	11	11	11
D. TRAINING	1	3	4	4	7	8	10	7	8	10	10	10
E. PERFORMING PHOTOPROCESSING LABORATORIES ADMINISTRATION FUNCTIONS	*	1	1	1	2	4	3	2	4	3	3	3
F. PERFORMING LABORATORY PRODUCTION CONTROL FUNCTIONS	2	3	3	3	5	4	4	5	4	4	4	4
G. MAINTAINING RELOCATABLE PHOTOGRAPHIC FACILITIES	15	10	8	8	7	5	1	7	5	1	1	1
H. OPERATING COPY CAMERAS	1	1	1	1	1	1	1	1	1	1	1	1
I. PROCESSING BLACK AND WHITE MATERIALS BY CONTINUOUS METHODS	30	25	22	22	12	7	1	12	7	1	1	1
J. PROCESSING COLOR MATERIALS BY CONTINUOUS METHODS	7	13	7	7	9	6	3	9	6	3	3	3
K. PRINTING BLACK AND WHITE MATERIALS BY CONTINUOUS METHODS	5	4	5	5	3	2	2	3	2	2	2	2
L. PRINTING COLOR MATERIALS BY CONTINUOUS METHODS	1	2	1	1	1	1	*	1	1	*	*	*
M. PROCESSING BLACK AND WHITE FILM MANUALLY	2	2	1	1	1	1	*	1	1	*	*	*
N. PROCESSING COLOR FILM MANUALLY	1	1	1	1	1	1	*	1	1	*	*	*
O. EXPOSING, PROCESSING, AND FINISHING BW PRINTS MANUALLY	12	9	9	9	3	6	1	3	6	1	1	1
P. MAINTAINING QUALITY CONTROL	2	2	2	2	1	1	*	1	1	*	*	*
Q. EXPOSING FILM	1	1	2	2	1	1	*	1	1	*	*	*
R. EXPOSING, PROCESSING, AND FINISHING COLOR PRINTS MANUALLY	1	1	1	1	1	2	*	1	2	*	*	*
S. EDITING AND CLEANING PROCESSED IMAGERY	3	2	2	2	2	2	1	2	2	1	1	1
T. TILTING PROCESSED IMAGERY	4	3	3	3	2	1	2	2	1	2	2	2
U. PERFORMING SENSITOMETRY AND DENSITOMETRY TESTS	3	2	3	3	2	2	*	2	2	*	*	*
V. PERFORMING IMAGE EVALUATION	*	*	*	*	*	*	*	*	*	*	*	*
W. PRODUCING CHEMICAL MIXES AND PERFORMING CHEMICAL ANALYSIS	5	5	5	5	4	3	1	4	3	1	1	1
X. CONTROLLING CLEAN ROOM AND ENVIRONMENT	*	1	3	3	*	*	*	*	*	*	*	*

\* = Less than one (1) percent performing

For DAFSC 233X1 AFMS groups (Table 14) the majority of time is spent on technical duties during the first two enlistment periods (up to 96 months AFMS). From the third enlistment group on (97-144 months) the shift begins to become noticeable in the direction of greater supervisory duties. The fifth enlistment group marks the most distinctive shift from technical to strictly supervisory duties. The second enlistment group of DAFSC 233X1 personnel (49 to 96 months AFMS) spend 47 percent of their time performing three duties: 21 percent Performing Sensitometry and Densitometry Tasks (Duty U), 14 percent Producing Chemical Mixes and Performing Chemical Analysis (Duty W), and 12 percent Maintaining Quality Control (Duty P).

As shown in Table 15, compared to DAFSC 233X0 AFMS groups the DAFSC 233X1 AFMS groups perform a larger average number of tasks during each of the first four enlistment periods. This difference indicates that DAFSC 233X1 personnel generally have a more diverse job and perform a broader range of tasks throughout their career enlistments.

#### COMPARISONS OF CONUS/OVERSEAS AND SEX GROUP TASK PERFORMANCE

There are small differences in both duty and task performance of CONUS and Overseas personnel in each respective career ladder. For DAFSC 233X0 personnel, CONUS respondents spend 12 percent (versus four percent for Overseas groups) processing color materials by continuous methods (Duty J). Conversely, Overseas personnel in DAFSC 233X0 spend 14 percent of their time (versus ten percent for CONUS groups) maintaining relocatable photographic facilities (Duty G) and 13 percent (versus nine percent for CONUS groups) exposing, processing, and finishing BW prints manually (Duty O). The differences in percent members performing tasks for these two groups support these differences in duties and are of low magnitude.

For DAFSC 233X1 personnel, CONUS vs Overseas job incumbents showed no significant or practical differences in duties or tasks performed. Differences in duties never exceeded six percent time spent. Differences in percent members performing tasks never exceeded 18 percent.

Since only one woman assigned DAFSC 233X1 was included in the sample, no sex comparisons were made for this career ladder. Analysis of duties and tasks performed by female versus male personnel in DAFSC 233X0 indicated no practical or significant differences between the sex groups.

TABLE 14

## PERCENT TIME SPENT ON DUTIES BY AFMS GROUPS IN DAFSC 233X1

INVENTORY SECTION	49-96	97-144	145-192	193-240	240 +
	Months	Months	Months	Months	Months
A. ORGANIZING AND PLANNING	1	4	5	17	21
B. DIRECTING AND IMPLEMENTING	9	13	15	30	36
C. EVALUATING	1	6	5	10	13
D. TRAINING	5	8	6	7	9
E. PERFORMING PHOTOPROCESSING LABORATORIES ADMINISTRATION FUNCTIONS	*	*	2	5	4
F. PERFORMING LABORATORY PRODUCTION CONTROL FUNCTIONS	1	1	1	4	4
G. MAINTAINING RELOCATABLE PHOTOGRAPHIC FACILITIES	8	4	5	1	1
H. OPERATING COPY CAMERAS	1	*	*	*	*
I. PROCESSING BLACK AND WHITE MATERIALS BY CONTINUOUS METHODS	10	6	5	3	3
J. PROCESSING COLOR MATERIALS BY CONTINUOUS METHODS	*	3	3	1	1
K. PRINTING BLACK AND WHITE MATERIALS BY CONTINUOUS METHODS	3	1	2	1	1
L. PRINTING COLOR MATERIALS BY CONTINUOUS METHODS	*	*	*	*	*
M. PROCESSING BLACK AND WHITE FILM MANUALLY	1	1	1	*	*
N. PROCESSING COLOR FILM MANUALLY	1	*	1	*	*
O. EXPOSING, PROCESSING, AND FINISHING BW PRINTS MANUALLY	2	2	2	1	*
P. MAINTAINING QUALITY CONTROL	12	11	8	4	2
Q. EXPOSING FILM	1	1	1	*	*
R. EXPOSING, PROCESSING, AND FINISHING COLOR PRINTS MANUALLY	2	1	*	*	*
S. EDITING AND CLEANING PROCESSED IMAGERY	1	*	*	*	*
T. TITLING PROCESSED IMAGERY	1	*	*	*	*
U. PERFORMING SENSITOMETRY AND DENSITOMETRY TESTS	21	16	16	7	2
V. PERFORMING IMAGE EVALUATION	5	*	6	2	*
W. PRODUCING CHEMICAL MIXES AND PERFORMING CHEMICAL ANALYSIS	14	21	17	6	4

\* = Less than one (1) percent performing

TABLE 15

AVERAGE NUMBERS OF TASKS PERFORMED BY ENLISTMENT GROUPS

<u>ENLISTMENT GROUP</u>	<u>AVERAGE NUMBER OF TASKS PERFORMED</u>	
	<u>DAFSC 233X0</u>	<u>DAFSC 233X1</u>
1	87	100
2	84	112
3	93	130
4	99	78
5	106	78
5+	60	

## TASK DIFFICULTY

From a listing of the assigned airmen identified for this survey, 7- and 9-skill level incumbents from various locations were selected for rating task difficulty. Tasks were rated on a nine point scale from very-much-below average to very-much-above average difficulty, with difficulty defined as the length of time required for an average incumbent to learn to do the task. Interrater agreement among the 65 raters was .97. Ratings were normalized to the nine point scale so that tasks of average difficulty have ratings of 5.00.

Tables 16 and 17 list the most difficult tasks performed by substantial percentages of job incumbents with DAFSC 23350 (Table 16) and DAFSC 23331 (Table 17). The clearest finding is that very high percentages of DAFSC 23331 personnel perform large numbers of above average difficulty tasks. Table 17 contains 24 above average difficulty tasks performed by greater than 55 percent of DAFSC 23331 incumbents. An additional 82 above average difficulty tasks are being performed by 20 percent or more of the DAFSC 23331 incumbents. Conversely, Table 16 shows that relatively low percentages of DAFSC 23350 personnel perform tasks that have above average difficulty. Only 19 tasks rated above average in difficulty are being performed by more than 25 percent of DAFSC 23350 incumbents.

DAFSC 23331 incumbents also performed an average of 124 tasks compared with an average of 88 tasks performed by DAFSC 23350 incumbents. As previously discussed in the DAFSC analysis section of this report, DAFSC 23350 and DAFSC 23331 personnel perform very different duties and tasks. Table 18 lists the percentage of tasks rated above average in difficulty for those respective duties performed by high percentages of DAFSC 23350 and DAFSC 23331 personnel. It is clearly evident that the duties being performed by DAFSC 23331 personnel contain very large percentages of greater than average difficulty tasks. Conversely, the duties being performed by DAFSC 23350 personnel that consume substantial amounts of their time have very low percentages of difficult tasks.

## SPECIALITY TRAINING STANDARD (STS) ANALYSIS

### STS 233X0

The Specialty Training Standard for the AFS 233X0 career ladder provides general coverage of the majority of tasks performed by 233X0 personnel in the field. With one exception, all specialty duties and tasks specified in the STS are performed by five percent or more of DAFSC 23330/50/70 personnel. The exception is STS paragraphs 7a1, b2, c1, d1, e1, and f1 which specify reproducing color imagery by continuous methods. The survey tasks listed in Duty L, Printing Color Materials by Continuous Methods, relate to these STS paragraphs. Not a single one of these tasks is being performed by more than nine percent of DAFSC 23330, DAFSC 23350, or DAFSC 23370 incumbents, and many tasks were not performed at all.

TABLE 16

TASKS RATED ABOVE AVERAGE IN DIFFICULTY (5.00) PERFORMED BY MORE THAN  
25 PERCENT OF DAFSC 23350 PERSONNEL

TASK NO.	TASK	PERCENT PERFORMING	DIFFICULTY INDEX
G1	ASSEMBLE OR DISASSEMBLE RELOCATABLE PHOTOGRAPHIC EQUIPMENT	27	6.5
I15	ESTABLISH BW FILM CHEMISTRY REPLENISHER FLOW RATES	28	6.2
G21	POSITION SHELTERS ON SITE	32	6.1
G30	PREPARE PROCESSORS FOR USE OR TRANSPORT	29	5.8
I25	MAKE BW STARTUP CORRECTIONS	26	5.7
G20	PERFORM SHELTER CORROSION CONTROL PROCEDURES	38	5.6
I26	MONITOR QUALITY OF PROCESSED BW MATERIAL AT PROCESSORS TAKE-UP	37	5.6
D5	CONDUCT ON-THE-JOB TRAINING	31	5.5
G11	FOLD OR UNFOLD SHELTERS	38	5.4
G39	PURGE SHELTER CHEMICAL LINES	26	5.4
G40	PURGE WATER FROM SHELTER SYSTEM	36	5.4
G41	REMOVE OR INSTALL SHELTER TRANSPORTERS	36	5.4
I16	ESTABLISH BW PROCESSOR TEMPERATURE	32	5.4
I30	PRE-INSPECT BW FILM FOR PHYSICAL DEFECTS SUCH AS NICKS OR TEARS	26	5.4
G33	PREPARE SHELTER AIR CONDITIONERS FOR USE OR TRANSPORT	33	5.2
D8	DEMONSTRATE OPERATION OF EQUIPMENT	38	5.1
G29	PREPARE PRINTERS FOR USE OR TRANSPORT	28	5.1
I17	ESTABLISH OR VERIFY BW FILM MACHINE SPEED	36	5.1
I33	PROCESS BW FILM CONTROL STRIPS FOR MACHINES SPEED/GAMMA CHARTS	33	5.1

TABLE 17

TASKS RATED ABOVE AVERAGE IN DIFFICULTY (5.00) PERFORMED BY MORE THAN  
55 PERCENT OF DAFSC 23331 PERSONNEL

TASK NO.	TASK	PERCENT PERFORMING	DIFFICULTY INDEX
P12	ESTABLISH OR MAINTAIN TONE CONTROL CHARTS	65	6.7
U19	ESTABLISH PROCESS CONTROL AIM POINTS AND CONTROL LIMITS	65	6.6
B24	DIRECT QUALITY ASSURANCE PROCEDURES FOR FUNCTIONS	58	6.5
P19	PERFORM SENSITOMETRIC CORRELATIONS	72	6.5
U2	ANALYZE PROCESS CONTROL CHARTS FOR TRENDS TO DETERMINE CORRECTIVE ACTION	72	6.4
U6	COMPUTE AND INSERT NEUTRAL DENSITY FILTERS INTO SENSITOMETERS	68	6.3
P3	ANALYZE BW FILM CERTIFICATION STARTUPS	58	6.2
P7	CONSTRUCT CHARACTERISTIC CURVES TO EVALUATE EMULSIONS	70	6.2
U15	DETERMINE FILM SPEED FROM SENSITOMETRIC STRIPS	60	6.2
U20	EVALUATE SENSITOMETRIC STRIPS FOR EXPOSURES	68	6.1
P6	CONSTRUCT AND MAINTAIN CHEMICAL CONTROL CHARTS	70	5.9
P5	COMPUTE GAMMA OF PROCESSED FILM	80	5.7
P10	DETERMINE SOLUTE PH USING PH METERS	75	5.6
U16	DETERMINE GAMMA FROM SENSITOMETRIC STRIPS	80	5.4
U26	PLOT DATA ON PROCESS CONTROL CHARTS	80	5.4
U37	STANDARDIZE DENSITOMETERS USING A CALIBRATED WEDGE OR CHECK PLAQUE	75	5.4
U28	PRINT SENSITOMETRIC STRIPS FOR EMULSION CROSSOVER TESTS	65	5.3
U31	READ DENSITY-MINIMUM (D-MIN) AND DENSITY-MAXIMUM (D-MAX) DENSITIES OF ORIGINALS AND DUPLICATES	70	5.3
W52	STANDARDIZE PH METERS	60	5.3
P11	DETERMINE SPECIFIC GRAVITY OF SOLUTIONS	72	5.2
P17	OPERATE SENSITOMETERS	82	5.2
U25	PLOT DATA FROM SENSITOMETRIC STRIPS	85	5.2
U21	EXPOSE SENSITOMETRIC CONTROL STOCK SAMPLES	72	5.1

TABLE 18  
 PERCENTAGE OF ABOVE AVERAGE DIFFICULTY TASKS IN HIGH TIME CONSUMPTION DUTIES

DUTY	PERCENT TIME SPENT	PERCENT TASKS ABOVE AVERAGE DIFFICULTY
<u>DAFSC 23350:</u>		
I. PROCESSING BLACK AND WHITE MATERIALS BY CONTINUOUS METHODS	25	17
G. MAINTAINING RELOCATABLE PHOTOGRAPHIC FACILITIES	12	36
J. PROCESSING COLOR MATERIALS BY CONTINUOUS METHODS	10	13
<u>DAFSC 23331:</u>		
U. PERFORMING SENSITOMETRY AND DENSITOMETRY TESTS	20	73
W. PRODUCING CHEMICAL MIXES AND PERFORMING CHEMICAL ANALYSIS	17	67
P. MAINTAINING QUALITY CONTROL	12	90

A major discrepancy is also found in tasks performed but not presently contained in the STS. Thirty-five such tasks were identified and are contained in Table 19. As can be seen, these tasks pertain primarily to quality control duties (Duties P, U, and W).

#### STS 233X1

All the duties and tasks specified in the STS are being performed by 23331/71 personnel. Table 20, however, contains 106 tasks performed by ten percent or more of DAFSC 23331/71 personnel which are not specifically contained in the STS. As can be seen, most of the tasks fall into four major duties: Duty G, Maintaining Relocatable Photographic Facilities, in which 22 out of 45 survey tasks are being performed; Duty J, Processing Color Materials by Continuous Methods, in which 33 of 76 tasks are being performed; Duty O, Exposing, Processing, and Finishing BW Prints Manually, in which 20 out of 46 survey tasks are being performed; and Duty S, Editing and Cleaning Processed Imagery, in which 8 out of 18 survey tasks are being performed. Eleven tasks in Duty W, Producing Chemical Mixes and Performing Chemical Analysis, are being performed but are not specified in the STS. These tasks generally deal with chemical mixing functions.

TABLE 19

TASKS NOT LISTED IN STS 233X0 BUT PERFORMED BY TEN PERCENT  
OR MORE OF DAFSC 23330/50/70 PERSONNEL

TASKS BY DUTY	PERCENT PERFORMING		
	DAFSC 23330	DAFSC 23350	DAFSC 23370
DUTY P:			
P5 COMPUTE GAMMA OF PROCESSED FILM	2	12	15
P6 CONSTRUCT AND MAINTAIN CHEMICAL CONTROL CHARTS	2	11	11
P7 CONSTRUCT CHARACTERISTIC CURVES TO EVALUATE EMULSIONS	5	8	13
P8 DETERMINE EXHAUSTION POINT OF CHEMISTRY	0	11	11
P10 DETERMINE SOLUTION PH USING PH METERS	5	14	15
P14 MEASURE MACHINE SPEED WITH TACHOMETERS	2	9	13
P18 PERFORM PRINTER CORRELATIONS	2	5	10
DUTY S:			
S13 PACKAGE CLASSIFIED WASTE FOR DISPOSAL	2	12	18
S14 PLACE IDENTIFICATION LABELS ON FILM REELS OR FILM CANS	14	16	21
S17 TRANSPORT COMPLETED MATERIALS TO OPERATIONS OR SHIPPING	5	11	16
DUTY T:			
T20 TURN OFF MAIN POWER TO TITLERS	27	22	13
T21 TURN ON COMPRESSORS	27	20	10
T22 TURN ON HEAT AND AIR SUPPLY TO TITLERS	25	21	12
T23 TURN ON MAIN POWER TO TITLERS	30	22	13
T24 VACUUM AND WIPE DOWN TITLERS	20	20	11
DUTY U:			
U2 ANALYZE PROCESS CONTROL CHARTS FOR TRENDS TO DETERMINE CORRECTIVE ACTION	0	7	10
U16 DETERMINE GAMMA FROM SENSITOMETRIC STRIPS	5	12	10
U25 PLOT DATA FROM SENSITOMETRIC STRIPS	2	14	12
U26 PLOT DATA ON PROCESS CONTROL CHARTS	2	11	12
U33 REMOVE EXPOSED SENSITOMETRIC CONTROL STRIPS FROM FREEZER	7	12	11
U37 STANDARDIZE DENSITOMETERS USING A CALIBRATED WEDGE OR CHECK PLAQUE	0	9	10

TABLE 19 (CONTINUED)

TASKS NOT LISTED IN STS 233X0 BUT PERFORMED BY TEN PERCENT  
OR MORE OF DAFSC 23330/50/70 PERSONNEL

TASKS BY DUTY	PERCENT PERFORMING		
	DAFSC 23330	DAFSC 23350	DAFSC 23370
DUTY W:			
W2 ANALYZE CONTROL CHARTS ON CHEMICAL ANALYSIS	2	6	11
W3 CALCULATE CORRECTIVE ADDITIONS TO CHEMISTRY	5	7	10
W6 CALIBRATE DENSITOMETERS	0	11	9
W9 CHANGE CHEMICAL MIXING WATER AND CHEMICAL FILTERS	1	12	17
W10 CHECK TEMPERATURE INDICATORS AGAINST STANDARDS	5	12	11
W25 MAKE CORRECTIVE ADDITIONS TO MIXED CHEMISTRY	11	11	13
W29 MAKE PACKAGED CHEMICALS FOR CHEMICAL MIX AND CHEMICAL ANALYSIS	9	12	14
W34 OPERATE OR MAINTAIN LABORATORY EQUIPMENT	2	7	10
W39 PERFORM CORROSION CONTROL ON MIXING AND STORAGE EQUIPMENT	2	13	6
W49 REMOVE CHEMISTRY SAMPLES FOR CERTIFICATION	2	14	11
W53 STORE MIXED CHEMICALS	2	16	16
W54 STORE UNMIXED CHEMICALS	2	16	18
W56 TRANSFER CERTIFIED MIXED CHEMISTRY TO STORAGE TANKS	2	14	13
W59 VERIFY MACHINE SPEEDS OR TRANSPORT RATES	2	11	13

TABLE 20

TASKS NOT LISTED IN STS 233X1 BUT PERFORMED BY TEN PERCENT  
OR MORE OF DAFSC 233X1/71 PERSONNEL

TASKS BY DUTY	PERCENT PERFORMING	
	DAFSC 23331	DAFSC 23371
DUTY G:		
G2 ASSEMBLE OR DISASSEMBLE RELOCATABLE PHOTOGRAPHIC EQUIPMENT	10	2
G6 CLEAN SHELTER PROCESSOR DRYING CABINETS	10	5
G7 CLEAN SHELTER PROCESSOR EXTERIORS OR INTERIORS	22	8
G8 CLEAN SHELTER PROCESSOR RACKS	13	3
G9 CONNECT OR DISCONNECT COMMUNICATION LINES	10	2
G13 INSPECT SHELTER WATER SUPPLY SYSTEMS	17	8
G14 INSTALL OR REMOVE SHELTER WATER LINE HEATER BLANKETS	13	2
G18 PACK OR UNPACK AND STORE SHELTER EXPENDABLES	25	8
G20 PERFORM SHELTER CORROSION CONTROL PROCEDURES	32	6
G24 PREPARE FILM CLEANERS FOR USE OR TRANSPORT	10	5
G25 PREPARE FILM FOR USE OR TRANSPORT	22	6
G27 PREPARE LIGHT TABLES FOR USE OR TRANSPORT	35	6
G29 PREPARE PRINTERS FOR USE OR TRANSPORT	13	2
G30 PREPARE REFRIGERATOR UNITS FOR USE OR TRANSPORT	15	3
G31 PREPARE SENSITOMETERS FOR USE OR TRANSPORT	20	5
G33 PERPARE SHELTER AIR CONDITIONERS FOR USE OR TRANSPORT	32	8
G34 PREPARE SHELTER LIGHTS FOR USE OR TRANSPORT	38	8
G37 PREPARE TITLERS FOR USE OR TRANSPORT	13	5
G38 PRIME SHELTER WATER PUMPS	17	6
G39 PURGE SHELTER CHEMICAL LINES	22	8
G40 PURGE WATER FROM SHELTER SYSTEM	20	6
G42 SEAL SHELTERS OR PASSAGEWAYS	22	8
DUTY I:		
I5 ANNOTATE MISSION CONTROL DOCUMENTS WITH BW FILM OR PAPER PROCESSING DATA	20	6
I6 CLEAN BW PROCESSING ROOMS	20	8
I10 CLEAN OR ADJUST BW PROCESSOR SQUEEGEES	10	3
I30 PRE-INSPECT BW FILM FOR PHYSICAL DEFECTS SUCH AS NICKS OR TEARS	17	6
I37 RINSE BW PROCESSOR ROLLERS OR RACKS AFTER SHUT DOWN	20	6
I44 SPLICE BW FILM MISSION MATERIALS TO LEADERS OR LEADER TABS	20	8
I46 SPLICE ON BW RUN-OUT LEADERS AT END OF PROCESSING RUNS	10	5
I48 THREAD BW PROCESSORS WITH LEADERS	13	6

TABLE 20 (CONTINUED)

TASKS NOT LISTED IN STS 233X1 BUT PERFORMED BY TEN PERCENT  
OR MORE OF DAFSC 233X1/71 PERSONNEL

TASKS BY DUTY	PERCENT PERFORMING	
	DAFSC 23331	DAFSC 23371
DUTY J:		
J5 ASSEMBLE COLOR MOTION PICTURE FILM FOR PROCESSING	10	0
J6 CLEAN COLOR PROCESSOR DRYING CABINETS	10	2
J7 CLEAN COLOR PROCESSOR ROOMS	10	6
J8 CLEAN COLOR PROCESSOR USING SYSTEM CLEANING SOLUTIONS	10	5
J9 CLEAN OR ADJUST COLOR PROCESSOR SQUEEGEES	10	0
J11 CORRECT COLOR FILM PHYSICAL DEFECTS	10	6
J13 DRAIN COLOR PROCESSOR CHEMICAL TANKS	10	6
J14 DRAIN OR REFILL COLOR PROCESSOR WASH TANKS	10	8
J16 FILL PROCESSOR CHEMICAL TANKS WITH COLOR CHEMISTRY	10	8
J19 INSPECT OR CHANGE COLOR PROCESSOR CHEMICAL FILTERS	10	8
J25 MAKE COLOR START-UP CORRECTIONS	10	5
J26 MONITOR PROCESSOR TAKE UP OF COLOR MATERIALS	13	6
J34 PRE-INSPECT COLOR FILM FOR PHYSICAL DEFECTS SUCH AS NICKS OR TEARS	13	3
J43 RINSE COLOR PROCESSOR ROLLERS AND RACKS AFTER SHUT DOWN	10	3
J45 SET COLOR PROCESSOR TEMPERATURE CONTROL UNITS	10	6
J46 SET OR MAINTAIN COLOR CHEMISTRY REPLENISHER RATES	15	8
J47 SET OR MAINTAIN COLOR PROCESSOR TRANSPORT SPEED	15	6
J48 SET OR MAINTAIN COLOR PROCESSOR WATER TEMPERATURE AND FLOW RATES	15	8
J49 SET OR MAINTAIN TEMPERATURE OF COLOR CHEMISTRY OR DRIERS	13	8
J61 THREAD COLOR PROCESSORS WITH LEADERS	10	3
J63 TURN OFF COLOR PROCESSOR CHEMICAL RECIRCULATION PUMPS	13	8
J64 TURN OFF COLOR PROCESSOR DRYERS	13	6
J65 TURN OFF COLOR PROCESSOR DRYER HEATERS	13	6
J66 TURN OFF COLOR PROCESSOR MAIN DRIVE	13	8
J67 TURN OFF COLOR PROCESSOR MAIN POWER	13	8
J68 TURN OFF COLOR PROCESSOR WATER SUPPLY	10	8
J69 TURN ON CHEMICAL REPLENISHMENT FOR COLOR PROCESSORS	15	8
J70 TURN ON COLOR PROCESSOR CHEMICAL RECIRCULATION PUMPS	15	8
J71 TURN ON COLOR PROCESSOR DRYERS AND ADJUST TEMPERATURE CONTROLS	10	6
J72 TURN ON COLOR PROCESSOR DRYER HEATERS	10	6
J73 TURN ON COLOR PROCESSOR MAIN DRIVE	13	8
J74 TURN ON COLOR PROCESSOR MAIN POWER	10	8
J75 TURN ON COLOR PROCESSOR WATER SUPPLY	13	8
DUTY K:		
K2 ADJUST POSITION OF BW LIGHT SOURCES FOR CONTINUOUS PRINTING	5	11
K15 REWIND BW NEGATIVE OR POSITIVE FILM USING REWINDER	13	2
K16 ROLL OUT AND ATTACH CERTIFICATION FRISKETS	10	2

TABLE 20 (CONTINUED)

TASKS NOT LISTED IN STS 233X1 BUT PERFORMED BY TEN PERCENT  
OR MORE OF DAFSC 233X1/71 PERSONNEL

TASKS BY DUTY	PERCENT PERFORMING	
	DAFSC 23331	DAFSC 23371
DUTY O:		
04 ATTACH FRISKETS TO ORIGINAL NEGATIVE FRAMES	10	6
06 COMPOSE AND FOCUS BW PRINTS USING PROJECTION PRINTERS	7	11
08 CONSTRUCT MASKS FOR MANUAL CONTACT PRINTERS	7	10
010 CONSTRUCT BW MANUAL PRINT PROCESSING SOLUTION TEMPERATURES	13	8
012 DETERMINE MANUAL BW PRINTING EXPOSURE WITH ANALYZERS OR DENSITOMETERS	10	8
013 DETERMINE CONTRAST FROM MANUALLY PRODUCED BW TEST STRIPS	13	8
015 DETERMINE MAGNIFICATION, REDUCTION, OR SCALE FOR BW PRINTING	7	10
017 FINISH BW PRINTS MANUALLY	10	8
020 INFLATE CONTACT PRINTER PLATENS	10	5
025 OPERATE MANUAL LIGHT DODGING CONTACT BW PRINTERS	7	10
026 PERFORM PRE-OPERATION INSPECTIONS OF CONTINUOUS TIMERS	10	6
027 PERFORM PRE-OPERATION INSPECTIONS OF INTERVAL TIMERS	10	8
033 PREPARE AND MIX SPECIAL SOLUTIONS FOR MANUAL PROCESSING	17	5
035 PREPARE TRAYS FOR MANUAL BW PRINT PROCESSING	15	6
038 SELECT AND ADJUST STILL PRINT DRIERS SPEED AND TEMPERATURE	17	8
040 SELECT CONTRAST CONTROL FILTERS FOR MANUAL BW PRINTING	15	8
043 SHUT-DOWN MANUAL PRINT DRIERS	15	8
044 SHUT-DOWN MANUAL PRINT WASHERS	15	6
045 TURN ON MANUAL PRINT DRIERS	15	8
046 TURN ON MANUAL PRINT WASHERS	15	6
DUTY S:		
S5 CLEAN AERIAL FILM USING TACKY ROLLER CLEANERS	10	6
S10 EVALUATE PROCESSED FILM DENSITY FOR PROPER EXPOSURE AND PROCESSING	27	13
S12 INSPECT PROCESSED FILM PROCESSING DEFECTS	32	9
S13 PACKAGE CLASSIFIED WASTE FOR DISPOSAL	10	3
S14 PLACE IDENTIFICATION LABELS ON FILM REELS OR FILM CANS	13	6
S16 SPLICE HEAD AND TAIL FRISKETS OR LEADERS ONTO ORIGINAL FILM	10	6
S17 TRANSPORT COMPLETED MATERIALS TO OPERATIONS OR SHIPPING	10	3

TABLE 20 (CONTINUED)

TASKS NOT LISTED IN STS 233X1 BUT PERFORMED BY TEN PERCENT  
OR MORE OF DAFSC 233X1/71 PERSONNEL

TASKS BY DUTY	PERCENT PERFORMING	
	DAFSC 23331	DAFSC 23371
DUTY T:		
T6 CERTIFY TITLERS FOR INFORMATION CONTENT, LEGIBILITY, AND POSITIONING	20	13
DUTY W:		
W1 ADD CHEMICALS TO MIX TANKS	70	40
W9 CHANGE CHEMICAL MIXING WATER AND CHEMICAL FILTERS	35	26
W11 CLEAN AND RINSE CHEMICAL MIXING EQUIPMENT	65	35
W16 DETERMINE RESIDUAL THIOSULFATE CONTENT OF FILM	25	21
W19 DILUTE MIXED CHEMICALS TO VOLUME	67	34
W20 DISPOSE OF EMPTY CHEMICAL CONTAINERS	65	34
W23 FILL CHEMICAL MIX TANKS WITH WATER AT MIX TEMPERATURE	63	34
W28 MIX BUFFER SOLUTIONS	38	29
W29 MIX PACKAGED CHEMICALS FOR CHEMICAL MIX AND CHEMICAL ANALYSIS	60	37
W30 MONITOR AND CORRELATE OUTPUT OF SENSITOMETERS	40	32
W39 PERFORM CORROSION CONTROL ON MIXING AND STORAGE EQUIPMENT	40	19

## CONCLUSIONS

The career ladder structure analysis clearly indicates that BW and color film processing and printing functions are distinct from photoprocessing quality control functions. However, 38 percent of the incumbents performing photoprocessing quality control tasks and duties are AFS 233X0 personnel. Because of the large numbers of DAFSC 23350/70 personnel in relation to those few DAFSC 233X0 respondents who are performing these photoprocessing quality control functions, the overall DAFSC 233X0 job descriptions do not reflect quality control tasks and duties as significant. Survey data, therefore, make it clear that these quality control functions need to be reevaluated to determine who in the total ladder structure should perform these functions.

The AFM 39-1 job descriptions for AFS 233X0 and AFS 233X1 specialty descriptions both require revision to accurately reflect all the tasks performed by the respective job incumbents.

The Specialty Training Standards for both AFS 233X0 and AFS 233X1 career ladders require review and revision to include those tasks being performed by incumbents but currently not specified in the respective STSs.

APPENDIX A

GROUP ID NUMBER AND TITLE: GRP150 - FIXED B/W CONTINUOUS PHOTOPROCESS AND  
SELECT PRINT SPECIALIST

PERCENT OF SAMPLE: 3%

MAJOR COMMAND DISTRIBUTION: TAC (50%), PACAF (45%), OTHER (5%)

LOCATION: CONUS (50%)

SEX GROUP: MALE (91%), FEMALE (9%)

DAFSC DISTRIBUTION: 23350 (90%), 23370 (5%), 23331 (5%)

AVERAGE GRADE: 4.14

AMOUNT OF SUPERVISION: 18% SUPERVISE AN AVERAGE OF 2.25 AMN

AVERAGE NUMBER OF TASKS PERFORMED: 101

TIME SPENT ON DUTIES:

<u>DUTY</u>	<u>AVERAGE PERCENT TIME SPENT BY ALL MEMBERS</u>
I PROCESSING BLACK AND WHITE MATERIALS BY CONTINUOUS METHODS	39
O EXPOSING, PROCESSING, AND FINISHING BW PRINTS MANUALLY	29
M PROCESSING BLACK AND WHITE FILM MANUALLY	8
K PRINTING BLACK AND WHITE MATERIALS BY CONTINUOUS METHODS	4

FIVE REPRESENTATIVE TASKS:

<u>TASKS</u>	<u>PERCENT MEMBERS PERFORMING</u>
I6 CLEAN BW PROCESSING ROOMS	100
O6 COMPOSE AND FOCUS BW PRINTS USING PROJECTION PRINTERS	100
I63 WIPE DOWN BW PROCESSORS	93
O22 INSPECT, TRIM, OR SORT BW PRINTS ACCORDING TO ORDERS	86
M10 SORT MANUALLY PROCESSED BW FILM TO MATCH WORK ORDERS	68

GROUP ID NUMBER AND TITLE: GRP157 - MOBILE ORIGINAL PHOTOPROCESS AND  
PRINT SPECIALIST

PERCENT OF SAMPLE: 7%

MAJOR COMMAND DISTRIBUTION: TAC (73%), PACAF (13%), USAF (11%), OTHER (3%)

LOCATION: CONUS (73%)

SEX GROUP: MALE (96%), FEMALE (4%)

DAFSC DISTRIBUTION: 23330 (18%), 23350 (80%), 23370 (2%)

AVERAGE GRADE: 3.73

AMOUNT OF SUPERVISION: 22% SUPERVISE AN AVERAGE OF 3.9 AMN

AVERAGE NUMBER OF TASKS PERFORMED: 164

TIME SPENT ON DUTIES:

<u>DUTY</u>	<u>AVERAGE PERCENT TIME SPENT BY ALL MEMBERS</u>
I PROCESSING BLACK AND WHITE MATERIALS BY CONTINUOUS METHODS	30
G MAINTAINING RELOCATABLE PHOTOGRAPHIC FACILITIES	22
O EXPOSING, PROCESSING, AND FINISHING BW PRINTS MANUALLY	17
T TITLING PROCESSED IMAGERY	8
K PRINTING BLACK AND WHITE MATERIALS BY CONTINUOUS METHODS	8

FIVE REPRESENTATIVE TASKS:

<u>TASKS</u>	<u>PERCENT MEMBERS PERFORMING</u>
I60 TURN ON BW PROCESSOR MAIN DRIVE	100
G15 LEVEL SHELTERS	96
O21 INSERT BW NEGATIVES IN MANUAL PROJECTION PRINTERS	91
K23 THREAD BW MATERIALS ON CONTINUOUS PRINTERS	89
T15 SET UP TITLE TYPE BLOCKS	82

GROUP ID NUMBER AND TITLE: GRP180 - WING CONTINUOUS PHOTOPROCESSOR AND  
RELOCATABLE FACILITY MAINTAINER

PERCENT OF SAMPLE: 1%

MAJOR COMMAND DISTRIBUTION: PACAF (62%), TAC (38%)

LOCATION: OSEAS (63%)

SEX GROUP: MALE (100%), FEMALE (0%)

DAFSC DISTRIBUTION: 23330 (12%), 23350 (76%), 23370 (12%)

AVERAGE GRADE: 4.63

AMOUNT OF SUPERVISION: 38% SUPERVISE AN AVERAGE OF 1 AMN

AVERAGE NUMBER OF TASKS PERFORMED: 180

TIME SPENT ON DUTIES:

<u>DUTY</u>	<u>AVERAGE PERCENT TIME SPENT BY ALL MEMBERS</u>
I PROCESSING BLACK AND WHITE MATERIALS BY CONTINUOUS METHODS	26
J PROCESSING COLOR MATERIALS BY CONTINUOUS METHODS	23
G MAINTAINING RELOCATABLE PHOTOGRAPHIC FACILITIES	14
O EXPOSING, PROCESSING, AND FINISHING BW PRINTS MANUALLY	12
W PRODUCING CHEMICAL MIXES AND PERFORMING CHEMICAL ANALYSIS	6

FIVE REPRESENTATIVE TASKS:

<u>TASKS</u>	<u>PERCENT MEMBERS PERFORMING</u>
I60 TURN ON BW PROCESSOR MAIN DRIVE	100
O39 SELECT CONDENSER LENSES FOR PROJECTION PRINTERS	100
G11 FOLD OR UNFOLD SHELTERS	88
J73 TURN ON COLOR PROCESSOR MAIN DRIVE	88
G20 PERFORM SHELTER CORROSION CONTROL PROCEDURES	75

GROUP ID NUMBER AND TITLE: GRP128 - FIXED DUPLICATE PRINTER, EDITOR, AND TITLER

PERCENT OF SAMPLE: 2%

MAJOR COMMAND DISTRIBUTION: TAC (38%), AFSC (31%), USAFE (13%), MAC (6%),  
AFCS (6%), PACAF (6%)

LOCATION: CONUS (69%)

SEX GROUP: MALE (87%), FEMALE (13%)

DAFSC DISTRIBUTION: 23350 (81%), 23370 (13%), 23371 (6%)

AVERAGE GRADE: 4.38

AMOUNT OF SUPERVISION: 38% SUPERVISE AN AVERAGE OF 2.33 AMN

AVERAGE NUMBER OF TASKS PERFORMED: 107

TIME SPENT ON DUTIES:

<u>DUTY</u>	<u>AVERAGE PERCENT TIME SPENT BY ALL MEMBERS</u>
I PROCESSING BLACK AND WHITE MATERIALS BY CONTINUOUS METHODS	48
K PRINTING BLACK AND WHITE MATERIALS BY CONTINUOUS METHODS	15
S EDITING AND CLEANING PROCESSED IMAGERY	6
T TITLING PROCESSED IMAGERY	6
B DIRECTING AND IMPLEMENTING	5
W PRODUCING CHEMICAL MIXES AND PERFORMING CHEMICAL ANALYSIS	4

SIX REPRESENTATIVE TASKS:

<u>TASKS</u>	<u>PERCENT MEMBERS PERFORMING</u>
I41 SET OR MAINTAIN BW PROCESSOR DRYER TEMPERATURE AND HUMIDITY	100
K13 PRINT BW DUPLICATES USING CONTINUOUS PRINTERS	75
S5 CLEAN AERIAL FILM USING TACKY ROLLER CLEANERS	69
S12 INSPECT PROCESSED FILM PROCESSING DEFECTS	69
T2 ADJUST TITLER BRACKETS AND SPINDLES FOR FILM WIDTHS	44
T23 TURN ON MAIN POWER TO TITLERS	44

GROUP ID NUMBER AND TITLE: GRP129 - CONTINUOUS B/W PHOTOPROCESSING SPECIALIST

PERCENT OF SAMPLE: 17%

MAJOR COMMAND DISTRIBUTION: TAC (60%), USAFE (23%), PACAF (7%), OTHER (10%)

LOCATION: CONUS (68%)

SEX GROUP: MALE (94%), FEMALE (6%)

DAFSC DISTRIBUTION: 23330 (17%), 23350 (74%), 23370 (9%)

AVERAGE GRADE: 3.9

AMOUNT OF SUPERVISION: 25% SUPERVISE AN AVERAGE OF 2.69 AMN

AVERAGE NUMBER OF TASKS PERFORMED: 67

TIME SPENT ON DUTIES:

<u>DUTY</u>	<u>AVERAGE PERCENT TIME SPENT BY ALL MEMBERS</u>
I PROCESSING BLACK AND WHITE MATERIALS BY CONTINUOUS METHODS	68
G MAINTAINING RELOCATABLE PHOTOGRAPHIC FACILITIES	18
B DIRECTING AND IMPLEMENTING	5

FIVE REPRESENTATIVE TASKS:

<u>TASKS</u>	<u>PERCENT MEMBERS PERFORMING</u>
I63 WIPE DOWN BW PROCESSORS	98
I50 TURN OFF BW PROCESSOR DRYERS	97
I52 TURN OFF BW PROCESSOR MAIN DRIVES	97
I60 TURN ON BW PROCESSOR MAIN DRIVE	97
I62 TURN ON WATER SUPPLY FOR BW PROCESSORS	96

GROUP ID NUMBER AND TITLE: GRP087 - TAC GUN CAMERA PHOTOPROCESSING SPECIALIST

PERCENT OF SAMPLE: 1%

MAJOR COMMAND DISTRIBUTION: TAC (100%)

LOCATION: CONUS (100%)

SEX GROUP: MALE (80%), FEMALE (20%)

DAFSC DISTRIBUTION: 23350 (100%)

AVERAGE GRADE: 4

AMOUNT OF SUPERVISION: NONE

AVERAGE NUMBER OF TASKS PERFORMED: 47

TIME SPENT ON DUTIES:

DUTY

AVERAGE PERCENT TIME  
SPENT BY ALL MEMBERS

I PROCESSING BLACK AND WHITE MATERIALS BY CONTINUOUS METHODS	53
U PERFORMING SENSITOMETRY AND DENSITOMETRY TESTS	14
P MAINTAINING QUALITY CONTROL	8
W PRODUCING CHEMICAL MIXES AND PERFORMING CHEMICAL ANALYSIS	8

FIVE REPRESENTATIVE TASKS:

TASKS

PERCENT MEMBERS  
PERFORMING

I19 INSPECT, CLEAN OR LOAD BW FILM MAGAZINES	100
I59 TURN ON BW PROCESSOR MAIN POWER	80
P8 DETERMINE EXHAUSTION POINT OF CHEMISTRY	80
P17 OPERATE SENSITOMETERS	80
U30 READ DENSITIES OF SENSITOMETRIC STRIPS	80

GROUP ID NUMBER AND TITLE: GRP120 - CONTINUOUS B/W AND COLOR PHOTOPROCESSING  
TECHNICIAN

PERCENT OF SAMPLE: 4%

MAJOR COMMAND DISTRIBUTION: TAC (40%), MAC (20%), AFSC (13%), ATC (10%),  
HQ COMM SPEC ACTY (10%), OTHER (6%)

LOCATION: CONUS (77%)

SEX GROUP: MALE (100%)

DAFSC DISTRIBUTION: 23330 (3%), 23350 (40%), 23370 (17%), 23331 (17%),  
23371 (23%)

AVERAGE GRADE: 5.1

AMOUNT OF SUPERVISION: 33% SUPERVISE AN AVERAGE OF 4 AMN

AVERAGE NUMBER OF TASKS PERFORMED: 276

TIME SPENT ON DUTIES:

<u>DUTY</u>	<u>AVERAGE PERCENT TIME SPENT BY ALL MEMBERS</u>
J PROCESSING COLOR MATERIALS BY CONTINUOUS METHODS	21
I PROCESSING BLACK AND WHITE MATERIALS BY CONTINUOUS METHODS	18
W PRODUCING CHEMICAL MIXES AND PERFORMING CHEMICAL ANALYSIS	12
U PERFORMING SENSITOMETRY AND DENSITOMETRY TESTS	7
B DIRECTING AND IMPLEMENTING	7
P MAINTAINING QUALITY CONTROL	5
O EXPOSING, PROCESSING, AND FINISHING BW PRINTS MANUALLY	4
K PRINTING BLACK AND WHITE MATERIALS BY CONTINUOUS METHODS	3

SIX REPRESENTATIVE TASKS:

<u>TASKS</u>	<u>PERCENT MEMBERS PERFORMING</u>
P16 OPERATE DENSITOMETERS	93
I17 ESTABLISH OR VERIFY BW FILM MACHINE SPEED	90
J27 OPERATE COLOR IMMERSION PROCESSORS	87
P10 DETERMINE SOLUTION PH USING PH METERS	87
J47 SET OR MAINTAIN COLOR PROCESSOR TRANSPORT SPEED	83
W29 MIX PACKAGED CHEMICALS FOR CHEMICAL MIX AND CHEMICAL ANALYSIS	83

GROUP ID NUMBER AND TITLE: GRP124 - B/W PHOTOPROCESS AND PRINT SUPERVISOR

PERCENT OF SAMPLE: 2%

MAJOR COMMAND DISTRIBUTION: TAC (44%), ATC (21%), PACAF (21%), SAC (7%),  
AFSC (7%)

LOCATION: CONUS (79%)

SEX GROUP: MALE (93%), FEMALE (7%)

DAFSC DISTRIBUTION: 23350 (36%), 23370 (50%), 23371 (7%), 23391 (7%)

AVERAGE GRADE: 5.6

AMOUNT OF SUPERVISION: 79% SUPERVISE AN AVERAGE OF 2.73 AMN

AVERAGE NUMBER OF TASKS PERFORMED: 213

TIME SPENT ON DUTIES:

DUTY

AVERAGE PERCENT TIME  
SPENT BY ALL MEMBERS

I PROCESSING BLACK AND WHITE MATERIALS BY CONTINUOUS METHODS	22
O EXPOSING, PROCESSING, AND FINISHING BW PRINTS MANUALLY	12
B DIRECTING AND IMPLEMENTING	12
W PRODUCING CHEMICAL MIXES AND PERFORMING CHEMICAL ANALYSIS	6
K PRINTING BLACK AND WHITE MATERIALS BY CONTINUOUS METHODS	6
U PERFORMING SENSITOMETRY AND DENSITOMETRY TESTS	6
D TRAINING	6
P MAINTAINING QUALITY CONTROL	4
A ORGANIZING AND PLANNING	4
C EVALUATING	3

FIVE REPRESENTATIVE TASKS:

TASKS

PERCENT MEMBERS  
PERFORMING

I26 MONITOR QUALITY OF PROCESSED BW MATERIAL AT PROCESSORS TAKE-UP	100
C9 EVALUATE PERSONNEL PERFORMANCE	93
D8 DEMONSTRATE OPERATION OF EQUIPMENT	93
B1 ASSIGN DUTIES TO PERSONNEL	86
B54 SUPERVISE CONTINUOUS PHOTOPROCESSING SPECIALISTS (AFSC 23350)	72

GROUP ID NUMBER AND TITLE: GRP044 - PRECISION TITLER AND CONTINUOUS PRINTER

PERCENT OF SAMPLE: 2%

MAJOR COMMAND DISTRIBUTION: PACAF (40%), SAC (20%), AFSC (13%), TAC (13%),  
OTHER (14%)

LOCATION: CONUS (47%), OSEAS (40%), NR (13%)

SEX GROUP: MALE (94%), FEMALE (6%)

DAFSC DISTRIBUTION: 23330 (14%), 23350 (60%), 23370 (26%)

AVERAGE GRADE: 4.7

AMOUNT OF SUPERVISION: 27% SUPERVISE AN AVERAGE OF 4.75 AMN

AVERAGE NUMBER OF TASKS PERFORMED: 67

TIME SPENT ON DUTIES:

<u>DUTY</u>	<u>AVERAGE PERCENT TIME SPENT BY ALL MEMBERS</u>
T TITLING PROCESSED IMAGERY	30
K PRINTING BLACK AND WHITE MATERIALS BY CONTINUOUS METHODS	24
S EDITING AND CLEANING PROCESSED IMAGERY	11
B DIRECTING AND IMPLEMENTING	6
J PROCESSING COLOR MATERIALS BY CONTINUOUS METHODS	6
X CONTROLLING CLEAN ROOM AND ENVIRONMENT	6

FIVE REPRESENTATIVE TASKS:

<u>TASKS</u>	<u>PERCENT MEMBERS PERFORMING</u>
T15 SET UP TITLE TYPE BLOCKS	100
T16 TEST TITLER OPERATION	100
K23 THREAD BW MATERIALS ON CONTINUOUS PRINTERS	83
X4 CLEAN AIR SHOWERS	60
X2 CHANGE INTO STREET CLOTHES UPON LEAVING CLEAN ROOM	54

GROUP ID NUMBER AND TITLE: GRP114 - SELECT, MANUAL, AND CONTINUOUS PRINT SPECIALISTS

PERCENT OF SAMPLE: 6%

MAJOR COMMAND DISTRIBUTION: USAFE (50%), TAC (41%), OTHER (9%)

LOCATION: OSEAS (57%)

SEX GROUP: MALE (86%), FEMALE (14%)

DAFSC DISTRIBUTION: 23330 (9%), 23350 (82%), 23370 (9%)

AVERAGE GRADE: 3.93

AMOUNT OF SUPERVISION: 27% SUPERVISE AN AVERAGE OF 4.42 AMN

AVERAGE NUMBER OF TASKS PERFORMED: 94

TIME SPENT ON DUTIES:

<u>DUTY</u>	<u>AVERAGE PERCENT TIME SPENT BY ALL MEMBERS</u>
O EXPOSING, PROCESSING, AND FINISHING BW PRINTS MANUALLY	34
K PRINTING BLACK AND WHITE MATERIALS BY CONTINUOUS METHODS	17
G MAINTAINING RELOCATABLE PHOTOGRAPHIC FACILITIES	16
T TITLING PROCESSED IMAGERY	16

FIVE REPRESENTATIVE TASKS:

<u>TASKS</u>	<u>PERCENT MEMBERS PERFORMING</u>
06 COMPOSE AND FOCUS BW PRINTS USING PROJECTION PRINTERS	100
041 SELECT LENSES FOR BW PROJECTION PRINTERS	100
022 INSPECT, TRIM, OR SORT BW PRINTS ACCORDING TO ORDERS	91
K27 TURN ON BW CONTINUOUS PRINTERS	84
K23 THREAD BW MATERIALS ON CONTINUOUS PRINTERS	81

GROUP ID NUMBER AND TITLE: GRP125 - MANUAL SELECT PRINT SPECIALIST

PERCENT OF SAMPLE: 3%

MAJOR COMMAND DISTRIBUTION: TAC (73%), USAFE (11%), AFSC (11%), PACAF (5%)

LOCATION: CONUS (84%)

SEX GROUP: MALE (89%), FEMALE (11%)

DAFSC DISTRIBUTION: 23330 (11%), 23350 (84%), 23370 (5%)

AVERAGE GRADE: 3.74

AMOUNT OF SUPERVISION: 16% SUPERVISE AN AVERAGE OF 4.67 AMN

AVERAGE NUMBER OF TASKS PERFORMED: 47

TIME SPENT ON DUTIES:

<u>DUTY</u>	<u>AVERAGE PERCENT TIME SPENT BY ALL MEMBERS</u>
O EXPOSING, PROCESSING, AND FINISHING BW PRINTS MANUALLY	74
M PROCESSING BLACK AND WHITE FILM MANUALLY	8
G MAINTAINING RELOCATABLE PHOTOGRAPHIC FACILITIES	5

FIVE REPRESENTATIVE TASKS:

<u>TASKS</u>	<u>PERCENT MEMBERS PERFORMING</u>
021 INSERT BW NEGATIVES IN MANUAL PROJECTION PRINTERS	100
022 INSPECT, TRIM, OR SORT BW PRINTS ACCORDING TO ORDERS	100
042 SELECT SENSITIZED MATERIALS FOR MANUAL BW PRINTING	100
M4 DRY MANUALLY PROCESSED BW FILM	47
M12 WASH BW FILM MANUALLY	47

GROUP ID NUMBER AND TITLE: GRP083 - PHOTOPROCESSING CONTROL ANALYSTS

PERCENT OF SAMPLE: 7%

MAJOR COMMAND DISTRIBUTION: TAC (52%), USAFE (28%), AFSC (6%)

LOCATION: CONUS (68%),

SEX GROUP: MALE (98%), FEMALE (2%)

DAFSC DISTRIBUTION: 23350 (26%), 23331 (44%), 23371 (30%)

AVERAGE GRADE: 4.7

AMOUNT OF SUPERVISION: 36% SUPERVISE AN AVERAGE OF 2 AMN

AVERAGE NUMBER OF TASKS PERFORMED: 121

TIME SPENT ON DUTIES:

<u>DUTY</u>	<u>AVERAGE PERCENT TIME SPENT BY ALL MEMBERS</u>
U PERFORMING SENSITOMETRY AND DENSITOMETRY TESTS	22
W PRODUCING CHEMICAL MIXES AND PERFORMING CHEMICAL ANALYSIS	21
P MAINTAINING QUALITY CONTROL	13
G MAINTAINING RELOCATABLE PHOTOGRAPHIC FACILITIES	12
I PROCESSING BLACK AND WHITE MATERIALS BY CONTINUOUS METHODS	11

EIGHT REPRESENTATIVE TASKS:

<u>TASKS</u>	<u>PERCENT MEMBERS PERFORMING</u>
W1 ADD CHEMICALS TO MIX TANKS	84
U20 EVALUATE SENSITOMETRIC STRIPS FOR EXPOSURES	78
U2 ANALYZE PROCESS CONTROL CHARTS FOR TRENDS TO DETERMINE CORRECTIVE ACTION	76
U19 ESTABLISH PROCESS CONTROL AIM POINTS AND CONTROL LIMITS	76
U18 DETERMINE SENSITOMETRIC PRINTING EXPOSURE REQUIREMENTS	68
P19 PERFORM SENSITOMETRIC CORRELATIONS	68
W2 ANALYZE CONTROL CHARTS ON CHEMICAL ANALYSIS	58
W3 CALCULATE CORRECTIVE ADDITIONS TO CHEMISTRY	58

GROUP ID NUMBER AND TITLE: GRP100 - PHOTOPROCESSING CONTROL MEASUREMENT  
- SPECIALIST

PERCENT OF SAMPLE: 1%

MAJOR COMMAND DISTRIBUTION: TAC (100%)

LOCATION: CONUS (100%)

SEX GROUP: MALE (89%), FEMALE (11%)

DAFSC DISTRIBUTION: 23330 (11%), 23350 (56%), 23331 (22%), 23371 (11%)

AVERAGE GRADE: 4.4

AMOUNT OF SUPERVISION: 25% SUPERVISE AN AVERAGE OF 3 AMN

AVERAGE NUMBER OF TASKS PERFORMED: 49

TIME SPENT ON DUTIES:

<u>DUTY</u>	<u>AVERAGE PERCENT TIME SPENT BY ALL MEMBERS</u>
U PERFORMING SENSITOMETRY AND DENSITOMETRY TESTS	34
P MAINTAINING QUALITY CONTROL	22
W PRODUCING CHEMICAL MIXES AND PERFORMING CHEMICAL ANALYSIS	8

SEVEN REPRESENTATIVE TASKS:

<u>TASKS</u>	<u>PERCENT MEMBERS PERFORMING</u>
P11 DETERMINE SPECIFIC GRAVITY OF SOLUTIONS	100
W26 MAKE PH READINGS	100
P12 ESTABLISH OR MAINTAIN TONE CONTROL CHARTS	79
U8 CONSTRUCT MACHINE SPEED-GAMMA CHARTS	79
U25 PLOT DATA FROM SENSITOMETRIC STRIPS	79
P6 CONSTRUCT AND MAINTAIN CHEMICAL CONTROL CHARTS	67
U26 PLOT DATA ON PROCESS CONTROL CHARTS	67

GROUP ID NUMBER AND TITLE: GRP076 - PRECISION PHOTOPROCESSING CONTROL ANALYST

PERCENT OF SAMPLE: 2%

MAJOR COMMAND DISTRIBUTION: PACAF (46%), SAC (18%), HQ USAF (18%), MAC (9%),  
HQ COMD SPECIAL ACTIVITY

LOCATION: CONUS (55%)

SEX GROUP: MALE (100%)

DAFSC DISTRIBUTION: 23350 (18%), 23370 (18%), 23331 (27%), 23371 (36%)

AVERAGE GRADE: 5.5

AMOUNT OF SUPERVISION: 36% SUPERVISE AN AVERAGE OF 4 AMN

AVERAGE NUMBER OF TASKS PERFORMED:  
TIME SPENT ON DUTIES:

<u>DUTY</u>	<u>AVERAGE PERCENT TIME SPENT BY ALL MEMBERS</u>
U PERFORMING SENSITOMETRY AND DENSITOMETRY TESTS	44
P MAINTAINING QUALITY CONTROL	17
B DIRECTING AND IMPLEMENTING	11
I PROCESSING BLACK AND WHITE MATERIALS BY CONTINUOUS METHODS	5
X CONTROLLING CLEAN ROOM AND ENVIRONMENT	5
V PERFORMING IMAGE EVALUATION	3

SIX REPRESENTATIVE TASKS:

<u>TASKS</u>	<u>PERCENT MEMBERS PERFORMING</u>
U2 ANALYZE PROCESS CONTROL CHARTS FOR TRENDS TO DETERMINE CORRECTIVE ACTION	100
U4 COMPARE RESULTS FOR CROSS-OVER TESTS TO DETERMINE NEW STANDARDS	100
X1 CHANGE INTO CLEAN ROOM CLOTHING BEFORE ENTERING CLEAN ROOM	91
U28 PRINT SENSITOMETRIC STRIPS FOR EMULSION CROSSOVER TESTS	82
P18 PERFORM PRINTER CORRELATIONS	64
V14 MAKE MICROSCOPIC GRANULARITY EVALUATIONS	55

GROUP ID NUMBER AND TITLE: GRP047 - FIXED FACILITY CHEMICAL SPECIALISTS

PERCENT OF SAMPLE: 3%

MAJOR COMMAND DISTRIBUTION: MAC (36%), PACAF (23%), HQ USAF (18%),  
HQ COMD SPECIALTY ACTIVITY (14%)

LOCATION: CONUS (77%)

SEX GROUP: MALE (100%)

DAFSC DISTRIBUTION: 23350 (64%), 23370 (9%), 23331 (4%), 23371 (23%)

AVERAGE GRADE: 4.6

AMOUNT OF SUPERVISION: 27% SUPERVISE AN AVERAGE OF 2 AMN

AVERAGE NUMBER OF TASKS PERFORMED: 61

TIME SPENT ON DUTIES:

<u>DUTY</u>	<u>AVERAGE PERCENT TIME SPENT BY ALL MEMBERS</u>
W PRODUCING CHEMICAL MIXES AND PERFORMING CHEMICAL ANALYSIS	59
P MAINTAINING QUALITY CONTROL	12
B DIRECTING AND IMPLEMENTING	9
A ORGANIZING AND PLANNING	4

SIX REPRESENTATIVE TASKS:

<u>TASKS</u>	<u>PERCENT MEMBERS PERFORMING</u>
W1 ADD CHEMICALS TO MIX TANKS	95
P11 DETERMINE SPECIFIC GRAVITY OF SOLUTIONS	91
W23 FILL CHEMICAL MIX TANKS WITH WATER AT MIX TEMPERATURE	91
W56 TRANSFER CERTIFIED MIXED CHEMISTRY TO STORAGE TANKS	91
P10 DETERMINE SOLUTION PH USING PH METERS	86
W13 COMPUTE WEIGHTS OF CHEMICALS TO PREPARE REAGENTS OR SOLUTIONS	82

GROUP ID NUMBER AND TITLE: GRP031 - MANUAL COLOR PHOTOPROCESSING AND COLOR PRINT SPECIALIST

PERCENT OF SAMPLE: 3%

MAJOR COMMAND DISTRIBUTION: TAC (61%), SAC (16%), PACAF (11%), HQ USAF (6%), MAC (6%)

LOCATION: CONUS (84%)

SEX GROUP: MALE (94%), FEMALE (6%)

DAFSC DISTRIBUTION: 23350 (72%), 23370 (17%), 23331 (11%)

AVERAGE GRADE: 4.6

AMOUNT OF SUPERVISION: 28% SUPERVISE AN AVERAGE OF 3 AMN

AVERAGE NUMBER OF TASKS PERFORMED: 87

TIME SPENT ON DUTIES:

<u>DUTY</u>	<u>AVERAGE PERCENT TIME SPENT BY ALL MEMBERS</u>
R EXPOSING, PROCESSING, AND FINISHING COLOR PRINTS MANUALLY	27
N PROCESSING COLOR FILM MANUALLY	14
J PROCESSING COLOR MATERIALS BY CONTINUOUS METHODS	9
Q EXPOSING FILM	8
O EXPOSING, PROCESSING, AND FINISHING BW PRINTS MANUALLY	7
H OPERATING COPY CAMERAS	7

FIVE REPRESENTATIVE TASKS:

<u>TASKS</u>	<u>PERCENT MEMBERS PERFORMING</u>
N2 CONTROL COLOR FILM SOLUTION TEMPERATURE DURING MANUAL PROCESSING	100
N3 DRY MANUALLY PROCESSED COLOR FILMS	100
R2 COMPOSE, FOCUS, AND EXPOSE COLOR PRINTS	95
R17 PROCESS COLOR PRINTS MANUALLY	95
R10 FINISH MANUALLY PROCESSED COLOR PRINTS	90

GROUP ID NUMBER AND TITLE: GRP060 - CONTINUOUS COLOR PHOTOPROCESSING SPECIALIST

PERCENT OF SAMPLE: 7%

MAJOR COMMAND DISTRIBUTION: TAC (37%), MAC (27%), ATC (8%), PACAF (6%),  
OTHERS (22%)

LOCATION: CONUS (92%)

SEX GROUP: MALE (89%), FEMALE (11%)

DAFSC DISTRIBUTION: 23350 (84%), 23370 (16%)

AVERAGE GRADE: 4.2

AMOUNT OF SUPERVISION: 20% SUPERVISE AN AVERAGE OF 2 AMN

AVERAGE NUMBER OF TASKS PERFORMED: 88

TIME SPENT ON DUTIES:

<u>DUTY</u>	<u>AVERAGE PERCENT TIME SPENT BY ALL MEMBERS</u>
J PROCESSING COLOR MATERIALS BY CONTINUOUS METHODS	71
I PROCESSING BLACK AND WHITE MATERIALS BY CONTINUOUS METHODS	5
W PRODUCING CHEMICAL MIXES AND PERFORMING CHEMICAL ANALYSIS	5

FIVE REPRESENTATIVE TASKS:

<u>TASKS</u>	<u>PERCENT MEMBERS PERFORMING</u>
J73 TURN ON COLOR PROCESSOR MAIN DRIVE	100
J75 TURN ON COLOR PROCESSOR WATER SUPPLY	100
J69 TURN ON CHEMICAL REPLENISHMENT FOR COLOR PROCESSORS	98
J47 SET OR MAINTAIN COLOR PROCESSOR TRANSPORT SPEED	94
J72 TURN ON COLOR PROCESSOR DRYER HEATERS	90

GROUP ID NUMBER AND TITLE: GRP064 - FIXED FACILITY FILM PROCESSING SUPERVISOR

PERCENT OF SAMPLE: 8%

MAJOR COMMAND DISTRIBUTION: TAC (40%), USAFE (18%), PACAF (11%), SAC (9%),  
MAC (7%), HQ USAF (7%), OTHERS (8%)

LOCATION: CONUS (67%)

SEX GROUP: MALE (100%)

DAFSC DISTRIBUTION: 23350 (13%), 23370 (36%), 23331 (2%), 23371 (14%),  
23391 (35%)

AVERAGE GRADE: 7.0

AMOUNT OF SUPERVISION: 89% SUPERVISE AN AVERAGE OF 4 AMN

AVERAGE NUMBER OF TASKS PERFORMED: 58

TIME SPENT ON DUTIES:

<u>DUTY</u>	<u>AVERAGE PERCENT TIME SPENT BY ALL MEMBERS</u>
B DIRECTING AND IMPLEMENTING	42
A ORGANIZING AND PLANNING	19
C EVALUATING	14
D TRAINING	9

SIX REPRESENTATIVE TASKS:

<u>TASKS</u>	<u>PERCENT MEMBERS PERFORMING</u>
B5 COUNSEL SUBORDINATES ON PERSONAL PROBLEMS	96
C9 EVALUATE PERSONNEL PERFORMANCE	89
B3 CONDUCT INSPECTIONS OR SPOT CHECKS OF PHOTOGRAPHIC PRODUCTION METHODS	85
A26 PLAN WORK SCHEDULES OR PRIORITIES	76
A5 ESTABLISH PERFORMANCE STANDARDS	67
A1 CONSTRUCT ORGANIZATION OR FUNCTIONAL CHARTS	60

GROUP ID NUMBER AND TITLE: GRP081 - MOBILE FACILITY FILM PROCESSING SUPERVISOR

PERCENT OF SAMPLE: 2%

MAJOR COMMAND DISTRIBUTION: TAC (69%), USAFE (23%), MAC (8%)

LOCATION: CONUS (77%)

SEX GROUP: MALE (100%)

DAFSC DISTRIBUTION: 23350 (38%), 23370 (46%), 23371 (16%)

AVERAGE GRADE: 5.8

AMOUNT OF SUPERVISION: 92% SUPERVISE AN AVERAGE OF 5 AMN

AVERAGE NUMBER OF TASKS PERFORMED: 55

TIME SPENT ON DUTIES:

<u>DUTY</u>	<u>AVERAGE PERCENT TIME SPENT BY ALL MEMBERS</u>
B DIRECTING AND IMPLEMENTING	40
G MAINTAINING RELOCATABLE PHOTOGRAPHIC FACILITIES	18
D TRAINING	13
C EVALUATING	7
A ORGANIZING AND PLANNING	7

SIX REPRESENTATIVE TASKS:

<u>TASKS</u>	<u>PERCENT MEMBERS PERFORMING</u>
A25 PLAN WORK ASSIGNMENTS	85
B56 SUPERVISE FILM PROCESSING SECTIONS	85
B23 DIRECT PROCESSING MACHINE CREWS	77
G15 LEVEL SHELTERS	62
G21 POSITION SHELTERS ON SITE	62
G12 INSPECT SHELTERS AND PASSAGEWAYS FOR WEATHER AND LIGHT SEALS	58

GROUP ID NUMBER AND TITLE: GRP072 - FILM PROCESSING AND CONTROL INSTRUCTOR

PERCENT OF SAMPLE: 2%

MAJOR COMMAND DISTRIBUTION: USAFE (54%), TAC (23%), ATC (23%)

LOCATION: CONUS (77%)

SEX GROUP: MALE (100%)

DAFSC DISTRIBUTION: 23350 (15%), 23370 (31%), 23331 (8%), 23371 (46%)

AVERAGE GRADE: 5.8

AMOUNT OF SUPERVISION: 31% SUPERVISE AN AVERAGE OF 2 AMN

AVERAGE NUMBER OF TASKS PERFORMED: 40

TIME SPENT ON DUTIES:

<u>DUTY</u>	<u>AVERAGE PERCENT TIME SPENT BY ALL MEMBERS</u>
D TRAINING	49
B DIRECTING AND IMPLEMENTING	27
C EVALUATING	7

FIVE REPRESENTATIVE TASKS:

<u>TASKS</u>	<u>PERCENT MEMBERS PERFORMING</u>
D29 PREPARE TRAINING MATERIALS	92
D3 BRIEF PERSONNEL ON CHANGES IN METHODS OR PROCEDURES	85
D17 EVALUATE LESSON PLANS	85
D8 DEMONSTRATE OPERATION OF EQUIPMENT	77
D21 PERFORM AS CLASSROOM INSTRUCTOR	77

GROUP ID NUMBER AND TITLE: GRP050 - PRODUCTION CONTROL SPECIALIST

PERCENT OF SAMPLE: 1%

MAJOR COMMAND DISTRIBUTION: USAFE (30%), PACAF (30%), TAC (20%), SAC (10%),  
HQ USAF (10%)

LOCATION: OSEAS (60%)

SEX GROUP: MALE (80%), FEMALE (20%)

DAFSC DISTRIBUTION: 23350 (60%), 23370 (30%), 23371 (10%)

AVERAGE GRADE: 5.0

AMOUNT OF SUPERVISION: 30% SUPERVISE AN AVERAGE OF 3 AMN

AVERAGE NUMBER OF TASKS PERFORMED: 17

TIME SPENT ON DUTIES:

<u>DUTY</u>	<u>AVERAGE PERCENT TIME SPENT BY ALL MEMBERS</u>
F PERFORMING LABORATORY PRODUCTION CONTROL FUNCTIONS	52
B DIRECTING AND IMPLEMENTING	25
A ORGANIZING AND PLANNING	8

FIVE REPRESENTATIVE TASKS:

<u>TASKS</u>	<u>PERCENT MEMBERS PERFORMING</u>
F1 ASSIGN WORK ORDER PRIORITIES	100
F6 LOG IN WORK ORDERS OR COMPLETED WORK	100
F10 POST WORK ORDER STATUS BOARDS	80
B46 PREPARE WORK ORDER REQUESTS	70
F3 DETERMINE ADEQUACY OF WORK FLOW OR WORK ORDER STATUS FOR LABORATORIES	70

GROUP ID NUMBER AND TITLE: GRP040 - MOBILE FACILITY MONITOR

PERCENT OF SAMPLE: 2%

MAJOR COMMAND DISTRIBUTION: TAC (67%), USAFE (20%), ATC (7%), OTHER (6%)

LOCATION: CONUS (67%)

SEX GROUP: MALE (87%), FEMALE (13%)

DAFSC DISTRIBUTION: 23350 (93%), 23330 (7%)

AVERAGE GRADE: 4.2

AMOUNT OF SUPERVISION: 27% SUPERVISE AN AVERAGE OF 2.75 AMN

AVERAGE NUMBER OF TASKS PERFORMED: 37

TIME SPENT ON DUTIES:

DUTY

AVERAGE PERCENT TIME  
SPENT BY ALL MEMBERS

G MAINTAINING RELOCATABLE PHOTOGRAPHIC FACILITIES	60
F PERFORMING LABORATORY PRODUCTION CONTROL FUNCTIONS	13
B DIRECTING AND IMPLEMENTING	10

SIX REPRESENTATIVE TASKS:

TASKS

PERCENT MEMBERS  
PERFORMING

G5 CLEAN SHELTERS	100
G11 FOLD OR UNFOLD SHELTERS	100
G20 PERFORM SHELTER CORROSION CONTROL PROCEDURES	93
G35 PREPARE SHELTER PASSAGEWAYS FOR USE OR TRANSPORT	87
B46 PREPARE WORK ORDER REQUESTS	73
F12 PREPARE PRODUCTION REPORTS	47

GROUP ID NUMBER AND TITLE: GRP041 - MOTION PICTURE ASSEMBLER

PERCENT OF SAMPLE: 2%

MAJOR COMMAND DISTRIBUTION: MAC (64%), AFSC (18%), AFCS (9%), OTHER (9%)

LOCATION: CONUS (91%)

SEX GROUP: MALE (82%), FEMALE (18%)

DAFSC DISTRIBUTION: 23350 (82%), 23330 (9%), 23370 (9%)

AVERAGE GRADE: 3.91

AMOUNT OF SUPERVISION: 27% SUPERVISE AN AVERAGE OF 2 AMN

AVERAGE NUMBER OF TASKS PERFORMED: 23

TIME SPENT ON DUTIES:

<u>DUTY</u>	<u>AVERAGE PERCENT TIME SPENT BY ALL MEMBERS</u>
S EDITING AND CLEANING PROCESSED IMAGERY	59
B DIRECTING AND IMPLEMENTING	13
F PERFORMING LABORATORY PRODUCTION CONTROL FUNCTIONS	12

FIVE REPRESENTATIVE TASKS:

<u>TASKS</u>	<u>PERCENT MEMBERS PERFORMING</u>
S14 PLACE IDENTIFICATION LABELS ON FILM REELS OR FILM CANS	100
S17 TRANSPORT COMPLETED MATERIALS TO OPERATIONS OR SHIPPING	91
S6 CLEAN MOTION PICTURE MATERIALS USING PLUSH CLOTHS	82
S16 SPLICE HEAD AND TAIL FRISKETS OR LEADERS ONTO ORIGINAL FILM	55
S2 ASSEMBLE A AND B ROLLS	46

GROUP ID NUMBER AND TITLE: GRP161 - MAC MOTION PICTURE PRINT SPECIALIST

PERCENT OF SAMPLE: 1%

MAJOR COMMAND DISTRIBUTION: MAC (100%)

LOCATION: CONUS (100%)

SEX GROUP: MALE (83%), FEMALE (17%)

DAFSC DISTRIBUTION: 23350 (83%), 23370 (17%)

AVERAGE GRADE: 4.67

AMOUNT OF SUPERVISION: 17% SUPERVISE AN AVERAGE OF 6 AMN

AVERAGE NUMBER OF TASKS PERFORMED: 32

TIME SPENT ON DUTIES:

<u>DUTY</u>	<u>AVERAGE PERCENT TIME SPENT BY ALL MEMBERS</u>
L PRINTING COLOR MATERIALS BY CONTINUOUS METHODS	41
K PRINTING BLACK AND WHITE MATERIALS BY CONTINUOUS METHODS	25
B DIRECTING AND IMPLEMENTING	9
S EDITING AND CLEANING PROCESSED IMAGERY	6

SIX REPRESENTATIVE TASKS:

<u>TASKS</u>	<u>PERCENT MEMBERS PERFORMING</u>
L14 PRINT COLOR DUPLICATES USING CONTINUOUS PRINTERS	100
L27 TURN ON COLOR CONTINUOUS PRINTERS	100
S7 CLEAN MOTION PICTURE MATERIALS USING ULTRASONIC CLEANERS	100
K13 PRINT BW DUPLICATES USING CONTINUOUS PRINTERS	83
K12 PERFORM BW A AND B ROLL FILM PRINTING FUNCTIONS	67
L15 PRINT COLOR TO BW USING CONTINUOUS PRINTERS	50