AD-A078 698 AIR FORCE OCCUPATIONAL MEASUREMENT CENTER RANDOLPH AFB TX F/G 5/9
TELEVISION EQUIPMENT REPAIR CAREER LADDER, AFSCS 30535, 30455, --ETC(U)
OCT 79

UNCLASSIFIED NL

1 OF 2
AD
A078698

AD A078698

OCCUPATIONAL SURVEY REPORT

LEVEL II

DDC FILE COPY

TELEVISION EQUIPMENT REPAIR CAREER LADDER

AFSCs 30535, 30455, 30475, 30496, AND
CEM CODE 3010C

AFPT 90-304-376

OCTOBER 1979

OCCUPATIONAL SURVEY BRANCH
USAF OCCUPATIONAL MEASUREMENT CENTER
RANDOLPH AFB TEXAS 78148

DDC
RECEIVED
DEC 26 1979
D

APPROVED FOR PUBLIC RELEASE; DISTRIBUTION UNLIMITED

79 12 10 075
408 889

TABLE OF CONTENTS

	PAGE NUMBER
PREFACE	iii
SUMMARY OF RESULTS	iv
INTRODUCTION	1
SURVEY METHODOLOGY	2
CAREER LADDER STRUCTURE	7
ANALYSIS OF DAFSC GROUPS	24
ANALYSIS OF TASK DIFFICULTY	32
COMPARISON OF AFR 39-1 SPECIALTY DESCRIPTIONS TO SURVEY DATA	37
ANALYSIS OF CONUS VERSUS OVERSEAS GROUPS	38
ANALYSIS OF MAJCOM DIFFERENCES	41
ANALYSIS OF AFMS GROUPS	43
TRAINING ANALYSIS	50
COMPARISON OF CURRENT SURVEY TO THE 1975 SURVEY	55
DISCUSSION	56
APPENDIX A	57
APPENDIX B	58
APPENDIX C	59
APPENDIX D	60
APPENDIX E	61

PREFACE

This report presents the results of a detailed Air Force Occupational Survey of the Television Equipment Repair career ladder (AFSCs 30435, 30455, 30475, 30496, and CEM Code 30100). This project was directed by USAF Program Technical Training, Volume 2, dated February 1978. The authority for conducting occupational surveys is contained in AFR 35-2. Computer printouts from which this report was produced are available for use by operating and training officials.

This survey instrument was developed by CMSgt Ted R. Wilcox, Inventory Development Specialist. Major Frank C. Gentner analyzed the survey data and wrote the final report. This report has been reviewed and approved by Lieutenant Colonel Jimmy L. Mitchell, Chief, Airman Career Ladders Analysis Section, Occupational Survey Branch, USAF Occupational Measurement Center, Randolph AFB, Texas, 78148.

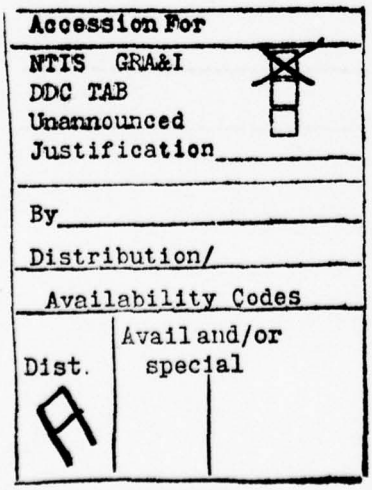
Computer programs for analyzing the occupational data were designed by Dr. Raymond E. Christal, Manpower and Personnel Division, Air Force Human Resources Laboratory (AFHRL), and were written by the Computer and Programming Branch, Technical Services Division, AFHRL.

Copies of this report are available to air staff sections, major commands, and other interested training and management personnel upon request to the USAF Occupational Measurement Center, attention of the Chief, Occupational Survey Branch (OMY), Randolph AFB, Texas 78148.

This report has been reviewed and is approved.

BILLY C. McMASTER, Col, USAF
Commander
USAF Occupational Measurement Center

WALTER E. DRISKILL, Ph.D.
Chief, Occupational Survey Branch
USAF Occupational Measurement Center



SUMMARY OF RESULTS

1. Survey Methodology: The Television Equipment Repair career ladder job inventory was administered during the period December 1978 through May 1979. Survey results are based on responses from 522 incumbents, sampling 66 percent of assigned 304X5 personnel.

2. Career Ladder Structure: Seven distinct groupings were identified: TV Production Personnel, Closed Circuit Television (CCTV) Personnel, TV Production Equipment Maintenance Personnel, Videotape Recorder Maintenance Personnel; and supervisory, quality control, and training groups. Differences occurred based on whether members performed either CCTV repair or TV production equipment maintenance, and the amount of time spent on supervision. [cont'd on page 19]

3. Career Ladder Progression: Jobs performed by 3-, 5-, and 7-skill level personnel were technical in nature, with 7-skill level personnel spending only a third of their time on supervision-related tasks. Three-skill level personnel spent more time on TV production equipment maintenance. The 9-skill level and CEM code personnel were primarily managers.

4. AFMS Differences: The same trends noticed in skill level progression were found among successive AFMS groups. Career ladder jobs were primarily technical through the fourth enlistment group (AFMS = 145-192 months), with the fifth and successive enlistment groups being more management-oriented.

5. AFR 39-1 Review: Overall, AFR 39-1 specialty descriptions gave an accurate picture of the 304X5 career ladder. However, the descriptions could be updated by deleting outdated tasks and adding several new job functions.

6. Training Analysis: Training emphasis ratings collected from experienced NCOs indicated a perceived need to provide first-termers with more training on color television equipment. The STS review found that most STS paragraphs were well supported by survey data; however, the match between STS 304X5 and survey results indicated that some refinements to the STS could be made. The comparison of POI 3ABR30435 with survey data identified a number of unmatched tasks with high training emphasis or 30 percent or more members performing which can be considered for inclusion in basic courses. Computer products depicting the technical training school's match between both the STS and POI and survey data were furnished the school for a thorough subject matter specialist review.

7. Comparison to Previous Survey: Both this survey and the earlier 1975 survey identified the same major groups. However, a number of new jobs were found, and the nature of the previously identified jobs had changed because of the increased emphasis on color and other newer equipment.

8. Discussion: The TV Production Personnel job type should be examined to determine whether these personnel are being properly utilized. Also, training emphasis ratings indicate first-term airmen may need to be given increased training on color equipment.

OCCUPATIONAL SURVEY REPORT
TELEVISION EQUIPMENT REPAIR CAREER LADDER
(AFSCs 30435, 30455, 30475, 30496, AND CEM CODE 30100)

INTRODUCTION

The United States Air Force occupational survey program has been in existence since 1956 when initial research by the Air Force Human Resources Laboratory developed the methodology for conducting occupational surveys. By 1967, an operational survey program was established within Air Training Command which produced 12 enlisted career ladder surveys annually. In 1972, the occupational survey program was expanded to produce surveys covering 51 career ladders each year.

The Television Equipment Repair career ladder was originally established as the Ground Communications Equipment Repair (Light) career ladder (AFSC 304X2) in 1954. This career ladder was shredded into the 304X2A, Ground Communications Equipment Repair, L/M/H/DF and A/FM Equipment, and the 304X2B, Ground Communications Equipment Repair, V/UHF, DF, A/FM Equipment, in 1955. However, in 1959 the shreds were recombined into one AFSC. This specialty was redesignated 304X5, Television Equipment Repair in 1963, and has remained essentially unchanged since that time. When the 9-skill level was created in 1963, it was designated 30490, Ground Radio Communications Superintendent. In 1970, this skill level was redesignated 30495; in 1972, 30496; and in 1979, 30499--all named Ground Radio Communications Superintendent. In this study, Ground Radio Communications Superindendents will be referred to as AFSC 30496 personnel, since that was their designation while the job inventory was being administered in the field.

The results of the first study of the Televison Equipment Repair career ladder were published in Occupation Survey Report AFPT 90-304-144, dated July 1975. Also, an Occupational Survey Report of Electronic Principles used in the 304X5 career ladder was accomplished in September 1977 (AFPT 90-304-222). This report presented a detailed listing of electronic principles used by 30455 incumbents stationed at various locations and commands. Electronic concepts used by relatively high percentages of 30455 airmen included: mathematics, magnetism, power supplies, direct and alternating current and voltage, oscilloscopes, oscillators, multivibrators, multimeters, capacitors, resistors, inductors, filters, coupling, soldering, semiconductor diodes, transistors, amplifiers, solid-state special purpose devices, limiters and clampers, electron tubes, signal generators, meter movements, waveshaping circuits, transmission lines, cable fabrication, and decibel ratios. Detailed computer products were furnished to the technical training school for a closer examination of relevant electronic concepts to train in 304X5 courses.

APPROVED FOR PUBLIC RELEASE; DISTRIBUTION UNLIMITED

The present survey was requested by the technical training school at Lowry AFB, Colorado, to update the 1975 TV Equipment Repair career ladder task inventory and to determine changes in tasks performed by career ladder incumbents since the 1975 occupational survey. The results will be used to update the 304X5 Specialty Training Standard (STS) and refine technical training courses. Information gained from the survey will also be compared with AFR 39-1 specialty descriptions and furnished to AFMPC Classification personnel. Additionally, percent members performing and task factor data will be compared with training documents, and furnished to training managers.

SURVEY METHODOLOGY

Inventory Development

The data collection instrument for this occupational survey was USAF Job Inventory AFPT 90-304-376. The survey instrument from the 1975 study served as the basis for the new task inventory. The previous task list was updated and refined after thorough research of career ladder publications and directives, and after personal interviews with six subject-matter specialists at two representative bases. The final result was a task list consisting of 590 tasks grouped under 24 duty headings and a background section which included information about each respondent, such as grade, TAFMS, duty title, job interest, and the type of equipment worked on or used.

Survey Administration

During the period December 1978 through May 1979, consolidated base personnel offices in operational units worldwide administered the inventory booklets to personnel holding the Television Equipment Repair (304X5) DAFSCs. These personnel 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 completed the inventory first completed an identification and a biographical information section, then checked each task performed in their current job.

After checking all tasks performed, each respondent then rated each of these tasks on a nine-point scale showing relative time spent on that task from one (very-small-amount time spent) through five (about-average time spent) to nine (very-large-amount time spent). To determine relative time spent for each task checked by a respondent, all of a respondent's ratings are assumed to account for 100 percent of his or her time spent on the job and are summed. Each task rating is then divided by the total task responses and the quotient multiplied by 100. This procedure provides a basis for comparing tasks not only in terms of percent members performing, but also in terms of relative percent time spent.

Survey Sample

Personnel were selected to participate in this survey so as to insure proper representation across MAJCOM and DAFSC groups. Table 1 reflects the percentage distribution, by major command, of assigned personnel in the career ladder as of April 1979. Also listed in this table is the percent distribution, by major command, of respondents in the final survey sample.

TABLE 1

COMMAND REPRESENTATION OF SURVEY SAMPLE

COMMAND	PERCENT OF PERSONNEL ASSIGNED AS OF APR 79	PERCENT OF SAMPLE
AFCS	50%	52%
TAC	13%	10%
MAC	8%	6%
PACAF	6%	5%
USAFE	6%	5%
AFSC	5%	8%
ADCOM	4%	4%
ATC	3%	4%
HQ USAF	3%	1%
AAC	2%	1%
OTHER	-*	4%

* THROUGHOUT THIS REPORT, A DASH (-) SYMBOLIZES LESS THAN .5 PERCENT AND GREATER THAN ZERO.

Table 2 indicates the DAFSC distribution of the survey sample. The 410 3-, 5- and 7-skill level respondents making up this final sample represent 66 percent of the 619 personnel assigned to this career ladder Air Force-wide. Additionally, 108 respondents were sampled who held DAFSC 30496 and CEM Code 30100 (see footnote for Table 2).

TABLE 2

DAFSC DISTRIBUTION OF SURVEY SAMPLE

DAFSC	NUMBER ASSIGNED	NUMBER SAMPLED	PERCENT SAMPLED
30435	63	15	24%
30455	378	258	68%
30475	178	137	77%
TOTAL	619	410	66%
30496	*	92	*
CEM CODE 30100	*	16	*

* NINE-SKILL LEVEL PERSONNEL SUPERINTEND WORK IN SIX CAREER LADDERS, AND CEM PERSONNEL SUPERINTEND WORK IN 26 CAREER LADDERS; THEREFORE, SPECIFIC AUTHORIZATIONS ARE NOT AVAILABLE FOR EACH LADDER. OF THE 490 ASSIGNED 30496s, 92 WERE SAMPLED WHO INDICATED THEY SUPERVISED 304X5s. OF THE 273 ASSIGNED CEM CODE 30100s, 16 WERE SAMPLED WHO INDICATED THEY SUPERVISED 304X5 PERSONNEL.

Table 3 presents the total active federal military service (TAFMS) distribution of the survey sample. Although AFMPC manning technicians did not have comparative assignment figures for all AFMS groups, they did indicate that the Television Equipment Repair career ladder suffered shortages and overages at the different enlistment groups which roughly approximated those found in the survey sample, with exceptions at the second and sixth enlistments. While the percent of the survey sample in their second enlistment was 23 percent, the actual percent of personnel assigned to this career ladder was only 14 percent. Likewise, the percent of the survey sample of sixth enlistment personnel was 15 percent while the actual percentage assigned was only five percent. The latter discrepancy can be explained by the fact that the sixth enlistment group included a number of 30496 and 30100 who, although not assigned to the 304X5 career ladder, stated they supervised work in this ladder. Thus, with the exception of the overabundance of second enlistment personnel in the sample, the AFMS survey distribution appears to be representative, and accurately reflects career ladder manning fluctuations from enlistment group to enlistment group.

TABLE 3

TAFMS DISTRIBUTION OF SURVEY SAMPLE

MONTHS TIME IN SERVICE	1-48	49-96	97-144	145-192	193-240	241+
NUMBER IN FINAL SAMPLE	141	121	55	35	91	76
PERCENT OF SAMPLE	27%	23%	11%	7%	17%	15%

Task Factor Administration

In addition to completing a job inventory booklet, selected experienced 304X5 NCOs were also asked to complete a second booklet for either task difficulty or training emphasis. The task difficulty and training emphasis rating booklets were processed separately from the job inventories. These ratings may be used in several different analyses discussed in more detail within this report.

TASK DIFFICULTY. Each senior NCO completing a task difficulty booklet was asked to rate all tasks on a nine-point scale from extremely low to extremely high difficulty, with difficulty defined as the length of time it takes an average incumbent to learn to perform the task. Ratings were then adjusted so that tasks of average difficulty had a rating of 5.00 and a standard deviation of 1.00.

Task difficulty ratings were collected from 44 experienced NCOs stationed worldwide. The interrater reliability (as assessed through components of variance of standardized group means) of R_{kk}=.95 for these raters indicated considerable agreement among raters. Thus, the data are considered to be reliable and useable by normal reliability criteria. The resulting index was a rank ordering of tasks which indicates the relative degree of task difficulty for each task in the job inventory.

JOB DIFFICULTY INDEX. After computing the task difficulty index for each task item, it is then possible to compute a Job Difficulty Index (JDI) for each functional group identified in the career ladder structure. The JDI provides a measure of the relative difficulty of functional job groups, when compared to other groups. The JDI is computed using a statistically reliable formula which uses the number of tasks performed and the average task difficulty per unit time spent (ATDPUTS) as primary variables. The job difficulty index ranges from

one (for very easy jobs) to 25 (for very difficult jobs). The job difficulty index is adjusted so that the average JDI is 13.00. Thus, the more time members of a job group spend performing difficult tasks, and the more tasks members perform, the higher will be the group's JDI. (JDI ratings for career ladder functional groups are found in the ANALYSIS OF TASK DIFFICULTY section of this report.)

TRAINING EMPHASIS. Experienced NCOs who completed training emphasis booklets were asked to rate all tasks on a 10-point scale from no training required to extremely heavy training required. Training emphasis is a rank ordering of tasks based on the amount of emphasis which should be placed on structured training for first term airmen. Structured training is defined as training provided at resident technical training schools, field training detachments (FTD), mobile training teams (MTT), formal OJT, or any other organized training method.

Training emphasis ratings were independently collected from 32 experienced 304X5 NCOs stationed at various locations worldwide. The interrater reliability (as assessed through components of variance of group means) for these raters was R_{kk}=.92. This reliability measure indicates considerable agreement among raters as to which tasks required some form of structured training and which did not. In the 304X5 career ladder, the mean training emphasis rating was 2.70, and the standard deviation 2.85.

When used in conjunction with other factors, such as percent members performing and task difficulty, training emphasis ratings can provide insight into the appropriate method of training. These factors can help to validate the lengthening or shortening of specific units of instruction in various training programs.

CAREER LADDER STRUCTURE

A key aspect of the USAF occupational analysis program is to examine the structure of career ladders--what people are actually doing in the field, rather than how official career ladder documents say they are organized. This analysis is made possible by the Comprehensive Occupational Data Analysis Programs (CODAP). CODAP consists of over 40 computer programs which generate a number of statistical products used in the analysis of career ladders. The primary product used to analyze career ladders is a hierarchical clustering of all jobs based on the similarity of tasks performed and relative time spent. This process permits identification of the major types of work being performed in the occupation (career ladder) and is analyzed in terms of both the job description and background data of each type of job. This information is then used to examine the accuracy and completeness of present career ladder documents (AFR 39-1 specialty descriptions, specialty training standards) and to formulate an understanding of current personnel utilization patterns.

The basic identifying group used in the hierarchical job structure is the job type. A job type is a group of individuals who perform many of the same tasks and spend similar amounts of time performing these tasks. When job types possess a substantial degree of similarity, they are grouped together and labeled subclusters. Subclusters may be grouped together into clusters, which can be compared with other clusters. Also, specialized job types that are too dissimilar to be grouped into any cluster are identified as independent job types.

Based on task similarity, the division of actual jobs performed in the 304X5 career ladder is illustrated in Figure 1. The seven clusters and independent job types are listed on the following page, together with their component subclusters and job types. (The GRP number shown beside each title is a reference to computer printed information included for use by classification and training officials.)

Ninety-three percent of the respondents in the sample were found to perform jobs roughly equivalent to those described in the seven clusters and independent job types listed above. The remaining seven percent performed jobs which were so heterogeneous that they did not group with the clusters or as independent job types. Examples of job titles given by the remaining seven percent of respondents included: aerospace assessment program manager, TOSS equipment operator, war battle damage assessment repairman, superintendent, "Giant Talk" maintenance, northern communications maintenance controller, satellite communications, intra-base radio coordinator, plant-in-place supervisor, workload and job controller, plans and scheduling technician, resident/nonresident writer, supply NCO, and dorm manager.

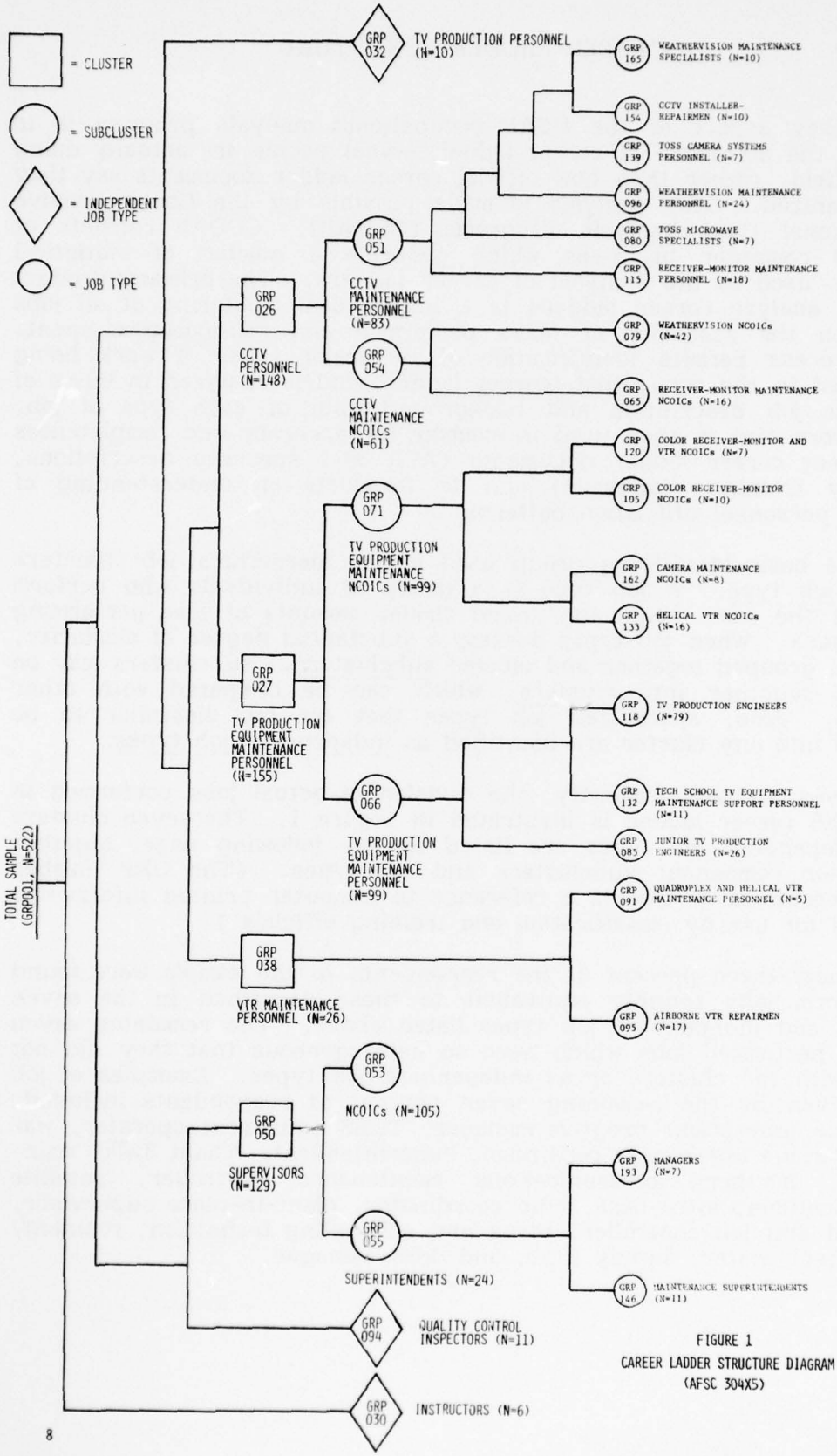


FIGURE 1
CAREER LADDER STRUCTURE DIAGRAM
(AFSC 304X5)

304X5 CAREER LADDER STRUCTURE GROUPS

CLUSTER, SUBCLUSTER, INDEPENDENT JOB TYPE, JOB TYPE	GRP	N
I. TV PRODUCTION PERSONNEL	032	10
II. CLOSED CIRCUIT TELEVISION (CCTV) PERSONNEL	026	148
A. CCTV MAINTENANCE PERSONNEL	051	83
1. Weathervision Maintenance Specialists	165	10
2. CCTV Installer-Repairmen	154	10
3. TOSS Camera Systems Personnel	139	7
4. Weathervision Maintenance Personnel	096	24
5. TOSS Microwave Specialists	080	7
6. Receiver-Monitor Maintenance Personnel	115	18
B. CCTV MAINTENANCE NCOICs	054	61
1. Weathervison NCOICs	079	42
2. Receiver-Monitor Maintenance NCOICs	065	16
III. TV PRODUCTION EQUIPMENT MAINTENANCE PERSONNEL	027	155
A. TV PRODUCTION EQUIPMENT MAINTENANCE NCOICs	071	99
1. Color Receiver-Monitor and VTR NCOICs	120	7
2. Color Receiver-Monitor NCOICs	105	10
3. Camera Maintenance NCOICs	162	8
4. Helical VTR NCOICs	133	16
B. TV PRODUCTION EQUIPMENT MAINTENANCE PERSONNEL	066	99
1. TV Production Engineers	118	79
2. Technical School TV Equipment Maintenance Support Personnel	132	11
3. Junior TV Production Engineers	085	26
IV. VTR MAINTENANCE PERSONNEL	038	26
1. Quadruplex and Helical VTR Maintenance Personnel	091	5
2. Airborne VTR Repairmen	095	17
V. SUPERVISORS	050	129
A. NCOICs	053	105
B. SUPERINTENDENTS	055	24
1. Managers	193	7
2. Maintenance Superintendents	146	11
VI. QUALTY CONTROL INSPECTORS	094	11
VII. INSTRUCTORS	030	6

Career Ladder Structure Overview

Seven distinct groupings were identified through the clustering process. A small group of TV Production Personnel was found to be involved more with actual production functions than TV maintenance. A second group of respondents primarily maintained closed circuit television (CCTV) systems. These CCTV Personnel maintained weathervision systems, TV Ordinance Scoring Systems (TOSS), and TV monitors and receivers. A third group primarily maintained TV production equipment. This broad cluster performed work ranging from maintaining TV cameras, camera and film chains, and video magnetic recorders to acting as TV production engineers. A fourth cluster consisted of videotape recorder (VTR) maintainers. In addition to these four technical clusters, groups of supervisors, quality control inspectors, and instructors were also identified.

In describing the Television Equipment Repair career ladder, the largest differences between groups were based on (1) whether or not members performed either closed circuit TV repair or TV production equipment maintenance tasks, and (2) the amount of time spent on supervision-related tasks. Tables 4 through 6 compare demographic, job interest, and percent time spent on duties for the career ladder structure clusters. Also, a detailed description of representative duties and tasks for each cluster and job type is presented in Appendix A, and detailed demographic and job satisfaction data are presented in Appendix D and E, respectively.

Group Descriptions

I. TV PRODUCTION PERSONNEL (GRP032). The 10 members of this independent job type spent 51 percent of their time supporting productions, recordings, playbacks, and broadcasts--the highest percentage of any group in the study. An additional 11 percent was spent setting up and maintaining TV monitors and receivers. Common tasks performed included: operating helical videotape recorders (VTR), VTR editors, slide projectors, reel or cartridge tape recorders; monitoring wave form monitors, controlling camera video levels during broadcasts or recordings, and dubbing video tapes; cleaning VTR table transport systems, degaussing VTR heads or guides, bulk erasing audio or video tapes, and cleaning video tapes. (See Appendix A-1 for a more complete listing of representative duties and tasks.)

TV Production Personnel comprised one of the more junior groups in the study, with 70 percent being in their first enlistment. Forty percent were stationed overseas, the highest percentage of any group. Although this group averaged only 44 tasks performed, 80 percent felt their job was interesting, that it utilized their talents, and 70 percent planned to reenlist. (More demographic data are presented in Table 4; job satisfaction data are presented in Table 5.)

II. CLOSED CIRCUIT TELEVISION (CCTV) PERSONNEL (GRP026)
Members of this cluster performed jobs on several kinds of CCTV systems. Cluster members spent the largest proportion of their time performing general camera maintenance functions and TV monitor and receiver maintenance--the largest percentage of any cluster. Common tasks included: removing or replacing plug-in or screw-in electronic components, soldered electronic components on etched circuit boards, receiver or monitor subassemblies, and camera linearity controls; adjusting receiver, monitor, or camera operating controls; adjusting camera linearity controls; isolating malfunctions of receiver or monitor circuits or subassemblies; and interpreting schematic or block diagrams. Tasks tended to be associated with monochrome rather than color equipment, but not entirely.

CCTV Personnel comprised 28 percent of the sample, with most (75 percent) holding the 5-skill level. Thirty-two percent supervised an average of two persons. They indicated the lowest job interest of the three clusters, with only 55 percent indicating their job was interesting, 65 percent indicating their job utilized their talents, and 51 percent indicating their job utilized their training. Fifty percent indicated they planned to reenlist. (For a comparison of job satisfaction by cluster, see Table 5.)

The CCTV Personnel group was comprised of two subclusters, CCTV Maintenance Personnel, and CCTV Maintenance NCOICs. The first subcluster was composed of six diversified job types, and the second was composed of two first-line supervisor groups.

A. CCTV MAINTENANCE PERSONNEL (GRP051). This subcluster was comprised of six technical job types which had in common a great deal of emphasis on performing general repair, camera maintenance, and TV monitor and receiver maintenance. They isolated malfunctions of receiver or monitor circuits and subassemblies; removed or replaced soldered and plug-in or screw-in electronic components and receiver or monitor subassemblies; and adjusted receiver, monitor, and camera operating controls.

Members of this subcluster possessed the lowest average grade (3.8) of any cluster or subcluster in the study, and most held the 5-skill level. Sixty percent were in their first enlistment. Their job satisfaction was below average, with only 55 percent indicating their job was interesting, and only 44 percent stating they intended to reenlist.

Job Types included within this cluster are listed below:

1. Weathervision Maintenance Specialists (GRP165). In addition to general repair functions, these Weathervision Maintenance Specialists spent considerably more time than other job types within this cluster maintaining audio systems and auxiliary equipment. Eighty percent were in their first enlistement, performing an average of only 36 tasks. Accordingly, their job interest was low, and only 30 percent planned to reenlist.

2. CCTV Installer-Repairmen (GRP154). These repairmen spent 11 percent of their time installing and modifying television and associated equipment--the largest amount spent by any job type. They adjusted receiver or monitor operating controls, and isolated malfunctions of receiver or monitor circuits and subassemblies. Perceived job interest was the the highest of any technical job group in the study.

3. TOSS CAMERA SYSTEMS PERSONNEL (GRP139). These TV Ordinace Scoring System (TOSS) Camera System Personnel spent 41 percent of their time performing general camera maintenance, the highest relative time spent on maintenance by any job type. Differentiating tasks included: removing or replacing camera head lenses and pickup tubes; adjusting camera operating and linearity controls; and isolating malfunctions to camera interconnecting cables and video amplifier circuits. Only 29 percent indicated their job was interesting and 43 percent indicated they would probably reenlist.

4. Weathervision Maintenance Personnel (GRP096). Like the Weathervision Maintenance Specialists, this group also spent a large proportion of its time performing general camera, TV monitor and receiver, auxiliary equipment, and audio systems maintenance. Members differed from the other weathervision group primarily in their increased amount of camera maintenance. Differentiating tasks included isolating malfunctions of camera operating controls, sync processing circuits, head horizontal or vertical drive circuits, and interconnecting cables.

5. TOSS Microwave Specialists (GRP080). Like the TOSS Camera Systems Personnel, these specialists performed general camera, TV monitor and receiver maintenance, but spent less time on these functions. They differed from the TOSS camera personnel primarily in their performance of microwave transmission system maintenance and operating tasks such as: adjusting microwave antennas and microwave power supplies; aligning microwave receivers; and isolating malfunctions of microwave transmitter or receiver circuits.

6. Receiver-Monitor Maintenance Personnel (GRP115). This group differed from the other five job types within this cluster based on the relatively large amount of time they spent setting up and maintaining TV monitors and receivers. Unlike the other groups, they spent considerable time performing tasks on color television equipment, as opposed to monochrome. Differentiating tasks included: isolating malfunctions of color receiver or monitor chroma circuits and convergence circuits; adjusting receiver or monitor color purity, color killer circuits; degaussing color receiver or monitor PIX, CRT, or chassis; and cleaning or lubricating receiver tuners.

B. CCTV MAINTENANCE NCOICs (GRP054). Members of this subcluster differed from CCTV Maintenance Personnel primarily in their larger emphasis on first-line supervisor tasks regarding directing

and implementing, on-the-job training (OJT), and administrative functions. However, they continued to perform general camera maintenance and general repair tasks common to the CCTV Personnel cluster, with greater emphasis on isolating malfunction-related tasks. CCTV Maintenance NCOICs performed an average of 87 tasks--nearly twice the average of the CCTV Maintenance Personnel group.

Only two percent of this subcluster were stationed overseas. All held the 5- or 7-skill level with an average grade of 4.6, nearly a grade higher than the CCTV Maintenance Personnel. Sixty percent supervised an average of 2.2 persons. Like the CCTV Maintenance Personnel subcluster, they also indicated below average job satisfaction, with only 39 percent indicating their job used their training fairly well or better.

Within this subcluster, two groups of NCOICs were distinguishable: Weathervision NCOICs and Receiver-Monitor Maintenance NCOICs.

1. Weathervision NCOICs (GRP079). This group performed a more technical function than the Receiver-Monitor Maintenance NCOIC group, with emphasis on general camera maintenance, general repair, and auxiliary and audio equipment maintenance. Differentiating tasks included isolating malfunctions of video amplifier circuits, video distribution amplifiers, and monochrome camera control unit circuits; adjusting camera linearity controls; and removing camera pickup tubes. Members held an average grade of 4.4, and about 55 percent supervised an average of 1.8 persons. Their job satisfaction appeared low in comparison to the other NCOIC job type.

2. Receiver-Monitor Maintenance NCOICs (GRO065). Members of this job type spent considerably more time on directing and implementing tasks, with 81 percent supervising an average of 2.8 persons. Differentiating tasks included: conducting on-the-job training, performing inspecting and evaluating-related tasks, and performing first-line supervision-related tasks. Perceived job interest was higher than the other group of NCOICs.

III. TV PRODUCTION EQUIPMENT MAINTENANCE PERSONNEL (GRP027). Members of this cluster performed the broadest job in the career ladder, averaging 200 tasks each. In addition to general camera maintenance, they spent considerable time supporting productions, recordings, playbacks, and broadcasts. The performance of tasks in this production support area, together with maintaining color camera and film chains, and maintaining video magnetic recorders (VTR) differentiated these personnel from the CCTV Personnel cluster. Characteristic tasks included: isolating malfunctions of video amplifier and color receiver or monitor convergence circuits; adjusting receiver or monitor color gray scale, color temperature, or color purity; and degaussing color receiver or monitor PIX, CRT, or chassis, and cleaning VTR tape transport systems.

TV Production Equipment Maintenance Personnel comprised 30 percent of the sample. Most airmen in this group held the 5- or 7-skill level. The average grade of 4.9 indicated this group was senior to the CCTV Personnel cluster. TV Production Equipment Maintenance Personnel performed one of the jobs rated most difficult of any cluster in the study. Also, their job satisfaction indices appeared among the highest of functional clusters.

This cluster, like the preceding cluster, was divided into two subclusters; one of NCOICs and the other of maintenance personnel. Differences between these two subclusters were primarily based on the amount of time spent on supervision and administrative-related tasks versus technical tasks. The NCOICs also spent more time maintaining helical video magnetic recorders than members of the technical subcluster.

A. TV PRODUCTION EQUIPMENT MAINTENANCE NCOICs (GRP071). These NCOICs performed essentially the same technical job as the TV Production Equipment Maintenance Personnel subcluster (see III B below), with the exception that they spent 18 percent more of their time on management, supervision, training, and administration-related tasks. Common technical tasks involved general camera maintenance; general repair functions; VTR maintenance; and supporting productions, recordings, playbacks and broadcasts.

TV Production Equipment Maintenance NCOICs held an average grade of 4.7, and most (77 percent) had already completed their first enlistment. Job satisfaction was above average, but below that of TV Production Equipment Maintenance Personnel.

Within this subcluster, four job types were identified: Color Receiver-Monitor and VTR NCOICs, Color Receiver-Monitor NCOICs, Camera Maintenance NCOICs, and Helical VTR NCOICs.

1. Color Receiver-Monitor and VTR NCOICs (GRP120). These NCOICs spent considerable time supporting productions, recordings, playbacks, and broadcasts; installing and modifying TV and associated equipment; and performing administrative functions. Much of their work had to do with color receivers or monitors. Differentiating tasks included: monitoring waveform monitors; operating and performing operational checks on helical VTRs; and constructing cable assemblies.

2. Color Receiver-Monitor NCOICs (GRP105). Like the above job type (III A1), these NCOICs spent considerable time setting up and maintaining color TV monitors and receivers. They also spent much more time on general camera and monochrome maintenance. Differentiating tasks included: isolating malfunctions of camera operating controls and camera head horizontal or vertical drive circuits; and adjusting camera head vertical or horizontal drive circuits.

3. Camera Maintenance NCOICs (GRP162). Members of this group of NCOICs focused much of their attention on general camera maintenance, and installing and modifying television and associated equipment. They also spent considerable time performing administrative tasks. Differentiating tasks included: isolating malfunctions of camera sync processing circuits, camera interconnecting cables, and video amplifier circuits and aligning camera head focus, sync processing circuits, and receiver or monitor automatic frequency control (AFC) circuits.

4. Helical VTR NCOICs (GRP133). These NCOICs spent a large proportion of their time maintaining helical video magnetic recorders. They also spent a sizeable proportion of their time on administrative tasks. Their time spent on tasks related to directing and implementing, management, and supporting productions was much greater than the Camera Maintenance NCOICs (see III A3 above). Common tasks included isolating malfunctions of helical video signal, servo, and transport systems.

B. TV PRODUCTION EQUIPMENT MAINTENANCE PERSONNEL (GRP066). In addition to performing general camera maintenance, members of this subcluster supported productions, recordings, playbacks, and broadcasts; and maintained auxiliary equipment, film chains and projectors, color camera chains, and quadruplex video magnetic recorders. On the average, they performed 238 tasks--the highest average for a subcluster in the study.

Twenty-five percent of the group members were stationed overseas, with most holding the 5- or 7-skill level. Despite these advanced skill levels and an average grade of 4.9, only 33 percent supervised. Also, their job satisfaction appeared well above average.

Within this subcluster, three job types were identified: TV Production Engineers, Technical School TV Equipment Maintenance Support Personnel, and Junior TV Production Engineers.

1. TV Production Engineers (GRP118). These engineers spent considerable time supporting productions, recordings, playbacks, and broadcasts. They also installed and modified TV and associated equipment; maintained film chains and projectors, audio systems, helical and quadruplex VTRs; and performed general camera and auxiliary equipment maintenance. Thirty percent were stationed overseas. They possessed the highest average number of tasks performed of any job type in the study, and indicated very high job satisfaction. Within this group, several subgroups were identified: chief engineers, who spent more time supervising; overseas AFRTS engineers; and other groups which specialized more in audio systems, in color cameras and VTRs, and in a combination of this equipment.

2. Technical School TV Equipment Maintenance Support Personnel (GRP132). These personnel, who were primarily assigned to the 1987th Communications Squadron and 3421st School Squadron, spent

considerable time performing general camera maintenance; maintaining color and monochrome camera chains, film chains, and projectors; and performing general TV monitor and receiver maintenance. Distinctive tasks performed by members of this job type related to isolating malfunctions on monochrome camera chains, power supplies, control unit circuits, head subassemblies, and CCU subassemblies. No members of this group were stationed overseas. They held an average grade of 4.7, and job satisfaction was above average.

3. Junior TV Production Engineers (GRP085). These engineers performed considerably fewer tasks, 116 on the average, when compared with the 261 performed by TV Production Engineers (III B1 above). They also were junior in grade, skill level, and time in service to the other two job types within this cluster. They spent much of their time supporting productions, recordings, playbacks, and broadcasts; performing general camera maintenance and general repair; and maintaining film chains and projectors.

IV. VTR MAINTENANCE PERSONNEL (GRP038). Members of this cluster spent nearly half their time performing general, helical, and quadruplex video magnetic recording maintenance. They also performed general repair functions, TV monitor and receiver maintenance, and supported productions, recordings, playbacks, and broadcasts. Common tasks included: isolating malfunctions of helical transport, servo, and video signal systems; adjusting VTR power supplies, and receiver or monitor operating controls; cleaning VTR tape transport systems, degaussing VTR heads or guides; and aligning helical VTR servo systems. On the average, they performed only 60 tasks.

This cluster contained only five percent of the total sample, with 27 percent of this cluster located overseas. Most VTR Maintenance Personnel held the 5-skill level, and only 15 percent supervised. Fifty-four percent were in their first enlistment.

The VTR Maintenance Personnel cluster contained two identifiable job types: Quadruplex and Helical VTR Maintenance Personnel, and Airborne VTR Repairmen. The main differences between these two job types were that members of the first group emphasized production support and maintaining quadruplex VTRs, while the second concentrated on general and helical VTR maintenance.

1. Quadruplex and Helical VTR Maintenance Personnel (GRP091). Spending 17 percent of their time in supporting productions, recordings, playbacks, and broadcasts, members of this job type operated helical and transverse VTRs. They isolated malfunctions in both helical and quadruplex systems; dubbed video tapes; cleaned and adjusted VTR systems; and optimized VTR video tape heads. None of these Quadruplex and Helical VTR Maintenance Personnel were stationed overseas. They held an average grade of 3.8, and performed 103 tasks on the average.

2. Airborne VTR Repairmen (GRP095). This group of repairmen worked primarily on helical video magnetic recorders. They also spent considerable time on administrative tasks, and installed and modified television and associated equipment. Common tasks included: removing and replacing VTR video heads; cleaning and lubricating VTR transport systems; and isolating malfunctions on helical systems. In contrast to the previous job type, 41 percent were stationed overseas. Eighty-eight percent held the 5-skill level, and their job interest was well below average.

V. SUPERVISORS (GRP050). The cluster of supervisors comprised 25 percent of the sample. They spent most of their time on management, supervision, training, and administrative tasks (94 percent). Common tasks included: drafting correspondence or reports, counseling personnel, participating in staff meetings, writing airman performance reports, and interpreting policies, directives, or procedures for subordinates.

Sixty-two percent of this cluster held the 9-skill level and 12 percent held CEM code 30100; this high percentage of 9-skill level and CEM Code personnel indicates that personnel in this career ladder below the 9-skill level are primarily technicians and first-line supervisors. Of the 129 NCOs in this cluster, 93 percent supervised an average of 6.1 personnel.

The Supervisors' cluster contained two subclusters: NCOICs and Superintendents. The basic difference between the two subclusters was in the amount of technical and administrative tasks versus directing and implementing-related tasks performed.

A. NCOICs (GRP053). Members of this subcluster were junior to NCOs in the Superintendents' subcluster. Members spent more time working with forms, records, reports, directives, and technical data, and conducting training. They also performed some technical tasks. Differentiating tasks included: determining requirements for space, personnel, equipment or supplies; determining work priorities; planning or scheduling work assignments; developing or improving work methods or procedures; and establishing equipment utilization policy. Twenty percent held the 7-skill level, and 61 percent the 9-skill level.

B. SUPERINTENDENTS (GRP055). These more senior NCOs spent 41 percent of their time directing and implementing, 25 percent inspecting and evaluating, and another 25 percent organizing and planning. Common tasks included: drafting correspondence and reports; interpreting policies, participating in staff meetings; writing APRs; counseling personnel; and writing staff studies, surveys, or special reports. Ninety-six percent supervised an average of 5.7 personnel, and 13 percent were located overseas.

This subcluster consisted of two job types: (1) Managers, and (2) Maintenance Superintendents. Managers spent more time directing, implementing, inspecting, and evaluating, while the Maintenance Superintendents spent more time organizing, planning, training, and working with forms, records, reports, and technical data.

1. Managers (GRP193). This group, the more senior of the two, held an average grade of 8.3, the highest of any group in the study. Differentiating tasks included writing staff studies, surveys, or special reports; and indorsing APRs. Eighty-six percent supervised an average of 7.5 persons.

2. Maintenance Superintendents (GRP146). These superintendents spent more time supervising, evaluating individuals for promotion, and developing maintenance agreements with other operating agencies. Ninety-one percent said their job was interesting, and 100 percent supervised an average of six persons.

VI. QUALITY CONTROL INSPECTORS (GRP094). Quality Control Inspectors spent 39 percent of their time inspecting and evaluating. Common differentiating tasks included: performing technical and quality control inspections of equipment; evaluating maintenance, compliance with work standards, proposed and completed equipment modifications, and use of workspace, equipment, or supplies.

Members of this independent job type primarily held the 5- through 9-skill level, with an average grade of 6.2. Only nine percent were stationed overseas. On the average, they performed only 35 tasks. Their job satisfaction appeared average to slightly below average.

VII. INSTRUCTORS (GRP030). Members of this independent job type spent 67 percent of their time training, and 10 percent performing general camera maintenance. Differentiating tasks included: conducting resident course classroom training; evaluating progress of resident course students; writing test questions; counseling trainees on training progress; and developing course curricula or plans of instruction.

Half these instructors were 5- and half 7-skill level NCOs. All were stationed in the CONUS, and on the average they performed only 18 tasks. Only 50 percent stated their job was interesting, and only 33 percent indicated they planned to reenlist.

[cont'd from page iv]

Summary

The Television Equipment Repair career ladder structure analysis highlights the large division among incumbents who performed CCTV functions, those who performed TV production equipment maintenance, and those who primarily supervised. Also, this analysis identified small groups which performed VTR maintenance, quality control inspection, and instruction. TV Production Personnel performed one of the most unique jobs identified, spending a great deal of time on operating and cleaning tasks rather than maintaining TV equipment.

Tables 4, 5, and 6, which follow, enable one to compare the major functional groups identified in this analysis on demographic, job satisfaction, and relative time spent on duties. For more specific information on each job type within the major clusters, consult Appendixes D and E. Analyses of other groups and factors follow these tables, beginning with an analysis of DAFSC groups.

TABLE 4

SELECTED BACKGROUND DATA ON CAREER LADDER CLUSTER AND INDEPENDENT JOB TYPE GROUPS

	TV PRODUCTION PERSONNEL	CCTV PERSONNEL	TV PRODUCTION EQUIPMENT MAINTENANCE PERSONNEL	VTR MAINTENANCE PERSONNEL	SUPERVISORS	QUALITY CONTROL INSPECTORS	INSTRUCTORS
NUMBER IN GROUP	10	148	155	26	129	11	6
PERCENT OF SAMPLE	2%	28%	30%	5%	25%	2%	1%
PERCENT LOCATED OVERSEAS	40%	3%	24%	27%	17%	9%	0%
DAFSC DISTRIBUTION							
NOT INDICATED	0%	0%	0%	0%	2%	9%	0%
30435	20%	6%	1%	4%	0%	0%	0%
30455	60%	75%	55%	77%	6%	27%	50%
30475	20%	19%	42%	19%	18%	27%	50%
30496	0%	0%	2%	0%	62%	37%	0%
CEM CODE 30100	0%	0%	0%	0%	12%	0%	0%
AVERAGE GRADE	3.9	4.1	4.9	4.2	7.3	6.2	5.3
AVERAGE TIME IN CAREER FIELD (MONTHS)	40	42	64	48	177	141	77
AVERAGE TIME IN SERVICE (MONTHS)	56	70	106	72	239	162	118
PERCENT IN FIRST ENLISTMENT	70%	45%	26%	54%	1%	9%	0%
PERCENT SUPERVISING	10%	32%	39%	15%	93%	27%	0%
AVERAGE NUMBER SUPERVISED BY THOSE SUPERVISING	1.0	2.0	3.2	2.8	6.1	2.3	0
AVERAGE NUMBER OF TASKS PERFORMED	44	63	200	60	70	35	18
AVERAGE TASK DIFFICULTY PER UNIT TIME SPENT (ATDPUTS)	4.40	4.72	4.95	5.05	5.06	5.29	5.47
JOB DIFFICULTY INDEX (JDI)	6.36	10.04	17.78	12.31	12.81	12.43	12.29

TABLE 5

COMPARISON OF JOB SATISFACTION INDICES BY CAREER LADDER CLUSTER AND INDEPENDENT JOB TYPE GROUPS
(PERCENT MEMBERS RESPONDING)

	TV PRODUCTION PERSONNEL	CCTV PERSONNEL	TV PRODUCTION EQUIPMENT MAINTENANCE PERSONNEL	VTR MAINTENANCE PERSONNEL	SUPERVISORS	QUALITY CONTROL INSPECTORS	INSTRUCTORS
EXPRESSED JOB INTEREST:							
NOT REPORTED	0	5	5	4	6	0	0
DULL	10	23	8	27	8	9	50
SO-SO	10	17	10	23	12	27	0
INTERESTING	80	55	77	46	74	64	50
PERCEIVED UTILIZATION OF TALENTS:							
NOT REPORTED	0	0	2	4	1	0	0
LITTLE OR NOT AT ALL	20	35	16	42	12	36	33
FAIRLY WELL TO VERY WELL	70	61	65	46	64	55	50
EXCELLENTLY OR PERFECTLY	10	4	17	8	23	9	17
PERCEIVED UTILIZATION OF TRAINING:							
NOT REPORTED	0	0	3	4	2	0	0
LITTLE OR NOT AT ALL	40	49	17	42	26	45	50
FAIRLY WELL TO VERY WELL	60	46	64	39	53	55	33
EXCELLENTLY OR PERFECTLY	0	5	16	15	19	0	17
REENLISTMENT INTENTION:							
NOT REPORTED	0	2	4	3	3	9	17
NO OR PROBABLY NO	30	48	37	62	53	45	50
YES OR PROBABLY YES	70	50	59	35	44	46	33

TABLE 6

RELATIVE PERCENT TIME SPENT ON DUTIES BY CLUSTERS AND INDEPENDENT JOB TYPES

DUTY	TV PRODUCTION PERSONNEL	CCTV PERSONNEL	TV PRODUCTION EQUIPMENT MAINTENANCE PERSONNEL	VTR MAINTENANCE PERSONNEL	SUPERVISORS	QUALITY CONTROL INSPECTORS	INSTRUCTORS
MANAGEMENT, SUPERVISION, AND TRAINING:							
A ORGANIZING AND PLANNING	1	3	3	3	22	8	2
B DIRECTING AND IMPLEMENTING	1	5	3	2	27	20	3
C INSPECTING AND EVALUATING	1	4	3	2	23	39	3
D TRAINING	1	4	2	4	8	10	67
TOTAL	4	16	11	11	80	77	75
ADMINISTRATIVE:							
E WORKING WITH FORMS, RECORDS, REPORTS, DIRECTIVES AND TECHNICAL DATA	3	12	6	7	14	18	1
GENERAL REPAIR FUNCTIONS:							
F PERFORMING GENERAL REPAIR FUNCTIONS	5	16	6	12	2	5	6
CAMERA MAINTENANCE:							
G PERFORMING GENERAL CAMERA MAINTENANCE	5	17	11	3	1	-	10
H MAINTAINING MONOCHROME CAMERA CHAINS	0	3	2	-	-	0	0
I MAINTAINING COLOR CAMERA CHAINS	-	-	5	-	-	0	3
TOTAL	5	20	18	3	1	-	13
VIDEOTAPE RECORDER (VTR) MAINTENANCE:							
J PERFORMING GENERAL VIDEO MAGNETIC RECORDING MAINTENANCE	6	1	5	21	-	0	0
K MAINTAINING HELICAL VIDEO MAGNETIC RECORDERS	1	1	5	19	-	0	0
L MAINTAINING QUADRUPLEX VIDEO MAGNETIC RECORDERS	1	-	2	5	-	0	0
TOTAL	8	2	12	45	-	0	0

TABLE 6 (CONTINUED)

RELATIVE PERCENT TIME SPENT ON DUTIES BY CLUSTERS AND INDEPENDENT JOB TYPES

DUTY	TV PRODUCTION PERSONNEL	CCTV PERSONNEL	TV PRODUCTION EQUIPMENT MAINTENANCE PERSONNEL	VTR MAINTENANCE PERSONNEL	SUPERVISORS	QUALITY CONTROL INSPECTORS	INSTRUCTORS
TV MONITOR AND RECEIVER SET-UP AND MAINTENANCE:							
M PERFORMING GENERAL TV MONITOR AND RECEIVER MAINTENANCE	5	12	4	4	-	0	0
N SETTING UP COLOR TV MONITORS AND RECEIVERS	6	3	4	2	-	0	0
TOTAL	11	15	8	6	-	0	0
STUDIO SUPPORT:							
O MAINTAINING SYNC GENERATORS	1	-	2	-	-	0	0
P MAINTAINING AUDIO SYSTEMS	2	4	6	1	-	0	0
Q MAINTAINING AUXILIARY EQUIPMENT	1	5	7	2	-	0	0
R MAINTAINING FILM CHAINS AND PROJECTORS	5	1	5	0	-	0	0
W SUPPORTING PRODUCTIONS, RECORDINGS, PLAYBACKS, AND BROADCASTS	51	1	9	6	-	0	2
TOTAL	60	11	29	9	-	0	2
MISCELLANEOUS FUNCTIONS:							
S MAINTAINING TEST EQUIPMENT	0	1	1	1	-	0	1
T MAINTAINING AND OPERATING RADIO AND TV TRANSMITTERS	1	-	1	-	-	0	0
U MAINTAINING AND OPERATING MICROWAVE TRANSMISSION SYSTEMS	0	1	-	-	-	0	0
V MAINTAINING MISCELLANEOUS FACILITIES AND EQUIPMENT	1	-	1	1	-	0	0
X INSTALLING AND MODIFYING TELEVISION AND ASSOCIATED EQUIPMENT	2	4	7	4	1	-	1
TOTAL	4	6	10	6	1	-	2
RELATIVE PERCENT TIME SPENT TOTAL	100	100	100	100	100	100	100

* THROUGHOUT THIS REPORT, A DASH (-) SYMBOLIZES LESS THAN .5 PERCENT AND GREATER THAN ZERO.

ANALYSIS OF DAFSC GROUPS

In conjunction with identifying the job structure of the career ladder, it is important to examine skill level differences of members and relate these differences back to the job structure. In addition, this information can be compared to the career ladder documents, such as AFR 39-1 specialty descriptions and the Specialty Training Standard (STS) in order to determine how accurately these documents reflect what career ladder personnel are actually doing in the field.

Table 7 presents the relative percent time spent by skill level groups on each duty. Duties are grouped by function to facilitate comparison. Like most career ladders, the management, supervision, and training duties (A, B, C, and D) accounted for the larger portion of respondents time at the higher skill levels. On the other hand, lower skill level personnel spent a larger proportion of their time setting up and maintaining TV monitors and receivers, maintaining VTRs and cameras, and performing studio support and general repair functions. The percentage of time spent on administrative matters increased through the 9-skill level, but was lower for chief enlisted managers (CEM).

Skill Level Descriptions

DAFSC 30435. Three-skill level personnel performed strictly a technical job, spending 94 percent of their time on technical tasks. Their time-spent overlap with 5-skill level personnel was only 60 percent. The primary differences between these two skill levels occurred in the amount of time spent on technical tasks and whether or not they performed administrative and supervision-related tasks.

Representative tasks performed by 3-skill level personnel are presented in Appendix B-1. Notice that most involve adjusting, cleaning, degaussing, removing, replacing, and soldering-related tasks. These appeared to be the simpler tasks of the career ladder, often assigned to entry-level personnel.

The majority of 3-skill level airmen were concentrated within the CCTV Personnel cluster. Personnel in this cluster were more likely to work with monochrome, rather than color equipment, and performed tasks rated less difficult in comparison to common tasks in other functional clusters. Table 4 presents the DAFSC distribution of each functional cluster for comparative purposes.

DAFSC 30455. Five-skill level personnel performed a similar job to 3-skill level airmen, but added supervision and more administration-related tasks, and the more difficult isolating malfunction-related tasks. A total of 17 percent of their time was spent on management, supervision, and training-related tasks. (See Table 7 for a comparison of time spent on duties by DAFSC groups.)

Representative tasks (listed in Appendix B-2) included: isolating malfunctions of camera sync processing circuits, receiver or monitor subassemblies and circuits, and video amplifier circuits. Tasks which most clearly distinguished between 30435 and 30455 personnel are highlighted in Table 8. Such tasks performed by larger percentages of 5-skill level personnel included ones related to supervision, isolating malfunctions, administrative forms, and performing corrosion control on TV equipment. Five-skill level personnel were found in every technical cluster and independent job type group.

Forty-three percent of 5-skill level personnel were assigned to jobs which clustered as CCTV Personnel, while 33 percent were assigned to TV Production Equipment Maintenance Personnel functions. In fact, 5-skill level personnel performed jobs similar to the ones depicted in every major cluster and independent job type within the 304X5 career ladder structure.

DAFSC 30475. Personnel holding the 7-skill level spent only one-third of their time on management, supervision, and training-related tasks, thus indicating this career ladder was primarily technical through the 7-skill level. Considerable time was spent performing general camera maintenance, repair functions, supporting productions, and installing and modifying television and associated equipment.

Common 7-skill level tasks are presented in Appendix B-3. These tasks included a larger proportion of management, supervision, and training-related tasks than the 5-skill level group. Tasks which differentiate the two DAFSCs are listed in Table 9. Although differences in time spent on duties and percent members performing tasks do exist, the time-spent overlap was a high 76 percent, indicating 5- and 7-skill level personnel performed highly similar jobs.

Seven-skill level personnel clustered in every major functional group in the career ladder structure, with the largest proportion found in the TV Production Equipment Maintenance Personnel cluster. Only 17 percent fell into the Supervisors' cluster, while larger percentages grouped with first-line supervisors in the technical clusters. This kind of clustering is indicative of the technical nature of this career ladder through the 7-skill level.

DAFSC 30496. Superintendents spent 98 percent of their time on management, supervision, training, and administration-related tasks, presenting considerable contrast to the previously-mentioned DAFSCs. Nine-skill level personnel spent the largest percentage of time on administrative tasks of any DAFSC in the study. Their time-spent overlap with the 7-skill level group was only 42 percent, primarily due to the increased time 9-skill level spent on management and supervision tasks, and the fact DAFSC 30496 personnel performed few technical tasks.

Common tasks included: drafting correspondence or reports, writing and indorsing APRs, counseling personnel, evaluating inspection reports or procedures, and establishing policies (see Appendix B-4). Tasks which differentiated them from 7-skill level personnel (see Table 10) included evaluation, management, and implementation-related tasks. Indorsing APRs and supervising Ground Radio Communications Equipment Repair (AFS 304X2) personnel appeared especially characteristic of the 9-skill level.

Nine-skill level personnel appeared primarily in the Supervisors' cluster, with a few 30496 NCOs clustering with quality control inspectors and TV Production Equipment Maintenance Personnel.

CEM Code 30100. These chief enlisted managers (CEM), who indicated they supervised work within the 304X5 career ladder, performed essentially the same tasks as 9-skill level personnel. Their group had an 80 percent time-spent overlap with 9-skill level NCOs, indicating a highly similar job. However, their job was entirely management and supervision, with no technical tasks performed.

Common tasks included (see Appendix B-5): interpreting policies, inspection reports or procedures, counseling personnel, writing and endorsing APRs, and supervising Ground Radio Communications Equipment Repair (AFS 304X4). Differentiating tasks (see Table 11) included: conducting staff meetings; completing personnel action requests; writing staff studies, surveys, or special reports; and implementing safety and suggestion programs. As might be expected, all CEMs grouped within the Supervisors' cluster.

Summary

Three-, 5-, and 7-skill level personnel spent the largest percentage of their time accomplishing technical tasks, whereas 9-skill level and CEMs primarily performed management, supervision, training, and administrative-related tasks. Three-skill level airmen performed fewer and less difficult tasks, on the average. Five- and 7-skill level personnel performed the most similar jobs, with the majority of their time spent on technical tasks, and less than a third on management, supervision and training-related tasks. Job descriptions for each skill level group coincided closely with the percentage of their skill level in the technical versus supervisory portion of the CAREER LADDER STRUCTURE section's functional groupings.

TABLE 7

PERCENT TIME SPENT ON DUTIES BY DAFSC GROUPS

	TOTAL SAMPLE (N=522)	DAFSC 30435 (N=15)	DAFSC 30455 (N=258)	DAFSC 30475 (N=137)	DAFSC 30496 (N=92)	CEM CODE 30100 (N=16)
MANAGEMENT, SUPERVISION, AND TRAINING:						
A ORGANIZING AND PLANNING	9	-	4	7	22	22
B DIRECTING AND IMPLEMENTING	11	1	5	10	26	33
C INSPECTING AND EVALUATING	9	1	4	8	25	30
D TRAINING	6	1	4	8	8	7
TOTAL	35	3	17	33	81	92
ADMINISTRATIVE:						
E WORKING WITH FORMS, RECORDS, REPORTS, DIRECTIVES, AND TECHNICAL DATA	11	3	10	11	15	7
GENERAL REPAIR FUNCTIONS:						
F PERFORMING GENERAL REPAIR FUNCTIONS	8	18	11	6	2	1
CAMERA MAINTENANCE:						
G PERFORMING GENERAL CAMERA MAINTENANCE	9	14	13	8	-	-
H MAINTAINING MONOCHROME CAMERA CHAINS	1	1	2	2	-	-
I MAINTAINING COLOR CAMERA CHAINS	1	-	2	2	-	-
TOTAL	11	15	17	12	-	-
VIDEOTAPE RECORDER (VTR) MAINTENANCE:						
J PERFORMING GENERAL VIDEO MAGNETIC RECORDING MAINTENANCE	3	8	4	3	-	-
K MAINTAINING HELICAL VIDEO MAGNETIC RECORDERS	3	4	4	3	-	-
L MAINTAINING QUADRUPLEX VIDEO MAGNETIC RECORDERS	1	-	1	2	-	-
TOTAL	7	12	9	8	-	-
TV MONITOR AND RECEIVER SET-UP AND MAINTENANCE:						
M PERFORMING GENERAL TV MONITOR AND RECEIVER MAINTENANCE	5	14	8	4	-	0
N SETTING UP COLOR TV MONITORS AND RECEIVERS	2	7	3	2	-	0
TOTAL	7	21	11	6	-	0
STUDIO SUPPORT:						
O MAINTAINING SYNC GENERATORS	1	1	1	1	-	-
P MAINTAINING AUDIO SYSTEMS	3	6	4	3	-	-
Q MAINTAINING AUXILIARY EQUIPMENT	4	3	5	5	-	-
R MAINTAINING FILM CHAINS AND PROJECTORS	2	2	2	2	-	-
W SUPPORTING PRODUCTIONS, RECORDINGS, PLAYBACKS, AND BROADCASTS	5	8	5	6	1	-
TOTAL	15	20	17	17	1	-
MISCELLANEOUS FUNCTIONS:						
S MAINTAINING TEST EQUIPMENT	1	1	1	1	-	0
T MAINTAINING AND OPERATING RADIO AND TV TRANSMITTERS	1	1	1	-	-	-
U MAINTAINING AND OPERATING MICROWAVE TRANSMISSION SYSTEMS	-*	2	-	-	1	-
V MAINTAINING MISCELLANEOUS FACILITIES AND EQUIPMENT	-	1	1	1	-	-
X INSTALLING AND MODIFYING TELEVISION AND ASSOCIATED EQUIPMENT	4	3	5	5	-	-
TOTAL	6	8	8	7	1	-

* A DASH SIGNIFIES LESS THAN .5 PERCENT

TABLE 8

TASKS WHICH MOST CLEARLY DISTINGUISH BETWEEN 30435 AND 30455 PERSONNEL
(PERCENT MEMBERS PERFORMING)

TASK	TITLE	DAFSC 30435 (N=15)	DAFSC 30455 (N=258)	ABSOLUTE DIFFERENCE
J239	CLEAN VTR TAPE TRANSPORT SYSTEMS	67	41	+26
M282	ALIGN RECEIVER OR MONITOR AUTOMATIC FREQUENCY CONTROL (AFC) CIRCUITS	53	31	+22
N297	PERFORM DYNAMIC CONVERGENCE ON COLOR RECEIVERS OR MONITORS	60	38	+22
F164	REMOVE OR REPLACE SOLDERED ELECTRONIC COMPONENTS ON ETCHED CIRCUIT BOARDS	100	83	+17
J234	ADJUST VIDEO TAPE RECORDER (VTR) POWER SUPPLIES	47	31	+16
F165	SOLDER OR DESOLDER CONNECTORS OR HARDWIRE CIRCUITS	100	85	+15
N290	ADJUST COLOR RECEIVER OR MONITOR COLOR GRAY SCALE OR COLOR TEMPERATURE	53	41	+12
M280	ADJUST RECEIVER OR MONITOR OPERATING CONTROLS, SUCH AS FOCUS OR CENTERING	93	83	+10
G172	ADJUST CAMERA LENS ZOOM SPEED, DISTANCE, OR BACKFOCUS	53	43	+10
B45	SUPERVISE APPRENTICE TELEVISION EQUIPMENT REPAIRMEN (AFSC 30435)	0	29	-29
G168	ADJUST APERATURE CORRECTION CIRCUITS	7	36	-29
G194	ISOLATE MALFUNCTIONS OF CAMERA SYNC PROCESSING CIRCUITS	13	43	-30
M288	ISOLATE MALFUNCTIONS TO RECEIVER OR MONITOR SUBASSEMBLIES	40	70	-30
G191	ISOLATE MALFUNCTIONS OF CAMERA HEAD YOKE ASSEMBLIES	7	38	-31
A4	DETERMINE WORK PRIORITIES	0	33	-33
E108	COMPLETE PREVENTIVE MAINTENANCE INSPECTION (PMI) FORMS OR CHARTS	13	47	-34
D87	DEMONSTRATE HOW TO LOCATE TECHNICAL INFORMATION	0	35	-35
E129	PREPARE EQUIPMENT STATUS TAGS OR LABELS	7	45	-38
E104	ATTACH EQUIPMENT STATUS TAGS OR LABELS	7	48	-41
F160	PERFORM CORROSION CONTROL ON TV EQUIPMENT	20	62	-42

TOTAL NUMBER OF TASKS EXCEEDING 30 PERCENT DIFFERENCE: 7
AVERAGE NUMBER OF TASKS PERFORMED BY 30435 PERSONNEL: 57
AVERAGE NUMBER OF TASKS PERFORMED BY 30455 PERSONNEL: 100
TIME-SPENT OVERLAP BETWEEN THESE GROUPS: 60%

TABLE 9

TASKS WHICH MOST CLEARLY DISTINGUISH BETWEEN 30455 AND 30475 PERSONNEL
(PERCENT MEMBERS PERFORMING)

TASK	TITLE	DAFSC 30455 (N=258)	DAFSC 30475 (N=137)	ABSOLUTE DIFFERENCE
F160	PERFORM CORROSION CONTROL ON TV EQUIPMENT	62	47	+15
M288	ISOLATE MALFUNCTIONS TO RECEIVER OR MONITOR SUBASSEMBLIES	70	55	+15
M286	ISOLATE MALFUNCTIONS OF RECEIVER OR MONITOR CIRCUITS	79	65	+14
F165	SOLDER OR DESOLDER CONNECTORS OR HARDWIRE CIRCUITS	85	71	+14
M287	ISOLATE MALFUNCTIONS OF RECEIVER OR MONITOR SUBASSEMBLIES	71	57	+14
G185	CLEAN CAMERA HEAD LENSES	56	43	+13
M280	ADJUST RECEIVER OR MONITOR OPERATING CONTROLS, SUCH AS FOCUS OR CENTERING	83	70	+13
G173	ADJUST CAMERA LINEARITY CONTROLS	66	55	+11
F164	REMOVE OR REPLACE SOLDERED ELECTRONIC COMPONENTS ON ETCHED CIRCUIT BOARDS	83	72	+11
G174	ADJUST CAMERA OPERATING CONTROLS, SUCH AS TARGET BEAM OR SET-UP	70	59	+11
G201	REMOVE OR REPLACE CAMERA PICKUP TUBES	60	50	+10
A15	PLAN OR SCHEDULE WORK ASSIGNMENTS	24	53	-29
D97	MAINTAIN TRAINING RECORDS, CHARTS, OR GRAPHS	25	55	-30
C65	EVALUATE MAINTENANCE AND USE OF WORKSPACE, EQUIPMENT, OR SUPPLIES	16	47	-31
B39	INTERPRET POLICIES, DIRECTIVES, OR PROCEDURES FOR SUBORDINATES	19	51	-32
A4	DETERMINE WORK PRIORITIES	33	65	-32
B52	SUPERVISE TELEVISION EQUIPMENT REPAIRMEN (AFSC 30455)	28	60	-32
B33	DRAFT CORRESPONDENCE OR REPORTS	17	51	-34
A21	SCHEDULE LEAVES OR PASSES	13	48	-35
B27	COUNSEL PERSONNEL ON PERSONAL OR MILITARY RELATED PROBLEMS	23	61	-38
C76	WRITE AIRMAN PERFORMANCE REPORTS (APR)	25	64	-39

TOTAL NUMBER OF TASKS EXCEEDING 30 PERCENT DIFFERENCE: 8
AVERAGE NUMBER OF TASKS PERFORMED BY 30455 PERSONNEL: 100
AVERAGE NUMBER OF TASKS PERFORMED BY 30475 PERSONNEL: 134
TIME-SPENT OVERLAP BETWEEN THESE GROUPS: 76%

TABLE 10

TASKS WHICH MOST CLEARLY DISTINGUISH BETWEEN 30475 AND 30496 PERSONNEL
(PERCENT MEMBERS PERFORMING)

TASK	TITLE	DAFSC 30475 (N=137)	DAFSC 30496 (N=92)	ABSOLUTE DIFFERENCE
M280	ADJUST RECEIVER OR MONITOR OPERATING CONTROLS, SUCH AS FOCUS OR CENTERING	70	3	+67
F163	REMOVE OR REPLACE PLUG-IN OR SCREW-IN ELECTRONIC COMPONENTS, SUCH AS TRANSISTORS, TUBES, OR INDICATOR LIGHTS	75	9	+66
F164	REMOVE OR REPLACE SOLDERED ELECTRONIC COMPONENTS ON ETCHED CIRCUIT BOARDS	73	8	+65
M286	ISOLATE MALFUNCTIONS OF RECEIVER OR MONITOR CIRCUITS	65	3	+62
F165	SOLDER OR DESOLDER CONNECTORS OR HARDWIRE CIRCUITS	71	11	+60
G174	ADJUST CAMERA OPERATING CONTROLS, SUCH AS TARGET BEAM OR SET-UP	59	2	+57
F158	INTERPRET SCHEMATIC DIAGRAMS	78	23	+55
M289	REMOVE OR REPLACE RECEIVER OR MONITOR SUBASSEMBLIES	58	3	+55
M287	ISOLATE MALFUNCTIONS OF RECEIVER OR MONITOR SUBASSEMBLIES	57	3	+54
M288	ISOLATE MALFUNCTIONS TO RECEIVER OR MONITOR SUBASSEMBLIES	55	3	+52
G173	ADJUST CAMERA LINEARITY CONTROLS	55	3	+52
G196	ISOLATE MALFUNCTIONS OF VIDEO AMPLIFIERS CIRCUITS	53	1	+52
C62	EVALUATE INDIVIDUALS FOR PROMOTION, DEMOTION, OR RECLASSIFICATION	28	70	-42
A5	DEVELOP MAINTENANCE AGREEMENTS WITH OTHER OPERATING AGENCIES	22	64	-42
B33	DRAFT CORRESPONDENCE OR REPORTS	51	96	-45
B50	SUPERVISE GROUND RADIO COMMUNICATIONS EQUIPMENT REPAIR (AFS 304X4) PERSONNEL	6	51	-45
A9	ESTABLISH ORGANIZATION POLICIES, STANDARD OPERATING PROCEDURES, OR MAINTENANCE OPERATING INSTRUCTIONS	30	76	-46
A14	PLAN OR PREPARE BRIEFINGS	28	75	-47
A2	ASSIGN SPONSORS FOR NEWLY ASSIGNED PERSONNEL	34	83	-49
A1	ASSIGN PERSONNEL TO DUTY POSITIONS	38	87	-49
C72	INDORSE AIRMAN PERFORMANCE REPORTS	34	85	-51
C63	EVALUATE INSPECTION REPORTS OR PROCEDURES	27	82	-55

TOTAL NUMBER OF TASKS EXCEEDING 30 PERCENT DIFFERENCE: 112
AVERAGE NUMBER OF TASKS PERFORMED BY 30475 PERSONNEL: 134
AVERAGE NUMBER OF TASKS PERFORMED BY 30496 PERSONNEL: 65
TIME-SPENT OVERLAP BETWEEN THESE GROUPS: 42%

TABLE 11

TASKS WHICH MOST CLEARLY DISTINGUISH BETWEEN 30496 AND 30100 PERSONNEL
(PERCENT MEMBERS PERFORMING)

TASK	TITLE	DAFSC 30496 (N=92)	CEM CODE 30100 (N=16)	ABSOLUTE DIFFERENCE
B40	INVENTORY EQUIPMENT, TOOLS, OR SUPPLIES	38	13	+29
B44	PREPARE MAINTENANCE SCHEDULES	38	13	+29
C54	ANALYZE WORKLOAD REQUIREMENTS	62	38	+24
E152	TYPE CORRESPONDENCE, RECORDS, OR REPORTS	36	13	+23
E154	VALIDATE SUPPLY PRIORITY MONITOR REPORTS	36	13	+23
E148	REVIEW PRECISION MEASUREMENT EQUIPMENT INVENTORY LISTINGS	34	13	+21
E142	REVIEW DAILY DOCUMENT REGISTERS	46	25	+21
A17	PLAN SECURITY PROGRAMS	37	19	+18
B39	INTERPRET POLICIES, DIRECTIVES, OR PROCEDURES FOR SUBORDINATES	89	100	-11
C62	EVALUATE INDIVIDUALS FOR PROMOTION, DEMOTION, OR RECLASSIFICATION	70	81	-11
A9	ESTABLISH ORGANIZATION POLICIES, STANDARD OPERATING PROCEDURES, OR MAINTENANCE OPERATING INSTRUCTIONS	76	88	-12
B42	PARTICIPATE IN STAFF MEETINGS	88	100	-12
C63	EVALUATE INSPECTION REPORTS OR PROCEDURES	82	94	-12
A6	DEVELOP ORGANIZATIONAL CHARTS	49	63	-14
A7	DRAFT BUDGET FOR FINANCIAL REQUIREMENTS	48	63	-15
C57	EVALUATE BUDGETING AND FINANCIAL REQUIREMENTS	47	63	-16
B38	IMPLEMENT SUGGESTION PROGRAMS	33	50	-17
B36	IMPLEMENT SAFETY PROGRAMS	47	69	-22
C78	WRITE STAFF STUDIES, SURVEYS, OR SPECIAL REPORTS	66	88	-22
B25	COMPLETE PERSONNEL ACTION REQUESTS	59	81	-22
B50	SUPERVISE GROUND RADIO COMMUNICATIONS EQUIPMENT REPAIR (AFS 304X4) PERSONNEL	51	75	-24
B26	CONDUCT STAFF MEETINGS	52	81	-29

TOTAL NUMBER OF TASKS EXCEEDING 30 PERCENT DIFFERENCE: 0
AVERAGE NUMBER OF TASKS PERFORMED BY 30496 PERSONNEL: 65
AVERAGE NUMBER OF TASKS PERFORMED BY 30100 PERSONNEL: 56
TIME-SPENT OVERLAP BETWEEN THESE GROUPS: 80%

ANALYSIS OF TASK DIFFICULTY

Tasks rated above average in difficulty by the 44 experienced 304X5 NCOs were associated with management and supervision, and with certain technical tasks which primarily involved isolating malfunctions. In contrast, most cleaning and lubricating tasks were rated least difficult. Also, a number of administrative filing tasks, and tasks involving simple operation of teleprompters and holding cue cards, were also rated least difficult. Tables 12, 13, and 14 present tasks rated most, average, and least difficult in the TV Equipment Repair career ladder. (For a complete explanation of task difficulty and job difficulty see the Task Factor Administration portion of the INTRODUCTION section.)

Job Difficulty Index (JDI)

The jobs rated most difficult were in the TV Production Equipment Maintenance Personnel cluster. The TV Production Engineers job type was rated the most difficult (JDI=19.95) based on the difficult tasks performed and the extremely large average number of tasks performed by this group. The Camera Maintenance NCOICs job type was rated second highest (JDI=18.24) based on similar circumstances. Both job types performed difficult tasks related to management and supervision, and isolating malfunctions. (Table 15 compares job difficulty indices among job groups.) At the other end of the scale, TV Production Personnel received a JDI rating of only 6.36. The tasks performed by this group were considerably less difficult than the tasks performed by the job types at the opposite end of the scale.

TABLE 12

TASKS RATED MOST DIFFICULT FOR DAFSC 304X5

TASK		RELATIVE TASK DIFFICULTY RATING	PERCENT MEMBERS PERFORMING (N=522)
X537	MODIFY ELECTRONIC BEAM RECORDERS (EBR)	7.51	1
C78	WRITE STAFF STUDIES, SURVEYS, OR SPECIAL REPORTS	7.23	21
D89	DEVELOP CAREER DEVELOPMENT COURSES (CDC)	7.22	3
K253	ALIGN HELICAL VTR TIME BASE CORRECTORS	7.21	16
M283	ALIGN RECEIVER TUNERS	7.07	14
A7	DRAFT BUDGET FOR FINANCIAL REQUIREMENTS	7.07	21
K260	ISOLATE MALFUNCTIONS OF HELICAL VTR TIME BASE CORRECTORS	7.06	17
D90	DEVELOP COURSE CURRICULA OR PLANS OF INSTRUCTION (POI)	7.03	5
L273	ISOLATE MALFUNCTIONS OF QUADRUPLEX SERVO SYSTEMS	7.03	11
L275	ISOLATE MALFUNCTIONS OF QUADRUPLEX VIDEO DROPOUT COMPENSATORS	6.99	9
J242	ISOLATE MALFUNCTIONS OF VTR EDITING SYSTEMS	6.95	17
D91	DEVELOP SPECIALTY TRAINING STANDARDS (STS)	6.83	7
K252	ALIGN HELICAL VTR SERVO SYSTEMS	6.81	26
X527	INSTALL MICROWAVE RELAY SYSTEMS	6.81	2
U444	ISOLATE MALFUNCTIONS OF MICROWAVE TRANSMITTER OR RECEIVER CIRCUITS	6.80	4
X555	MODIFY VIDEO TAPE EDITING SYSTEMS	6.80	3
I225	ISOLATE MALFUNCTIONS OF COLOR VIDEO ENCODER MATRIX CIRCUITS	6.78	14
C77	WRITE CIVILIAN PERFORMANCE RATINGS	6.76	9
K257	ISOLATE MALFUNCTIONS OF HELICAL SERVO SYSTEMS	6.74	27
X546	MODIFY SPECIAL EFFECTS GENERATORS	6.73	3
U443	ISOLATE MALFUNCTIONS OF MICROWAVE TRANSMITTER OR RECEIVER SUBASSEMBLIES	6.73	4
U442	ALIGN MICROWAVE TRANSMITTERS	6.68	3
C57	EVALUATE BUDGETING AND FINANCIAL REQUIREMENTS	6.68	18
M281	ALIGN RECEIVER INTERMEDIATE FREQUENCY (IF) STRIPS	6.68	17

TABLE 13

TASKS RATED AVERAGE IN DIFFICULTY FOR DAFSC 304X5

TASK		RELATIVE TASK DIFFICULTY RATING	PERCENT MEMBERS PERFORMING (N=522)
H203	ISOLATE MALFUNCTIONS OF MONOCHROME CAMERA CHAIN POWER SUPPLIES	5.05	23
D100	REVIEW SPECIALTY TRAINING STANDARDS	5.04	11
Q340	ADJUST VIDEO BLACK WITH BURST GENERATORS	5.03	13
X548	MODIFY STUDIO LIGHTING GRIDS	5.03	3
P315	ALIGN SPOT PLAYER OR AUDIO RECORDER PLAYBACK SYSTEMS	5.02	13
Q348	ALIGN TELEPROMPTER CONTROL SECTIONS	5.02	6
W510	PERFORM OPERATIONAL CHECKS OF HELICAL VTRs	5.01	26
C55	EVALUATE ADMINISTRATIVE FORMS, FILES, OR PROCEDURES	5.01	23
G169	ADJUST CAMERA CABLE EQUALIZERS	5.01	25
F164	REMOVE OR REPLACE SOLDERED ELECTRONIC COMPONENTS ON ETCHED CIRCUIT BOARDS	5.01	65
M288	ISOLATE MALFUNCTIONS TO RECEIVER OR MONITOR SUBASSEMBLIES	5.00*	51
E119	MAINTAIN TECHNICAL ORDER (TO) FILES OR TO COMPLIANCE RECORDS	5.00*	24
L265	ADJUST QUADRUPLEX VTR SKEWING AND SCALLOPING CONTROLS	5.00*	15
R406	REMOVE OR REPLACE FILM CHAIN OPTICAL SYSTEM COMPONENTS	4.99	14
G168	ADJUST APPERATURE CORRECTION CIRCUIT	4.98	29
G173	ADJUST CAMERA LINEARITY CONTROLS	4.98	49
R396	ISOLATE MALFUNCTIONS OF FILM CHAIN POWER SUPPLIES	4.98	15
Q344	ADJUST VIDEO PROCESSING AMPLIFIERS	4.98	20
F157	INTERPRET BLOCK DIAGRAMS OR COMPONENT LOCATION DIAGRAMS	4.96	65
X561	REMOVE OR INSTALL AIRBORNE VTRs	4.96	3
B28	DESIGN MAINTENANCE WORKSHEETS OR FORMS	4.96	16
B31	DIRECT MAINTENANCE OF ADMINISTRATIVE FILES	4.96	25
C66	EVALUATE PROCEDURES FOR STORAGE, INVENTORY, OR INSPECTION OF PROPERTY ITEMS	4.96	23

* 5.00 = AVERAGE DIFFICULTY

TABLE 14

TASKS RATED LEAST DIFFICULT FOR DAFSC 304X5

TASK		RELATIVE TASK DIFFICULTY RATING	PERCENT MEMBERS PERFORMING (N=522)
G199	LUBRICATE CAMERA PEDESTALS OR MOUNTS	3.14	15
P330	REMOVE OR REPLACE LOUDSPEAKERS	3.13	27
W482	FIGURE 8 CAMERA CABLES	3.09	10
W500	OPERATE TELEPROMPTERS	3.09	3
W476	CLEAN VIDEO TAPES	3.07	8
Q377	REMOVE OR REPLACE STUDIO LIGHTS	3.06	11
A21	SCHEDULE LEAVES OR PASSES	3.04	37
W475	CLEAN FILM SLIDES OR TRANSPARENCIES	2.99	6
W495	OPERATE MICROPHONE BOOMS	2.98	2
E138	PREPARE TEMPORARY ISSUE RECEIPT FORMS (AF FORM 1297)	2.98	30
E124	MAKE ENTRIES ON VIDEO TAPE HEAD RECORD FORMS	2.95	13
W502	OPERATE TURNTABLES	2.91	7
P331	REMOVE OR REPLACE MICROPHONES	2.91	33
W487	LOAD PAPER IN TELETYPEWRITERS	2.91	3
G186	CLEAN CAMERA PEDESTALS OR MOUNTS	2.84	25
E112	FILE GENERAL CORRESPONDENCE	2.78	30
E110	FILE DAILY DOCUMENT REGISTERS	2.62	19
E104	ATTACH EQUIPMENT STATUS TAGS OR LABELS	2.60	42
E111	FILE EQUIPMENT WARRANTY FORMS	2.57	8
W474	BULK ERASE AUDIO OR VIDEO TAPES	2.55	14
V452	CLEAN OR REPLACE AIR CONDITIONING OR HEATING SYSTEM FILTERS	2.30	9
V451	CLEAN FILM SPLICERS	2.29	5
W483	HANG OR REMOVE BACKGROUND CURTAINS	2.28	3
A2	ASSIGN SPONSORS FOR NEWLY ASSIGNED PERSONNEL	2.21	32
W484	HOLD CUE CARDS	1.45	2

TABLE 15

COMPARISON OF JOB DIFFICULTY INDICES AMONG
304X5 CAREER LADDER STRUCTURE JOB GROUPS

CLUSTER, SUBCLUSTER, INDEPENDENT JOB TYPE, JOB TYPE	AVERAGE NUMBER OF TASKS PERFORMED	ATDPUTS*	JDI**
I. TV PRODUCTION PERSONNEL (GRP032, N=10)	44	4.40	6.36
II. CCTV PERSONNEL (GRP026, N=148)	63	4.72	10.04
A. CCTV MAINTENANCE PERSONNEL (GRP051, N=83)	46	4.70	8.74
1. Weathervision Maintenance Specialists (GRP165, N=10)	36	4.57	6.97
2. CCTV Installer-Repairmen (GRP154, N=10)	27	4.71	7.36
3. TOSS Camera Systems Personnel (GRP139, N=7)	31	4.63	7.05
4. Weathervision Maintenance Personnel (GRP096, N=24)	56	4.69	9.35
5. TOSS Microwave Specialists (GRP080, N=7)	65	4.91	11.72
6. Receiver-Monitor Maintenance Personnel (GRP115, N=18)	51	4.75	9.48
B. CCTV MAINTENANCE NCOICs (GRP054, N=61)	87	4.76	11.94
1. Weathervision NCOICs (GRP079, N=42)	97	4.75	12.56
2. Receiver-Monitor Maintenance NCOICs (GRP065, N=16)	68	4.83	11.33
III. TV PRODUCTION EQUIPMENT MAINTENANCE PERSONNEL (GRP027, N=155)	200	4.95	17.78
A. TV PRODUCTION EQUIPMENT MAINTENANCE NOCICs (GRP071, N=99)	138	4.88	15.47
1. Color Receiver-Monitor and VTR NCOICs (GRP120, N=7)	113	4.82	14.00
2. Color Receiver-Monitor NCOICs (GRP105, N=10)	91	4.92	13.56
3. Camera Maintenance NCOICs (GRP162, N=8)	194	4.92	18.24
4. Helical VTR NCOICs (GRP133, N=16)	133	4.88	15.00
B. TV PRODUCTION EQUIPMENT MAINTENANCE PERSONNEL (GRP066, N=99)	238	5.00	19.25
1. TV Production Engineers (GRP118, N=79)	261	5.01	19.95
2. Tech School TV Equipment Maintenance Support Personnel (GRP132, N=11)	162	4.99	17.65
3. Junior TV Production Engineers (GRP085, N=26)	116	4.87	14.54
IV. VTR MAINTENANCE PERSONNEL (GRP038, N=26)	60	5.05	12.31
1. Quadruplex and Helical VTR Maintenance Personnel (GRP091, N=5)	103	5.14	15.86
2. Airborne VTR Repairmen (GRP095, N=17)	54	4.96	11.26
V. SUPERVISORS (GRP050, N=129)	70	5.06	12.81
A. NCOICs (GRP053, N=105)	80	5.02	13.22
B. SUPERINTENDENTS (GRP055, N=24)	25	5.22	11.01
1. Managers (GRP193, N=7)	16	5.29	10.81
2. Maintenance Superintendents (GRP146, N=11)	29	5.22	11.37
VI. QUALITY CONTROL INSPECTORS (GRP094, N=11)	35	5.29	12.43
VII. INSTRUCTORS (GRP030, N=6)	18	5.47	12.29

* AVERAGE TASK DIFFICULTY PER UNIT TIME SPENT
** RELATIVE JOB DIFFICULTY INDEX

COMPARISON OF AFR 39-1 SPECIALTY DESCRIPTIONS TO SURVEY DATA

Survey data were compared with the specialty descriptions found in AFR 39-1. In general, the specialty descriptions gave an accurate picture of the tasks being performed by Television Equipment Repair career ladder personnel in the field. However, to refine these descriptions further, minor deletions and additions could be made.

Because two terms used in the specialty descriptions have become outmoded, the descriptions can be updated by deleting references to kinescope recordings and RF transmission systems. Tasks related to these items were performed by only one percent of the sample, and technical school personnel indicated that this equipment and function is no longer being maintained or accomplished by 304X5 personnel.

Several job functions accomplished by 304X5 personnel were not mentioned in the specialty descriptions. Not discussed were television production equipment operation (as opposed to maintenance), microwave transmission system maintenance, and radio and television transmitter operation and maintenance. All of these functions were being performed by clear-cut job groups identified in the career ladder structure. Also, when referring to the set-up and maintenance of TV monitors, adding the fact that career ladder members accomplish the same tasks for receivers as well, could add clarification. By including these job functions and clarifications, the descriptions will present a more complete picture of the functions being accomplished in this career ladder.

In addition, the major jobs to which a Television Equipment Repairman could be assigned are not discussed in the specialty descriptions. These job types include: TV production, TV production equipment maintenance, weathervision maintenance, TV ordinance scoring systems (TOSS), helical and quadruplex VTR maintenance, and airborne VTR repair. By specifying the possible jobs one may encounter in this career ladder, the overall verbal picture would become clearer.

ANALYSIS OF CONUS VERSUS OVERSEAS GROUPS

Comparisons of the tasks performed and background data for DAFSC 30455 respondents assigned to CONUS versus overseas locations were examined. Generally, stateside 5-skill level airmen spent more time on management, supervision, and training; administration; general repair functions; camera maintenance; and TV monitor and receiver set-up and maintenance. Overseas 30455 personnel concentrated their efforts more on videotape recorder maintenance; studio support functions; maintaining and operating radio and TV transmitters; and installing and modifying television and associated equipment (see Table 16). The relative time-spent overlap between these groups was only 61 percent, indicating the two groups showed considerable differences in the nature of their jobs.

Job descriptions of the CONUS and overseas 5-skill level groups are presented in Appendixes C-1 and C-2. The same trend in percent members performing tasks was noted in these descriptions as in the percent time spent on duties (see Table 16). Tasks which distinguish between the CONUS and overseas groups are listed in Table 17. CONUS airmen were more likely to prepare maintenance data collection record forms; supervise apprentice TV Equipment Repairmen; and isolate malfunctions and adjust monochrome cameras than overseas airmen. Meanwhile, overseas airmen were more likely to maintain VTRs, projectors, and transmitters than stateside airmen.

Comparison of background data indicated that overseas respondents performed considerably more tasks (143) on the average than did CONUS airmen (94). Twenty-five percent of CONUS 30455 airmen supervised, while only 16 percent of overseas personnel did. TAFMS and job satisfaction indices were approximately equal for these groups. Equipment usage indicated by members of the two groups verified the trends stated above regarding percent time spent on task groupings.

TABLE 16

PERCENT TIME SPENT ON DUTIES BY CONUS AND OVERSEAS GROUPS

DUTY	CONUS 30455s (N=220)	OVERSEAS 30455s (N=37)
MANAGEMENT, SUPERVISION, AND TRAINING:		
A ORGANIZING AND PLANNING	4	3
B DIRECTING AND IMPLEMENTING	5	2
C INSPECTING AND EVALUATING	4	2
D TRAINING	5	2
TOTAL	18	9
ADMINISTRATIVE:		
E WORKING WITH FORMS, RECORDS, REPORTS, DIRECTIVES, AND TECHNICAL DATA	11	7
GENERAL REPAIR FUNCTIONS:		
F PERFORMING GENERAL REPAIR FUNCTIONS	12	8
CAMERA MAINTENANCE:		
G PERFORMING GENERAL CAMERA MAINTENANCE	14	9
H MAINTAINING MONOCHROME CAMERA CHAINS	2	-
I MAINTAINING COLOR CAMERA CHAINS	2	3
TOTAL	18	12
VIDEOTAPE RECORDER (VTR) MAINTENANCE:		
J PERFORMING GENERAL VIDEO MAGNETIC RECORDING MAINTENANCE	3	8
K MAINTAINING HELICAL VIDEO MAGNETIC RECORDERS	3	7
L MAINTAINING QUADRUPLEX VIDEO MAGNETIC RECORDERS	1	-
TOTAL	7	15
TV MONITOR AND RECEIVER SET-UP AND MAINTENANCE:		
M PERFORMING GENERAL TV MONITOR AND RECEIVER MAINTENANCE	8	3
N SETTING UP COLOR TV MONITORS AND RECEIVERS	2	2
TOTAL	10	5
STUDIO SUPPORT:		
O MAINTAINING SYNC GENERATORS	1	1
P MAINTAINING AUDIO SYSTEMS	4	7
Q MAINTAINING AUXILIARY EQUIPMENT	5	5
R MAINTAINING FILM CHAINS AND PROJECTORS	2	6
W SUPPORTING PRODUCTIONS, RECORDINGS, PLAYBACKS, AND BROADCASTS	4	12
TOTAL	16	31
MISCELLANEOUS FUNCTIONS:		
S MAINTAINING TEST EQUIPMENT	1	-
T MAINTAINING AND OPERATING RADIO AND TV TRANSMITTERS	-	4
U MAINTAINING AND OPERATING MICROWAVE TRANSMISSION SYSTEMS	1	-
V MAINTAINING MISCELLANEOUS FACILITIES AND EQUIPMENT	1	2
X INSTALLING AND MODIFYING TELEVISION AND ASSOCIATED EQUIPMENT	5	7
TOTAL	8	13

TABLE 17

TASKS WHICH MOST CLEARLY DISTINGUISH BETWEEN 30455 CONUS AND OVERSEAS PERSONNEL
(PERCENT MEMBERS PERFORMING)

TASK	TITLE	CONUS (N=220)	OVERSEAS (N=37)	ABSOLUTE DIFFERENCE
E132	PREPARE MAINTENANCE DATA COLLECTION RECORD FORMS (AFTO FORM 349)	45	16	+29
E104	ATTACH EQUIPMENT STATUS TAGS OR LABELS	51	27	+24
B45	SUPERVISE APPRENTICE TELEVISION EQUIPMENT REPAIRMEN (AFSC 30435)	32	8	+24
H204	ISOLATE MALFUNCTIONS OF MONOCHROME CAMERA CONTROL UNIT (CCU) CIRCUITS	34	11	+23
E119	MAINTAIN TECHNICAL ORDER (TO) FILES OR TO COMPLIANCE RECORDS	30	8	+22
G200	REMOVE OR REPLACE CAMERA HEAD LENSES	45	24	+21
H202	ADJUST MONOCHROME CAMERA CHAIN POWER SUPPLIES	32	11	+21
H203	ISOLATE MALFUNCTIONS OF MONOCHROME CAMERA CHAIN POWER SUPPLIES	33	14	+19
M286	ISOLATE MALFUNCTIONS OF RECEIVER OR MONITOR CIRCUITS	81	68	+13
T433	REMOVE OR REPLACE HIGH POWER TUBES	5	41	-36
J234	ADJUST VIDEO TAPE RECORDER (VTR) POWER SUPPLIES	26	62	-36
R404	REMOVE OR REPLACE FILM CHAIN MECHANICAL SYSTEMS COMPONENTS	10	46	-36
J239	CLEAN VTR TAPE TRANSPORT SYSTEMS	36	73	-37
J247	REPLACE VTR VIDEO HEADS	28	65	-37
R403	REMOVE OR REPLACE EXCITER OR PROJECTOR LAMPS	20	57	-37
R384	ADJUST FILM CHAIN PROJECTOR LIGHT LEVEL CONTROL SYSTEMS	14	51	-37
W508	PERFORM OPERATIONAL CHECKS OF COLOR CAMERA CHAINS	16	54	-38
R405	REMOVE OR REPLACE FILM CHAIN MOVIE PROJECTOR COMPONENTS	10	49	-39
W488	MONITOR WAVEFORM MONITORS	25	65	-40
R401	PERFORM OVERALL FILM ISLAND OPTICAL ALIGNMENTS	10	51	-41
R388	ALIGN AND ADJUST MOVIE PROJECTOR SOUND REPRODUCING SYSTEMS	11	54	-43
E123	MAKE ENTRIES ON TRANSMITTER LOGS	1	46	-45
T437	TURN ON OR SHUT DOWN TRANSMITTERS	5	59	-54

TOTAL NUMBER OF TASKS EXCEEDING 30 PERCENT DIFFERENCE: 48
AVERAGE NUMBER OF TASKS PERFORMED BY 30455 CONUS PERSONNEL: 94
AVERAGE NUMBER OF TASKS PERFORMED BY 30455 OVERSEAS PERSONNEL: 143
TIME-SPENT OVERLAP BETWEEN THESE GROUPS: 61%

ANALYSIS OF MAJCOM DIFFERENCES

Sizeable differences among the major using commands were noticed when 5-skill level personnel in these MAJCOMs were compared. Table 18 highlights these differences in terms of relative percent time spent on duties. These differences were indicative of task differences.

The most striking differences among 5-skill level personnel in the various commands was an expected one. Those assigned to ATC spent 32 percent of their time performing training-related tasks, in contrast to a maximum of four percent in the other commands. On the average, AFCS and AFSC airmen spent considerably more time in management and supervision than the others. Another difference was noticed in the performance of camera maintenance: ADCOM airmen spent 29 percent of their time performing camera maintenance tasks, while PACAF airmen only spent six percent. Meanwhile, PACAF personnel appeared to concentrate more of their time on videotape recorder maintenance. Studio support-related tasks, though performed in all commands, were emphasized in MAC, PACAF, and ADCOM. MAC personnel spent the largest amount of time (nine percent) installing and modifying television and associated equipment of any of the MAJCOMs.

TABLE 18

RELATIVE PERCENT TIME SPENT ON DUTIES BY 5-SKILL LEVEL COMMAND GROUPS

DUTY	AFCS (N=129)	AFSC (N=29)	ADCOM (N=6)	ATC (N=9)	MAC (N=20)	PACAF (N=15)
MANAGEMENT, SUPERVISION, AND TRAINING:						
A ORGANIZING AND PLANNING	5	7	1	9	1	3
B DIRECTING AND IMPLEMENTING	6	4	1	2	2	4
C INSPECTING AND EVALUATING	5	3	0	-	1	2
D TRAINING	4	4	-	32	1	2
TOTAL	20	18	2	43	5	11
ADMINISTRATIVE:						
E WORKING WITH FORMS, RECORDS, REPORTS, DIRECTIVES, AND TECHNICAL DATA	13	7	1	6	6	7
GENERAL REPAIR FUNCTIONS:						
F PERFORMING GENERAL REPAIR FUNCTIONS	12	15	12	5	6	9
CAMERA MAINTENANCE:						
G PERFORMING GENERAL CAMERA MAINTENANCE	16	10	21	10	12	5
H MAINTAINING MONOCHROME CAMERA CHAINS	2	4	7	1	1	0
I MAINTAINING COLOR CAMERA CHAINS	1	2	1	7	7	1
TOTAL	19	16	29	18	20	6
VIDEOTAPE RECORDER (VTR) MAINTENANCE:						
J PERFORMING GENERAL VIDEO MAGNETIC RECORDING MAINTENANCE	2	3	3	2	6	14
K MAINTAINING HELICAL VIDEO MAGNETIC RECORDERS	2	3	1	5	3	10
L MAINTAINING QUADRUPLEX VIDEO MAGNETIC RECORDERS	1	1	2	1	5	1
TOTAL	5	7	6	8	14	25
TV MONITOR AND RECEIVER SET-UP AND MAINTENANCE:						
M PERFORMING GENERAL TV MONITOR AND RECEIVER MAINTENANCE	9	14	13	4	3	3
N SETTING UP COLOR TV MONITORS AND RECEIVERS	4	1	4	3	4	2
TOTAL	13	15	17	7	7	5
STUDIO SUPPORT:						
O MAINTAINING SYNC GENERATORS	-	1	2	-	1	1
P MAINTAINING AUDIO SYSTEMS	4	2	5	1	5	2
Q MAINTAINING AUXILIARY EQUIPMENT	5	8	4	4	6	3
R MAINTAINING FILM CHAINS AND PROJECTORS	1	2	5	5	3	4
W SUPPORTING PRODUCTIONS, RECORDINGS, PLAYBACKS, AND BROADCASTS	3	3	11	1	15	18
TOTAL	13	16	27	11	30	28
MISCELLANEOUS FUNCTIONS:						
S MAINTAINING TEST EQUIPMENT	1	1	1	-	1	1
T MAINTAINING AND OPERATING RADIO AND TV TRANSMITTERS	-	-	0	0	-	2
U MAINTAINING AND OPERATING MICROWAVE TRANSMISSION SYSTEMS	-	-	0	0	0	-
V MAINTAINING MISCELLANEOUS FACILITIES AND EQUIPMENT	-	1	1	-	1	2
X INSTALLING AND MODIFYING TELEVISION AND ASSOCIATED EQUIPMENT	4	4	4	2	9	3
TOTAL	5	6	6	2	11	8
TOTAL RELATIVE PERCENT TIME SPENT	100	100	100	100	100	100

ANALYSIS OF AFMS GROUPS

Utilization patterns for survey respondents in various AFMS groups were reviewed to determine differences in tasks performed. No deviations from the usual pattern of supervision-related tasks and duties increasing with time in the service were noted. Junior airmen spent more time on technically-oriented duties (see Table 19). The second, third, and fourth enlistment groups spent less than a third of their time on managment, supervision, and training. At the fifth enlistment (AFMS 193-240 months), management, supervision, and training-related tasks took over half the respondents' time. Technical tasks showed the opposite trend. Also, time spent on administrative tasks increased through the third enlistment, at which point it leveled off.

First Job Assignment Personnel

First job assignment airmen (AFMS 1-24 months) performed the less difficult technical tasks such as removing or replacing plug-in or screw-in electronics components, or microphones; adjusting receiver or monitor operating controls; cleaning camera head lenses; and disposing of picture tubes (PIX) or cathode ray tubes (CRT). A few of the representative tasks (listed in Table 20) were, however, rated above average; such as, interpreting block diagrams or component location diagrams.

Equipment maintained and worked on by first job and first enlistment airmen is highlighted in Tables 21 and 22. Closed circuit monochrome TV production equipment, weathervision, and surveillance/ observation TV (monochrome) were some of the types of equipment more frequently maintained. Equipment worked on included many of the same types as maintained, but also included: audio amplifiers, video cable transmission systems, color receivers, and audiotape recorders. Test equipment used by the largest percentages of these personnel are listed in Table 23. Oscilloscopes, multimeters, CRT checkers, vacuum tube testers, waveform monitors, dot generators, capacitor checkers, and color bar generators comprise the most frequently used items of test equipment.

Forty-eight percent of first-termers performed jobs similar to those in the CCTV Personnel cluster, and 40 percent performed jobs similar to the TV Production Equipment Maintenance Personnel cluster. The seven first-termers who fell into the TV Production Personnel independent job type comprised 70 percent of that job type. The 14 first-termers who grouped with the VTR Maintenance Personnel cluster comprised 54 percent of that group.

Job Satisfaction Data

Job interest, perceived utilization of talents and training, and reenlistment intentions for AFMS groups are presented in Table 24, along with comparative sample data taken from all mission equipment maintenance career ladders surveyed in 1978. (These comparative sample career ladders included the following AFSCs: 303X2, 306X2, 307X0, 316X2G, 316X3, 341X1, 341X2, 341X3, 341X4, 341X5, 341X6, 341X7, 361X0, 362X1, 423X2, 443X0E, and 463X0. The total comparative sample size was N=13,804 airmen).

When compared with the mission equipment maintenance comparative sample group, 304X5 airmen rated their career ladder's job about the same as the average of the 1978 sample. Several 304X5 AFMS groups, however, fell below the comparative sample's average in perceived utilization of training and reenlistment intentions. Only 60 and 56 percent (respectively) of the 1 to 24 months and 1 to 48 month AFMS groups rated their perception of utilization of training as fairly well or better. This rating was 14 percentage points below the comparative sample. In reenlistment intentions, the 49 to 96 months and 97 plus months AFMS groups' affirmative responses were six to 12 points below the comparative sample. All other ratings followed the comparative sample closely.

TABLE 19

PERCENT TIME SPENT ON DUTIES BY AFMS GROUPS

DUTY	MONTHS AFMS 1-24 (N=53)	1-48 (N=141)	49-96 (N=121)	97-144 (N=55)	145-192 (N=35)	193-240 (N=91)	241+ (N=76)
MANAGEMENT, SUPERVISION, AND TRAINING:							
A ORGANIZING AND PLANNING	2	3	6	5	6	13	22
B DIRECTING AND IMPLEMENTING	2	3	7	8	9	16	27
C INSPECTING AND EVALUATING	1	2	5	6	9	16	25
D TRAINING	1	2	6	6	9	8	7
TOTAL	6	10	24	25	33	53	81
ADMINISTRATIVE:							
E WORKING WITH FORMS, RECORDS, REPORTS, DIRECTIVES, AND TECHNICAL DATA	9	8	11	12	12	11	12
GENERAL REPAIR FUNCTIONS:							
F PERFORMING GENERAL REPAIR FUNCTIONS	17	13	11	8	7	4	2
CAMERA MAINTENANCE:							
G PERFORMING GENERAL CAMERA MAINTENANCE	15	14	12	12	7	4	1
H MAINTAINING MONOCHROME CAMERA CHAINS	2	2	2	2	2	1	-
I MAINTAINING COLOR CAMERA CHAINS	-	2	2	2	2	2	-
TOTAL	17	18	16	16	11	7	1
VIDEOTAPE RECORDER (VTR) MAINTENANCE:							
J PERFORMING GENERAL VIDEO MAGNETIC RECORDING MAINTENANCE	4	5	3	4	3	2	-
K MAINTAINING HELICAL VIDEO MAGNETIC RECORDERS	2	4	3	3	3	2	-
L MAINTAINING QUADRUPLEX VIDEO MAGNETIC RECORDERS	1	1	1	1	1	1	-
TOTAL	7	10	7	8	7	5	-
TV MONITOR AND RECEIVER SET-UP AND MAINTENANCE:							
M PERFORMING GENERAL TV MONITOR AND RECEIVER MAINTENANCE	12	9	7	4	4	2	-
N SETTING UP COLOR TV MONITORS AND RECEIVERS	4	4	3	2	2	2	-
TOTAL	16	13	10	6	6	4	-
STUDIO SUPPORT:							
O MAINTAINING SYNC GENERATORS	1	1	1	1	1	1	-
P MAINTAINING AUDIO SYSTEMS	5	4	3	3	4	2	-
Q MAINTAINING AUXILIARY EQUIPMENT	5	5	4	5	4	4	1
R MAINTAINING FILM CHAINS AND PROJECTORS	1	2	2	3	3	1	-
W SUPPORTING PRODUCTIONS, RECORDINGS, PLAYBACKS, AND BROADCASTS	6	7	5	4	5	4	1
TOTAL	18	19	15	16	17	12	2
MISCELLANEOUS FUNCTIONS:							
S MAINTAINING TEST EQUIPMENT	1	1	1	1	1	1	-
T MAINTAINING AND OPERATING RADIO AND TV TRANSMITTERS	1	1	1	1	-	-	-
U MAINTAINING AND OPERATING MICROWAVE TRANSMISSION SYSTEMS	1	1	-	1	-	-	1
V MAINTAINING MISCELLANEOUS FACILITIES AND EQUIPMENT	1	1	-	1	1	-	-
X INSTALLING AND MODIFYING TELEVISION AND ASSOCIATED EQUIPMENT	6	5	4	5	5	3	1
TOTAL	10	9	6	9	7	4	2

TABLE 20

REPRESENTATIVE TASKS PERFORMED BY 304X5 FIRST JOB AIRMEN
(1-24 MONTHS AFMS)

TASK	TITLE	PERCENT MEMBERS PERFORMING	RELATIVE TASK DIFFICULTY RATING
F164	REMOVE OR REPLACE SOLDERED ELECTRONIC COMPONENTS ON ETCHED CIRCUIT BOARDS	96	5.01
F163	REMOVE OR REPLACE PLUG-IN OR SCREW-IN ELECTRONIC COMPONENTS, SUCH AS TRANSISTORS, TUBES, OR INDICATOR LIGHTS	92	3.66
F165	SOLDER OR DESOLDER CONNECTORS OR HARDWIRE CIRCUITS	92	4.80
M280	ADJUST RECEIVER OR MONITOR OPERATING CONTROLS, SUCH AS FOCUS OR CENTERING	92	3.65
F157	INTERPRET BLOCK DIAGRAMS OR COMPONENT LOCATION DIAGRAMS	85	4.96
F158	INTERPRET SCHEMATIC DIAGRAMS	83	5.81
M286	ISOLATE MALFUNCTIONS OF RECEIVER OR MONITOR CIRCUITS	81	5.18
M289	REMOVE OR REPLACE RECEIVER OR MONITOR SUBASSEMBLIES	74	4.39
G174	ADJUST CAMERA OPERATING CONTROLS, SUCH AS TARGET BEAM OR SET-UP	70	4.77
M287	ISOLATE MALFUNCTIONS OF RECEIVER OR MONITOR SUB-ASSEMBLIES	68	5.29
G173	ADJUST CAMERA LINEARITY CONTROLS	66	4.98
M288	ISOLATE MALFUNCTIONS TO RECEIVER OR MONITOR SUB-ASSEMBLIES	62	5.00
G201	REMOVE OR REPLACE CAMERA PICKUP TUBES	58	5.31
G196	ISOLATE MALFUNCTIONS OF VIDEO AMPLIFIERS CIRCUITS	57	5.31
G185	CLEAN CAMERA HEAD LENSES	53	3.16
F160	PERFORM CORROSION CONTROL ON TV EQUIPMENT	51	3.94
Q342	ADJUST VIDEO DISTRIBUTION AMPLIFIERS	47	4.57
P331	REMOVE OR REPLACE MICROPHONES	47	2.91
M285	DISPOSE OF PICTURE TUBES (PIX) OR CATHODE RAY TUBES (CRT)	45	3.50
E132	PREPARE MAINTENANCE DATA COLLECTION RECORD FORMS (AFTO FORM 349)	38	4.48

TABLE 21

EQUIPMENT WORKED ON BY THE LARGEST PERCENTAGES OF FIRST JOB AND FIRST ENLISTMENT PERSONNEL (PERCENT MEMBERS WORKING)

EQUIPMENT WORKED ON	FIRST JOB (1-24 MOS AFMS) (N=53)	FIRST ENLISTMENT (1-48 MOS AFMS) (N=141)
CLOSED CIRCUIT TV SYSTEMS	79	62
MONOCHROME MONITORS	77	68
AUDIO AMPLIFIERS	55	57
VIDEO CABLE TRANSMISSION SYSTEMS	43	33
COLOR RECEIVERS	28	38
AUDIO TAPE RECORDERS/REPRODUCERS	26	26
COLOR HELICAL VTR, EDUCATIONAL	26	24
COLOR MONITORS	25	38
PULSE DISTRIBUTION SYSTEMS	23	30
VIDEO PROCESSING AMPLIFIERS	21	26
MONOCHROME RECEIVERS	19	21
AUDIO MIXER CONSOLES	17	21
FILM CHAINS	13	26
ELECTRONIC VIDEO SWITCHERS WITH MIX FACILITIES	13	24
COLOR SYNC GENERATORS	13	24

TABLE 22

EQUIPMENT MAINTAINED BY THE LARGEST PERCENTAGES OF FIRST JOB AND FIRST ENLISTMENT PERSONNEL (PERCENT MEMBERS MAINTAINING)

EQUIPMENT MAINTAINED	FIRST JOB (1-24 MOS AFMS) (N=53)	FIRST ENLISTMENT (1-48 MOS AFMS) (N=141)
CLOSED CIRCUIT MONOCHROME TV PRODUCTION EQUIPMENT	38	33
WEATHERVISION	38	33
SURVEILLANCE/OBSERVATION TV, MONOCHROME	28	26
CLOSED CIRCUIT COLOR TV PRODUCTION EQUIPMENT	25	21
BROADCAST QUALITY COLOR TV EQUIPMENT	13	28

TABLE 23

TEST EQUIPMENT USED BY THE LARGEST PERCENTAGES OF
FIRST JOB AND FIRST ENLISTMENT PERSONNEL
(PERCENT MEMBERS USING)

TEST EQUIPMENT USED	FIRST JOB (1-24 MOS AFMS) (N=53)	FIRST ENLISTMENT (1-48 MOS AFMS) (N=141)
OSCILLOSCOPES	93	91
MULTIMETERS	81	85
CRT CHECKERS	76	70
VACUUM TUBE TESTERS	72	63
WAVEFORM MONITORS	68	67
DOT GENERATORS	66	63
CAPACITOR CHECKERS	60	48
COLOR BAR GENERATORS	55	54
FREQUENCY COUNTERS	55	53
TV ANALYZERS	51	45
SWEEP MARKER GENERATORS	49	42
SIGNAL GENERATORS	47	55
DIGITAL VOLTMETERS	45	57
GRATING GENERATORS	45	50
AUDIO OSCILLATORS	38	50
MULTIBURST GENERATORS	36	39
SOLID STATE TESTERS	36	40
VACUUM TUBE VOLTMETERS	32	35
VECTORSCOPES	25	34

TABLE 24

COMPARISON OF JOB SATISFACTION INDICES BY AFMS GROUPS
(PERCENT MEMBERS INDICATING)

	1-24 AFMS		1-48 AFMS		49-96 AFMS		97+ AFMS	
	304X5 (N=53)	COMPARATIVE* SAMPLE (N=2,429)	304X5 (N=147)	COMPARATIVE* SAMPLE (N=5,881)	304X5 (N=121)	COMPARATIVE* SAMPLE (N=2,946)	304X5 (N=257)	COMPARATIVE* SAMPLE (N=4,977)
EXPRESSED JOB INTEREST:								
NOT REPORTED	4	3	4	3	5	3	4	3
DULL	21	15	25	18	16	18	12	12
SO-SO	15	17	14	19	20	19	13	13
INTERESTING	60	65	57	60	59	60	71	72
PERCEIVED UTILIZATION OF TALENTS:								
NOT REPORTED	0	1	0	1	2	1	1	1
LITTLE OR NOT AT ALL	34	31	36	33	24	27	19	18
FAIRLY WELL TO VERY WELL	57	63	59	61	63	66	62	64
EXCELLENTLY OR PERFECTLY	9	5	5	5	11	6	18	17
PERCEIVED UTILIZATION OF TRAINING:								
NOT REPORTED	0	1	0	1	3	1	2	1
LITTLE OR NOT AT ALL	40	25	44	29	40	28	25	23
FAIRLY WELL TO VERY WELL	49	66	50	63	51	63	56	61
EXCELLENTLY OR PERFECTLY	11	8	6	7	6	8	17	15
REENLISTMENT INTENTION:								
NOT REPORTED	4	2	3	3	3	2	3	3
NO OR PROBABLY NO	60	60	59	61	48	43	30	28
YES OR PROBABLY YES	36	38	38	36	49	55	57	69

* THE COMPARATIVE SAMPLE WAS TAKEN FROM ALL MISSION EQUIPMENT MAINTENANCE CAREER LADDERS SURVEYED IN 1978 (AFSCs 303X2, 306X2, 307X0, 316X2G, 316X3, 341X1, 341X2, 341X3, 341X4, 341X5, 341X6, 341X7, 361X0, 362X1, 423X2, 443X0E, 463X0, N=13,804)

TRAINING ANALYSIS

In reviewing Television Equipment Repair career ladder training, the results of the first-term training emphasis survey were examined as well as the key document which controls Air Force-wide training, the Specialty Training Standard (STS). In addition, the Plan of Instruction (POI) for course 3ABR30435 will be compared with survey and task factor data.

Training Emphasis Ratings

The 32 experienced 304X5 NCOs agreed that the tasks listed in Table 25 were the ones which they believed should have the highest priority in training for first term airmen in this career ladder. All but one of these tasks were rated above average in difficulty by a second group of experienced NCOs. In addition, job survey data indicate that, with several exceptions, these tasks were performed by sizeable percentages of first job (AFMS 1-24 months), and 3- and 5-skill level personnel. All but three of the top-rated 25 tasks involved isolating malfunctions on various television equipment; such as, on receiver or monitor circuits and subassemblies, color camera chains, and helical VTR equipment. Several items, though rated high in training emphasis, were performed by less than 30 percent of first job, 3- and 5-skill level airmen. These tasks, many of which involved color equipment, should be examined closely by training officials to determine whether training is necessary, even though few are actually accomplishing these tasks at the present time. A poll of over half the NCOs who rated training emphasis for this career ladder indicated that they felt color equipment was becoming a greater proportion of the equipment inventory, and if first-termers were trained on color equipment, they could use these skills.

Table 26 presents representative tasks rated low in first term training emphasis. These tasks included management, supervision, and training-related tasks, and tasks performed by very few personnel in the career ladder.

Comparison of STS 304X5 with Survey Data

STS 304X5, dated October 1977, was compared with survey data. Assistance was provided by subject matter specialists at the technical training schools who matched inventory tasks with STS items. Subparagraphs containing only general information or subject knowledge proficiency level requirements were not evaluated.

Of the 69 STS items requiring technical task performance or performance knowledge, all but six were supported by matched survey data. In addition, a sizeable number of tasks were identified which were performed by over 30 percent of 304X5 personnel and which were

not referenced to the STS. Data reflecting the match between STS items and survey sample responses were furnished the technical training school for a subject matter analysis. Personnel at the school have already drafted a new STS based on these latest survey data.

Comparison of POI 3ABR30435 with Survey Data

A review of POI 3ABR30435, dated 5 September 1978, was conducted using percent members performing data for first job (AFMS 1-24 months), first enlistment (AFMS 1-48 months), 3- and 5-skill level personnel; and training emphasis and task difficulty factors. Assistance was provided by subject matter specialists at the technical training school, who matched inventory tasks with POI objectives. Each performance objective of the basic course was compared to the survey results. Objectives involving only subject matter knowledge were not evaluated with task data.

The comparison revealed that all but one of the POI's 26 performance objectives were matched with job inventory tasks. Seventeen of these 26 objectives had no tasks matched which were performed by 30 percent or more of first-job airmen. However, all but five of these 17 objectives were linked with tasks rated above average in training emphasis. These objectives should be examined by subject matter specialists to determine whether they are sufficiently important for training in the basic course. Since the percent members performing tasks related to these 17 objectives was low, but the training emphasis ratings high, it is possible that some other form of structured training might be appropriate. Perhaps follow-on or FTD courses could train airmen to perform these tasks based on the type of first job to which they are being assigned. On the other hand, courses which attempt to train airmen for a career ladder with as many jobs as the Television Equipment Repair have difficulty meeting the needs of all students. In this case, the best curriculum strategy may be to teach the basic tasks of the career ladder on representative equipment, rather than teaching every type of equipment a student may encounter in the field.

Tasks which were not matched to POI objectives were examined to determine whether they should be included in training. Eighteen tasks were identified which were performed by 30 percent or more of first job airmen. Of these 18 tasks, 13 also were rated above average in training emphasis (see Table 27). It is possible that some of these tasks may be omitted from matching by mistake; but if not, these tasks should be considered for inclusion in the curriculum.

Data reflecting the match between POI objectives and the survey sample and task factor data were furnished the technical training school for a detailed subject matter analysis.

TABLE 25

TASKS RATED HIGHEST IN FIRST-TERM TRAINING EMPHASIS FOR 304X5 PERSONNEL

TASK	TITLE	TRAINING EMPHASIS	TASK DIFFICULTY	PERCENT MEMBERS PERFORMING			
				30435	FIRST-JOB	30455	30475
F164	REMOVE OR REPLACE SOLDERED ELECTRONIC COMPONENTS ON ETCHED CIRCUIT BOARDS	6.22	5.01	100	96	83	72
F165	SOLDER OR DESOLDER CONNECTORS OR HARDWIRE CIRCUITS	6.16	4.80	100	93	85	71
M286	ISOLATE MALFUNCTIONS OF RECEIVER OR MONITOR CIRCUITS	6.09	5.18	60	81	79	65
M287	ISOLATE MALFUNCTIONS OF RECEIVER OR MONITOR SUBASSEMBLIES	5.97	5.29	47	68	71	57
M288	ISOLATE MALFUNCTIONS TO RECEIVER OR MONITOR SUBASSEMBLIES	5.97	5.00	40	62	70	55
F158	INTERPRET SCHEMATIC DIAGRAMS	5.91	5.81	73	83	85	78
I219	ISOLATE MALFUNCTIONS OF COLOR CAMERA CHAIN POWER SUPPLIES	5.81	5.74	7	4	20	26
I227	ISOLATE MALFUNCTIONS TO COLOR CAMERA CHAIN SUBASSEMBLIES	5.81	6.28	7	2	18	28
G197	ISOLATE MALFUNCTIONS TO CAMERA CHAIN SUBASSEMBLIES	5.78	5.26	20	15	32	40
I220	ISOLATE MALFUNCTIONS OF COLOR CAMERA HEAD CIRCUITS	5.75	6.20	7	4	19	24
I222	ISOLATE MALFUNCTIONS OF COLOR CAMERA HEAD SUBASSEMBLIES	5.75	6.97	7	2	19	23
K258	ISOLATE MALFUNCTIONS OF HELICAL TRANSPORT SYSTEMS	5.72	6.22	27	17	35	37
J241	ISOLATE MALFUNCTIONS OF VTR CONTROL SYSTEMS	5.69	6.43	40	25	33	42
F157	INTERPRET BLOCK DIAGRAMS OR COMPONENT LOCATION DIAGRAMS	5.66	4.96	80	85	79	71
I223	ISOLATE MALFUNCTIONS OF COLOR CCU CIRCUITS	5.66	6.04	7	2	20	23
G174	ADJUST CAMERA OPERATING CONTROLS, SUCH AS TARGET BEAM OR SET-UP	5.59	4.77	73	70	70	59
N295	ISOLATE MALFUNCTIONS OF COLOR RECEIVER OR MONITOR CHROMA CIRCUITS	5.59	5.61	27	25	38	44
I224	ISOLATE MALFUNCTIONS OF COLOR CCU SUBASSEMBLIES	5.56	6.19	7	2	17	22
G196	ISOLATE MALFUNCTIONS OF VIDEO AMPLIFIERS CIRCUITS	5.53	5.31	33	57	55	53
K257	ISOLATE MALFUNCTIONS OF HELICAL SERVO SYSTEMS	5.50	6.74	20	17	33	36
K259	ISOLATE MALFUNCTIONS OF HELICAL VIDEO SIGNAL SYSTEMS	5.50	5.97	27	17	35	39
K260	ISOLATE MALFUNCTIONS OF HELICAL VTR TIME BASE CORRECTORS	5.44	7.06	7	6	20	24
K249	ADJUST HELICAL VTR TRANSPORT SYSTEMS	5.37	6.28	33	21	35	37
K261	ISOLATE MALFUNCTIONS TO HELICAL VIDEO MAGNETIC RECORDERS	5.37	5.91	20	13	30	37
N296	ISOLATE MALFUNCTIONS OF COLOR RECEIVER OR MONITOR CONVERGENCE CIRCUITS	5.37	5.61	33	25	36	43

TABLE 26

REPRESENTATIVE TASKS RATED LOW IN FIRST-TERM TRAINING EMPHASIS

TASK	TITLE	TRAINING EMPHASIS	TASK DIFFICULTY	PERCENT MEMBERS PERFORMING			
				30435	FIRST-JOB	30455	30475
E115	MAINTAIN DIRECTIVE FILES	.94	4.63	0	2	6	16
E141	REVIEW CRLs	.94	4.27	0	6	13	34
S414	COORDINATE WITH MANUFACTURERS ON TEST EQUIPMENT MAINTENANCE	.94	4.87	7	4	4	9
X537	MODIFY ELECTRONIC BEAM RECORDERS (EBR)	.94	7.51	0	0	1	2
W466	ACT AS DIRECTOR FOR TV PRODUCTIONS	.66	5.63	7	4	3	5
W468	ACT AS STAGE MANAGER FOR TV PRODUCTION	.66	4.69	0	0	2	2
E111	FILE EQUIPMENT WARRANTY FORMS	.63	2.57	0	2	5	12
W473	BUILD SETS	.63	3.65	0	0	5	4
D102	WRITE TRAINING REPORTS	.59	5.68	0	0	5	11
E127	PREPARE CLASSIFIED MATERIAL CONTROL FORMS	.59	4.69	0	0	2	5
W467	ACT AS PRODUCER FOR TV PRODUCTIONS	.59	5.81	0	2	2	4
W478	DESIGN SETS	.44	4.83	0	0	1	2
W469	ACT AS TALENT ON RADIO SHOWS	.41	4.77	0	2	1	2
W470	ACT AS TALENT ON TV SHOWS	.41	4.66	0	0	2	2
A5	DEVELOP MAINTENANCE AGREEMENTS WITH OTHER OPERATING AGENCIES	.38	6.33	7	9	11	22
W483	HANG OR REMOVE BACKGROUND CURTAINS	.34	2.28	0	0	4	2
W484	HOLD CUE CARDS	.34	1.45	0	2	4	
B42	PARTICIPATE IN STAFF MEETINGS	.31	3.96	0	8	16	47
B53	SUPERVISE TELEVISION EQUIPMENT TECHNICIANS (AFSC 30475)	.31	4.41	0	2	6	35
E121	MAKE ENTRIES ON OR REVIEW AEROSPACE VEHICLE FLIGHT DATA DOCUMENT FORMS (AFTO FORM 781)	.13	4.76	0	0	4	4
B25	COMPLETE PERSONNEL ACTION REQUESTS	.09	4.65	0	2	5	18
D81	ASSIGN RESIDENT COURSE INSTRUCTORS	.03	4.63	0	0	2	5
A24	SERVE ON JOB EVALUATION BOARDS	.00	5.69	0	4	4	5
B26	CONDUCT STAFF MEETINGS	.00	5.44	0	2	4	11

TABLE 27

TASKS NOT REFERENCED TO THE POI WHICH WERE PERFORMED BY 30 PERCENT OR MORE OF FIRST-JOB PERSONNEL

TASK	TITLE	TASK DIFFICULTY	TRAINING EMPHASIS	PERCENT MEMBERS PERFORMING			
				FIRST-JOB	FIRST ENLISTMENT	30435	30455
M289	REMOVE OR REPLACE RECEIVER OR MONITOR SUBASSEMBLIES	4.39	4.59	74	70	67	67
G196	ISOLATE MALFUNCTIONS OF VIDEO AMPLIFIERS CIRCUITS	5.31	5.53	57	56	33	55
F160	PERFORM CORROSION CONTROL ON TV EQUIPMENT	3.94	3.84	50	57	20	62
P331	REMOVE OR REPLACE MICROPHONES	2.91	3.19	47	43	27	42
P321	ISOLATE MALFUNCTIONS TO AUDIO CABLES	4.14	4.09	42	38	40	36
E104	ATTACH EQUIPMENT STATUS TAGS OR LABELS	2.60	2.84	40	42	7	48
E129	PREPARE EQUIPMENT STATUS TAGS OR LABELS	3.67	2.12	38	44	7	45
F161	PERFORM EQUALITY CONTROL CHECKS ON NEWLY RECEIVED EQUIPMENT	5.26	2.27	38	44	40	47
G170	ADJUST CAMERA HEAD VERTICAL OR HORIZONTAL DRIVE CIRCUITS	5.14	5.12	38	45	20	46
P324	ISOLATE MALFUNCTIONS TO LOUDSPEAKERS	3.92	3.87	38	32	20	34
F159	PACK EQUIPMENT FOR SHIPMENT	3.53	2.06	36	36	27	39
J239	CLEAN VTR TAPE TRANSPORT SYSTEMS	3.52	4.34	36	44	67	42
P330	REMOVE OR REPLACE LOUDSPEAKERS	3.13	2.84	36	33	27	33
G176	ADJUST CAMERA SYNC PROGESSING CIRCUITS	5.36	5.16	34	45	33	48
E108	COMPLETE PREVENTIVE MAINTENANCE INSPECTION (PMI) FORMS OR CHARTS	3.70	2.25	32	40	13	47
G182	ALIGN, CAMERA SYNC PROCESSING CIRCUITS	5.69	4.84	30	36	20	40
G189	ISOLATE MALFUNCTIONS OF CAMERA HEAD HORIZONTAL OR VERTICAL DRIVE CIRCUITS	5.66	5.12	30	36	20	42
X567	REMOVE OR INSTALL CABLE ASSEMBLIES	4.46	2.22	30	31	13	31

COMPARISON OF CURRENT SURVEY TO THE 1975 SURVEY

The results of this survey were compared to those of Occupational Survey Report (OSR) AFPT 90-304-144, dated 31 July 1975. Overall, the survey findings were similar. However, the addition of new jobs and the shift to color equipment has altered portions of the career ladder structure.

All but two of the major job groups identified in the previous study were identified in the present one. Monochrome TV Camera Repair Specialists were not recognizable as a separate group in the present study, although a number of CCTV Personnel did maintain monochrome cameras, but in combination with other CCTV equipment. TV Repair Workload Controllers did not group as a separate entity, although three workload controllers were identified. Also, one group which appears distinct in the past study (Color TV Camera Repair Specialists) was less differentiated in the present study, with personnel in the correlated group working on both cameras and VTRs.

Three new jobs were identified in the present study which appear to be the result of new missions and equipment: TOSS Camera Systems Personnel, TOSS Microwave Specialists, and Airborne VTR Repairmen. The TOSS groups clustered with other CCTV Maintenance Personnel, while the Airborne VTR Repairmen grouped with other VTR Maintenance Personnel. This study also identified six instructors as a group, while the previous study found them intermingled with other job groups.

Another difference between the studies was that the former study found no differences between first-line supervisors and personnel performing the basic jobs of the career ladder, while the second did. Both studies, however, identified supervisors and managers.

Finally, respondents in the present study generally appeared less satisfied with their job than those in the 1975 study. For example, 77 percent of first-job personnel (AFMS 1-24 months) in the 1975 study found their job interesting, while only 60 percent in the present study did. Similarly, first and second enlistment personnel in the present study were 15 and 14 percentage points (respectively) below the percent finding their job interesting in the previous study. However, personnel past their 96 months AFMS rated their job as interesting as in the previous study. While the current ratings appear considerably lower than in the previous study, it is interesting to note that the comparative sample of other mission equipment maintenance career ladders surveyed in 1978 shows the same lower average as 304X5 personnel in the present study.

DISCUSSION

In addition to the normal data supplied to using agencies, this study identified three areas requiring further discussion: Should any 304X5 personnel spend over half of their time on TV Production tasks, which are also performed by another AFS? Should first-termers be given more training on color television equipment (as opposed to monochrome)? Should the AFR 39-1 specialty descriptions highlight all the major jobs within the career ladder to which 304X5 airmen could likely be assigned? There are pros and cons for each of these issues.

Two percent of the airmen in this study (TV Production job type) spent over 50 percent of their time supporting productions, recordings, playbacks and broadcasts. Many of the tasks performed related to operating and cleaning equipment, and dubbing and bulk erasing videotape. Since many of these tasks are also performed by Radio and TV Broadcasting (AFS 791X1) and TV Production (AFS 232X1) airmen, it is possible that the performance of these tasks by 304X5 airmen is an unnecessary duplication. On the other hand, it is also possible that when all TV equipment is functioning properly, 304X5 airmen are assigned other useful tasks, such as TV production tasks, to perform. A study covering these other two AFSCs (231X1 and 791X1) is currently under development which may shed light on how much task overlap there is between these AFSCs and the 304X5 TV Production Personnel.

Training emphasis ratings from 32 experienced 304X5 NCOs assigned to various commands agreed that TV Equipment Repair airmen should receive training on color equipment. These NCOs perceived this need for training even though a relatively small percentage of first-term airmen were actually performing many color television equipment repair tasks. The majority of the NCOs rating training emphasis who were contacted by phone indicated they believed first-termers should receive more color equipment training because color equipment was becoming more predominate. On the other hand, color equipment maintenance tasks tended to be more difficult. Since there is normally a progression from simplier tasks to more difficult ones within a career ladder, it is possible that the present emphasis on monochrome, rather than color equipment, is justified.

In most AFR 39-1 job descriptions, the major job functions to which an incumbent could be assigned are enumerated. However, the 304X5 specialty descriptions mention only the tasks, without reference to the kinds of jobs which may be encountered within the career ladder. It is possible to improve the descriptions by including these jobs so that prospective incumbents and other personnel can obtain a clearer picture of the career ladder. On the other hand, the listing of tasks does present a fairly clear description of the tasks which are likely to be encountered.

APPENDIX A

CAREER LADDER STRUCTURE JOB GROUP DESCRIPTIONS

TV PRODUCTION PERSONNEL - GRP032 (N=10)
INDEPENDENT JOB TYPE

RELATIVE PERCENT TIME SPENT ON DUTIES

DUTY	TITLE	RELATIVE PERCENT TIME SPENT
W	SUPPORTING PRODUCTIONS, RECORDINGS, PLAYBACKS, AND BROADCASTS	51
J	PERFORMING GENERAL VIDEO MAGNETIC RECORDING MAINTENANCE	6
N	SETTING UP COLOR TV MONITORS AND RECEIVERS	6
F	PERFORMING GENERAL REPAIR FUNCTIONS	5
M	PERFORMING GENERAL TV MONITOR AND RECEIVER MAINTENANCE	5
R	MAINTAINING FILM CHAINS AND PROJECTORS	5
G	PERFORMING GENERAL CAMERA MAINTENANCE	5
E	WORKING WITH FORMS, RECORDS, REPORTS, DIRECTIVES, AND TECHNICAL DATA	3

REPRESENTATIVE TASKS

TASK	TITLE	PERCENT MEMBERS PERFORMING
*W494	OPERATE HELICAL VTRs	80
*W488	MONITOR WAVEFORM MONITORS	80
*W499	OPERATE SLIDE PROJECTORS	80
*J239	CLEAN VTR TAPE TRANSPORT SYSTEMS	80
*W486	LOAD OR UNLOAD FILM OR SLIDE PROJECTORS	70
*W477	CONTROL CAMERA VIDEO LEVELS DURING BROADCASTS OR RECORDINGS	70
*W498	OPERATE REEL OR CARTRIDGE TAPE RECORDERS	70
*W474	BULK ERASE AUDIO OR VIDEO TAPES	70
M280	ADJUST RECEIVER OR MONITOR OPERATING CONTROLS, SUCH AS FOCUS OR CENTERING	70
F164	REMOVE OR REPLACE SOLDERED ELECTRONIC COMPONENTS ON ETCHED CIRCUIT BOARDS	70
J240	DEGAUSS VTR HEADS OR GUIDES	70
*W507	OPERATE VTR EDITORS	60
W510	PERFORM OPERATIONAL CHECKS OF HELICAL VTRs	60
*W479	DUB VIDEO TAPES	60
*F165	SOLDER OR DESOLDER CONNECTORS OR HARDWIRE CIRCUITS	60
N290	ADJUST COLOR RECEIVER OR MONITOR COLOR GRAY SCALE OR COLOR TEMPERATURE	60
*F163	REMOVE OR REPLACE PLUG-IN OR SCREW-IN ELECTRONIC COMPONENTS, SUCH AS TRANSISTORS, TUBES, OR INDICATOR LIGHT	60
N292	ADJUST COLOR RECEIVER OR MONITOR COLOR PURITY	60
*W476	CLEAN VIDEO TAPES	50
W519	SET UP AUDIO OR VIDEO PATCH PANELS	50
W520	SET UP COLOR CAMERAS	50

CCTV PERSONNEL - GRP026 (N=148)
CLUSTER

RELATIVE PERCENT TIME SPENT ON DUTIES

DUTY	TITLE	RELATIVE PERCENT TIME SPENT
G	PERFORMING GENERAL CAMERA MAINTENANCE	17
F	PERFORMING GENERAL REPAIR FUNCTIONS	16
M	PERFORMING GENERAL TV MONITOR AND RECEIVER MAINTENANCE	12
E	WORKING WITH FORMS, RECORDS, REPORTS, DIRECTIVES, AND TECHNICAL DATA	12
B	DIRECTING AND IMPLEMENTING	5
Q	MAINTAINING AUXILIARY EQUIPMENT	5
X	INSTALLING AND MODIFYING TELEVISION AND ASSOCIATED EQUIPMENT	4
C	INSPECTING AND EVALUATING	4
D	TRAINING	4
P	MAINTAINING AUDIO SYSTEMS	4

REPRESENTATIVE TASKS

TASK	TITLE	PERCENT MEMBERS PERFORMING
F163	REMOVE OR REPLACE PLUG-IN OR SCREW-IN ELECTRONIC COMPONENTS, SUCH AS TRANSISTORS, TUBES, OR INDICATOR LIGHTS	97
F164	REMOVE OR REPLACE SOLDERED ELECTRONIC COMPONENTS ON ETCHED CIRCUIT BOARDS	96
F158	INTERPRET SCHEMATIC DIAGRAMS	96
F165	SOLDER OR DESOLDER CONNECTORS OR HARDWIRE CIRCUITS	96
M280	ADJUST RECEIVER OR MONITOR OPERATING CONTROLS, SUCH AS FOCUS OR CENTERING	94
F157	INTERPRET BLOCK DIAGRAMS OR COMPONENT LOCATION DIAGRAMS	90
M286	ISOLATE MALFUNCTIONS OF RECEIVER OR MONITOR CIRCUITS	89
G174	ADJUST CAMERA OPERATING CONTROLS, SUCH AS TARGET BEAM OR SET-UP	76
M287	ISOLATE MALFUNCTIONS OF RECEIVER OR MONITOR SUBASSEMBLIES	75
*F160	PERFORM CORROSION CONTROL ON TV EQUIPMENT	74
*M289	REMOVE OR REPLACE RECEIVER OR MONITOR SUBASSEMBLIES	74
N288	ISOLATE MALFUNCTIONS TO RECEIVER OR MONITOR SUBASSEMBLIES	71
M285	DISPOSE OF PICTURE TUBES (PIX) OR CATHODE RAY TUBES (CRT)	68
G173	ADJUST CAMERA LINEARITY CONTROLS	68
G201	REMOVE OR REPLACE CAMERA PICKUP TUBES	65
B40	INVENTORY EQUIPMENT, TOOLS, OR SUPPLIES	59
G196	ISOLATE MALFUNCTIONS OF VIDEO AMPLIFIERS CIRCUITS	57
G185	CLEAN CAMERA HEAD LENSES	56
E132	PREPARE MAINTENANCE DATA COLLECTION RECORD FORMS (AFTO FORM 349)	55
G192	ISOLATE MALFUNCTIONS OF CAMERA OPERATING CONTROLS, SUCH AS TARGET BEAM OR SET-UP	55
E104	ATTACH EQUIPMENT STATUS TAGS OR LABELS	50

CCTV MAINTENANCE PERSONNEL - GRP051 (N=83)
SUBCLUSTER

RELATIVE PERCENT TIME SPENT ON DUTIES

DUTY	TITLE	RELATIVE PERCENT TIME SPENT
F	PERFORMING GENERAL REPAIR FUNCTIONS	21
G	PERFORMING GENERAL CAMERA MAINTENANCE	19
M	PERFORMING GENERAL TV MONITOR AND RECEIVER MAINTENANCE	16
E	WORKING WITH FORMS, RECORDS, REPORTS, DIRECTIVES, AND TECHNICAL DATA	9
N	SETTING UP COLOR TV MONITORS AND RECEIVERS	5
Q	MAINTAINING AUXILIARY EQUIPMENT	4
X	INSTALLING AND MODIFYING TELEVISION AND ASSOCIATE EQUIPMENT	4
P	MAINTAINING AUDIO SYSTEMS	3

REPRESENTATIVE TASKS

TASK	TITLE	PERCENT MEMBERS PERFORMING
*F165	SOLDER OR DESOLDER CONNECTORS OR HARDWIRE CIRCUITS	99
*F158	INTERPRET SCHEMATIC DIAGRAMS	98
*F164	REMOVE OR REPLACE SOLDERED ELECTRONIC COMPONENTS ON ETCHED CIRCUIT BOARDS	96
*F163	REMOVE OR REPLACE PLUG-IN OR SCREW-IN ELECTRONIC COMPONENTS, SUCH AS TRANSISTORS, TUBES, OR INDICATOR LIGHTS	96
*M280	ADJUST RECEIVER OR MONITOR OPERATING CONTROLS, SUCH AS FOCUS OR CENTERING	95
*F157	INTERPRET BLOCK DIAGRAMS OR COMPONENT LOCATION DIAGRAMS	90
*M286	ISOLATE MALFUNCTIONS OF RECEIVER OR MONITOR CIRCUITS	89
*M287	ISOLATE MALFUNCTIONS OF RECEIVER OR MONITOR SUBASSEMBLIES	71
*F160	PERFORM CORROSION CONTROL ON TV EQUIPMENT	70
*M289	REMOVE OR REPLACE RECEIVER OR MONITOR SUBASSEMBLIES	70
G174	ADJUST CAMERA OPERATING CONTROLS, SUCH AS TARGET BEAM OR SET-UP	69
*M288	ISOLATE MALFUNCTIONS TO RECEIVER OR MONITOR SUBASSEMBLIES	66
M285	DISPOSE OF PICTURE TUBES (PIX) OR CATHODE RAY TUBES (CRT)	65
G173	ADJUST CAMERA LINEARITY CONTROLS	60
G201	REMOVE OR REPLACE CAMERA PICKUP TUBES	59
*G185	CLEAN CAMERA HEAD LENSES	54
G196	ISOLATE MALFUNCTIONS OF VIDEO AMPLIFIERS CIRCUITS	50
B40	INVENTORY EQUIPMENT, TOOLS, OR SUPPLIES	47
G192	ISOLATE MALFUNCTIONS OF CAMERA OPERATING CONTROLS, SUCH AS TARGET BEAM OR SET-UP	47
E132	PREPARE MAINTENANCE DATA COLLECTION RECORD FORMS (AFTO FORM 349)	45

WEATHERVISION MAINTENANCE SPECIALISTS - GRP165 (N=10)
JOB TYPE

RELATIVE PERCENT TIME SPENT ON DUTIES

DUTY	TITLE	RELATIVE PERCENT TIME SPENT
F	PERFORMING GENERAL REPAIR FUNCTIONS	25
M	PERFORMING GENERAL TV MONITOR AND RECEIVER MAINTENANCE	17
E	WORKING WITH FORMS, RECORDS, REPORTS, DIRECTIVES, AND TECHNICAL DATA	15
G	PERFORMING GENERAL CAMERA MAINTENANCE	13
P	MAINTAINING AUDIO SYSTEMS	9
Q	MAINTAINING AUXILIARY EQUIPMENT	7
B	DIRECTING AND IMPLEMENTING	4

REPRESENTATIVE TASKS

TASK	TITLE	PERCENT MEMBERS PERFORMING
M286	ISOLATE MALFUNCTIONS OF RECEIVER OR MONITOR CIRCUITS	100
M280	ADJUST RECEIVER OR MONITOR OPERATING CONTROLS, SUCH AS FOCUS OR CENTERING	100
F164	REMOVE OR REPLACE SOLDERED ELECTRONIC COMPONENTS ON ETCHED CIRCUIT BOARDS	100
F158	INTERPRET SCHEMATIC DIAGRAMS	100
F163	REMOVE OR REPLACE PLUG-IN OR SCREW-IN ELECTRONIC COMPONENTS, SUCH AS TRANSISTORS, TUBES, OR INDICATOR LIGHTS	100
F165	SOLDER OR DESOLDER CONNECTORS OR HARDWIRE CIRCUITS	100
F157	INTERPRET BLOCK DIAGRAMS OR COMPONENT LOCATION DIAGRAMS	100
*P331	REMOVE OR REPLACE MICROPHONES	90
*E132	PREPARE MAINTENANCE DATA COLLECTION RECORD FORMS (AFTO FORM 349)	80
*B40	INVENTORY EQUIPMENT, TOOLS, OR SUPPLIES	80
F160	PERFORM CORROSION CONTROL ON TV EQUIPMENT	80
*P325	ISOLATE MALFUNCTIONS TO MICROPHONES	80
M287	ISOLATE MALFUNCTIONS OF RECEIVER OR MONITOR SUBASSEMBLIES	70
*E129	PREPARE EQUIPMENT STATUS TAGS OR LABELS	70
M288	ISOLATE MALFUNCTIONS TO RECEIVER OR MONITOR SUBASSEMBLIES	60
G174	ADJUST CAMERA OPERATING CONTROLS, SUCH AS TARGET BEAM OR SET-UP	60
M285	DISPOSE OF PICTURE TUBES (PIX) OR CATHODE RAY TUBES (CRT)	60
M289	REMOVE OR REPLACE RECEIVER OR MONITOR SUBASSEMBLIES	60
*Q351	ALIGN VIDEO EQUALIZATION EQUIPMENT	60
Q367	ISOLATE MALFUNCTIONS OF VIDEO DISTRIBUTION AMPLIFIERS	60
*P330	REMOVE OR REPLACE LOUDSPEAKERS	60
G201	REMOVE OR REPLACE CAMERA PICKUP TUBES	60

CCTV INSTALLER-REPAIRMEN - GRP154 (N=10)
JOB TYPE

RELATIVE PERCENT TIME SPENT ON DUTIES

DUTY	TITLE	RELATIVE PERCENT TIME SPENT
F	PERFORMING GENERAL REPAIR FUNCTIONS	29
M	PERFORMING GENERAL TV MONITOR AND RECEIVER MAINTENANCE	29
X	INSTALLING AND MODIFYING TELEVISION AND ASSOCIATED EQUIPMENT	11
G	PERFORMING GENERAL CAMERA MAINTENANCE	9
Q	MAINTAINING AUXILIARY EQUIPMENT	6
D	TRAINING	3
B	DIRECTING AND IMPLEMENTING	3
E	WORKING WITH FORMS, RECORDS, REPORTS, DIRECTIVES, AND TECHNICAL DATA	3
V	MAINTAINING MISCELLANEOUS FACILITIES AND EQUIPMENT	2

REPRESENTATIVE TASKS

TASK	TITLE	PERCENT MEMBERS PERFORMING
M280	ADJUST RECEIVER OR MONITOR OPERATING CONTROLS, SUCH AS FOCUS OR CENTERING	100
F164	REMOVE OR REPLACE SOLDERED ELECTRONIC COMPONENTS ON ETCHED CIRCUIT BOARDS	100
F158	INTERPRET SCHEMATIC DIAGRAMS	100
M286	ISOLATE MALFUNCTIONS OF RECEIVER OR MONITOR CIRCUITS	100
*M287	ISOLATE MALFUNCTIONS OF RECEIVER OR MONITOR SUBASSEMBLIES	100
*M288	ISOLATE MALFUNCTIONS TO RECEIVER OR MONITOR SUBASSEMBLIES	100
*M289	REMOVE OR REPLACE RECEIVER OR MONITOR SUBASSEMBLIES	100
F165	SOLDER OR DESOLDER CONNECTORS OR HARDWIRE CIRCUITS	100
F163	REMOVE OR REPLACE PLUG-IN OR SCREW-IN ELECTRONIC COMPONENTS, SUCH AS TRANSISTORS, TUBES, OR INDICATOR LIGHTS	90
F157	INTERPRET BLOCK DIAGRAMS OR COMPONENT LOCATION DIAGRAMS	90
F160	PERFORM CORROSION CONTROL ON TV EQUIPMENT	80
M285	DISPOSE OF PICTURE TUBES (PIX) OR CATHODE RAY TUBES (CRT)	80
X522	CONSTRUCT CABLE ASSEMBLIES	50
G174	ADJUST CAMERA OPERATING CONTROLS, SUCH AS TARGET BEAM OR SET-UP	50
Q367	ISOLATE MALFUNCTIONS OF VIDEO DISTRIBUTION AMPLIFIERS	40
D82	CONDUCT OJT	40
Q342	ADJUST VIDEO DISTRIBUTION AMPLIFIERS	40
X567	REMOVE OR INSTALL CABLE ASSEMBLIES	30
V463	REMOVE OR REPLACE PORTABLE AIR CONDITIONING UNITS	30
X570	REMOVE OR INSTALL EQUIPMENT RACKS	30
B45	SUPERVISE APPRENTICE TELEVISION EQUIPMENT REPAIRMEN (AFSC 30435)	30

TOSS CAMERA SYSTEMS PERSONNEL - GRP139 (N=7)
JOB TYPE

RELATIVE PERCENT TIME SPENT ON DUTIES

DUTY	TITLE	RELATIVE PERCENT TIME SPENT
G	PERFORMING GENERAL CAMERA MAINTENANCE	41
F	PERFORMING GENERAL REPAIR FUNCTIONS	26
M	PERFORMING GENERAL TV MONITOR AND RECEIVER MAINTENANCE	10
X	INSTALLING AND MODIFYING TELEVISION AND ASSOCIATED EQUIPMENT	4
E	WORKING WITH FORMS, RECORDS, REPORTS, DIRECTIVES, AND TECHNICAL DATA	4
U	MAINTAINING AND OPERATING MICROWAVE TRANSMISSION SYSTEMS	3

REPRESENTATIVE TASKS

TASK	TITLE	PERCENT MEMBERS PERFORMING
F164	REMOVE OR REPLACE SOLDERED ELECTRONIC COMPONENTS ON ETCHED CIRCUIT BOARDS	100
F163	REMOVE OR REPLACE PLUG-IN OR SCREW-IN ELECTRONIC COMPONENTS, SUCH AS TRANSISTORS, TUBES, OR INDICATOR LIGHTS	100
*G200	REMOVE OR REPLACE CAMERA HEAD LENSES	100
F165	SOLDER OR DESOLDER CONNECTORS OR HARDWIRE CIRCUITS	100
F158	INTERPRET SCHEMATIC DIAGRAMS	100
*G201	REMOVE OR REPLACE CAMERA PICKUP TUBES	100
M280	ADJUST RECEIVER OR MONITOR OPERATING CONTROLS, SUCH AS FOCUS OR CENTERING	100
*G174	ADJUST CAMERA OPERATING CONTROLS, SUCH AS TARGET BEAM OR SET-UP	86
*G185	CLEAN CAMERA HEAD LENSES	86
*G192	ISOLATE MALFUNCTIONS OF CAMERA OPERATING CONTROLS, SUCH AS TARGET BEAM OR SET-UP	86
*G173	ADJUST CAMERA LINEARITY CONTROLS	86
M286	ISOLATE MALFUNCTIONS OF RECEIVER OR MONITOR CIRCUITS	86
*G196	ISOLATE MALFUNCTIONS OF VIDEO AMPLIFIER CIRCUITS	71
F157	INTERPRET BLOCK DIAGRAMS OR COMPONENT LOCATION DIAGRAMS	71
F159	PACK EQUIPMENT FOR SHIPMENT	71
*G198	ISOLATE MALFUNCTIONS TO CAMERA INTERCONNECTING CABLES	57
F160	PERFORM CORROSION CONTROL ON TV EQUIPMENT	57
*G179	ALIGN CAMERA HEAD FOCUS	57
*G195	ISOLATE MALFUNCTIONS OF MECHANICAL IRIS DRIVE SYSTEMS	57
X522	CONSTRUCT CABLE ASSEMBLIES	57

WEATHERVISION MAINTENANCE PERSONNEL - GRP096 (N=24)
JOB TYPE

RELATIVE PERCENT TIME SPENT ON DUTIES

DUTY	TITLE	RELATIVE PERCENT TIME SPENT
G	PERFORMING GENERAL CAMERA MAINTENANCE	31
F	PERFORMING GENERAL REPAIR FUNCTIONS	16
M	PERFORMING GENERAL TV MONITOR AND RECEIVER MAINTENANCE	13
E	WORKING WITH FORMS, RECORDS, REPORTS, DIRECTIVES, AND TECHNICAL DATA	12
Q	MAINTAINING AUXILIARY EQUIPMENT	5
P	MAINTAINING AUDIO SYSTEMS	5
X	INSTALLING AND MODIFYING TELEVISION AND ASSOCIATED EQUIPMENT	3
H	MAINTAINING MONOCHROME CAMERA CHAINS	2

REPRESENTATIVE TASKS

TASK	TITLE	PERCENT MEMBERS PERFORMING
F163	REMOVE OR REPLACE PLUG-IN OR SCREW-IN ELECTRONIC COMPONENTS, SUCH AS TRANSISTORS, TUBES, OR INDICATOR LIGHTS	96
F164	REMOVE OR REPLACE SOLDERED ELECTRONIC COMPONENTS ON ETCHED CIRCUIT BOARDS	96
F165	SOLDER OR DESOLDER CONNECTORS OR HARWIRE CIRCUITS	96
F158	INTERPRET SCHEMATIC DIAGRAMS	96
*G174	ADJUST CAMERA OPERATING CONTROLS, SUCH AS TARGET BEAM OR SET-UP	96
F157	INTERPRET BLOCK DIAGRAMS OR COMPONENT LOCATION DIAGRAMS	96
*G173	ADJUST CAMERA LINEARITY CONTROLS	96
*G196	ISOLATE MALFUNCTIONS OF VIDEO AMPLIFIERS CIRCUITS	96
*G201	REMOVE OR REPLACE CAMERA PICKUP TUBES	96
M280	ADJUST RECEIVER OR MONITOR OPERATING CONTROLS, SUCH AS FOCUS OR CENTERING	92
M286	ISOLATE MALFUNCTIONS OF RECEIVER OR MONITOR CIRCUITS	88
*G192	ISOLATE MALFUNCTIONS OF CAMERA OPERATING CONTROLS, SUCH AS TARGET BEAM OR SET-UP	79
G185	CLEAN CAMERA HEAD LENSES	75
F160	PERFORM CORROSION CONTROL ON TV EQUIPMENT	75
M287	ISOLATE MALFUNCTIONS OF RECEIVER OR MONITOR SUBASSEMBLIES	71
M289	REMOVE OR REPLACE RECEIVER OR MONITOR SUBASSEMBLIES	71
M285	DISPOSE OF PICTURE TUBES (PIX) OR CATHODE RAY TUBES (CRT)	71
*G194	ISOLATE MALFUNCTIONS OF CAMERA SYNC PROCESSING CIRCUITS	71
*G189	ISOLATE MALFUNCTIONS OF CAMERA HEAD HORIZONTAL OR VERTICAL DRIVE CIRCUITS	67
*G176	ADJUST CAMERA SYNC PROCESSING CIRCUITS	67
*G198	ISOLATE MALFUNCTIONS TO CAMERA INTERCONNECTING CABLES	67
*P325	ISOLATE MALFUNCTIONS TO MICROPHONES	67

TOSS MICROWAVE SPECIALISTS - GRP080 (N=7)
JOB TYPE

RELATIVE PERCENT TIME SPENT ON DUTIES

DUTY	TITLE	RELATIVE PERCENT TIME SPENT
G	PERFORMING GENERAL CAMERA MAINTENANCE	19
F	PERFORMING GENERAL REPAIR FUNCTIONS	16
U	MAINTAINING AND OPERATING MICROWAVE TRANSMISSION SYSTEMS	11
J	PERFORMING GENERAL VIDEO MAGNETIC RECORDING MAINTENANCE	7
W	SUPPORTING PRODUCTIONS, RECORDINGS, PLAYBACKS, AND BROADCASTS	7
M	PERFORMING GENERAL TV MONITOR AND RECEIVER MAINTENANCE	5
Q	MAINTAINING AUXILIARY EQUIPMENT	4
X	INSTALLING AND MODIFYING TELEVISION AND ASSOCIATED EQUIPMENT	4
D	TRAINING	4
B	DIRECTING AND IMPLEMENTING	3
T	MAINTAINING AND OPERATING RADIO AND TV TRANSMITTERS	3
E	WORKING WITH FORMS, RECORDS, REPORTS, DIRECTIVES, AND TECHNICAL DATA	3
H	MAINTAINING MONOCHROME CAMERA CHAINS	3

REPRESENTATIVE TASKS

TASK	TITLE	PERCENT MEMBERS PERFORMING
F165	SOLDER OR DESOLDER CONNECTORS OR HARDWIRE CIRCUITS	100
G185	CLEAN CAMERA HEAD LENSES	100
F158	INTERPRET SCHEMATIC DIAGRAMS	100
G174	ADJUST CAMERA OPERATING CONTROLS, SUCH AS TARGET BEAM OR SET-UP	100
F157	INTERPRET BLOCK DIAGRAMS OR COMPONENT LOCATION DIAGRAMS	100
*U438	ADJUST MICROWAVE ANTENNAS	100
*J234	ADJUST VIDEO TAPE RECORDER (VTR) POWER SUPPLIES	100
F164	REMOVE OR REPLACE SOLDERED ELECTRONIC COMPONENTS ON ETCHED CIRCUIT BOARDS	86
F163	REMOVE OR REPLACE PLUG-IN OR SCREW-IN ELECTRONIC COMPONENTS, SUCH AS TRANSISTORS, TUBES, OR INDICATOR LIGHTS	86
*J239	CLEAN VTR TAPE TRANSPORT SYSTEMS	86
*U441	ALIGN MICROWAVE RECEIVERS	86
*U439	ADJUST MICROWAVE POWER SUPPLIES	86
M280	ADJUST RECEIVER OR MONITOR OPERATING CONTROLS, SUCH AS FOCUS OR CENTERING	86
G201	REMOVE OR REPLACE CAMERA PICKUP TUBES	86
*U444	ISOLATE MALFUNCTIONS OF MICROWAVE TRANSMITTER OR RECEIVER CIRCUITS	71
G198	ISOLATE MALFUNCTIONS TO CAMERA INTERCONNECTING CABLES	71
F160	PERFORM CORROSION CONTROL ON TV EQUIPMENT	71
U442	ALIGN MICROWAVE TRANSMITTERS	71
G172	ADJUST CAMERA LENS ZOOM SPEED, DISTANCE, OR BACKFOCUS	71
F159	PACK EQUIPMENT FOR SHIPMENT	71
G196	ISOLATE MALFUNCTIONS OF VIDEO AMPLIFIERS CIRCUITS	71
M286	ISOLATE MALFUNCTIONS OF RECEIVER OR MONITOR CIRCUITS	71

RECEIVER-MONITOR MAINTENANCE PERSONNEL - GRP115 (N=18)
JOB TYPE

RELATIVE PERCENT TIME SPENT ON DUTIES

DUTY	TITLE	RELATIVE PERCENT TIME SPENT
N	SETTING UP COLOR TV MONITORS AND RECEIVERS	20
M	PERFORMING GENERAL TV MONITOR AND RECEIVER MAINTENANCE	19
F	PERFORMING GENERAL REPAIR FUNCTIONS	17
E	WORKING WITH FORMS, RECORDS, REPORTS, DIRECTIVES, AND TECHNICAL DATA	9
J	PERFORMING GENERAL VIDEO MAGNETIC RECORDING MAINTENANCE	6
G	PERFORMING GENERAL CAMERA MAINTENANCE	4
K	MAINTAINING HELICAL VIDEO MAGNETIC RECORDERS	4
X	INSTALLING AND MODIFYING TELEVISION AND ASSOCIATED EQUIPMENT	4
B	DIRECTING AND IMPLEMENTING	3
W	SUPPORTING PRODUCTIONS, RECORDINGS, PLAYBACKS, AND BROADCASTS	2
A	ORGANIZING AND PLANNING	2
P	MAINTAINING AUDIO SYSTEMS	2
Q	MAINTAINING AUXILIARY EQUIPMENT	2

REPRESENTATIVE TASKS

TASK	TITLE	PERCENT MEMBERS PERFORMING
*N294	DEGAUSS COLOR RECEIVER OR MONITOR PIX, CRT, OR CHASSIS	100
F163	REMOVE OR REPLACE PLUG-IN OR SCREW-IN ELECTRONIC COMPONENTS, SUCH AS TRANSISTORS, TUBES, OR INDICATOR LIGHTS	100
*M296	ISOLATE MALFUNCTIONS OF RECEIVER OR MONITOR CIRCUITS	100
F165	SOLDER OR DESOLDER CONNECTORS OR HARDWIRE CIRCUITS	100
*N297	PERFORM DYNAMIC CONVERGENCE ON COLOR RECEIVERS OR MONITORS	100
*N295	ISOLATE MALFUNCTIONS OF COLOR RECEIVER OR MONITOR CHROMA CIRCUITS	100
M280	ADJUST RECEIVER OR MONITOR OPERATING CONTROLS, SUCH AS FOCUS OR CENTERING	100
*N292	ADJUST COLOR RECEIVER OR MONITOR COLOR PURITY	100
*N291	ADJUST COLOR RECEIVER OR MONITOR COLOR KILLER CIRCUITS	100
F164	REMOVE OR REPLACE SOLDERED ELECTRONIC COMPONENTS ON ETCHED CIRCUIT BOARDS	94
F158	INTERPRET SCHEMATIC DIAGRAMS	94
*N290	ADJUST COLOR RECEIVER OR MONITOR COLOR GRAY SCALE OR COLOR TEMPERATURE	94
N296	ISOLATE MALFUNCTIONS OF COLOR RECEIVER OR MONITOR CONVERGENCE CIRCUITS	94
*M284	CLEAN OR LUBRICATE RECEIVER TUNERS	94
M287	ISOLATE MALFUNCTIONS OF RECEIVER OR MONITOR SUBASSEMBLIES	89
M288	ISOLATE MALFUNCTIONS TO RECEIVER OR MONITOR SUBASSEMBLIES	83
F157	INTERPRET BLOCK DIAGRAMS OR COMPONENT LOCATION DIAGRAMS	83
M289	REMOVE OR REPLACE RECEIVER OR MONITOR SUBASSEMBLIES	78
M285	DISPOSE OF PICTURE TUBES (PIX) OR CATHODE RAY TUBES (CRT)	78
*F161	PERFORM QUALITY CONTROL CHECKS ON NEWLY RECEIVED EQUIPMENT	78

CCTV MAINTENANCE NCOICs - GRP054 (N=61)
SUBCLUSTER

RELATIVE PERCENT TIME SPENT ON DUTIES

DUTY	TITLE	RELATIVE PERCENT TIME SPENT
E	WORKING WITH FORMS, RECORDS, REPORTS, DIRECTIVES, AND TECHNICAL DATA	15
G	PERFORMING GENERAL CAMERA MAINTENANCE	14
F	PERFORMING GENERAL REPAIR FUNCTIONS	11
B	DIRECTING AND IMPLEMENTING	9
M	PERFORMING GENERAL TV MONITOR AND RECEIVER MAINTENANCE	8
Q	MAINTAINING AUXILIARY EQUIPMENT	7
D	TRAINING	7
C	INSPECTING	6
A	ORGANIZING AND PLANNING	6
P	MAINTAINING AUDIO SYSTEMS	5
X	INSTALLING AND MODIFYING TELEVISION AND ASSOCIATED EQUIPMENT	5
H	MAINTAINING MONOCHROME CAMERA CHAINS	4

REPRESENTATIVE TASKS

TASK	TITLE	PERCENT MEMBERS PERFORMING
F163	REMOVE OR REPLACE PLUG-IN OR SCREW-IN ELECTRONIC COMPONENTS, SUCH AS TRANSISTORS, TUBES, OR INDICATOR LIGHTS	97
F164	REMOVE OR REPLACE SOLDERED ELECTRONIC COMPONENTS ON ETCHED CIRCUIT BOARDS	95
F158	INTERPRET SCHEMATIC DIAGRAMS	95
M280	ADJUST RECEIVER OR MONITOR OPERATING CONTROLS, SUCH AS FOCUS OR CENTERING	93
M286	ISOLATE MALFUNCTIONS OF RECEIVER OR MONITOR CIRCUITS	92
F165	SOLDER OR DESOLDER CONNECTORS OR HARDWIRE CIRCUITS	92
F157	INTERPRET BLOCK DIAGRAMS OR COMPONENT LOCATION DIAGRAMS	90
G174	ADJUST CAMERA OPERATING CONTROLS, SUCH AS TARGET BEAM OR SET-UP	87
M287	ISOLATE MALFUNCTIONS OF RECEIVER OR MONITOR SUBASSEMBLIES	82
M289	REMOVE OR REPLACE RECEIVER OR MONITOR SUBASSEMBLIES	80
F160	PERFORM CORROSION CONTROL ON TV EQUIPMENT	80
M288	ISOLATE MALFUNCTIONS TO RECEIVER OR MONITOR SUBASSEMBLIES	79
*E104	ATTACH EQUIPMENT STATUS TAGS OR LABELS	77
G173	ADJUST CAMERA LINEARITY CONTROLS	77
*B40	INVENTORY EQUIPMENT, TOOLS, OR SUPPLIES	75
M285	DISPOSE OF PICTURE TUBES (PIX) OR CATHODE RAY TUBES (CRT)	75
G201	REMOVE OR REPLACE CAMERA PICKUP TUBES	72
*D82	CONDUCT OJT	70
E132	PREPARE MAINTENANCE DATA COLLECTION RECORD FORMS (AFTO FORM 349)	69
*C76	WRITE AIRMAN PERFORMANCE REPORTS	69

WEATHERVISION NCOICs - GRP079 (N=42)
JOB TYPE

RELATIVE PERCENT TIME SPENT ON DUTIES

DUTY	TITLE	RELATIVE PERCENT TIME SPENT
G	PERFORMING GENERAL CAMERA MAINTENANCE	17
E	WORKING WITH FORMS, RECORDS, REPORTS, DIRECTIVES, AND TECHNICAL DATA	15
F	PERFORMING GENERAL REPAIR FUNCTIONS	11
Q	MAINTAINING AUXILIARY EQUIPMENT	9
M	PERFORMING GENERAL TV MONITOR AND RECEIVER MAINTENANCE	8
B	DIRECTING AND IMPLEMENTING	6
P	MAINTAINING AUDIO SYTEMS	6
D	TRAINING	5
H	MAINTAINING MONOCHROME CAMERA CHAINS	5
X	INSTALLING AND MODIFYING TELEVISION AND ASSOCIATED EQUIPMENT	5
C	INSPECTING AND EVALUATING	5
A	ORGANIZING AND PLANNING	4
S	MAINTAINING TEST EQUIPMENT	2

REPRESENTATIVE TASKS

TASK	TITLE	PERCENT MEMBERS PERFORMING
F158	INTERPRET SCHEMATIC DIAGRAMS	100
F163	REMOVE OR REPLACE PLUG-IN OR SCREW-IN ELECTRONIC COMPONENTS, SUCH AS TRANSISTORS, TUBES, OR INDICATOR LIGHTS	100
M286	ISOLATE MALFUNCTIONS OF RECEIVER OR MONITOR CIRCUITS	100
F164	REMOVE OR REPLACE SOLDERED ELECTRONIC COMPONENTS ON ETCHED CIRCUIT BOARDS	98
M280	ADJUST RECEIVER OR MONITOR OPERATING CONTROLS, SUCH AS FOCUS OR CENTERING	98
G174	ADJUST CAMERA OPERATING CONTROLS, SUCH AS TARGET BEAM OR SET-UP	98
F165	SOLDER OR DESOLDER CONNECTORS OR HARDWIRE CIRCUITS	95
F157	INTERPRET BLOCK DIAGRAMS OR COMPONENT LOCATION DIAGRAMS	95
*G173	ADJUST CAMERA LINEARITY CONTROLS	93
M287	ISOLATE MALFUNCTIONS OF RECEIVER OR MONITOR ASSEMBLIES	90
M289	REMOVE OR REPLACE RECEIVER OR MONITOR SUBASSEMBLIES	90
*G201	REMOVE OR REPLACE CAMERA PICKUP TUBES	90
M288	ISOLATE MALFUNCTIONS TO RECEIVER OR MONITOR SUBASSEMBLIES	88
F160	PERFORM CORROSION CONTROL ON TV EQUIPMENT	88
*M285	DISPOSE OF PICTURE TUBES (PIX) OR CATHODE RAY TUBES (CRT)	88
*Q342	ADJUST VIDEO DISTRIBUTION AMPLIFIERS	86
E104	ATTACH EQUIPMENT STATUS TAGS OR LABELS	83
*G196	ISOLATE MALFUNCTIONS OF VIDEO AMPLIFIER CIRCUITS	83
*Q367	ISOLATE MALFUNCTIONS OF VIDEO DISTRIBUTION AMPLIFIERS	81
*H204	ISOLATE MALFUNCTIONS OF MONOCHROME CAMERA CONTROL UNIT (CCU) CIRCUITS	81

RECEIVER-MONITOR MAINTENANCE NCOICs - GRP065 (N=16)
JOB TYPE

RELATIVE PERCENT TIME SPENT ON DUTIES

DUTY	TITLE	RELATIVE PERCENT TIME SPENT
B	DIRECTING AND IMPLEMENTING	17
E	WORKING WITH FORMS, RECORDS, REPORTS, DIRECTIVES, AND TECHNICAL DATA	13
D	TRAINING	12
C	INSPECTING AND EVALUATING	11
A	ORGANIZING AND PLANNING	10
F	PERFORMING GENERAL REPAIR FUNCTIONS	10
M	PERFORMING GENERAL TV MONITOR AND RECEIVER MAINTENANCE	7
G	PERFORMING GENERAL CAMERA MAINTENANCE	6
X	INSTALLING AND MODIFYING TELEVISION AND ASSOCIATED EQUIPMENT	3
Q	MAINTAINING AUXILIARY EQUIPMENT	2

REPRESENTATIVE TASKS

TASK	TITLE	PERCENT MEMBERS PERFORMING
*B52	SUPERVISE TELEVISION EQUIPMENT REPAIRMEN (AFSC 30455)	88
*A15	PLAN OR SCHEDULE WORK ASSIGNMENTS	88
F163	REMOVE OR REPLACE PLUG-IN OR SCREW-IN ELECTRONIC COMPONENTS, SUCH AS TRANSISTORS, TUBES, OR INDICATOR LIGHTS	88
F164	REMOVE OR REPLACE SOLDERED ELECTRONIC COMPONENTS ON ETCHED CIRCUIT BOARDS	88
F165	SOLDER OR DESOLDER CONNECTORS OR HARDWIRE CIRCUITS	88
B40	INVENTORY EQUIPMENT, TOOLS, OR SUPPLIES	88
*C76	WRITE AIRMAN PERFORMANCE REPORTS	88
*D82	CONDUCT OJT	81
*C60	EVALUATE COMPLIANCE WITH WORK STANDARDS	81
A4	DETERMINE WORK PRIORITIES	81
F158	INTERPRET SCHEMATIC DIAGRAMS	81
*D93	EVALUATE OJT TRAINEES	81
D97	MAINTAIN TRAINING RECORDS, CHARTS, OR GRAPHS	81
F157	INTERPRET BLOCK DIAGRAMS OR COMPONENT LOCATION DIAGRAMS	81
M280	ADJUST RECEIVER OR MONITOR OPERATING CONTROLS, SUCH AS FOCUS OR CENTERING	81
D83	CONDUCT PROFICIENCY TRAINING	75
D87	DEMONSTRATE HOW TO LOCATE TECHNICAL INFORMATION	75
B27	COUNSEL PERSONNEL ON PERSONAL OR MILITARY RELATED PROBLEMS	75
M286	ISOLATE MALFUNCTIONS OF RECEIVER OR MONITOR CIRCUITS	69
B39	INTERPRET POLICIES, DIRECTIVES, OR PROCEDURES FOR SUBORDINATES	69
B32	DIRECT MAINTENANCE OR UTILIZATION OF EQUIPMENT	69
*B29	DEVELOP OR IMPROVE WORK METHODS OR PROCEDURES	69

TV PRODUCTION EQUIPMENT MAINTENANCE PERSONNEL - GRP027 (N=155)
CLUSTER

RELATIVE PERCENT TIME SPENT ON DUTIES

DUTY	TITLE	RELATIVE PERCENT TIME SPENT
G	PERFORMING GENERAL CAMERA MAINTENANCE	11
W	SUPPORTING PRODUCTIONS, RECORDINGS, PLAYBACKS, AND BROADCASTS	9
X	INSTALLING AND MODIFYING TELEVISION AND ASSOCIATED EQUIPMENT	7
Q	MAINTAINING AUXILIARY EQUIPMENT	7
E	WORKING WITH FORMS, RECORDS, REPORTS, DIRECTIVES, AND TECHNICAL DATA	6
F	PERFORMING GENERAL REPAIR FUNCTIONS	6
P	MAINTAINING AUDIO SYSTEMS	6
R	MAINTAINING FILM CHAINS AND PROJECTORS	5
J	PERFORMING GENERAL VIDEO MAGNETIC RECORDING MAINTENANCE	5
I	MAINTAINING COLOR CAMERA CHAINS	5
K	MAINTAINING HELICAL VIDEO MAGNETIC RECORDERS	5
M	PERFORMING GENERAL TV MONITOR AND RECEIVER MAINTENANCE	4
N	SETTING UP COLOR TV MONITORS AND RECEIVERS	4

REPRESENTATIVE TASKS

TASK	TITLE	PERCENT MEMBERS PERFORMING
F163	REMOVE OR REPLACE PLUG-IN OR SCREW-IN ELECTRONIC COMPONENTS, SUCH AS TRANSISTORS, TUBES, OR INDICATOR LIGHTS	97
F158	INTERPRET SCHEMATIC DIAGRAMS	95
F165	SOLDER OR DESOLDER CONNECTORS OR HARDWIRE CIRCUITS	95
M280	ADJUST RECEIVER OR MONITOR OPERATING CONTROLS, SUCH AS FOCUS OR CENTERING	93
F164	REMOVE OR REPLACE SOLDERED ELECTRONIC COMPONENTS ON ETCHED CIRCUIT BOARDS	92
G174	ADJUST CAMERA OPERATING CONTROLS, SUCH AS TARGET BEAM OR SET-UP	91
M286	ISOLATE MALFUNCTIONS OF RECEIVER OR MONITOR CIRCUITS	91
*N290	ADJUST COLOR RECEIVER OR MONITOR COLOR GRAY SCALE OR COLOR TEMPERATURE	90
F157	INTERPRET BLOCK DIAGRAMS OR COMPONENT LOCATION DIAGRAMS	89
M287	ISOLATE MALFUNCTIONS OF RECEIVER OR MONITOR SUBASSEMBLIES	88
G173	ADJUST CAMERA LINEARITY CONTROLS	88
*N292	ADJUST COLOR RECEIVER OR MONITOR COLOR PURITY	88
M288	ISOLATE MALFUNCTIONS TO RECEIVER OR MONITOR SUBASSEMBLIES	88
M289	REMOVE OR REPLACE RECEIVER OR MONITOR SUBASSEMBLIES	86
*N297	PERFORM DYNAMIC CONVERGENCE ON COLOR RECEIVERS OR MONITORS	85
*N294	DEGUASS COLOR RECEIVER OR MONITOR PIX, CRT, OR CHASSIS	85
*N295	ISOLATE MALFUNCTIONS OF COLOR RECEIVER OR MONITOR CHROMA CIRCUITS	83
*J239	CLEAN VTR TAPE TRANSPORT SYSTEMS	82
G196	ISOLATE MALFUNCTIONS OF VIDEO AMPLIFIER CIRCUITS	81
*N296	ISOLATE MALFUNCTIONS OF COLOR RECEIVER OR MONITOR CONVERGENCE CIRCUITS	80

TV PRODUCTION EQUIPMENT MAINTENANCE NCOICs - GRP071 (N=99)
SUBCLUSTER

RELATIVE PERCENT TIME SPENT ON DUTIES

DUTY	TITLE	RELATIVE PERCENT TIME SPENT
G	PERFORMING GENERAL CAMERA MAINTENANCE	12
E	WORKING WITH FORMS, RECORDS, REPORTS, DIRECTIVES, AND TECHNICAL DATA	11
F	PERFORMING GENERAL REPAIR FUNCTIONS	7
K	MAINTAINING HELICAL VIDEO MAGNETIC RECORDERS	7
J	PERFORMING GENERAL VIDEO MAGNETIC RECORDING MAINTENANCE	6
B	DIRECTING AND IMPLEMENTING	6
M	PERFORMING GENERAL TV MONITOR AND RECEIVER MAINTENANCE	6
N	SETTING UP COLOR TV MONITOR AND RECEIVERS	6
W	SUPPORTING PRODUCTIONS, RECORDINGS, PLAYBACKS, AND BROADCASTS	5
X	INSTALLING AND MODIFYING TELEVISION AND ASSOCIATED EQUIPMENT	5
D	TRAINING	5
C	INSPECTING AND EVALUATING	4
A	ORGANIZING AND PLANNING	4
Q	MAINTAINING AUXILIARY EQUIPMENT	4
P	MAINTAINING AUDIO SYSTEMS	4

REPRESENTATIVE TASKS

TASK	TITLE	PERCENT MEMBERS PERFORMING
F158	INTERPRET SCHEMATIC DIAGRAMS	96
F165	SOLDER OR DESOLDER CONNECTORS OR HARDWIRE CIRCUITS	96
M280	ADJUST RECEIVER OR MONITOR OPERATING CONTROLS, SUCH AS FOCUS OR CENTERING	96
F163	REMOVE OR REPLACE PLUG-IN OR SCREW-IN ELECTRONIC COMPONENTS, SUCH AS TRANSISTORS, TUBES, OR INDICATOR LIGHTS	94
M286	ISOLATE MALFUNCTIONS OF RECEIVER OR MONITOR CIRCUITS	94
F164	REMOVE OR REPLACE SOLDERED ELECTRONIC COMPONENTS ON ETCHED CIRCUIT BOARDS	91
F157	INTERPRET BLOCK DIAGRAMS OR COMPONENT LOCATION DIAGRAMS	87
M287	ISOLATE MALFUNCTIONS OF RECEIVER OR MONITOR SUBASSEMBLIES	87
G174	ADJUST CAMERA OPERATING CONTROLS, SUCH AS TARGET BEAM OR SET-UP	87
N292	ADJUST COLOR RECEIVER OR MONITOR COLOR PURITY	85
J239	CLEAN VTR TAPE TRANSPORT SYSTEMS	85
M288	ISOLATE MALFUNCTIONS TO RECEIVER OR MONITOR SUBASSEMBLIES	85
M289	REMOVE OR REPLACE RECEIVER OR MONITOR SUBASSEMBLIES	85
N290	ADJUST COLOR RECEIVER OR MONITOR COLOR GRAY SCALE OR COLOR TEMPERATURE	83
N294	DEGAUSS COLOR RECEIVER OR MONITOR PIX, CRT, OR CHASSIS	83
N297	PERFORM DYNAMIC CONVERGENCE ON COLOR RECEIVERS OR MONITORS	81
N295	ISOLATE MALFUNCTIONS OF COLOR RECEIVER OR MONITOR CHROMA CIRCUITS	81
K258	ISOLATE MALFUNCTIONS OF HELICAL TRANSPORT SYSTEMS	79
K259	ISOLATE MALFUNCTIONS OF HELICAL VIDEO SIGNAL SYSTEMS	79
G173	ADJUST CAMERA LINEARITY CONTROLS	79

COLOR RECEIVER-MONITOR AND VTR NCOICs - GRP120 (N=7)
JOB TYPE

RELATIVE PERCENT TIME SPENT ON DUTIES

DUTY	TITLE	RELATIVE PERCENT TIME SPENT
W	SUPPORTING PRODUCTIONS, RECORDINGS, PLAYBACKS, AND BROADCASTS	16
E	WORKING WITH FORMS, RECORDS, REPORTS, DIRECTIVES, AND TECHNICAL DATA	10
F	PERFORMING GENERAL REPAIR FUNCTIONS	9
X	INSTALLING AND MODIFYING TELEVISION AND ASSOCIATED EQUIPMENT	9
M	PERFORMING GENERAL TV MONITOR AND RECEIVER MAINTENANCE	8
N	SETTING UP COLOR TV MONITORS AND RECEIVERS	8
K	MAINTAINING HELICAL VIDEO MAGNETIC RECORDERS	8
J	PERFORMING GENERAL VIDEO MAGNETIC RECORDING MAINTENANCE	7
Q	MAINTAINING AUXILIARY EQUIPMENT	6
P	MAINTAINING AUDIO SYSTEMS	6
G	PERFORMING GENERAL CAMERA MAINTENANCE	5

REPRESENTATIVE TASKS

TASK	TITLE	PERCENT MEMBERS PERFORMING
F157	INTERPRET BLOCK DIAGRAMS OR COMPONENT LOCATION DIAGRAMS	100
M286	ISOLATE MALFUNCTIONS OF RECEIVER OR MONITOR CIRCUITS	100
F164	REMOVE OR REPLACE SOLDERED ELECTRONIC COMPONENTS ON ETCHED CIRCUIT BOARDS	100
N290	ADJUST COLOR RECEIVER OR MONITOR COLOR GRAY SCALE OR COLOR TEMPERATURE	100
M280	ADJUST RECEIVER OR MONITOR OPERATING CONTROLS, SUCH AS FOCUS OR CENTERING	100
F158	INTERPRET SCHEMATIC DIAGRAMS	100
M287	ISOLATE MALFUNCTIONS OR RECEIVER OR MONITOR SUBASSEMBLIES	100
F165	SOLDER OR DESOLDER CONNECTORS OR HARDWIRE CIRCUITS	100
M289	REMOVE OR REPLACE RECEIVER OR MONITOR SUBASSEMBLIES	100
N295	ISOLATE MALFUNCTIONS OF COLOR RECEIVER OR MONITOR CHROMA CIRCUITS	100
J239	CLEAN VTR TAPE TRANSPORT SYSTEMS	100
*W488	MONITOR WAVEFORM MONITORS	86
F163	REMOVE OR REPLACE PLUG-IN OR SCREW-IN ELECTRONIC COMPONENTS, SUCH AS TRANSISTORS, TUBES, OR INDICATOR LIGHTS	86
N292	ADJUST COLOR RECEIVER OR MONITOR COLOR PURITY	86
M288	ISOLATE MALFUNCTIONS TO RECEIVER OR MONITOR SUBASSEMBLIES	86
N297	PERFORM DYNAMIC CONVERGENCE ON COLOR RECEIVERS OR MONITORS	86
*W494	OPERATE HELICAL VTR	86
K258	ISOLATE MALFUNCTIONS OF HELICAL TRANSPORT SYSTEMS	86
N294	DEGAUSS COLOR RECEIVER OR MONITOR PIX, CRT, OR CHASSIS	86
*W510	PERFORM OPERATIONAL CHECKS OF HELICAL VTRs	86
*X522	CONSTRUCT CABLE ASSEMBLIES	86

COLOR RECEIVER-MONITOR NCOICs - GRP105 (N=10)
JOB TYPE

RELATIVE PERCENT TIME SPENT ON DUTIES

DUTY	TITLE	RELATIVE PERCENT TIME SPENT
G	PERFORMING GENERAL CAMERA MAINTENANCE	23
N	SETTING UP COLOR TV MONITORS AND RECEIVERS	10
M	PERFORMING GENERAL TV MONITOR AND RECEIVER MAINTENANCE	8
K	MAINTAINING HELICAL VIDEO MAGNETIC RECORDERS	8
F	PERFORMING GENERAL REPAIR FUNCTIONS	7
J	PERFORMING GENERAL VIDEO MAGNETIC RECORDING MAINTENANCE	7
E	WORKING WITH FORMS, RECORDS, REPORTS, DIRECTIVES, AND TECHNICAL DATA	6
Q	MAINTAINING AUXILIARY EQUIPMENT	4
P	MAINTAINING AUDIO SYSTEMS	4
B	DIRECTING AND IMPLEMENTING	3
H	MAINTAINING MONOCHROME CAMERA CHAINS	3
D	TRAINING	3
C	INSPECTING AND EVALUATING	3

REPRESENTATIVE TASKS

TASK	TITLE	PERCENT MEMBERS PERFORMING
F163	REMOVE OR REPLACE PLUG-IN OR SCREW-IN ELECTRONIC COMPONENTS, SUCH AS TRANSISTORS, TUBES, OR INDICATOR LIGHTS	100
N296	ISOLATE MALFUNCTIONS OF COLOR RECEIVER OR MONITOR CONVERGENCE CIRCUITS	100
N297	PERFORM DYNAMIC CONVERGENCE ON COLOR RECEIVERS OR MONITORS	100
F158	INTERPRET SCHEMATIC DIAGRAMS	100
M286	ISOLATE MALFUNCTIONS OF RECEIVER OR MONITOR CIRCUITS	100
N290	ADJUST COLOR RECEIVER OR MONITOR COLOR GRAY SCALE OR COLOR TEMPERATURE	100
N291	ADJUST COLOR RECEIVER OR MONITOR COLOR KILLER CIRCUITS	100
N292	ADJUST COLOR RECEIVER OR MONITOR COLOR PURITY	100
N295	ISOLATE MALFUNCTIONS OF COLOR RECEIVER OR MONITOR CHROMA CIRCUITS	100
M280	ADJUST RECEIVER OR MONITOR OPERATING CONTROLS, SUCH AS FOCUS OR CENTERING	100
N294	DEGAUSS COLOR RECEIVER OR MONITOR PIX, CRT, OR CHASSIS	100
G174	ADJUST CAMERA OPERATING CONTROLS, SUCH AS TARGET BEAM OR SET-UP	100
*G192	ISOLATE MALFUNCTIONS OF CAMERA OPERATING CONTROLS, SUCH AS TARGET BEAM OR SET-UP	100
F165	SOLDER OR DESOLDER CONNECTORS OR HARDWIRE CIRCUITS	90
M287	ISOLATE MALFUNCTIONS OF RECEIVER OR MONITOR SUBASSEMBLIES	90
M288	ISOLATE MALFUNCTIONS TO RECEIVER OR MONITOR SUBASSEMBLIES	90
*G170	ADJUST CAMERA HEAD VERTICAL OR HORIZONTAL DRIVE CIRCUITS	90
G173	ADJUST CAMERA LINEARITY CONTROLS	90
F164	REMOVE OR REPLACE SOLDERED ELECTRONIC COMPONENTS ON ETCHED CIRCUIT BOARDS	90
*G189	ISOLATE MALFUNCTIONS OF CAMERA HEAD HORIZONTAL OR VERTICAL DRIVE CIRCUITS	90

CAMERA MAINTENANCE NCOICs - GRP162 (N=8)
JOB TYPE

RELATIVE PERCENT TIME SPENT ON DUTIES

DUTY	TITLE	RELATIVE PERCENT TIME SPENT
G	PERFORMING GENERAL CAMERA MAINTENANCE	16
E	WORKING WITH FORMS, RECORDS, REPORTS, DIRECTIVES, AND TECHNICAL DATA	10
X	INSTALLING AND MODIFYING TELEVISION AND ASSOCIATED EQUIPMENT	8
B	DIRECTING AND IMPLEMENTING	7
F	PERFORMING GENERAL REPAIR FUNCTIONS	6
J	PERFORMING GENERAL VIDEO MAGNETIC RECORDING MAINTENENACE	6
M	PERFORMING GENERAL TV MONITOR AND RECEIVER MAINTENANCE	5
A	ORGANIZING AND PLANNING	5
D	TRAINING	5
C	INSPECING AND EVALUATING	5
Q	MAINTAINING AUXILIARY EQUIPMENT	3
N	SETTING UP COLOR TV MONITORS AND RECEIVERS	3
K	MAINTAINING HELICAL VIDEO MAGNETIC RECORDERS	3
S	MAINTAINING TEST EQUIPMENT	3

REPRESENTATIVE TASKS

TASK	TITLE	PERCENT MEMBERS PERFORMING
F158	INTERPRET SCHEMATIC DIAGRAMS	100
*G173	ADJUST CAMERA LINEARITY CONTROLS	100
G174	ADJUST CAMERA OPERATING CONTROLS, SUCH AS TARGET BEAM OR SET-UP	100
*G176	ADJUST CAMERA SYNC PROCESSING CIRCUITS	100
*G194	ISOLATE MALFUNCTIONS OF CAMERA SYNC PROCESSING CIRCUITS	100
*G198	ISOLATE MALFUNCTIONS TO CAMERA INTERCONNECTING CABLES	100
M280	ADJUST RECEIVER OR MONITOR OPERATING CONTROLS, SUCH AS FOCUS OR CENTERING	100
J240	DEGAUSS VTR HEADS OR GUIDES	100
M284	CLEAN OR LUBRICATE RECEIVER TURNERS	100
*G179	ALIGN CAMERA HEAD FOCUS	100
J239	CLEAN VTR TAPE TRANSPORT SYSTEMS	100
*G182	ALIGN CAMERA SYNC PROCESSING CIRCUITS	100
*M282	ALIGN RECEIVER OR MONITOR AUTOMATIC FREQUENCY CONTROL (AFC) CIRCUITS	100
F165	SOLDER OR DESOLDER CONNECTORS OR HARDWIRE CIRCUITS	100
B36	IMPLEMENT SAFETY PROGRAMS	100
G185	CLEAN CAMERA HEAD LENSES	100
M288	ISOLATE MALFUNCTIONS TO RECEIVER OR MONITOR SUBASSEMBLIES	100
G192	ISOLATE MALFUNCTIONS OF CAMERA OPERATING CONTROLS, SUCH AS TARGET BEAM OR SET-UP	100
M289	REMOVE OR REPLACE RECEIVER OR MONITOR SUBASSEMBLIES	100
*G196	ISOLATE MALFUNCTIONS OF VIDEO AMPLIFIER CIRCUITS	100

HELICAL VTR NCOICs - GRP133 (N=16)
JOB TYPE

RELATIVE PERCENT TIME SPENT ON DUTIES

DUTY	TITLE	RELATIVE PERCENT TIME SPENT
E	WORKING WITH FORMS, RECORDS, REPORTS, DIRECTIVES, AND TECHNICAL DATA	16
K	MAINTAINING HELICAL VIDEO MAGNETIC RECORDERS	9
B	DIRECTING AND IMPLEMENTING	9
F	PERFORMING GENERAL REPAIR FUNCTIONS	8
D	TRAINING	7
C	INSPECTING AND EVALUATING	7
A	ORGANIZING AND PLANNING	7
J	PERFORMING GENERAL VIDEO MAGNETIC RECORDING MAINTENANCE	7
G	PERFORMING GENERAL CAMERA MAINTENANCE	7
M	PERFORMING GENERAL TV MONITOR AND RECEIVER MAINTENANCE	5
X	INSTALLING AND MODIFYING TELEVISION AND ASSOCIATED EQUIPMENT	4
W	SUPPORTING PRODUCTIONS, RECORDINGS, PLAYBACKS, AND BROADCASTS	4
N	SETTING UP COLOR TV MONITORS AND RECEIVERS	4
Q	MAINTAINING AUXILIARY EQUIPMENT	2
P	MAINTAINING AUDIO SYSTEMS	2

REPRESENTATIVE TASKS

TASK	TITLE	PERCENT MEMBERS PERFORMING
F158	INTERPRET SCHEMATIC DIAGRAMS	100
F157	INTERPRET BLOCK DIAGRAMS OR COMPONENT LOCATION DIAGRAMS	100
D82	CONDUCT OJT	100
F163	REMOVE OR REPLACE PLUG-IN OR SCREW-IN ELECTRONIC COMPONENTS, SUCH AS TRANSISTORS, TUBES, OR INDICATOR LIGHTS	94
F164	REMOVE OR REPLACE SOLDERED ELECTRONIC COMPONENTS ON ETCHED CIRCUIT BOARDS	94
F165	SOLDER OR DESOLDER CONNECTORS OR HARDWIRE CIRCUITS	94
K259	ISOLATE MALFUNCTIONS OF HELICAL VIDEO SIGNAL SYSTEMS	94
M280	ADJUST RECEIVER OR MONITOR OPERATING CONTROLS, SUCH AS FOCUS OR CENTERING	94
*A4	DETERMINE WORK PRIORITIES	94
K257	ISOLATE MALFUNCTIONS OF HELICAL SERVO SYSTEMS	88
K258	ISOLATE MALFUNCTIONS OF HELICAL TRANSPORT SYSTEMS	88
K262	REMOVE OR REPLACE HELICAL VTR SUBASSEMBLIES	88
K252	ALIGN HELICAL VTR SERVO SYSTEMS	88
*A15	PLAN OR SCHEDULE WORK ASSIGNMENTS	88
D97	MAINTAIN TRAINING RECORDS, CHARTS, OR GRAPHS	88
D87	DEMONSTRATE HOW TO LOCATE TECHNICAL INFORMATION	88
M286	ISOLATE MALFUNCTIONS OF RECEIVER OR MONITOR CIRCUITS	88
C76	WRITE AIRMAN PERFORMANCE REPORTS	88
B40	INVENTORY EQUIPMENT, TOOLS, OR SUPPLIES	88
B27	COUNSEL PERSONNEL ON PERSONAL OR MILITARY RELATED PROBLEMS	88
B52	SUPERVISE TELEVISION EQUIPMENT REPAIRMEN (AFSC 30455)	81
K249	ADJUST HELICAL VTR TRANSPORT SYSTEMS	81
D83	CONDUCT PROFICIENCY TRAINING	81

TV PRODUCTION EQUIPMENT MAINTENANCE PERSONNEL - GRP066 (N=99)
SUBCLUSTER

RELATIVE PERCENT TIME SPENT ON DUTIES

DUTY	TITLE	RELATIVE PERCENT TIME SPENT
G	PERFORMING GENERAL CAMERA MAINTENANCE	12
W	SUPPORTING PRODUCTIONS, RECORDINGS, PLAYBACKS, AND BROADCASTS	11
Q	MAINTAINING AUXILIARY EQUIPMENT	9
X	INSTALLING AND MODIFYING TELEVISION AND ASSOCIATED EQUIPMENT	8
R	MAINTAINING FILM CHAINS AND PROJECTORS	7
I	MAINTAINING COLOR CAMERA CHAINS	7
P	MAINTAINING AUDIO SYSTEMS	6
F	PERFORMING GENERAL REPAIR FUNCTIONS	5
J	PERFORMING GENERAL VIDEO MAGNETIC RECORDING MAINTENANCE	5
K	MAINTAINING HELICAL VIDEO MAGNETIC RECORDERS	4
M	PERFORMING GENERAL TV MONITOR AND RECEIVER MAINTENANCE	4
N	SETTING UP COLOR TV MONITORS AND RECEIVERS	4
E	WORKING WITH FORMS, RECORDS, REPORTS, DIRECTIVES, AND TECHNICAL DATA	3
L	MAINTAINING QUADRUPLEX VIDEO MAGNETIC RECORDERS	3

REPRESENTATIVE TASKS

TASK	TITLE	PERCENT MEMBERS PERFORMING
F163	REMOVE OR REPLACE PLUG-IN OR SCREW-IN ELECTRONIC COMPONENTS, SUCH AS TRANSISTORS, TUBES, OR INDICATOR LIGHTS	98
F158	INTERPRET SCHEMATIC DIAGRAMS	96
G174	ADJUST CAMERA OPERATING CONTROLS, SUCH AS TARGET BEAM OR SET-UP	96
M280	ADJUST RECEIVER OR MONITOR OPERATING CONTROLS, SUCH AS FOCUS OR CENTERING	96
G173	ADJUST CAMERA LINEARITY CONTROLS	96
N290	ADJUST COLOR RECEIVER OR MONITOR COLOR GRAY SCALE OR COLOR TEMPERATURE	96
F165	SOLDER OR DESOLDER CONNECTORS OR HARDWIRE CIRCUITS	94
F164	REMOVE OR REPLACE SOLDERED ELECTRONIC COMPONENTS ON ETCHED CIRCUIT BOARDS	93
M286	ISOLATE MALFUNCTIONS OF RECEIVER OR MONITOR CIRCUITS	93
N297	PERFORM DYNAMIC CONVERGENCE ON COLOR RECEIVERS OR MONITORS	92
M288	ISOLATE MALFUNCTIONS TO RECEIVER OR MONITOR SUBASSEMBLIES	92
N292	ADJUST COLOR RECEIVER OR MONITOR COLOR PURITY	92
G196	ISOLATE MALFUNCTIONS OF VIDEO AMPLIFIER CIRCUITS	92
F157	INTERPRET BLOCK DIAGRAMS OR COMPONENT LOCATION DIAGRAMS	91
M287	ISOLATE MALFUNCTIONS OF RECEIVER OR MONITOR SUBASSEMBLIES	91
*G171	ADJUST CAMERA HEAD VIEWFINDERS	91
*G197	ISOLATE MALFUNCTIONS TO CAMERA CHAIN SUBASSEMBLIES	90
N294	DEGAUSS COLOR RECEIVER OR MONITOR PIX, CRT, OR CHASSIS	90
N295	ISOLATE MALFUNCTIONS OF COLOR RECEIVER OR MONITOR CHROMA CIRCUITS	90
M289	REMOVE OR REPLACE RECEIVER OR MONITOR SUBASSEMBLIES	90

TV PRODUCTION ENGINEERS - GRP118 (N=79)
JOB TYPE

RELATIVE PERCENT TIME SPENT ON DUTIES

DUTY	TITLE	RELATIVE PERCENT TIME SPENT
W	SUPPORTING PRODUCTIONS, RECORDINGS, PLAYBACKS, AND BROADCASTS	11
G	PERFORMING GENERAL CAMERA MAINTENANCE	10
Q	MAINTAINING AUXILIARY EQUIPMENT	9
X	INSTALLING AND MODIFYING TELEVISION AND ASSOCIATED EQUIPMENT	8
R	MAINTAINING FILM CHAINS AND PROJECTORS	7
P	MAINTAINING AUDIO SYSTEMS	7
I	MAINTAINING COLOR CAMERA CHAINS	6
J	PERFORMING GENERAL VIDEO MAGNETIC RECORDING MAINTENANCE	6
K	MAINTAINING HELICAL VIDEO MAGNETIC RECORDING MAINTENANCE	5
F	PERFORMING GENERAL REPAIR FUNCTIONS	4
L	MAINTAINING QUADRUPLEX VIDEO MAGNETIC RECORDERS	4
E	WORKING WITH FORMS, RECORDS, REPORTS, DIRECTIVES, AND TECHNICAL DATA	4

REPRESENTATIVE TASKS

TASK	TITLE	PERCENT MEMBERS PERFORMING
F158	INTERPRET SCHEMATIC DIAGRAMS	97
F163	REMOVE OR REPLACE PLUG-IN OR SCREW-IN ELECTRONIC COMPONENTS, SUCH AS TRANSISTORS, TUBES, OR INDICATOR LIGHTS	97
F165	SOLDER OR DESOLDER CONNECTORS OR HARDWIRE CIRCUITS	96
M287	ISOLATE MALFUNCTIONS OF RECEIVER OR MONITOR SUBASSEMBLIES	96
G174	ADJUST CAMERA OPERATING CONTROLS, SUCH AS TARGET BEAM OR SET-UP	95
M280	ADJUST RECEIVER OR MONITOR OPERATING CONTROLS, SUCH AS FOCUS OR CENTERING	95
G173	ADJUST CAMERA LINEARITY CONTROLS	95
M286	ISOLATE MALFUNCTIONS OF RECEIVER OR MONITOR CIRCUITS	95
M288	ISOLATE MALFUNCTIONS TO RECEIVER OR MONITOR SUBASSEMBLIES	95
N290	ADJUST COLOR RECEIVER OR MONITOR COLOR GRAY SCALE OR COLOR TEMPERATURE	95
N297	PERFORM DYNAMIC CONVERGENCE ON COLOR RECEIVERS OR MONITORS	95
N292	ADJUST COLOR RECEIVER OR MONITOR COLOR PURITY	95
N295	ISOLATE MALFUNCTIONS OF COLOR RECEIVER OR MONITOR CHROMA CIRCUITS	95
F164	REMOVE OR REPLACE SOLDERED ELECTRONIC COMPONENTS ON ETCHED CIRCUIT BOARDS	94
G197	ISOLATE MALFUNCTIONS TO CAMERA CHAIN SUBASSEMBLIES	94
*J239	CLEAN VTR TAPE TRANSPORT SYSTEMS	92
M289	REMOVE OR REPLACE RECEIVER OR MONITOR SUBASSEMBLIES	92
G196	ISOLATE MALFUNCTIONS OF VIDEO AMPLIFIER CIRCUITS	92
N296	ISOLATE MALFUNCTIONS OF COLOR RECEIVER OR MONITOR CONVERGENCE CIRCUITS	92
F157	INTERPRET BLOCK DIAGRAMS OR COMPONENT LOCATION DIAGRAMS	91

TECH SCHOOL TV EQUIPMENT MAINTENANCE SUPPORT PERSONNEL - GRP132 (N=11)
JOB TYPE

RELATIVE PERCENT TIME SPENT ON DUTIES

DUTY	TITLE	RELATIVE PERCENT TIME SPENT
G	PERFORMING GENERAL CAMERA MAINTENANCE	18
I	MAINTAINING COLOR CAMERA CHAINS	10
Q	MAINTAINING AUXILIARY EQUIPMENT	9
R	MAINTAINING FILM CHAINS AND PROJECTORS	9
W	SUPPORTING PRODUCTIONS, RECORDINGS, PLAYBACKS, AND BROADCASTS	6
F	PERFORMING GENERAL REPAIR FUNCTIONS	6
H	MAINTAINING MONOCHROME CAMERA CHAINS	6
X	INSTALLING AND MODIFYING TELEVISION AND ASSOCIATED EQUIPMENT	6
M	PERFORMING GENERAL TV MONITOR AND RECEIVER MAINTENANCE	5
N	SETTING UP COLOR TV MONITORS AND RECEIVERS	4
E	WORKING WITH FORMS, RECORDS, REPORTS, DIRECTIVES, AND TECHNICAL DATA	4
P	MAINTAINING AUDIO SYSTEMS	4
D	TRAINING	3
Q	MAINTAINING AUXILIARY EQUIPMENT	3
B	DIRECTING AND IMPLEMENTING	3

REPRESENTATIVE TASKS

TASK	TITLE	PERCENT MEMBERS PERFORMING
F158	INTERPRET SCHEMATIC DIAGRAMS	100
F163	REMOVE OR REPLACE PLUG-IN OR SCREW-IN ELECTRONIC COMPONENTS, SUCH AS TRANSISTORS, TUBES, OR INDICATOR LIGHTS	100
F157	INTERPRET BLOCK DIAGRAMS OR COMPONENT LOCATION DIAGRAMS	100
G174	ADJUST CAMERA OPERATING CONTROLS, SUCH AS TARGET BEAM OR SET-UP	100
M280	ADJUST RECEIVER OR MONITOR OPERATING CONTROLS, SUCH AS FOCUS OR CENTERING	100
G173	ADJUST CAMERA LINEARITY CONTROLS	100
G179	ALIGN CAMERA HEAD FOCUS	100
*H203	ISOLATE MALFUNCTIONS OF MONOCHROME CAMERA CHAIN POWER SUPPLIES	100
*H204	ISOLATE MALFUNCTIONS OF MONOCHROME CAMERA CONTROL UNIT (CCU) CIRCUITS	100
*H207	ISOLATE MALFUNCTIONS OF MONOCHROME CAMERA HEAD SUBASSEMBLIES	100
*H208	ISOLATE MALFUNCTIONS OF MONOCHROME CCU SUBASSEMBLIES	100
G189	ISOLATE MALFUNCTIONS OF CAMERA HEAD HORIZONTAL OR VERTICAL DRIVE CIRCUITS	100
*H205	ISOLATE MALFUNCTIONS OF MONOCHROME CAMERA HEAD CIRCUITS	100
G192	ISOLATE MALFUNCTIONS OF CAMERA OPERATING CONTROLS, SUCH AS TARGET BEAM OR SET-UP	100
N294	DEGAUSS COLOR RECEIVER OR MONITOR PIX, CRT, OR CHASSIS	100
*H202	ADJUST MONOCHROME CAMERA CHAIN POWER SUPPLIES	100
N290	ADJUST COLOR RECEIVER OR MONITOR COLOR GRAY SCALE OR COLOR TEMPERATURE	100
I215	ALIGN COLOR CAMERA CHAIN REGISTRATION	90
G196	ISOLATE MALFUNCTIONS OF VIDEO AMPLIFIER CIRCUITS	90
G185	CLEAN CAMERA HEAD LENSES	90
G197	ISOLATE MALFUNCTIONS TO CAMERA CHAIN SUBASSEMBLIES	90

JUNIOR TV PRODUCTION ENGINEERS - GRP085 (N=26)
JOB TYPE

RELATIVE PERCENT TIME SPENT ON DUTIES

DUTY	TITLE	RELATIVE PERCENT TIME SPENT
W	SUPPORTING PRODUCTIONS, RECORDINGS, PLAYBACKS, AND BROADCASTS	20
G	PERFORMING GENERAL CAMERA MAINTENANCE	16
X	INSTALLING AND MODIFYING TELEVISION AND ASSOCIATED EQUIPMENT	11
F	PERFORMING GENERAL REPAIR FUNCTIONS	9
I	MAINTAINING COLOR CAMERA CHAINS	9
N	SETTING UP COLOR TV MONITORS AND RECEIVERS	6
M	PERFORMING GENERAL TV MONITOR AND RECEIVER MAINTENANCE	4
R	MAINTAINING FILM CHAINS AND PROJECTORS	4
J	PERFORMING GENERAL VIDEO MAGNETIC RECORDING MAINTENANCE	4
P	MAINTAINING AUDIO SYSTEMS	3
Q	MAINTAINING AUXILIARY EQUIPMENT	3
K	MAINTAINING HELICAL VIDEO MAGNETIC RECORDERS	3
E	WORKING WITH FORMS, RECORDS, REPORTS, DIRECTIVES, AND TECHNICAL DATA	2

REPRESENTATIVE TASKS

TASK	TITLE	PERCENT MEMBERS PERFORMING
W520	SET UP COLOR CAMERAS	100
W508	PERFORM OPERATIONAL CHECKS OF COLOR CAMERA CHAINS	100
N290	ADJUST COLOR RECEIVER OR MONITOR COLOR GRAY SCALE OR COLOR TEMPERATURE	100
F164	REMOVE OR REPLACE SOLDERED ELECTRONIC COMPONENTS ON ETCHED CIRCUIT BOARDS	100
F163	REMOVE OR REPLACE PLUG-IN OR SCREW-IN ELECTRONIC COMPONENTS, SUCH AS TRANSISTORS, TUBES, OR INDICATOR LIGHTS	100
G185	CLEAN CAMERA HEAD LENSES	100
G173	ADJUST CAMERA LINEARITY CONTROLS	100
G174	ADJUST CAMERA OPERATING CONTROLS, SUCH AS TARGET BEAM OR SET-UP	100
G171	ADJUST CAMERA HEAD VIEWFINDERS	100
N297	PERFORM DYNAMIC CONVERGENCE ON COLOR RECEIVERS OR MONITORS	100
M280	ADJUST RECEIVER OR MONITOR OPERATING CONTROLS, SUCH AS FOCUS OR CENTERING	100
G172	ADJUST CAMERA LENS ZOOM SPEED, DISTANCE, OR BACKFOCUS	100
F158	INTERPRET SCHEMATIC DIAGRAMS	88
W488	MONITOR WAVEFORM MONITORS	88
F157	INTERPRET BLOCK DIAGRAMS OR COMPONENT LOCATION DIAGRAMS	88
F165	SOLDER OR DESOLDER CONNECTORS OR HARDWIRE CIRCUITS	88
I215	ALIGN COLOR CAMERA CHAIN REGISTRATION	88
G200	REMOVE OR REPLACE CAMERA HEAD LENSES	88
J239	CLEAN VTR TAPE TRANSPORT SYSTEMS	88
W509	PERFORM OPERATIONAL CHECKS OF FILM CHAINS	88

VTR MAINTENANCE PERSONNEL - GRP038 (N=26)
CLUSTER

RELATIVE PERCENT TIME SPENT ON DUTIES

DUTY	TITLE	RELATIVE PERCENT TIME SPENT
J	PERFORMING GENERAL VIDEO MAGNETIC RECORDING MAINTENANCE	21
K	MAINTAINING HELICAL VIDEO MAGNETIC RECORDERS	19
F	PERFORMING GENERAL REPAIR FUNCTIONS	11
E	WORKING WITH FORMS, RECORDS, REPORTS, DIRECTIVES, AND TECHNICAL DATA	7
W	SUPPORTING PRODUCTIONS, RECORDINGS, PLAYBACKS, AND BROADCASTS	6
L	MAINTAINING QUADRUPLEX VIDEO MAGNETIC RECORDERS	5
M	PERFORMING GENERAL TV MONITOR AND RECEIVER MAINTENANCE	4
X	INSTALLING AND MODIFYING TELEVISION AND ASSOCIATED EQUIPMENT	4
D	TRAINING	4
A	ORGANIZING AND PLANNING	3
G	PERFORMING GENERAL CAMERA MAINTENANCE	3
B	DIRECTING AND IMPLEMENTING	2
Q	MAINTAINING AUXILIARY EQUIPMENT	2
N	SETTING UP COLOR TV MONITORS AND RECEIVERS	2
C	INSPECTING AND EVALUATING	2

REPRESENTATIVE TASKS

TASK	TITLE	PERCENT MEMBERS PERFORMING
J239	CLEAN VTR TAPE TRANSPORT SYSTEMS	92
J240	DEGAUSS VTR HEADS OR GUIDES	92
J246	REMOVE VTR VIDEO HEADS	92
K252	ALIGN HELICAL VTR SERVO SYSTEMS	88
K249	ADJUST HELICAL VTR TRANSPORT SYSTEMS	88
J234	ADJUST VIDEO TAPE RECORDER (VTR) POWER SUPPLIES	85
K259	ISOLATE MALFUNCTIONS OF HELICAL VIDEO SIGNAL SYSTEMS	85
J247	REPLACE VTR VIDEO HEADS	85
K258	ISOLATE MALFUNCTIONS OF HELICAL TRANSPORT SYSTEMS	81
J241	ISOLATE MALFUNCTIONS OF VTR CONTROL SYSTEMS	81
K257	ISOLATE MALFUNCTIONS OF HELICAL SERVO SYSTEMS	81
F165	SOLDER OR DESOLDER CONNECTORS OR HARDWIRE CIRCUITS	81
J244	LUBRICATE VTR TRANSPORT SYSTEMS	81
F158	INTERPRET SCHEMATIC DIAGRAMS	77
F157	INTERPRET BLOCK DIAGRAMS OR COMPONENT LOCATION DIAGRAMS	77
K261	ISOLATE MALFUNCTIONS TO HELICAL VIDEO MAGNETIC RECORDERS	77
F164	REMOVE OR REPLACE SOLDERED ELECTRONIC COMPONENTS ON ETCHED CIRCUIT BOARDS	77
M280	ADJUST RECEIVER OR MONITOR OPERATING CONTROLS, SUCH AS FOCUS OR CENTERING	77
K254	ALIGN HELICAL VTR VIDEO SIGNAL SYSTEM, SUCH AS PLAY RECORD OR PROCESSING AMP	73
K251	ALIGN HELICAL VTR AUDIO SIGNAL SYSTEMS, SUCH AS AUDIO ONE AND AUDIO TWO	73
K255	ISOLATE MALFUNCTIONS OF HELICAL AUDIO SYSTEMS	73

QUADRUPLEX AND HELICAL VTR MAINTENANCE PERSONNEL - GRP091 (N=5)
JOB TYPE

RELATIVE PERCENT TIME SPENT ON DUTIES

DUTY	TITLE	RELATIVE PERCENT TIME SPENT
L	MAINTAINING QUADRUPLEX VIDEO MAGNETIC RECORDERS	19
W	SUPPORTING PRODUCTIONS, RECORDINGS, PLAYBACKS, AND BROADCASTS	17
J	PERFORMING GENERAL VIDEO MAGNETIC RECORDING MAINTENANCE	12
K	MAINTAINING HELICAL VIDEO MAGNETIC RECORDERS	12
F	PERFORMING GENERAL REPAIR FUNCTIONS	8
Q	MAINTAINING AUXILIARY EQUIPMENT	5
X	INSTALLING AND MODIFYING TELEVISION AND ASSOCIATED EQUIPMENT	5
N	SETTING UP COLOR TV MONITORS AND RECEIVERS	4
B	DIRECTING AND IMPLEMENTING	3
M	PERFORMING GENERAL TV MONITOR AND RECEIVER MAINTENANCE	2
E	WORKING WITH FORMS, RECORDS, REPORTS, DIRECTIVES, AND TECHNICAL DATA	2
A	ORGANIZING AND PLANNING	2
C	INSPECTING AND EVALUATING	2

REPRESENTATIVE TASKS

TASK	TITLE	PERCENT MEMBERS PERFORMING
*W494	OPERATE HELICAL VTR	100
*W501	OPERATE TRANSVERSE VTR	100
J239	CLEAN VTR TAPE TRANSPORT SYSTEMS	100
*L268	ALIGN QUADRUPLEX VIDEO SIGNAL SYSTEMS, SUCH AS PLAY OR RECORD	100
J245	OPTIMIZE VTR VIDEO HEADS	100
W479	DUB VIDEO TAPES	100
L273	ISOLATE MALFUNCTIONS OF QUADRUPLEX SERVO SYSTEMS	100
*L265	ADJUST QUADRAPLEX VTR SKEWING AND SCALLOPING CONTROLS	100
K259	ISOLATE MALFUNCTIONS OF HELICAL VIDEO SIGNAL SYSTEMS	100
*L269	CLEAN QUADRUPLEX VTR AIR OR VACUUM SYSTEM COMPONENTS	100
J240	DEGAUSS VTR HEADS OR GUIDES	100
*L270	DRAIN WATER FROM AIR OR VACUUM SYSTEMS	100
*L264	ADJUST QUADRUPLEX VTR AIR OR VACUUM SYSTEMS	100
*L274	ISOLATE MALFUNCTIONS OF QUADRUPLEX TRANSPORT SYSTEMS	100
F164	REMOVE OR REPLACE SOLDERED ELECTRONIC COMPONENTS ON ETCHED CIRCUIT BOARDS	100
J241	ISOLATE MALFUNCTIONS OF VTR CONTROL SYSTEMS	100
*L279	REMOVE OR REPLACE QUADRUPLEX VTR SUBASSEMBLIES	100
*L263	ADJUST QUADRUPLEX TRANSPORT SYSTEMS	100
K258	ISOLATE MALFUNCTIONS OF HELICAL TRANSPORT SYSTEMS	100
K261	ISOLATE MALFUNCTIONS TO HELICAL VIDEO MAGNETIC RECORDERS	100
J244	LUBRICATE VTR TRANSPORT SYSTEMS	100

AIRBORNE VTR REPAIRMEN - GRP095 (N=17)
JOB TYPE

RELATIVE PERCENT TIME SPENT ON DUTIES

DUTY	TITLE	RELATIVE PERCENT TIME SPENT
J	PERFORMING GENERAL VIDEO MAGNETIC RECORDING MAINTENANCE	24
K	MAINTAINING HELICAL VIDEO MAGNETIC RECORDERS	21
F	PERFORMING GENERAL REPAIR FUNCTIONS	14
E	WORKING WITH FORMS, RECORDS, REPORTS, DIRECTIVES, AND TECHNICAL DATA	10
X	INSTALLING AND MODIFYING TELEVISION AND ASSOCIATED EQUIPMENT	5
G	PERFORMING GENERAL CAMERA MAINTENANCE	4
W	SUPPORTING PRODUCTIONS, RECORDINGS, PLAYBACKS, AND BROADCASTS	4
M	PERFORMING GENERAL TV MONITOR AND RECEIVER MAINTENANCE	4
A	ORGANIZING AND PLANNING	3
B	DIRECTING AND IMPLEMENTING	2
C	INSPECING AND EVALUATING	2
D	TRAINING	2

REPRESENTATIVE TASKS

TASK	TITLE	PERCENT MEMBERS PERFORMING
J246	REMOVE VTR VIDEO HEADS	100
J247	REPLACE VTR VIDEO HEADS	100
J239	CLEAN VTR TAPE TRANSPORT SYSTEMS	94
F165	SOLDER OR DESOLDER CONNECTORS OR HARDWIRE CIRCUITS	94
J244	LUBRICATE VTR TRANSPORT SYSTEMS	94
K259	ISOLATE MALFUNCTIONS OF HELICAL VIDEO SIGNAL SYSTEMS	94
K252	ALIGN HELICAL VTR SERVO SYSTEMS	88
K258	ISOLATE MALFUNCTIONS OF HELICAL TRANSPORT SYSTEMS	88
F158	INTERPRET SCHEMATIC DIAGRAMS	88
J241	ISOLATE MALFUNCTIONS OF VTR CONTROL SYSTEMS	88
K257	ISOLATE MALFUNCTIONS OF HELICAL SERVO SYSTEMS	88
K249	ADJUST HELICAL VTR TRANSPORT SYSTEMS	88
J240	DEGAUSS VTR HEADS OR GUIDES	88
J234	ADJUST VIDEO TAPE RECORDER (VTR) POWER SUPPLIES	88
K261	ISOLATE MALFUNCTIONS TO HELICAL VIDEO MAGNETIC RECORDERS	82
F164	REMOVE OR REPLACE SOLDERED ELECTRONIC COMPONENTS ON ETCHED CIRCUIT BOARDS	82
F160	PERFORM CORROSION CONTROL ON TV EQUIPMENT	82
K255	ISOLATE MALFUNCTIONS OF HELICAL AUDIO SYSTEMS	82
J238	CHECK VIDEO TAPES FOR DROPOUTS OR SCRATCHES	76
F157	INTERPRET BLOCK DIAGRAMS OR COMPONENT LOCATION DIAGRAMS	76
K262	REMOVE OR REPLACE HELICAL VTR SUBASSEMBLIES	76
*X561	REMOVE OR INSTALL AIRBORNE VTRs	41

SUPERVISORS - GRP050 (N=129)
CLUSTER

RELATIVE PERCENT TIME SPENT ON DUTIES

DUTY	TITLE	RELATIVE PERCENT TIME SPENT
B	DIRECTING AND IMPLEMENTING	27
C	INSPECTING AND EVALUATING	23
A	ORGANIZING AND PLANNING	22
E	WORKING WITH FORMS, RECORDS, REPORTS, DIRECTIVES, AND TECHNICAL DATA	14
D	TRAINING	8
F	PERFORMING GENERAL REPAIR FUNCTIONS	2
G	PERFORMING GENERAL CAMERA MAINTENANCE	1

REPRESENTATIVE TASKS

TASK	TITLE	PERCENT MEMBERS PERFORMING
B33	DRAFT CORRESPONDENCE OR REPORTS	95
B27	COUNSEL PERSONNEL ON PERSONAL OR MILITARY RELATED PROBLEMS	95
B42	PARTICIPATE IN STAFF MEETINGS	93
C76	WRITE AIRMAN PERFORMANCE REPORTS	91
B39	INTERPRET POLICIES, DIRECTIVES, OR PROCEDURES FOR SUBORDINATES	90
A3	DETERMINE REQUIREMENTS FOR SPACE, PERSONNEL, EQUIPMENT, OR SUPPLIES	89
A21	SCHEDULE LEAVES OR PASSES	89
A1	ASSIGN PERSONNEL TO DUTY POSITIONS	88
A2	ASSIGN SPONSORS FOR NEWLY ASSIGNED PERSONNEL	86
A4	DETERMINE WORK PRIORITIES	85
C63	EVALUATE INSPECTION REPORTS OR PROCEDURES	79
A9	ESTABLISH ORGANIZATION POLICIES, STANDARD OPERATING PROCEDURES, OR MAINTENANCE OPERATING INSTRUCTIONS	79
C72	INDORSE AIRMAN PERFORMANCE REPORTS	78
A14	PLAN OR PREPARE BRIEFINGS	77
A15	PLAN OR SCHEDULE WORK ASSIGNMENTS	75
C62	EVALUATE INDIVIDUALS FOR PROMOTION, DEMOTION, OR RECLASSIFICATION	72
B29	DEVELOP OR IMPROVE WORK METHODS OR PROCEDURES	70
B32	DIRECT MAINTENANCE OR UTILIZATION OF EQUIPMENT	69
B31	DIRECT MAINTENANCE OF ADMINISTRATIVE FILES	69
A5	DEVELOP MAINTENANCE AGREEMENTS WITH OTHER OPERATING AGENCIES	68

NCOICs - GRP053 (N=105)
SUBCLUSTER

RELATIVE PERCENT TIME SPENT ON DUTIES

DUTY	TITLE	RELATIVE PERCENT TIME SPENT
B	DIRECTING AND IMPLEMENTING	24
C	INSPECTING AND EVALUATING	23
A	ORGANIZING AND PLANNING	21
E	WORKING WITH FORMS, RECORDS, REPORTS, DIRECTIVES, AND TECHNICAL DATA	16
D	TRAINING	9
F	PERFORMING GENERAL REPAIR FUNCTIONS	2
G	PERFORMING GENERAL CAMERA MAINTENANCE	1
X	INSTALLING AND MODIFYING TELEVISION AND ASSOCIATED EQUIPMENT	1

REPRESENTATIVE TASKS

TASK	TITLE	PERCENT MEMBERS PERFORMING
B27	COUNSEL PERSONNEL ON PERSONAL OR MILITARY RELATED PROBLEMS	97
B33	DRAFT CORRESPONDENCE OR REPORTS	96
*A3	DETERMINE REQUIREMENTS FOR SPACE, PERSONNEL, EQUIPMENT, OR SUPPLIES	96
B42	PARTICIPATE IN STAFF MEETINGS	93
*A4	DETERMINE WORK PRIORITIES	92
A21	SCHEDULE LEAVES OR PASSES	92
C76	WRITE AIRMAN PERFORMANCE REPORTS	91
A1	ASSIGN PERSONNEL TO DUTY POSITIONS	90
A2	ASSIGN SPONSORS FOR NEWLY ASSIGNED PERSONNEL	90
B39	INTERPRET POLICIES, DIRECTIVES, OR PROCEUDRES FOR SUBORDINATES	90
*A15	PLAN OR SCHEDULE WORK ASSIGNMENTS	85
*A14	PLAN OR PREPARE BRIEFINGS	83
C72	INDORSE AIRMAN PERFORMANCE REPORTS	82
C63	EVALUATE INSPECTION REPORTS OR PROCEDURES	81
A9	ESTABLISH ORGANIZATION POLICIES, STANDARD OPERATING PROCEDURES, OR MAINTENANCE OPERATING INSTRUCTIONS	81
*B29	DEVELOP OR IMPROVE WORK METHODS OR PROCEDURES	80
*B32	DIRECT MAINTENANCE OR UTILIZATION OF EQUIPMENT	79
*C65	EVALUATE MAINTENANCE AND USE OF WORKSPACE, EQUIPMENT, OR SUPPLIES	78
C62	EVALUATE INDIVIDUALS FOR PROMOTION, DEMOTION, OR RECLASSIFICATION	77
*A8	ESTABLISH EQUIPMENT UTILIZATION POLICY	74
B31	DIRECT MAINTENANCE OF ADMINISTRATIVE FILES	72
*C54	ANALYZE WORKLOAD REQUIREMENTS	70
A5	DEVELOP MAINTENANCE AGREEMENTS WITH OTHER OPERATING AGENCIES	70

SUPERINTENDENTS - GRP055 (N=24)
SUBCLUSTER

RELATIVE PERCENT TIME SPENT ON DUTIES

DUTY	TITLE	RELATIVE PERCENT TIME SPENT
B	DIRECTING AND IMPLEMENTING	41
C	INSPECTING AND EVALUATING	25
A	ORGANIZING AND PLANNING	25
E	WORKING WITH FORMS, RECORDS, REPORTS, DIRECTIVES, AND TECHNICAL DATA	5
D	TRAINING	3

REPRESENTATIVE TASKS

TASK	TITLE	PERCENT MEMBERS PERFORMING
B33	DRAFT CORRESPONDENCE OR REPORTS	92
B39	INTERPRET POLICIES, DIRECTIVES, OR PROCEDURES FOR SUBORDINATES	92
B42	PARTICIPATE IN STAFF MEETINGS	92
C76	WRITE AIRMAN PERFORMANCE REPORTS	92
B27	COUNSEL PERSONNEL ON PERSONAL OR MILITARY RELATED PROBLEMS	86
A1	ASSIGN PERSONNEL TO DUTY POSITIONS	79
A21	SCHEDULE LEAVES OR PASSES	75
C78	WRITE STAFF STUDIES, SURVEYS, OR SPECIAL REPORTS	71
C63	EVALUATE INSPECTION REPORTS OR PROCEDURES	71
A9	ESTABLISH ORGANIZATION POLICIES, STANDARD OPERATING PROCEDURES, OR MAINTENANCE OPERATING INSTRUCTIONS	71
A2	ASSIGN SPONSORS FOR NEWLY ASSIGNED PERSONNEL	67
C72	INDORSE AIRMAN PERFORMANCE REPORTS	63
A5	DEVELOP MAINTENANCE AGREEMENTS WITH OTHER OPERATING AGENCIES	58
A3	DETERMINE REQUIREMENTS FOR SPACE, PERSONNEL, EQUIPMENT, OR SUPPLIES	58
B26	CONDUCT STAFF MEETINGS	54
A4	DETERMINE WORK PROPRITIES	54
B31	DIRECT MAINTENANCE OF ADMINISTRATIVE FILES	54
B25	COMPLETE PERSONNEL ACTION REQUESTS	54
C62	EVALUATE INDIVIDUALS FOR PROMOTION, DEMOTION, OR RECLASSIFICATION	50
A14	PLAN OR PREPARE BRIEFINGS	50

MANAGERS - GRP193 (N=7)
JOB TYPE

RELATIVE PERCENT TIME SPENT ON DUTIES

DUTY	TITLE	RELATIVE PERCENT TIME SPENT
B	DIRECTING AND IMPLEMENTING	48
C	INSPECTING AND EVALUATING	26
A	ORGANIZING AND PLANNING	22
D	TRAINING	2
E	WORKING WITH FORMS, RECORDS, REPORTS, DIRECTIVES, AND TECHNICAL DATA	1

REPRESENTATIVE TASKS

TASK	TITLE	PERCENT MEMBERS PERFORMING
B33	DRAFT CORRESPONDENCE OR REPORTS	100
B39	INTERPRET POLICIES, DIRECTIVES, OR PROCEDURES FOR SUBORDINATES	100
B42	PARTICIPATE IN STAFF MEETINGS	100
*C78	WRITE STAFF STUDIES, SURVEYS, OR SPECIAL REPORTS	100
B27	COUNSEL PERSONNEL ON PERSONAL OR MILITARY RELATED PROBLEMS	86
C76	WRITE AIRMAN PERFORMANCE REPORTS	86
A1	ASSIGN PERSONNEL TO DUTY POSITIONS	86
C63	EVALUATE INSPECTION REPORTS OR PROCEDURES	71
A9	ESTABLISH ORGANIZATION POLICIES, STANDARD OPERATING PROCEDURES, OR MAINTENANCE OPERATING INSTRUCTIONS	57
B26	CONDUCT STAFF MEETINGS	57
A14	PLAN OR PREPARE BRIEFINGS	57
A2	ASSIGN SPONSORS FOR NEWLY ASSIGNED PERSONNEL	57
A21	SCHEDULE LEAVES OR PASSES	57
A5	DEVELOP MAINTENANCE AGREEMENTS WITH OTHER OPERATING AGENCIES	43
*C72	INDORSE AIRMAN PERFORMANCE REPORTS	43
B31	DIRECT MAINTENANCE OF ADMINISTRATIVE FILES	43
A4	DETERMINE WORK PRIORITIES	43
C67	EVALUATE PROPOSED EQUIPMENT MODIFICATIONS	29
B29	DEVELOP OR IMPROVE WORK METHODS OR PROCEDURES	29
B25	COMPLETE PERSONNEL ACTION REQUESTS	29

MAINTENANCE SUPERINTENDENTS - GRP146 (N=11)
JOB TYPE

RELATIVE PERCENT TIME SPENT ON DUTIES

DUTY	TITLE	RELATIVE PERCENT TIME SPENT
B	DIRECTING AND IMPLEMENTING	41
A	ORGANIZING AND PLANNING	28
C	INSPECTING AND EVALUATING	24
D	TRAINING	4
E	WORKING WITH FORMS, RECORDS, REPORTS, DIRECTIVES, AND TECHNICAL DATA	2

REPRESENTATIVE TASKS

TASK	TITLE	PERCENT MEMBERS PERFORMING
C76	WRITE AIRMAN PERFORMANCE REPORTS	100
B27	COUNSEL PERSONNEL ON PERSONAL OR MILITARY RELATED PROBLEMS	100
B39	INTERPRET POLICIES, DIRECTIVES, OR PROCEDURES FOR SUBORDINATES	100
B42	PARTICIPATE IN STAFF MEETINGS	91
C72	INDORSE AIRMAN PERFORMANCE REPORTS	91
*A3	DETERMINE REQUIREMENTS FOR SPACE, PERSONNEL, EQUIPMENT, OR SUPPLIES	91
B33	DRAFT CORRESPONDENCE OR REPORTS	82
*A5	DEVELOP MAINTENANCE AGREEMENTS WITH OTHER OPERATING AGENCIES	82
A9	ESTABLISH ORGANIZATION POLICIES, STANDARD OPERATING PROCEDURES, OR MAINTENANCE OPERATING INSTRUCTIONS	73
A1	ASSIGN PERSONNEL TO DUTY POSITIONS	73
A21	SCHEDULE LEAVES OR PASSES	73
A2	ASSIGN SPONSORS FOR NEWLY ASSIGNED PERSONNEL	73
A4	DETERMINE WORK PRIORITIES	64
C63	EVALUATE INSPECTION REPORTS OR PROCEDURES	64
B26	CONDUCT STAFF MEETINGS	64
*C62	EVALUATE INDIVIDUALS FOR PROMOTION, DEMOTION, OR RECLASSIFICATION	64
*B25	COMPLETE PERSONNEL ACTION REQUESTS	64
*B53	SUPERVISE TELEVISION EQUIPMENT TECHNICIANS (AFSC 30475)	64
*B32	DIRECT MAINTENANCE OR UTILIZATION OF EQUIPMENT	55
C78	WRITE STAFF STUDIES, SURVEYS, OR SPECIAL REPORTS	55
*B50	SUPERVISE GROUND RADIO COMMUNICATIONS EQUIPMENT REPAIR (AFS 304X4) PERSONNEL	55
*B30	DIRECT DEVELOPMENT OR MAINTENANCE OF STATUS BOARDS, GRAPHS, OR CHARTS	55

QUALITY CONTROL INSPECTORS - GRP094 (N=11)
INDEPENDENT JOB TYPE

RELATIVE PERCENT TIME SPENT ON DUTIES

DUTY	TITLE	RELATIVE PERCENT TIME SPENT
C	INSPECTING AND EVALUATING	39
B	DIRECTING AND IMPLEMENTING	20
E	WORKING WITH FORMS, RECORDS, REPORTS, DIRECTIVES, AND TECHNICAL DATA	18
D	TRAINING	10
A	ORGANIZING AND PLANNING	8
F	PERFORMING GENERAL REPAIR FUNCTIONS	5
G	PERFORMING GENERAL CAMERA MAINTENANCE	-

REPRESENTATIVE TASKS

TASK	TITLE	PERCENT MEMBERS PERFORMING
B33	DRAFT CORRESPONDENCE OR REPORTS	91
*C75	PERFORM TECHNICAL INSPECTIONS OF EQUIPMENT	91
*C67	EVALUATE PROPOSED EQUIPMENT MODIFICATIONS	91
*C59	EVALUATE COMPLETED EQUIPMENT MODIFICATIONS	91
B39	INTERPRET POLICIES, DIRECTIVES, OR PROCEDURES FOR SUBORDINATES	82
C63	EVALUATE INSPECTION REPORTS OR PROCEDURES	82
*C74	PERFORM QUALITY CONTROL INSPECTIONS OF EQUIPMENT	82
*C65	EVALUATE MAINTENANCE AND USE OF WORKSPACE, EQUIPMENT, OR SUPPLIES	82
*C58	EVALUATE COMPLETED EQUIPMENT INSTALLATION	82
*C61	EVALUATE EQUIPMENT FOR APPLICATION SUITABILITY	82
*C60	EVALUATE COMPLIANCE WITH WORK STANDARDS	82
B42	PARTICIPATE IN STAFF MEETINGS	82
C55	EVALUATE ADMINISTRATIVE FORMS, FILES, OR PROCEUDRES	73
*B29	DEVELOP OR IMPROVE WORK METHODS OR PROCEDURES	73
*F161	PERFORM QUALITY CONTROL CHECKS ON NEWLY RECEIVED EQUIPMENT	73
A9	ESTABLISH ORGANIZATION POLICIES, STANDARD OPERATING PROCEDURE, OR MAINTENANCE OPERATING INSTRUCTIONS	64
C78	WRITE STAFF STUDIES, SURVEYS, OR SPECIAL REPORTS	64
*C70	EVALUATE SUGGESTIONS	64
*B34	ESTABLISH PUBLICATIONS LIBRARIES	64
*B43	PREPARE INSPECTION SCHEDULES	64
*D87	DEMONSTRATE HOW TO LOCATE TECHNICAL INFORMATION	64

INSTRUCTORS - GRP030 (N=6)
INDEPENDENT JOB TYPE

RELATIVE PERCENT TIME SPENT ON DUTIES

DUTY	TITLE	RELATIVE PERCENT TIME SPENT
D	TRAINING	67
G	PERFORMING GENERAL CAMERA MAINTENANCE	10
F	PERFORMING GENERAL REPAIR FUNCTIONS	6
I	MAINTAINING COLOR CAMERA CHAINS	3
B	DIRECTING AND IMPLEMENTING	3
C	INSPECTING AND EVALUATING	3
W	SUPPORTING PRODUCTIONS, RECORDINGS, PLAYBACKS, AND BROADCASTS	2
A	ORGANIZING AND PLANNING	2
S	MAINTAINING TEST EQUIPMENT	1
X	INSTALLING AND MODIFYING TELEVISION AND ASSOCIATED EQUIPMENT	1
E	WORKING WITH FORMS, RECORDS, REPORTS, DIRECTIVES, AND TECHNICAL DATA	1

REPRESENTATIVE TASKS

TASK	TITLE	PERCENT MEMBERS PERFORMING
D84	CONDUCT RESIDENT COURSE CLASSROOM TRAINING	100
D94	EVALUATE PROGRESS OF RESIDENT COURSE STUDENTS	100
D101	WRITE TEST QUESTIONS	83
D86	COUNSEL TRAINEES ON TRAINING PROGRESS	83
D90	DEVELOP COURSE CURRICULA OR PLANS OF INSTRUCTION (POI)	83
D97	MAINTAIN TRAINING RECORDS, CHARTS, OR GRAPHS	83
D87	DEMONSTRATE HOW TO LOCATE TECHNICAL INFORMATION	67
D79	ADMINISTER OR SCORE TESTS	50
F158	INTERPRET SCHEMATIC DIAGRAMS	50
D98	PROCURE TRAINING AIDS, SPACE, OR EQUIPMENT	50
D96	IMPLEMENT OR DIRECT TRAINING PROGRAMS	33
B27	COUNSEL PERSONNEL ON PERSONAL OR MILITARY RELATED PROBLEMS	33
G168	ADJUST APERATURE CORRECTION CIRCUITS	33
G172	ADJUST CAMERA LENS ZOOM SPEED, DISTANCE, OR BACKFOCUS	33
D102	WRITE TRAINING REPORTS	33
B40	INVENTORY EQUIPMENT, TOOLS, OR SUPPLIES	33
G200	REMOVE OR REPLACE CAMERA HEAD LENSES	33
S418	PERFORM OPERATOR MAINTENANCE ON TEST EQUIPMENT	17
W494	OPERATE HELICAL VTR	17
W498	OPERATE REEL OR CARTRIDGE TAPE RECORDERS	17
A10	ESTABLISH PERFORMANCE STANDARDS	17
X559	REMOVE MICROWAVE RELAY SYSTEMS	17

APPENDIX B

DAFSC JOB DESCRIPTIONS

TELEVISION EQUIPMENT REPAIR APPRENTICES - AFSC 30435 (N=15)

RELATIVE PERCENT TIME SPENT ON DUTIES

DUTY	TITLE	RELATIVE PERCENT TIME SPENT
F	PERFORMING GENERAL REPAIR FUNCTIONS	19
G	PERFORMING GENERAL CAMERA MAINTENANCE	14
M	PERFORMING GENERAL TV MONITOR AND RECEIVER MAINTENANCE	14
W	SUPPORTING PRODUCTIONS, RECORDINGS, PLAYBACKS, AND BROADCASTS	8
J	PERFORMING GENERAL VIDEO MAGNETIC RECORDING MAINTENANCE	8
N	SETTING UP COLOR TV MONITORS AND RECEIVERS	7
P	MAINTAINING AUDIO SYSTEMS	6
K	MAINTAINING HELICAL VIDEO MAGNETIC RECORDERS	4

REPRESENTATIVE TASKS PERFORMED BY DAFSC 30435 PERSONNEL

TASK	TITLE	PERCENT MEMBERS PERFORMING
F164	REMOVE OR REPLACE SOLDERED ELECTRONIC COMPONENTS ON ETCHED CIRCUIT BOARDS	100
F165	SOLDER OR DESOLDER CONNECTORS OR HARDWIRE CIRCUITS	100
F163	REMOVE OR REPLACE PLUG-IN OR SCREW-IN ELECTRONIC COMPONENTS, SUCH AS TRANSISTORS, TUBES, OR INDICATOR LIGHTS	93
M280	ADJUST RECEIVER OR MONITOR OPERATING CONTROLS, SUCH AS FOCUS OR CENTERING	93
F157	INTERPRET BLOCK DIAGRAMS OR COMPONENT LOCATION DIAGRAMS	80
F158	INTERPRET SCHEMATIC DIAGRAMS	73
G174	ADJUST CAMERA OPERATING CONTROLS, SUCH AS TARGET BEAM OR SET-UP	73
M289	REMOVE OR REPLACE RECEIVER OR MONITOR SUBASSEMBLIES	67
J239	CLEAN VTR TAPE TRANSPORT SYSTEMS	67
M286	ISOLATE MALFUNCTIONS OF RECEIVER OR MONITOR CIRCUITS	60
N297	PERFORM DYNAMIC CONVERGENCE ON COLOR RECEIVERS OR MONITORS	60
G185	CLEAN CAMERA HEAD LENSES	60
M282	ALIGN RECEIVER OR MONITOR AUTOMATIC FREQUENCY CONTROL (AFC) CIRCUITS	53
G173	ADJUST CAMERA LINEARITY CONTROLS	53
N290	ADJUST COLOR RECEIVER OR MONITOR COLOR GRAY SCALE OR COLOR TEMPERATURE	53
M285	DISPOSE OF PICTURE TUBES (PIX) OR CATHODE RAY TUBES (CRT)	53
G172	ADJUST CAMERA LENS ZOOM SPEED, DISTANCE, OR BACKFOCUS	53
M287	ISOLATE MALFUNCTIONS OF RECEIVER OR MONITOR SUBASSEMBLIES	47
N294	DEGAUSS COLOR RECEIVER OR MONITOR PIX, CRT, OR CHASSIS	47
J240	DEGAUSS VTR HEADS OR GUIDES	47

AD-A078 698 AIR FORCE OCCUPATIONAL MEASUREMENT CENTER RANDOLPH AFB TX F/6 5/9
TELEVISION EQUIPMENT REPAIR CAREER LADDER, AFSCS 30535, 30455, --ETC(U)
OCT 79

UNCLASSIFIED NL

2 OF 2
AD
A078698

END
DATE
FILMED
1-80
DDC

TELEVISION EQUIPMENT REPAIR SPECIALISTS - AFSC 30455 (N=258)

RELATIVE PERCENT TIME SPENT ON DUTIES

DUTY	TITLE	RELATIVE PERCENT TIME SPENT
G	PERFORMING GENERAL CAMERA MAINTENANCE	13
F	PERFORMING GENERAL REPAIR FUNCTIONS	11
E	WORKING WITH FORMS, RECORDS, REPORTS, DIRECTIVES, AND TECHNICAL DATA	10
M	PERFORMING GENERAL TV MONITOR AND RECEIVER MAINTENANCE	8
W	SUPPORTING PRODUCTION, RECORDINGS, PLAYBACKS, AND BROADCASTS	5
Q	MAINTAINING AUXILIARY EQUIPMENT	5
X	INSTALLING AND MODIFYING TELEVISION AND ASSOCIATED EQUIPMENT	5
B	DIRECTING AND IMPLEMENTING	5
D	TRAINING	4
A	ORGANIZING AND PLANNING	4

REPRESENTATIVE TASKS PERFORMED BY DAFSC 30455 PERSONNEL

TASK	TITLE	PERCENT MEMBERS PERFORMING
F165	SOLDER OR DESOLDER CONNECTORS OR HARDWIRE CIRCUITS	85
F158	INTERPRET SCHEMATIC DIAGRAMS	85
F163	REMOVE OR REPLACE PLUG-IN OR SCREW-IN ELECTRONIC COMPONENTS, SUCH AS TRANSISTORS, TUBES, OR INDICATOR LIGHTS	84
F164	REMOVE OR REPLACE SOLDERED ELECTRONIC COMPONENTS ON ETCHED CIRCUIT BOARDS	83
M280	ADJUST RECEIVER OR MONITOR OPERATING CONTROLS, SUCH AS FOCUS OR CENTERING	83
F157	INTERPRET BLOCK DIAGRAMS OR COMPONENT LOCATION DIAGRAMS	79
M286	ISOLATE MALFUNCTIONS OF RECEIVER OR MONITOR CIRCUITS	79
M287	ISOLATE MALFUNCTIONS OF RECEIVER OR MONITOR SUBASSEMBLIES	71
G174	ADJUST CAMERA OPERATING CONTROLS, SUCH AS TARGET BEAM OR SET-UP	70
M288	ISOLATE MALFUNCTIONS TO RECEIVER OR MONITOR SUBASSEMBLIES	70
M289	REMOVE OR REPLACE RECEIVER OR MONITOR SUBASSEMBLIES	67
G173	ADJUST CAMERA LINEARITY CONTROLS	66
F160	PERFORM CORROSION CONTROL ON TV EQUIPMENT	62
G201	REMOVE OR REPLACE CAMERA PICKUP TUBES	60
G185	CLEAN CAMERA HEAD LENSES	56
G196	ISOLATE MALFUNCTIONS OF VIDEO AMPLIFIER CIRCUITS	55
M285	DISPOSE OF PICTURE TUBES (PIX) OR CATHODE RAY TUBES (CRT)	54
G192	ISOLATE MALFUNCTIONS OF CAMERA OPERATING CONTROLS, SUCH AS TARGET BEAM OR SET-UP	51
B40	INVENTORY EQUIPMENT, TOOLS, OR SUPPLIES	49
G176	ADJUST CAMERA SYNC PROCESSING CIRCUITS	48

TELEVISION EQUIPMENT REPAIR TECHNICIANS - AFSC 30475 (N=137)

RELATIVE PERCENT TIME SPENT ON DUTIES

DUTY	TITLE	RELATIVE PERCENT TIME SPENT
E	WORKING WITH FORMS, RECORDS, REPORTS, DIRECTIVES, AND TECHNICAL DATA	11
B	DIRECTING AND IMPLEMENTING	10
C	INSPECTING AND EVALUATING	8
G	PERFORMING GENERAL CAMERA MAINTENANCE	8
D	TRAINING	8
A	ORGANIZING AND PLANNING	7
F	PERFORMING GENERAL REPAIR FUNCTIONS	6
W	SUPPORTING PRODUCTIONS, RECORDINGS, PLAYBACKS, AND BROADCASTS	6
X	INSTALLING AND MODIFYING TELEVISION AND ASSOCIATED EQUIPMENT	5
Q	MAINTAINING AUXILIARY EQUIPMENT	5
M	PERFORMING GENERAL TV MONITOR AND RECEIVER MAINTENANCE	4

REPRESENTATIVE TASKS PERFORMED BY DAFSC 30475 PERSONNEL

TASK	TITLE	PERCENT MEMBERS PERFORMING
F158	INTERPRET SCHEMATIC DIAGRAMS	78
F163	REMOVE OR REPLACE PLUG-IN OR SCREW-IN ELECTRONIC COMPONENTS, SUCH AS TRANSISTORS, TUBES, OR INDICATOR LIGHTS	74
F164	REMOVE OR REPLACE SOLDERED ELECTRONIC COMPONENTS ON ETCHED CIRCUIT BOARDS	72
F157	INTERPRET BLOCK DIAGRAMS OR COMPONENT LOCATION DIAGRAMS	71
F165	SOLDER OR DESOLDER CONNECTORS OR HARDWIRE CIRCUITS	71
M280	ADJUST RECEIVER OR MONITOR OPERATING CONTROLS, SUCH AS FOCUS OR CENTERING	70
A4	DETERMINE WORK PRIORITIES	65
M286	ISOLATE MALFUNCTIONS OF RECEIVER OR MONITOR CIRCUITS	65
C76	WRITE AIRMAN PERFORMANCE REPORTS	64
B27	COUNSEL PERSONNEL ON PERSONAL OR MILITARY RELATED PROBLEMS	60
B52	SUPERVISE TELEVISION EQUIPMENT REPAIRMEN (AFSC 30455)	59
B40	INVENTORY EQUIPMENT, TOOLS, OR SUPPLIES	59
G174	ADJUST CAMERA OPERATING CONTROLS, SUCH AS TARGET BEAM OR SET-UP	59
M287	ISOLATE MALFUNCTIONS OF RECEIVER OR MONITOR SUBASSEMBLIES	57
D82	CONDUCT OJT	55
D97	MAINTAIN TRAINING RECORDS, CHARTS, OR GRAPHS	55
A15	PLAN OR SCHEDULE WORK ASSIGNMENTS	53
E104	ATTACH EQUIPMENT STATUS TAGS OR LABELS	53
B33	DRAFT CORRESPONDENCE OR REPORTS	51
B39	INTERPRET POLICIES, DIRECTIVES, OR PROCEDURES FOR SUBORDINATES	51
B29	DEVELOP OR IMPROVE WORK METHODS OR PROCEDURES	51

GROUND RADIO COMMUNICATIONS SUPERINTENDENTS
(WHO SUPERVISE WORK IN THE 304X5 CAREER LADDER)
AFSC 30496 (N=92)

RELATIVE PERCENT TIME SPENT ON DUTIES

DUTY	TITLE	RELATIVE PERCENT TIME SPENT
B	DIRECTING AND IMPLEMENTING	26
C	INSPECTING AND EVALUATING	24
A	ORGANIZING AND PLANNING	22
E	WORKING WITH FORMS, RECORDS, REPORTS, DIRECTIVES, AND TECHNICAL DATA	15
D	TRAINING	8
F	PERFORMING GENERAL REPAIR FUNCTIONS	2

REPRESENTATIVE TASKS PERFORMED BY DAFSC 30496 PERSONNEL

TASK	TITLE	PERCENT MEMBERS PERFORMING
B33	DRAFT CORRESPONDENCE OR REPORTS	96
C76	WRITE AIRMAN PERFORMANCE REPORTS	96
B27	COUNSEL PERSONNEL ON PERSONAL OR MILITARY RELATED PROBLEMS	92
B39	INTERPRET POLICIES, DIRECTIVES, OR PROCEDURES FOR SUBORDINATES	89
B42	PARTICIPATE IN STAFF MEETINGS	88
A1	ASSIGN PERSONNEL TO DUTY POSITIONS	87
C72	INDORSE AIRMAN PERFORMANCE REPORTS	85
A21	SCHEDULE LEAVES OR PASSES	84
A2	ASSIGN SPONSORS FOR NEWLY ASSIGNED PERSONNEL	83
C63	EVALUATE INSPECTION REPORTS OR PROCEDURES	82
A3	DETERMINE REQUIREMENTS FOR SPACE, PERSONNEL, EQUIPMENT, OR SUPPLIES	82
A4	DETERMINE WORK PRIORITIES	79
A9	ESTABLISH ORGANIZATION POLICIES, STANDARD OPERATING PROCEDURES, OR MAINTENANCE OPERATING INSTRUCTIONS	76
A14	PLAN OR PREPARE BRIEFINGS	75
C65	EVALUATE MAINTENANCE AND USE OF WORKSPACE, EQUIPMENT, OR SUPPLIES	70
C62	EVALUATE INDIVIDUALS FOR PROMOTION, DEMOTION, OR RECLASSIFICATION	70
A15	PLAN OR SCHEDULE WORK ASSIGNMENTS	67
C78	WRITE STAFF STUDIES, SURVEYS, OR SPECIAL REPORTS	66
B32	DIRECT MAINTENANCE OR UTILIZATION OF EQUIPMENT	65
A5	DEVELOP MAINTENANCE AGREEMENTS WITH OTHER OPERATING AGENCIES	64

COMMUNICATIONS-ELECTRONICS SYSTEMS MANAGERS
(WHO SUPERVISE WORK IN THE 304X5 CAREER LADDER)
CEM CODE 30100 (N=16)

RELATIVE PERCENT TIME SPENT ON DUTIES

DUTY	TITLE	RELATIVE PERCENT TIME SPENT
B	DIRECTING AND IMPLEMENTING	33
C	INSPECTING AND EVALUATING	29
A	ORGANIZING AND PLANNING	22
D	TRAINING	7
E	WORKING WITH FORMS, RECORDS, REPORTS, DIRECTIVES, AND TECHNICAL DATA	7

REPRESENTATIVE TASKS PERFORMED BY CEM CODE 30100 PERSONNEL

TASK	TITLE	PERCENT MEMBERS PERFORMING
B33	DRAFT CORRESPONDENCE OR REPORTS	100
B42	PARTICIPATE IN STAFF MEETINGS	100
B39	INTERPRET POLICIES, DIRECTIVES, OR PROCEDURES FOR SUBORDINATES	100
C63	EVALUATE INSPECTION REPORTS OR PROCEDURES	94
B27	COUNSEL PERSONNEL ON PERSONAL OR MILITARY RELATED PROBLEMS	94
C78	WRITE STAFF STUDIES, SURVEYS, OR SPECIAL REPORTS	88
A9	ESTABLISH ORGANIZATION POLICIES, STANDARD OPERATION PROCEDURES, OR MAINTENANCE OPERATING INSTRUCTIONS	88
C76	WRITE AIRMAN PERFORMANCE REPORTS (APR)	88
A1	ASSIGN PERSONNEL TO DUTY POSITIONS	88
A21	SCHEDULE LEAVES OR PASSES	88
C62	EVALUATE INDIVIDUALS FOR PROMOTION, DEMOTION, OR RECLASSIFICATION	81
B26	CONDUCT STAFF MEETINGS	81
A14	PLAN OR PREPARE BRIEFINGS	81
B25	COMPLETE PERSONNEL ACTION REQUESTS	81
A3	DETERMINE REQUIREMENTS FOR SPACE, PERSONNEL, EQUIPMENT, OR SUPPLIES	81
B50	SUPERVISE GROUND RADIO COMMUNICATIONS EQUIPMENT REPAIR (AFS 304X4) PERSONNEL	75
A4	DETERMINE WORK PRIORITIES	75
C72	INDORSE AIRMAN PERFORMANCE REPORTS	75
A2	ASSIGN SPONSORS FOR NEWLY ASSIGNED PERSONNEL	75
C65	EVALUATE MAINTENANCE AND USE OF WORKSPACE, EQUIPMENT, OR SUPPLIES	69

APPENDIX C

CONUS AND OVERSEAS JOB DESCRIPTIONS FOR 30455 PERSONNEL

TELEVISION EQUIPMENT REPAIR SPECIALISTS ASSIGNED WITHIN THE CONUS
AFSC 30455 (N=220)

RELATIVE PERCENT TIME SPENT ON DUTIES

DUTY	TITLE	RELATIVE PERCENT TIME SPENT
G	PERFORMING GENERAL CAMERA MAINTENANCE	14
F	PERFORMING GENERAL REPAIR FUNCTIONS	12
E	WORKING WITH FORMS, RECORDS, REPORTS, DIRECTIVES, AND TECHNICAL DATA	11
M	PERFORMING GENERAL TV MONITOR AND RECEIVER MAINTENANCE	8
B	DIRECTING AND IMPLEMENTING	5
Q	MAINTAINING AUXILIARY EQUIPMENT	5
X	INSTALLING AND MODIFYING TELEVISION AND ASSOCIATED EQUIPMENT	5
D	TRAINING	5
W	SUPPORTING PRODUCTIONS, RECORDINGS, PLAYBACKS, AND BROADCASTS	4

REPRESENTATIVE TASKS PERFORMED BY DAFSC 30455 PERSONNEL
ASSIGNED WITHIN THE CONUS

TASK	TITLE	PERCENT MEMBERS PERFORMING
F158	INTERPRET SCHEMATIC DIAGRAMS	85
F165	SOLDER OR DESOLDER CONNECTORS OR HARDWIRE CIRCUITS	85
F163	REMOVE OR REPLACE PLUG-IN OR SCREW-IN ELECTRONIC COMPONENTS, SUCH AS TRANSISTORS, TUBES, OR INDICATOR LIGHTS	83
F164	REMOVE OR REPLACE SOLDERED ELECTRONIC COMPONENTS ON ETCHED CIRCUIT BOARDS	83
M280	ADJUST RECEIVER OR MONITOR OPERATING CONTROLS, SUCH AS FOCUS OR CENTERING	82
M286	ISOLATE MALFUNCTIONS OF RECEIVER OR MONITOR CIRCUITS	81
F157	INTERPRET BLOCK DIAGRAMS OR COMPONENT LOCATION DIAGRAMS	80
G174	ADJUST CAMERA OPERATING CONTROLS, SUCH AS TARGET BEAM OR SET-UP	72
M287	ISOLATE MALFUNCTIONS OF RECEIVER OR MONITOR SUBASSEMBLIES	71
M288	ISOLATE MALFUNCTIONS TO RECEIVER OR MONITOR SUBASSEMBLIES	70
M289	REMOVE OR REPLACE RECEIVER OR MONITOR SUBASSEMBLIES	68
G173	ADJUST CAMERA LINEARITY CONTROLS	67
F160	PERFORM CORROSION CONTROL ON TV EQUIPMENT	63
G201	REMOVE OR REPLACE CAMERA PICKUP TUBES	62
G185	CLEAN CAMERA HEAD LENSES	57
G196	ISOLATE MALFUNCTIONS OF VIDEO AMPLIFIERS CIRCUITS	56
M285	DISPOSE OF PICTURE TUBES (PIX) OR CATHODE RAY TUBES (CRT)	54
G192	ISOLATE MALFUNCTIONS OF CAMERA OPERATING CONTROLS, SUCH AS TARGET BEAM OR SET-UP	53
E104	ATTACH EQUIPMENT STATUS TAGS OR LABELS	51
B40	INVENTORY EQUIPMENT, TOOLS, OR SUPPLIES	50

TELEVISION EQUIPMENT REPAIR SPECIALISTS ASSIGNED OVERSEAS
AFSC 30455 (N=37)

RELATIVE PERCENT TIME SPENT ON DUTIES

DUTY	TITLE	RELATIVE PERCENT TIME SPENT
W	SUPPORTING PRODUCTIONS, RECORDINGS, PLAYBACKS, AND BROADCASTS	12
G	PERFORMING GENERAL CAMERA MAINTENANCE	9
J	PERFORMING GENERAL VIDEO MAGNETIC RECORDING MAINTENANCE	8
F	PERFORMING GENERAL REPAIR FUNCTIONS	8
K	MAINTAINING HELICAL VIDEO MAGNETIC RECORDERS	7
P	MAINTAINING AUDIO SYSTEMS	7
X	INSTALLING AND MODIFYING TELEVISION AND ASSOCIATED EQUIPMENT	7
E	WORKING WITH FORMS, RECORDS, REPORTS, DIRECTIVES, AND TECHNICAL DATA	7
R	MAINTAINING FILM CHAINS AND PROJECTORS	6
Q	MAINTAINING AUXILIARY EQUIPMENT	5
T	MAINTAINING AND OPERATING RADIO AND TV TRANSMITTERS	4

REPRESENTATIVE TASKS PERFORMED BY DAFSC 30455 PERSONNEL ASSIGNED OVERSEAS

TASK	TITLE	PERCENT MEMBERS PERFORMING
F163	REMOVE OR REPLACE PLUG-IN OR SCREW-IN ELECTRONIC COMPONENTS, SUCH AS TRANSISTORS, TUBES, OR INDICATOR LIGHTS	89
F165	SOLDER OR DESOLDER CONNECTORS OR HARDWIRE CIRCUITS	89
F158	INTERPRET SCHEMATIC DIAGRAMS	87
F164	REMOVE OR REPLACE SOLDERED ELECTRONIC COMPONENTS ON ETCHED CIRCUIT BOARDS	87
M280	ADJUST RECEIVER OR MONITOR OPERATING CONTROLS, SUCH AS FOCUS OR CENTERING	87
F157	INTERPRET BLOCK DIAGRAMS OR COMPONENT LOCATION DIAGRAMS	78
J239	CLEAN VTR TAPE TRANSPORT SYSTEMS	73
M286	ISOLATE MALFUNCTIONS OF RECEIVER OR MONITOR CIRCUITS	68
M287	ISOLATE MALFUNCTIONS OF RECEIVER OR MONITOR SUBASSEMBLIES	68
W488	MONITOR WAVEFORM MONITORS	65
J247	REPLACE VTR VIDEO HEADS	65
K259	ISOLATE MALFUNCTIONS OF HELICAL VIDEO SIGNAL SYSTEMS	65
J238	CHECK VIDEO TAPES FOR DROPOUTS OR SCRATCHES	62
K258	ISOLATE MALFUNCTIONS OF HELICAL TRANSPORT SYSTEMS	62
K249	ADJUST HELICAL VTR TRANSPORT SYSTEMS	62
J246	REMOVE VTR VIDEO HEADS	62
K257	ISOLATE MALFUNCTIONS OF HELICAL SERVO SYSTEMS	62
T437	TURN ON OR SHUT DOWN TRANSMITTERS	59
K252	ALIGN HELICAL VTR SERVO SYSTEMS	59
W510	PERFORM OPERATIONAL CHECKS OF HELICAL VTRs	59

APPENDIX D

SELECTED BACKGROUND DATA ON CAREER LADDER FUNCTIONAL GROUPS

D1

SELECTED BACKGROUND DATA ON CAREER LADDER FUNCTIONAL GROUPS

				CCTV MAINTENANCE PERSONNEL							CCTV NCOICs
	TV* PRODUCTION PERSONNEL	CCTV PERSONNEL	CCTV MAINT PERSONNEL	Weather-vision Maint Specialists	CCTV Installer-Repairmen	TOSS Camera Systems Personnel	Weather-vision Maint Personnel	TOSS Microwave Specialists	Receiver-Monitor Maint Personnel	CCTV MAINT NCOICs	Weather-vision NCOICs
NUMBER IN GROUP	10	148	83	10	10	7	24	7	18	61	42
PERCENT OF SAMPLE	2%	28%	16%	2%	2%	1%	5%	1%	3%	12%	8%
PERCENT LOCATED OVERSEAS	40%	3%	5%	0%	0%	0%	8%	14%	6%	2%	0%
DAFSC DISTRIBUTION											
NOT INDICATED	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
30435	20%	6%	11%	0%	10%	0%	13%	29%	17%	0%	0%
30455	60%	75%	82%	100%	90%	86%	83%	71%	67%	66%	71%
30475	20%	19%	7%	0%	0%	14%	4%	0%	16%	34%	29%
30496	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
CEM CODE 30100	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AVERAGE GRADE	3.9	4.1	3.8	3.6	3.9	4.1	3.5	3.7	4.0	4.6	4.4
AVERAGE TIME IN CAREER FIELD (MONTHS)	40	42	30	25	21	31	24	32	42	60	56
AVERAGE TIME IN SERVICE (MONTHS)	56	70	52	41	52	63	39	47	68	94	84
PERCENT IN FIRST ENLISTMENT	70%	45%	60%	80%	50%	29%	75%	57%	56%	25%	26%
PERCENT SUPERVISING	10%	32%	12%	10%	0%	0%	13%	14%	17%	60%	55%
AVERAGE NUMBER SUPERVISED BY THOSE SUPERVISING	1.0	2.0	1.6	1.0	0.0	0.0	1.0	4.0	1.0	2.2	1.8
AVERAGE NUMBER OF TASKS PERFORMED	44	63	46	36	27	31	56	65	51	87	97
AVERAGE TASK DIFFICULTY PER UNIT TIME SPENT (ADTPUTS)	4.40	4.72	4.70	4.57	4.71	4.63	4.69	4.91	4.75	4.76	4.75
JOB DIFFICULTY INDEX (JDI)	6.36	10.04	8.74	6.97	7.36	7.05	9.35	11.72	9.48	11.94	12.56

* JOB CLUSTERS, SUBCLUSTERS, AND INDEPENDENT JOB TYPES ARE IN ALL CAPS, WHILE JOB TYPES ARE IN INITIAL CAPS

SELECTED BACKGROUND DATA ON CAREER LADDER FUNCTIONAL GROUPS

	CCTV NCOICs			TV PROD EQUIP MAINT NCOICs					TV PROD EQUIPMENT PERSONNEL		
	Receiver-Monitor Maint NCOICs	TV PRODUCTION EQUIPMENT MAINT PERSONNEL	TV PRODUCTION EQUIPMENT MAINT NCOICs	Color Receiver-Monitor & VTR NCOICs	Color Receiver-Monitor NCOICs	Camera Maint NCOICs	Helical VTR NCOICs	TV PRODUCTION EQUIPMENT MAINT PERSONNEL	TV Production Engineers	Tech School TV Equipment Maint Support Personnel	Junior TV Production Engineers
NUMBER IN GROUP	16	155	99	7	10	8	16	99	79	11	26
PERCENT OF SAMPLE	3%	30%	19%	1%	2%	2%	3%	19%	15%	2%	5%
PERCENT LOCATED OVERSEAS	6%	24%	13%	0%	10%	0%	19%	25%	30%	0%	13%
DAFSC DISTRIBUTION											
NOT INDICATED	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
30435	0%	1%	0%	0%	0%	0%	0%	1%	1%	0%	0%
30455	50%	55%	53%	71%	90%	63%	31%	56%	53%	55%	75%
30475	50%	42%	47%	29%	10%	37%	69%	41%	43%	45%	25%
30496	0%	2%	0%	0%	0%	0%	0%	2%	3%	0%	0%
CEM CODE 30100	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
AVERAGE GRADE	4.9	4.9	4.7	3.9	4.3	4.4	5.3	4.9	5.0	4.7	4.4
AVERAGE TIME IN CAREER FIELD (MONTHS)		76	64	47	39	37	44	47	72	78	51
AVERAGE TIME IN SERVICE (MONTHS)	117	106	99	70	64	85	123	110	177	91	73
PERCENT IN FIRST ENLISTMENT	19%	26%	23%	72%	40%	25%	0%	25%	19%	46%	49%
PERCENT SUPERVISING	81%	39%	49%	0%	20%	50%	81%	33%	34%	46%	13%
AVERAGE NUMBER SUPERVISED BY THOSE SUPERVISING	2.8	3.2	2.9	0	1.5	3.3	2.6	3.2	3.3	3.0	4.0
AVERAGE NUMBER OF TASKS PERFORMED	68	200	138	113	91	194	133	238	261	162	116
AVERAGE TASK DIFFICULTY PER UNIT TIME SPENT (ADTPUTS)	4.83	4.95	4.88	4.82	4.92	4.92	4.88	5.00	5.01	4.99	4.87
JOB DIFFICULTY INDEX (JDI)	11.33	17.78	15.47	14.00	13.56	18.24	15.00	19.25	19.95	17.65	14.54

SELECTED BACKGROUND DATA ON CAREER LADDER FUNCTIONAL GROUPS

	VTR MAINT PERSONNEL					SUPERINTENDENTS				
	VTR MAINT PERSONNEL	Quadruplex & Helical VTR Maint Personnel	Airborne VTR Repairmen	SUPERVISORS	NCOICs	SUPER-INTENDENTS	Managers	Maint Super-intendents	QUALITY CONTROL INSPECTORS	INSTRUCTORS
NUMBER IN GROUP	26	5	17	129	105	24	7	11	11	6
PERCENT OF SAMPLE	5%	1%	3%	25%	20%	5%	1%	2%	2%	1%
PERCENT LOCATED OVERSEAS	27%	0%	41%	17%	18%	13%	0%	27%	9%	0%
DAFSC DISTRIBUTION										
NOT INDICATED	0%	0%	0%	2%	1%	0%	0%	0%	9%	0%
30435	4%	0%	0%	0%	0%	0%	0%	0%	0%	0%
30455	77%	60%	88%	6%	7%	4%	0%	9%	27%	50%
30475	19%	40%	12%	18%	20%	8%	0%	9%	27%	50%
30496	0%	0%	0%	62%	61%	67%	71%	73%	37%	0%
CEM CODE 30100	0%	0%	0%	12%	11%	21%	29%	9%	0%	0%
AVERAGE GRADE	4.2	3.8	4.0	7.3	7.2	7.9	8.3	7.6	6.2	5.3
AVERAGE TIME IN CAREER FIELD (MONTHS)	48	26	46	177	167	220	243	196	141	77
AVERAGE TIME IN SERVICE (MONTHS)	72	51	60	239	233	268	279	271	162	118
PERCENT IN FIRST ENLISTMENT	54%	60%	59%	1%	1%	0%	0%	0%	9%	0%
PERCENT SUPERVISING	15%	0%	24%	93%	92%	96%	86%	100%	27%	0%
AVERAGE NUMBER SUPERVISED BY THOSE SUPERVISING	2.8	0	2.8	6.1	6.2	5.7	7.5	6.0	2.3	0
AVERAGE NUMBER OF TASKS PERFORMED	60	103	54	70	80	25	16	29	35	18
AVERAGE TASK DIFFICULTY PER UNIT TIME SPENT (ADTPUTS)	5.05	5.14	4.96	5.06	5.02	5.22	5.29	5.22	5.29	5.47
JOB DIFFICULTY INDEX (JDI)	12.31	15.86	11.26	12.81	13.22	11.01	10.81	11.37	12.43	12.29

APPENDIX E

JOB SATISFACTION DATA ON CAREER LADDER FUNCTIONAL GROUPS

COMPARISON OF JOB SATISFACTION INDICES BY CAREER LADDER FUNCTIONAL GROUPS

				CCTV MAINTENANCE PERSONNEL							CCTV NCOICs
	TV PRODUCTION PERSONNEL	CCTV PERSONNEL	CCTV MAINT PERSONNEL	Weather-vision Maint Specialists	CCTV Installer-Repairmen	TOSS Camera Systems Personnel	Weather-vision Maint Personnel	TOSS Microwave Specialists	Receiver-Monitor Maint Personnel	CCTV MAINT NCOICs	Weather-vision NCOICs
EXPRESSED JOB INTEREST:											
NOT REPORTED	0	5	6	20	0	0	4	0	0	3	5
DULL	10	23	22	30	0	71	21	29	11	25	24
SO-SO	10	17	17	10	10	0	21	0	28	18	21
INTERESTING	80	55	55	40	90	29	54	71	61	54	50
PERCEIVED UTILIZATION OF TALENTS:											
NOT REPORTED	0	0	0	0	0	0	0	0	0	0	0
LITTLE OR NOT AT ALL	20	35	28	40	0	43	25	43	28	44	45
FAIRLY WELL TO VERY WELL	70	61	67	60	90	43	71	43	72	53	55
EXCELLENTLY OR PERFECTLY	0	5	3	0	0	14	4	0	5	6	5
PERCEIVED UTILIZATION OF TRAINING:											
NOT REPORTED	0	0	0	0	0	0	0	0	0	0	0
LITTLE OR NOT AT ALL	40	49	40	70	10	29	50	43	28	61	62
FAIRLY WELL TO VERY WELL	60	46	57	30	90	57	46	57	67	33	33
EXCELLENTLY OR PERFECTLY	0	5	3	0	0	14	4	0	5	6	5
REENLISTMENT INTENTION:											
NO RESPONSE	0	2	4	0	0	0	8	14	0	0	0
NO OR PROBABLY NO	30	48	52	70	70	57	46	43	40	41	40
YES OR PROBABLY YES	70	50	44	30	30	43	46	43	60	59	60

COMPARISON OF JOB SATISFACTION INDICES BY CAREER LADDER FUNCTIONAL GROUPS
(PERCENT MEMBERS INDICATING)

	CCTV NCOICs			TV PROD EQUIPMENT NCOICs					TV PROD EQUIP MAINT PERSONNEL		
	Receiver-Monitor Maint NCOICs	TV PRODUCTION EQUIPMENT MAINT PERSONNEL	TV PRODUCTION EQUIPMENT MAINT NCOICs	Color Receiver-Monitor & VTR NCOICs	Color Receiver-Monitor NCOICs	Camera Maint NCOICs	Helical VTR NCOICs	TV PRODUCTION EQUIPMENT MAINT PERSONNEL	TV Production Engineers	Tech School TV Equipment Maint Support Personnel	Junior TV Production Engineers
EXPRESSED JOB INTEREST:											
NOT REPORTED	0	5	4	0	0	25	0	5	5	0	12
DULL	19	8	13	0	10	12	13	7	2	27	13
SO-SO	12	10	15	14	10	0	31	6	8	0	0
INTERESTING	69	77	68	86	80	63	56	82	85	73	75
PERCEIVED UTILIZATION OF TALENTS:											
NOT REPORTED	0	2	0	0	0	0	0	3	3	0	12
LITTLE OR NOT AT ALL	31	16	23	14	20	12	31	13	11	18	12
FAIRLY WELL TO VERY WELL	56	65	70	86	80	63	69	64	66	55	63
EXCELLENTLY OR PERFECTLY	13	17	7	0	0	25	0	20	20	27	13
PERCEIVED UTILIZATION OF TRAINING:											
NOT REPORTED	0	3	0	0	0	0	0	5	5	0	12
LITTLE OR NOT AT ALL	50	17	19	14	10	10	38	15	15	18	0
FAIRLY WELL TO VERY WELL	38	64	75	57	90	100	56	62	62	55	75
EXCELLENTLY OR PERFECTLY	12	16	6	29	0	0	6	18	18	27	13
REENLISTMENT INTENTION:											
NO RESPONSE	0	4	4	0	10	0	0	5	5	0	12
NO OR PROBABLY NO	31	37	38	29	50	38	38	36	35	36	50
YES OR PROBABLY YES	69	59	58	71	40	62	62	59	60	64	38

COMPARISON OF JOB SATISFACTION INDICES BY CAREER LADDER FUNCTIONAL GROUPS
(PERCENT MEMBERS INDICATED)

	VTR MAINT PERSONNEL					SUPERINTENDENTS				
	VTR MAINT PERSONNEL	Quadruplex & Helical VTR Maint Personnel	Airborne VTR Repairmen	SUPERVISORS	NCOICs	SUPER-INTENDENTS	Managers	Maint Super-intendents	QUALITY CONTROL INSPECTORS	INSTRUCTORS
EXPRESSED JOB INTEREST:										
NOT REPORTED	4	20	0	6	7	4	14	0	0	0
DULL	27	0	41	8	8	8	14	9	9	50
SO-SO	23	40	24	12	13	9	15	0	27	0
INTERESTING	46	40	35	74	72	79	57	91	64	50
PERCEIVED UTILIZATION OF TALENTS:										
NOT REPORTED	4	20	0	1	1	4	0	9	0	0
LITTLE OR NOT AT ALL	42	40	53	12	10	21	43	18	36	33
FAIRLY WELL TO VERY WELL	46	20	47	64	65	58	43	46	55	50
EXCELLENTLY OR PERFECTLY	8	20	0	23	24	17	14	27	9	17
PERCEIVED UTILIZATION OF TRAINING:										
NOT REPORTED	4	20	0	2	2	4	0	9	0	0
LITTLE OR NOT AT ALL	42	20	59	26	24	33	43	27	45	50
FAIRLY WELL TO VERY WELL	39	40	41	53	54	50	43	46	55	33
EXCELLENTLY OR PERFECTLY	15	20	0	19	20	13	14	18	0	17
REENLISTMENT INTENTION:										
NO RESPONSE	3	20	0	3	5	0	0	0	9	17
NO OR PROBABLY NO	62	80	53	53	51	58	57	45	45	50
YES OR PROBABLY YES	35	0	47	44	44	42	43	55	46	33