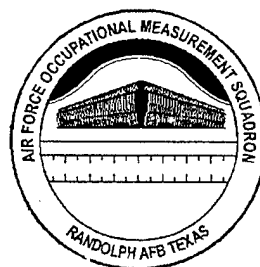
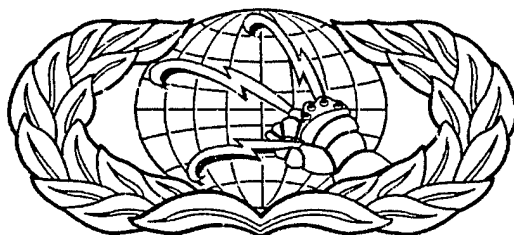


DTIC



**UNITED STATES
AIR FORCE**

OCCUPATIONAL SURVEY REPORT



VISUAL INFORMATION

AFSC 3V0X1

OSSN: 2400

APRIL 2000

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

This report presents the results of an Air Force Occupational Survey of the Visual Information career ladder, Air Force Specialty Code (AFSC) 3V0X1. Authority for conducting occupational surveys is contained in AFI 36-2623. Computer products used in this report are available for use by operations and training officials.

The survey instrument was developed by First Lieutenant Nicole Rahmer. Computer programming support was provided by Mrs. Rebecca Hernandez. Ms. Dolores Navarro provided administrative support. Ms. Kimberly Williams analyzed the data and wrote the final report. This report has been reviewed and approved by Lt Col Roger W. Barnes, Chief, Airman Analysis Section, Occupational Analysis Flight, Air Force Occupational Measurement Squadron (AFOMS).

Copies of this report are distributed to Air Staff sections, major commands, and other interested training and management personnel. Additional copies are available upon request to AFOMS/OMYXI, 1550 5th Street East, Randolph Air Force Base, Texas 78150-4449, or by calling DSN 487-5543. For information on the Air Force occupational survey process or other on-going projects, visit our web site at <http://www.omsq.af.mil>.

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SUMMARY OF RESULTS

1. **Survey Coverage:** The Visual Information career ladder was surveyed to provide current job and task data for use in updating career ladder documents and training programs. Survey results are based on responses from 366 members accounting for 54 percent of the total population surveyed. Of the 366 respondents, 304 were active duty (AD), 55 were Air National Guard (ANG), and 7 were Air Force Reserve Command (AFRC). Responses were received from 55 percent of all assigned AD personnel, 30 percent of all assigned ANG personnel, and 23 percent of all assigned AFRC personnel. The total sample (N=366) accounts for 48 percent of all assigned AD, ANG, and AFRC members. All major commands (MAJCOMs) are well represented in the survey sample.
2. **Specialty Jobs:** Two clusters and four jobs were identified in the career ladder structure analysis. The Visual Information Cluster, Presentations Job, Air National Guard Electronic Imaging Job, Computer Animation Job, and Resources Job are oriented toward technical task performance and account for 54 percent of the survey population. Members of the Management Cluster spend over 50 percent of their time on the performance of management, training, administrative, and supply and equipment activities.
3. **Career Ladder Progression:** A typical pattern of progression is noted within the AFSC 3V0X1 career ladder. Personnel at the 3-skill level and 5-skill level work in the technical jobs of the career ladder and spend most of their time on technical tasks. Members of AFSC 3V051 also perform general management, supervisory, training, and supply tasks. As incumbents move up to the 7-skill level, they spend 45 percent of their time performing the nontechnical tasks of the career ladder. Comparative analysis across the Duty Air Force Specialty Code (DAFSC) groups for the AD and ANG components reveals that the same pattern holds for the AD and ANG 5- and 7-skill level members although the AD 7-skill level members spend 35 percent more time on management, supervisory, training, administrative, and supply activities compared to the ANG DAFSC 3V071 personnel.
4. **Training Analysis:** The current AFSC 3V0X1 section of the 3V0XX Specialty Training Standard (STS) is supported by occupational survey report (OSR) data although two STS elements should be reviewed to determine modifications that may be necessary to improve the effectiveness or efficiency of training.
5. **Job Satisfaction:** Job satisfaction among AFSC 3V0X1 personnel is higher for the 97+ months' Total Active Federal Military Service (TAFMS) groups but lower for the 1-48 months' and 49-96 months' TAFMS groups when compared to the 1999 sample of like Support AFSCs. Reenlistment intentions are slightly lower than the comparative sample for second-enlistment personnel and career airmen. Job satisfaction is higher overall, however, for 97+ months' members in the current survey compared to the 1997 survey sample.
6. **Implications:** Survey results indicate the present classification structure accurately portrays the jobs performed in this career ladder. Progression through the career ladder is typical of most AFSCs. Training documents warrant review for the possible proficiency-code revision

concerning specific tasks with less than 20 percent members performing for members in their first job (1-24 months' TAFMS), first enlistment (1-48 months' TAFMS), or holding the 3-skill level. Job satisfaction ratings are lower overall when compared to similar AFSCs except for career airmen.

**OCCUPATIONAL SURVEY REPORT (OSR)
VISUAL INFORMATION
(AFSC 3V0X1)**

INTRODUCTION

This is a report of an occupational survey of the Visual Information career ladder conducted by the Air Force Occupational Measurement Squadron (AFOMS). The current Visual Information career ladder was created in October 1993. Survey data will be used to identify current utilization patterns among career ladder personnel and evaluate career ladder documents and training programs.

Background

As described in the AFMAN 36-2108, *Airman Classification*, 31 October 1999, Specialty Description, Visual Information personnel prepare art work, sketches, charts, and layouts for publications, presentations, displays, training, visual information production, and medical requirements. This includes operating visual information equipment and assisting in preparing and using visual information aids and audio or video recordings. Visual Information personnel also administer, monitor, and evaluate operating expenditures and prepare future operating budget estimates.

Personnel entering the AFSC 3V0X1 career ladder must attend the E5ABD3V031-000, Visual Information Apprentice course at the Defense Information School (DINFOS), Ft George G. Meade MD. This course is designed to train students on the following areas: principles of design and layout; fundamentals of color theory, drawing, color media, and lettering; printing reproduction; electronic imaging systems; graphic design; image editing; desktop publishing; multimedia and telecommunications software; image scanners; digitizing devices; film and video recorders; plotters; image/data transmission; archiving data/image files; computer management; ethics; visual communications; combat/field graphics; customer relations; and operator maintenance.

Entry into this career ladder currently requires an Armed Forces Vocational Aptitude Battery (ASVAB) score of General - 43. A strength factor of "G" (Weight lift of 40 lbs) is also required. For entry into this specialty, normal color vision as defined in AFI 48-123, *Medical Examination and Standards*, is mandatory. For award and retention of this AFSC, eligibility for a Secret security clearance according to AFI 31-501, *Personnel Security Program Management*, is mandatory. This AFSC is not open to non-United States (U.S.) citizens but is open to U.S. nationals.

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SURVEY METHODOLOGY

Inventory Development

The data collection instrument for this occupational survey was USAF Job Inventory (JI) Occupational Survey Study Number (OSSN) 2400, dated September 1999. A tentative task list was prepared after reviewing pertinent career ladder publications and directives, pertinent tasks from the previous survey instrument, and data from the last OSR. The preliminary task list was refined and validated through personal interviews with 18 subject-matter experts (SMEs) at the following training location and operational bases:

<u>BASE</u>	<u>UNIT VISITED</u>
Ft Meade MD	DINFOS
Andrews AFB MD	89 CS
Bolling AFB MD	11 CS
Randolph AFB TX	HQ AETC, AFMIA, & HQ AFRS
Lackland AFB TX	59 MW

The resulting JI contains a comprehensive listing of 326 tasks grouped under 11 duty headings and a background section requesting information, such as grade, base, MAJCOM assigned, organizational level, job title, and functional or work area. Also included in the background section are six questions dealing with Visual Information, such as types of assignment accomplished, media used, equipment used or operated, and electronic imaging systems software used in the respondent's present job.

Survey Administration

From September to December 1999, base training offices at operational units worldwide administered the inventory to eligible AFSC 3V0X1 personnel. Job incumbents were selected from a computer-generated mailing list obtained from personnel data tapes maintained by the Air Force Personnel Center, Randolph AFB TX. Each individual who completed the inventory first completed an identification and biographical information section and then selected each task performed in his or her current job. After selecting all tasks performed, each member then rated each of these tasks on a 9-point scale, showing relative time spent on that task, as compared to all other tasks checked. The ratings ranged from 1 (very small amount time spent) through 5 (about average time spent) to 9 (very large amount time spent). To determine relative time spent for

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

Survey Sample

Personnel were selected to participate in this survey so as to ensure an accurate representation across MAJCOMs and military paygrade groups. All eligible AFSC 3V0X1 personnel were mailed survey disks. Table 1 reflects the percentage distribution, by MAJCOM, of assigned AFSC 3V0X1 personnel as of September 1999. The 366 respondents in the final sample represent 48 percent of the total assigned personnel and 54 percent of the total personnel surveyed. Table 2 reflects the paygrade distribution for these AFSC 3V0X1 personnel.

TABLE 1

COMMAND DISTRIBUTION OF AFSC 3V0X1 PERSONNEL

COMMAND	PERCENT OF ASSIGNED*	PERCENT OF SAMPLE
ACC	20	27
AETC	7	11
AMC	7	9
PACAF	7	9
USAFE	6	7
AFSPC	6	4
AFMC	4	5
OTHERS	18	11
ANG	22	15
AFRC	3	2

TOTAL ASSIGNED* = 762

TOTAL SURVEYED** = 681

TOTAL IN SURVEY SAMPLE = 366

PERCENT OF ASSIGNED IN SAMPLE = 48%

PERCENT OF SURVEYED IN SAMPLE = 54%

* Assigned strength as of September 1999

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

TABLE 2
PAYGRADE DISTRIBUTION OF SURVEY SAMPLE

GRADE	PERCENT OF ASSIGNED*	PERCENT OF SAMPLE
E-1- E-2	5	7
E-3	15	19
E-4	23	21
E-5	29	25
E-6	21	21
E-7	7	7

* Assigned strength as of September 1999

Both Command and Paygrade distribution of the survey sample are close to the percent assigned. The sample is a true representation of the career ladder population assigned to the MAJCOMs. Only 34 ANG members provided usable returns out of the 182 ANG members eligible to participate in the survey. Also, only 7 AFRC members provided usable returns out of the 20 AFRC members eligible to participate in the survey.

Task Factor Administration

Job descriptions alone do not provide sufficient data for making decisions about career ladder documents or training programs. Task factor information is needed for a complete analysis of the career ladder. To obtain the needed task factor data, selected senior AFSC 3V0X1 personnel (generally E-6 or E-7 craftsmen) also completed a second disk for either training emphasis (TE) or task difficulty (TD). These disks were processed separately from the JIs. This information is used in a number of different analyses discussed in more detail within the report.

Training Emphasis (TE): TE is a rating of the amount of emphasis that should be placed on tasks in entry-level training. The 32 senior noncommissioned officers (NCOs) who completed a TE disk were asked to select tasks they felt require some sort of structured training for entry-level personnel and then indicate how much training emphasis these tasks should receive, from 1 (extremely low emphasis) to 9 (extremely high emphasis). Structured training is defined as training provided at resident training schools, field training detachments (FTDs), mobile training teams (MTTs), formal on-the-job-training (OJT), or any other organized training method. Interrater agreement for these 32 raters was acceptable. The average TE rating was 1.97, with a

standard deviation of 1.40. Any task with a TE rating of 3.37 or above is considered to have high TE.

Task Difficulty (TD): TD is an estimate of the amount of time needed to learn how to do each task satisfactorily. The 40 senior NCOs who completed TD disks were asked to rate the difficulty of each task using a 9-point scale (extremely low to extremely high). Interrater reliability was acceptable. Ratings were standardized so tasks have an average difficulty of 5.00 and a standard deviation of 1.00. Any task with a TD rating of 6.00 or above is considered to be difficult to learn.

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

SPECIALTY JOBS

The first step in the analysis process is to identify the structure of the career ladder in terms of the jobs performed by the respondents. The Comprehensive Occupational Data Analysis Program (CODAP) assists by creating an individual job description for each respondent based on the tasks performed and relative amount of time spent on these tasks. The CODAP automated job clustering program then compares all the individual job descriptions, locates the two descriptions with the most similar tasks and time spent ratings, and combines them to form a composite job description. In successive stages, CODAP either adds new members to this initial group or forms new groups based on the similarity of tasks and time spent ratings.

The basic group used in the hierarchical clustering process is the Job. When two or more jobs have a substantial degree of similarity in tasks performed and time spent on tasks, they are grouped together and identified as a Cluster. The structure of the career ladder is then defined in terms of jobs and clusters of jobs.

Overview of Specialty Jobs

Based on the analysis of tasks performed and the amount of time spent performing each task, two clusters and two independent jobs were identified within the career ladder. Figure 1 illustrates the clusters and jobs performed by AFSC 3V0X1 personnel.

A listing of these clusters and jobs is provided below. The stage (STG) number shown beside each title references computer printed information. The letter "N" indicates the number of personnel in each stage.

- I. VISUAL INFORMATION CLUSTER (STG020, N=160)
 - A. Graphics Job
 - B. Intelligence Support Job
- II. PRESENTATIONS JOB (STG046, N=22)
- III. AIR NATIONAL GUARD ELECTRONIC IMAGING JOB (STG049, N=9)
- IV. COMPUTER ANIMATION JOB (STG033, N=5)
- V. RESOURCES JOB (STG030, N=5)
- VI. MANAGEMENT CLUSTER (STG021, N=131)
 - A. Presentations Support NCOIC Job
 - B. Graphics NCOIC Job
 - C. Training Job

The respondents forming these clusters and jobs account for 90 percent of the survey sample. The remaining 10 percent, for one reason or another, did not group into one of these clusters or jobs. Examples of job titles for these personnel include Base Intranet Webmaster, Customer Service NCOIC, and Unit Education and Training Technician (Air National Guard member).

AFSC 3V0X1 CAREER LADDER SPECIALTY JOBS (N = 366)

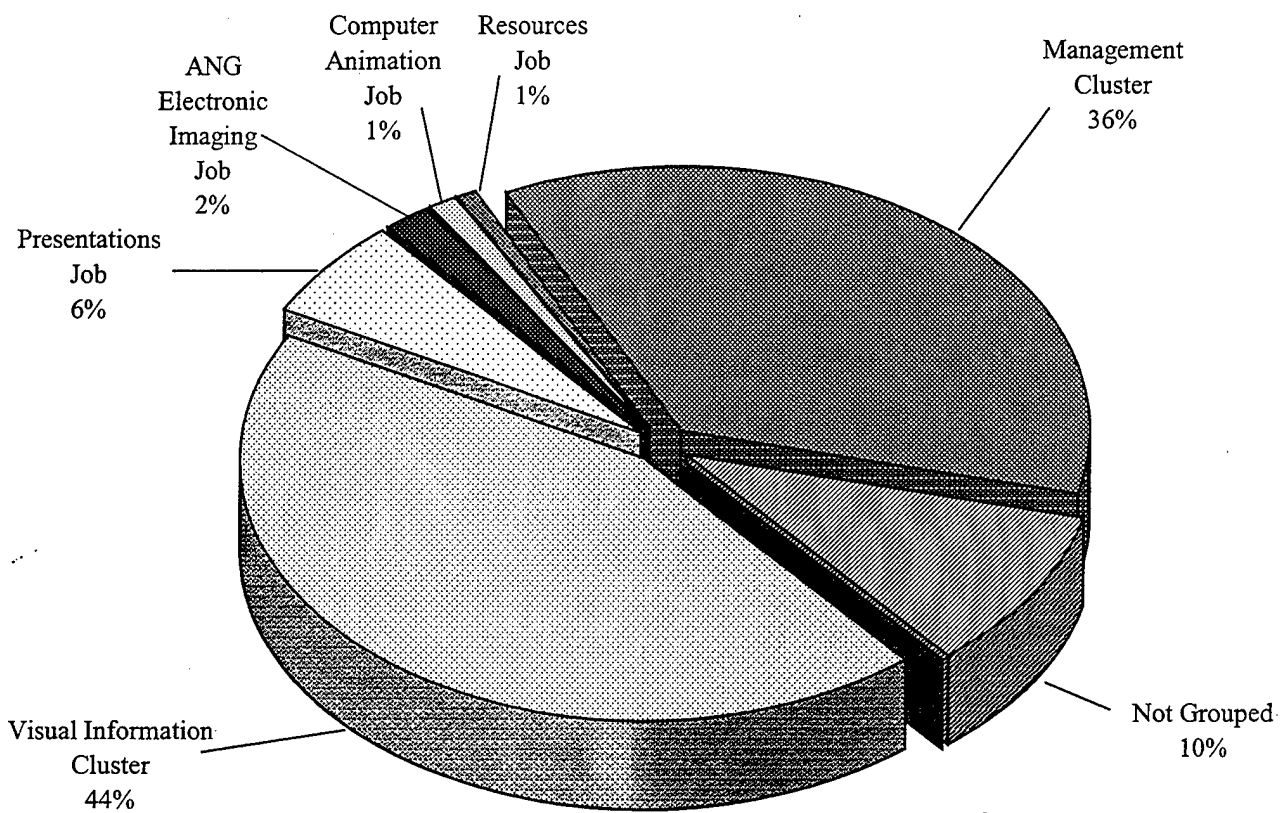


FIGURE 1

Group Descriptions

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

I. VISUAL INFORMATION CLUSTER (STG020). The 160 members of this cluster comprise 44 percent of the survey sample and are the core of the career ladder. These members perform an average of 54 tasks (the second highest average among the members performing primarily technical tasks) with the majority of their time spent performing electronic imaging activities (Duty A) and visual information graphics activities (Duty C) (35 and 28 percent, respectively). They also spend 14 percent of their time performing presentations support activities (Duty D). Two jobs were identified within this cluster and were distinguished by the tasks performed within the areas related to visual information graphics and intelligence support. These jobs will be discussed below.

Typical tasks performed by the core of the career ladder include:

- Scan artwork using flatbed scanners
- Convert graphic file formats
- Design layouts
- Letter certificates using laser printers
- Create graphics using 2-dimensional vector-based graphics programs
- Create graphics using 2-dimensional raster-based graphics programs
- Produce color paper hardcopies of visual images
- Determine graphic color schemes
- Adhere artwork or photographs to graphics or matte boards
- Prepare electronic presentations
- Produce paper or parchment certificates or awards
- Produce artwork using mouse or digitizing tablets

The predominant paygrade of this cluster is E-3. Thirty-nine percent of the members are 3-skill levels while 41 percent hold the 5-skill level. Nineteen percent of the members within the Visual Information Cluster are supervisors. The active-duty members of this cluster average 5½ years' Total Active Federal Military Service (TAFMS) and almost 5 years' time in career field (TICF). (The TAFMS and TICF are not reported for ANG and AFRC members as their time is calculated differently.)

The **Graphics Job** is comprised of six members who spend most of their time performing general visual information graphics activities, such as cutting illustration boards, dry-mounting graphics products, adhering vinyl lettering to graphics products, and producing black and white paper masters. The Graphics Job members average performing half the number of tasks as the remaining members of the Visual Information Cluster.

The **Intelligence Support Job** is comprised of six AD members who are distinguished from the other members of the Visual Information Cluster by the amount of time they spend performing tasks related to intelligence support, such as destroying classified materials or documents and safeguarding classified materials. These members are assigned to an air intelligence squadron, MAJCOM headquarters, and a joint command.

II. PRESENTATIONS JOB (STG046). The 22 airmen in this job comprise 6 percent of the survey sample, and all are AD members. The Presentations Job members perform a narrowly defined job with most of their time (58 percent) spent performing presentations support activities (Duty D) involving the setup and/or operation of presentations equipment. They also spend an average of 16 percent of their time performing general supply and equipment activities (Duty K), such as performing operational checks, troubleshooting, and maintaining VI equipment. The average number of tasks performed by this group is 28. Distinctive tasks performed include:

- Set up screens
- Set up presentation facilities, such as positioning furniture, setting room temperature, or selecting lighting controls
- Set up or operate electronic presentations systems, such as video or data projectors or video or computer inputs
- Set up or operate overhead projectors
- Straighten, align, or clean conference facilities
- Adjust lighting in presentation facilities
- Set up or operate monitors or TVs
- Schedule presentation facilities
- Schedule use of presentations equipment
- Set up or operate videocassette players or recorders
- Set up or operate 35mm slide projectors
- Set up or operate sound or slide projectors, other than 35mm slide projectors

These 22 members work primarily in presentations support areas, and seventy-seven percent of these airmen hold the 5-skill level. The predominant paygrade of this cluster is E-4. Sixty-eight percent of the Presentations Job members are in their first enlistment. The average TICF is 3½ years for the job members.

III. AIR NATIONAL GUARD ELECTRONIC IMAGING JOB (STG049). The nine airmen in this job comprise 2 percent of the survey sample and are distinguished by the 66 percent of their time spent performing electronic imaging activities (Duty A) and the relatively small number of tasks they perform on average compared to the core of the career ladder. They average only 17 tasks performed indicating their limited exposure to many technical visual information tasks performed by the majority of the members of the Visual Information Cluster. Representative tasks performed by these ANG members include:

- Convert graphic file formats
- Create graphics using 2-dimensional raster-based graphics programs

- Create graphics using 2-dimensional vector-based graphics programs
- Retouch digitized images
- Design layouts
- Scan artwork using flatbed scanners
- Produce artwork using mouse or digitizing tablets
- Design and produce imagery for web pages
- Produce color paper hardcopies of visual images
- Scan artwork using film/slide scanners
- Set up or operate monitors or TVs
- Develop web pages using programs, such as Microsoft Front Page

The predominant paygrade is E-4, and 56 percent of the members hold the 5-skill level. Forty-four percent of the members in this job are assigned to Base Graphics shops while an equal percentage of members work in an Electronic Imaging Center or an Electronic Multimedia Center.

IV. COMPUTER ANIMATION JOB (STG033). This job consists of five AD members who spend 47 percent of their time performing electronic imaging activities in Duty A and perform an average of 40 tasks. The distinguishing factor between members of this job and the core of the career ladder is the amount of time these members spend performing tasks related to computer animation. The Computer Animation job members also spend 17 percent less time performing general visual information graphics activities (Duty C) compared to the Visual Information Cluster members. In addition, the Computer Animation job members spend much more time performing management and supervisory activities (21 percent), such as evaluating workload requirements, developing or establishing work schedules, and directing electronic imaging activities. Distinguishing tasks performed by these airmen include:

- Develop animations using electronic imaging systems
- Create graphics using 3-dimensional rendering and animation programs
- Create graphics using 3-dimensional modeling programs
- Determine TV graphics size requirements
- Capture video using video digitizing boards
- Coordinate graphic requirements with television (TV) writers or directors
- Retouch digitized images
- Design and produce imagery for web pages
- Produce multimedia presentations using electronic imaging systems
- Produce presentations using multimedia software
- Produce comprehensive drawings
- Draw technical illustrations, other than medical illustrations

The predominant paygrades are E-4 and E-5 at 40 percent each, and 80 percent of the members in this job are 5-skill levels. The average TICF is 7½ years, and the average TAFMS is 11 years.

V. RESOURCES JOB (STG030). The five members of this job (1 percent of the sample) are responsible for the inspection, troubleshooting, and maintenance of visual information equipment, including computer hardware. They spend 25 percent of their time performing general supply and equipment activities (Duty K) as well as 28 percent of their time performing electronic imaging activities (Duty A). They perform an average of 56 tasks, the highest average among the jobs involving primarily technical tasks. The Resources job members also spend 16 percent of their time performing the supply- and equipment-related tasks within the management and supervisory area (Duty H), such as evaluating logistics requirements for visual information activities and evaluating the maintenance or utilization of equipment or supplies. Typical tasks performed by these job members include:

- Perform operator-level troubleshooting of VI equipment
- Perform operator-level maintenance of VI equipment
- Conduct operator maintenance of electronic imaging system hardware
- Evaluate electronic imaging system hardware
- Maintain electronic imaging system backup files
- Perform preventive maintenance of VI equipment, such as cleaning or lubricating
- Perform periodic inspections of VI equipment
- Evaluate serviceability of equipment, tools, parts, or supplies
- Coordinate purchases of electronic imaging equipment with appropriate agencies
- Schedule VI equipment for inspection, cleaning, or preventive maintenance
- Create graphics using 2-dimensional vector-based graphics programs
- Pick up, deliver, or store equipment, tools, parts, or supplies

Forty percent of the Resources job members are in the E-5 paygrade with another 40 percent in the E-6 paygrade. Sixty percent of the members in this job are 7-skill levels. All three service components are represented in this job with one ANG member, one AFRC member, and three AD members.

VI. MANAGEMENT CLUSTER (STG021). The 131 members of the Management Cluster comprise 36 percent of the sample. These airmen are responsible for a broad range of visual information activities and perform an average of 115 tasks, the highest number of tasks performed by any of the groups in the survey sample. The cluster members spend 32 percent of their time performing management and supervisory activities (Duty H) and 15 percent of their time performing electronic imaging activities (Duty A). Three distinct jobs were identified within this cluster based on the amount of time spent performing presentations support activities, higher-level supervisory activities, and training activities. While all of these members perform the core managerial and supervisory tasks that grouped them into the Management Cluster, differences exist in the levels of supervisory responsibilities from first-line supervisors to high-level managers.

The following tasks are representative of the technical and managerial tasks performed by the members of the Management Cluster:

- Develop or establish work methods or procedures
- Participate in general meetings, such as staff meetings, briefings, conferences, or workshops, other than conducting
- Develop or establish work schedules
- Perform operator-level troubleshooting of VI equipment
- Conduct on-the-job-training (OJT)
- Counsel trainees on training progress
- Design layouts
- Create graphics using 2-dimensional vector-based graphics programs
- Perform operator-level maintenance of VI equipment
- Counsel subordinates concerning personal matters
- Establish performance standards for subordinates
- Conduct supervisory performance feedback sessions

The predominant paygrades of these members are E-5 and E-6, and 55 percent of the Management Cluster members hold the 7-skill level. The AD members of this job are the most senior members of the identified clusters and jobs as they average 14 years' TAFMS, but they average only 9 years' TICF. Seventy-nine percent of these incumbents report supervising other members.

The **Presentations Support NCOIC Job** is comprised of 20 AD members who spend an almost equal amount of time performing management and supervisory activities (Duty H) and presentations support activities (Duty D). These members are predominantly assigned to presentations support work areas. Typical tasks performed by these incumbents include directing presentations support activities, setting up or operating electronic presentations systems, and scheduling use of presentations equipment.

The **Graphics NCOIC Job** has 105 members who are distinguished from the other members of the cluster by spending more time performing management and supervisory activities including the following tasks: interpreting policies, directives, or procedures for subordinates and evaluating personnel for compliance with performance standards. The job performed by these members is the most diverse job in the career ladder with the Graphics NCOICs performing an average of 126 tasks.

The six AD members in the **Training Job** are located at DINFOS, Ft Meade MD, and are technical training instructors and technical training instructor supervisors. They spend the majority of their time, on average, performing activities associated with the training of Visual Information students. Tasks performed by all members of this job include personalizing lesson plans, conducting formal course classroom training, and evaluating progress of trainees.

Comparison of Current Group Descriptions to Previous Study

The results of the specialty job analysis were compared to the previous OSR, dated November 1997. As shown in Table 5, the Visual Information Cluster was identified in the previous survey as the Visual Information Graphics Job. The Presentations Job identified in the current study was called the Presentations Support Job in the 1997 survey. This study's Air National Guard Electronic Imaging Job was referred to in the previous study as the Electronic Imaging Job. Two jobs in the current survey (Computer Animation Job and Resources Job) were not identified in the 1997 study. The Viewgraph Job appearing in the previous survey was not identified in the current study. Finally, the Management Cluster identified in the current study was listed in the 1997 study as the Management and Supervision Cluster.

Summary

Career ladder structure analysis identified two clusters and four jobs: Visual Information Cluster, Presentations Job, Air National Guard Electronic Imaging Job, Computer Animation Job, Resources Job, and Management Cluster. The core of the career ladder (Visual Information Cluster) involves the performance of technical tasks associated with electronic imaging and visual information graphics. The Presentations Job members spend more than half of their time supporting presentations at all levels. The Air National Guard Electronic Imaging Job consists of ANG members who spend the vast majority of their time performing a small number of electronic imaging tasks. The members of the Computer Animation Job perform unique electronic imaging tasks involving animation and associated graphics. The Resources Job members are responsible for maintaining the equipment used and operated by their career ladder. The Management Cluster contains the more senior members of the career ladder who spend most of their time managing the daily visual information activities.

TABLE 3

RELATIVE PERCENT TIME SPENT ON DUTIES BY SPECIALTY CLUSTERS AND JOBS

DUTIES	Visual Information Cluster (STG020) (N=160)	Presentations Job (STG046) (N=22)	ANG Electronic Imaging Job (STG049) (N=9)
A PERFORMING ELECTRONIC IMAGING ACTIVITIES	35	11	66
B PREPARING VIEWGRAPHS AND 35MM SLIDES	4	-	2
C PERFORMING GENERAL VISUAL INFORMATION GRAPHICS ACTIVITIES	28	3	19
D PERFORMING PRESENTATIONS SUPPORT ACTIVITIES	14	58	7
E PREPARING ANATOMICAL OR PATHOLOGICAL DRAWINGS	-	-	-
F PREPARING MODELS, MOULAGES, EXHIBITS, OR DISPLAYS	4	1	2
G PERFORMING MOBILITY AND CONTINGENCY ACTIVITIES	2	-	-
H PERFORMING MANAGEMENT AND SUPERVISORY ACTIVITIES	4	5	2
I PERFORMING TRAINING ACTIVITIES	1	1	0
J PERFORMING GENERAL ADMINISTRATIVE ACTIVITIES	2	4	0
K PERFORMING GENERAL SUPPLY AND EQUIPMENT ACTIVITIES	5	16	1

" - " indicates less than 1 percent

TABLE 3 (CONTINUED)

RELATIVE PERCENT TIME SPENT ON DUTIES BY SPECIALTY CLUSTERS AND JOBS

DUTIES	Computer Animation Job (STG033) (N=5)			Resources Job (STG030) (N=5)			Management Cluster (STG021) (N=131)		
	Computer Animation Job (STG033) (N=5)	Resources Job (STG030) (N=5)	Management Cluster (STG021) (N=131)	Computer Animation Job (STG033) (N=5)	Resources Job (STG030) (N=5)	Management Cluster (STG021) (N=131)	Computer Animation Job (STG033) (N=5)	Resources Job (STG030) (N=5)	Management Cluster (STG021) (N=131)
A PERFORMING ELECTRONIC IMAGING ACTIVITIES	47	28	15						
B PREPARING VIEWGRAPHS AND 35MM SLIDES	-	1	1						
C PERFORMING GENERAL VISUAL INFORMATION GRAPHICS ACTIVITIES	11	16	11						
D PERFORMING PRESENTATIONS SUPPORT ACTIVITIES	9	5	10						
E PREPARING ANATOMICAL OR PATHOLOGICAL DRAWINGS	1	0	-						
F PREPARING MODELS, MOULAGES, EXHIBITS, OR DISPLAYS	0	1	2						
G PERFORMING MOBILITY AND CONTINGENCY ACTIVITIES	-	4	4						
H PERFORMING MANAGEMENT AND SUPERVISORY ACTIVITIES	21	16	32						
I PERFORMING TRAINING ACTIVITIES	4	1	8						
J PERFORMING GENERAL ADMINISTRATIVE ACTIVITIES	2	3	5						
K PERFORMING GENERAL SUPPLY AND EQUIPMENT ACTIVITIES	4	25	11						

" - " indicates less than 1 percent

TABLE 4

SELECTED BACKGROUND DATA FOR SPECIALTY CLUSTERS AND JOBS

Visual Information Cluster (STG020)	Presentations Job (STG046)	ANG Electronic Imaging Job (STG049)
160	22	9
44%	6%	2%
76%	91%	100%

NUMBER IN GROUP
 PERCENT OF SAMPLE
 PERCENT IN CONUS

SKILL-LEVEL DISTRIBUTION:

3V031	39%	23%	11%
3V051	41%	77%	56%
3V071	20%	0%	33%

ADDITIONAL INFORMATION

PREDOMINANT GRADE	E-3	E-4	E-4
AVERAGE MONTHS IN CAREER FIELD	56 (AD)	43 (AD)	N/A
AVERAGE TAFMS	66 (AD)	53 (AD)	N/A
PERCENT WITH 1-48 MOS IN CAREER FIELD	64% (AD)	73% (AD)	N/A
PERCENT SUPERVISING	19%	9%	11%
AVERAGE NUMBER OF TASKS PERFORMED	54	28	17

TABLE 4 (CONTINUED)

SELECTED BACKGROUND DATA FOR SPECIALTY CLUSTERS AND JOBS

	Computer Animation Job (STG033)	Resources Job (STG030)	Management Cluster (STG021)
NUMBER IN GROUP	5	5	131
PERCENT OF SAMPLE	5%	1%	36%
PERCENT IN CONUS	100%	100%	76%
SKILL-LEVEL DISTRIBUTION:			
3V031	0%	0%	5%
3V051	80%	40%	40%
3V071	20%	60%	55%
ADDITIONAL INFORMATION			
PREDOMINANT GRADE(S)	E-4 & E-5	E-5 & E-6	E-5 & E-6
AVERAGE MONTHS IN CAREER FIELD	89 (AD)	123 (AD)	108 (AD)
AVERAGE TAFMS	129 (AD)	146 (AD)	168 (AD)
PERCENT WITH 1-48 MOS IN CAREER FIELD	20% (AD)	0% (AD)	29% (AD)
PERCENT SUPERVISING	20%	0%	79%
AVERAGE NUMBER OF TASKS PERFORMED	40	56	115

TABLE 5

SPECIALTY CLUSTER AND JOB COMPARISONS
 BETWEEN CURRENT SURVEY AND 1997 SURVEY

<u>CURRENT SURVEY (N=366)</u>	%	<u>1997 SURVEY (N=366)</u>	%
VISUAL INFORMATION CLUSTER	44	VISUAL INFORMATION GRAPHICS JOB	44
PRESENTATIONS JOB	6	PRESENTATIONS SUPPORT JOB	10
AIR NATIONAL GUARD ELECTRONIC IMAGING JOB	2	ELECTRONIC IMAGING JOB	2
COMPUTER ANIMATION JOB	1	*	
RESOURCES JOB	1	*	
*		VIEWGRAPH JOB	1
MANAGEMENT CLUSTER	36	MANAGEMENT AND SUPERVISION CLUSTER	31
NOT GROUPED	10	NOT GROUPED	12

“ * ” indicates no match in report

ANALYSIS OF DAFSC GROUPS

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

The distribution of skill-level groups *for the total survey sample* (AD, ANG, and AFRC members) across the career ladder jobs and clusters is displayed in Table 6, while Table 7 offers another perspective by displaying the relative percent time spent on each duty across skill-level groups. A typical pattern of progression is noted within the AFSC 3V0X1 career ladder. Personnel at the 3- and 5-skill levels work in the technical jobs of the career ladder and spend most of their time on technical tasks. As incumbents progress to the 7-skill level, they perform many more supervisory and training tasks but still spend over 50 percent of their time performing the technical tasks of the career ladder.

Skill-level descriptions are provided for the AD and ANG members but not for the AFRC members since the seven AFRC members comprise only 2 percent of the survey sample. Listing the relative percent time spent on duties by AFRC DAFSC groups for these seven members and comparing their percent time spent to the AD and ANG DAFSC members would tend to inflate the AFRC percentages.

TABLE 6

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

<u>SPECIALTY CLUSTERS AND JOBS</u>	3V031 (N=83)	3V051 (N=167)	3V071 (N=116)
I. VISUAL INFORMATION CLUSTER	76	39	28
II. PRESENTATIONS JOB	6	10	0
III. AIR NATIONAL GUARD ELECTRONIC IMAGING JOB	1	3	3
IV. COMPUTER ANIMATION JOB	0	2	-
V. RESOURCES JOB	0	1	3
VI. MANAGEMENT CLUSTER	9	31	62
VII. NOT GROUPED	8	14	3

" - " indicates less than 1 percent

TABLE 7

RELATIVE PERCENT TIME SPENT ON DUTIES BY DAFSC GROUPS

DUTIES	3V031	3V051	3V071
	(N=83)	(N=167)	(N=116)
A PERFORMING ELECTRONIC IMAGING ACTIVITIES	31	31	21
B PREPARING VIEWGRAPHS AND 35MM SLIDES	3	2	2
C PERFORMING GENERAL VISUAL INFORMATION GRAPHICS ACTIVITIES	25	17	16
D PERFORMING PRESENTATIONS SUPPORT ACTIVITIES	21	18	8
E PREPARING ANATOMICAL OR PATHOLOGICAL DRAWINGS	-	-	-
F PREPARING MODELS, MOULAGES, EXHIBITS, OR DISPLAYS	4	2	3
G PERFORMING MOBILITY AND CONTINGENCY ACTIVITIES	2	2	4
H PERFORMING MANAGEMENT AND SUPERVISORY ACTIVITIES	4	12	26
I PERFORMING TRAINING ACTIVITIES	1	3	6
J PERFORMING GENERAL ADMINISTRATIVE ACTIVITIES	3	3	4
K PERFORMING GENERAL SUPPLY AND EQUIPMENT ACTIVITIES	5	9	9

" - " indicates less than 1 percent

AD Skill-Level Descriptions

As of September 1999, a total of 548 AD members were assigned to AFSC 3V0X1. A total of 490 disks were mailed to AD personnel with 385 disks returned and 304 members in the final sample. A total of 81 disks could not be used.

DAFSC 3V031. Representing 23 percent of the survey sample, these 83 airmen perform an average of 54 tasks. Table 8 reflects the percent time spent on duties by AD DAFSC 3V031 personnel. Members holding DAFSC 3V031 spend 84 percent of their time performing technical visual information tasks in Duties A through F. Fifty-six percent of their time is spent performing electronic imaging tasks of Duty A and general visual information tasks of Duty C. Representative tasks performed by these members are listed in Table 9.

DAFSC 3V051. The 144 members of this group account for 39 percent of the survey sample and perform an average of 62 tasks. Table 8 provides a comparison of the relative time spent on duties at the 5-skill level. This table shows a decrease in the amount of time spent performing technical tasks in five visual information duty areas and a slight increase in the amount of time spent preparing models, moulages, exhibits, or displays (Duty F). The DAFSC 3V051 members also spend more time performing management and supervisory activities (Duty H), training activities (Duty I), and general supply and equipment activities (Duty K) compared to the DAFSC 3V031 members.

Table 10 lists representative tasks performed by these DAFSC 3V051 personnel. Table 11 reflects those tasks which best differentiate the 3-skill levels from the 5-skill levels. This table shows that at least 14 percent more 3-skill levels perform technical tasks primarily related to working with matte boards and other hardcopy graphics compared to the number of 5-skill level members performing the same tasks. Table 11 also reveals that the 5-skill levels perform many supervisory and training tasks rarely performed at the 3-skill level.

DAFSC 3V071. These 77 members perform an average of 107 tasks and represent 21 percent of the survey sample. Table 8 reflects the percent time spent on duties by DAFSC 3V071 members and shows decreases in the amount of time spent by members performing the technical tasks in four out of six duty areas. Fifty-six percent of their time is spent on nontechnical tasks involving management and supervision, training, administration, and supply. This is an increase of time spent performing nontechnical tasks of 26 percent compared to the 5-skill level members. They spend 34 percent of their time performing management and supervisory tasks.

Representative tasks performed by 7-skill level members are reflected in Table 12. Table 13 reflects tasks which best differentiate between 5- and 7-skill levels. This table shows a higher percentage of 5-skill level members performing three presentations support tasks, including the setup and operation of projectors. The most significant difference in the performance of specific tasks between the AD 5-skill level and 7-skill level members is clearly revealed in the management and supervisory area with at least 40 percent more DAFSC 3V071 members evaluating personnel, directing activities, determining schedules, and establishing standards and procedures.

AD Skill-Level Analysis Summary

Progression in the Visual Information career ladder follows a regular pattern of highly technical job focus at the 3-skill level with a broadening into supervision and management at the 5- and 7-skill levels. The 3-skill levels perform more basic graphics tasks, but the 3- and 5-skill level airmen perform many tasks in common. Both groups spend the majority of their time performing technical visual information tasks while the 5-skill level members demonstrate a shift into supervisory and management tasks. At the 7-skill level, members still perform a substantial number of technical tasks but demonstrate a strong shift toward higher-level supervisory functions.

TABLE 8

RELATIVE PERCENT TIME SPENT ON DUTIES BY AD DAFSC 3V0X1 GROUPS

<u>DUTIES</u>	3V031 (N=83)	3V051 (N=144)	3V071 (N=77)
A PERFORMING ELECTRONIC IMAGING ACTIVITIES	31	28	17
B PREPARING VIEWGRAPHS AND 35MM SLIDES	3	2	2
C PERFORMING GENERAL VISUAL INFORMATION GRAPHICS ACTIVITIES	25	16	12
D PERFORMING PRESENTATIONS SUPPORT ACTIVITIES	21	19	7
E PREPARING ANATOMICAL OR PATHOLOGICAL DRAWINGS	-	1	-
F PREPARING MODELS, MOULAGES, EXHIBITS, OR DISPLAYS	4	2	2
G PERFORMING MOBILITY AND CONTINGENCY ACTIVITIES	2	2	3
H PERFORMING MANAGEMENT AND SUPERVISORY ACTIVITIES	4	14	34
I PERFORMING TRAINING ACTIVITIES	1	4	7
J PERFORMING GENERAL ADMINISTRATIVE ACTIVITIES	3	3	5
K PERFORMING GENERAL SUPPLY AND EQUIPMENT ACTIVITIES	5	9	10

" - " indicates less than 1 percent

TABLE 9

REPRESENTATIVE TASKS PERFORMED BY AD DAFSC 3V031 PERSONNEL

TASKS	PERCENT MEMBERS PERFORMING (N=83)	
A0034	Scan artwork using flatbed scanners	89
C0065	Design layouts	84
A0004	Convert graphic file formats	84
A0006	Create graphics using 2-dimensional vector-based graphics programs	77
A0005	Create graphics using 2-dimensional raster-based graphics programs	76
A0017	Letter certificates using laser printers	76
A0027	Produce color paper hardcopies of visual images	73
C0053	Adhere artwork or photographs to graphics or matte boards	70
A0022	Prepare electronic presentations	70
D0105	Set up screens	69
C0066	Determine graphic color schemes	69
A0026	Produce color hardcopies using poster printers	67
C0064	Cut matte boards	64
C0085	Produce paper or parchment certificates or awards	64
C0054	Adhere emblems, symbols, copy bodies, titles, or drawings on graphics or masters	63
D0108	Set up or operate electronic presentations systems, such as video or data projectors or video or computer inputs	61
D0110	Set up or operate overhead projectors	60
A0024	Produce black and white paper masters	60
A0033	Scan artwork using film/slide scanners	58
D0103	Schedule use of presentations equipment	57
D0104	Set up presentation facilities, such as positioning furniture, setting room temperature, or selecting lighting controls	57
C0088	Proofread final graphics	57
D0114	Set up or operate VTC equipment	55
A0023	Produce artwork using mouse or digitizing tablets	55
C0063	Cut illustration boards, other than matte boards	54
A0025	Produce charts using plotters	54
D0115	Straighten, align, or clean conference facilities	54
A0028	Produce presentations using multimedia software	54
A0032	Retouch digitized images	53
C0060	Coordinate details of graphics work requests with users	52
F0139	Shape foam core boards for graphic displays	52
D0109	Set up or operate monitors or TVs	51
C0071	Dry mount graphic products	48
D0100	Produce multimedia presentations using electronic imaging systems	46

* Average Number of Tasks Performed - 54

TABLE 10

REPRESENTATIVE TASKS PERFORMED BY AD DAFSC 3V051 PERSONNEL

TASKS	PERCENT MEMBERS PERFORMING (N=144)	
A0034	Scan artwork using flatbed scanners	81
A0004	Convert graphic file formats	79
A0022	Prepare electronic presentations	75
C0065	Design layouts	68
A0006	Create graphics using 2-dimensional vector-based graphics programs	67
D0108	Set up or operate electronic presentations systems, such as video or data projectors or video or computer inputs	64
A0005	Create graphics using 2-dimensional raster-based graphics programs	63
A0017	Letter certificates using laser printers	62
A0027	Produce color paper hardcopies of visual images	60
A0033	Scan artwork using film/slide scanners	60
C0066	Determine graphic color schemes	58
D0105	Set up screens	58
A0028	Produce presentations using multimedia software	56
A0024	Produce black and white paper masters	56
A0032	Retouch digitized images	56
D0093	Adjust lighting in presentation facilities	55
D0103	Schedule use of presentations equipment	53
A0026	Produce color hardcopies using poster printers	53
K0322	Perform operator-level troubleshooting of VI equipment	53
D0115	Straighten, align, or clean conference facilities	52
D0114	Set up or operate VTC equipment	51
D0109	Set up or operate monitors or TVs	51
A0010	Design and produce imagery for web pages	51
C0053	Adhere artwork or photographs to graphics or matte boards	51
H0238	Participate in general meetings, such as staff meetings, briefings, conferences, or workshops, other than conducting	51
D0110	Set up or operate overhead projectors	50
D0104	Set up presentation facilities, such as positioning furniture, setting room temperature, or selecting lighting controls	49
D0102	Schedule presentation facilities	49
A0023	Produce artwork using mouse or digitizing tablets	49
C0085	Produce paper or parchment certificates or awards	49
D0113	Set up or operate videocassette players or recorders	49
K0320	Perform operational checks of VI equipment	49
C0063	Cut illustration boards, other than matte boards	48
K0321	Perform operator-level maintenance of VI equipment	48
D0094	Coordinate availability of video teleconferencing (VTC) satellite times with appropriate agencies	47
C0054	Adhere emblems, symbols, copy bodies, titles, or drawings on graphics or masters	47
C0060	Coordinate details of graphics work requests with users	46
C0064	Cut matte boards	46

* Average Number of Tasks Performed - 62

TABLE 11

TASKS WHICH BEST DIFFERENTIATE BETWEEN AD AFSC 3V031 AND DAFSC 3V051 PERSONNEL
(PERCENT MEMBERS PERFORMING)

TASKS	DAFSC 3V031 (N=83)	DAFSC 3V051 (N=144)	DIFFERENCE
F0139 Shape foam core boards for graphic displays	52	32	20
C0053 Adhere artwork or photographs to graphics or matte boards	70	51	18
C0064 Cut matte boards	64	46	18
C0065 Design layouts	84	68	16
C0054 Adhere emblems, symbols, copy bodies, titles, or drawings on graphics or masters	63	47	16
A0018 Letter certificates using plotters	31	15	16
C0085 Produce paper or parchment certificates or awards	64	49	15
F0132 Design wall displays or murals	42	27	15
A0009 Design fonts	24	9	15
A0025 Produce charts using plotters	54	40	15
A0017 Letter certificates using laser printers	76	62	14
A0026 Produce color hardcopies using poster printers	67	53	14
I0275 Maintain training records or files	2	27	-25
H0234 Inspect personnel for compliance with military standards	5	30	-25
H0200 Develop or establish work schedules	12	35	-23
I0271 Evaluate personnel to determine training needs	6	29	-23
H0194 Counsel subordinates concerning personal matters	6	29	-23
H0224 Evaluate personnel for compliance with performance standards	5	26	-22
H0191 Conduct supervisory performance feedback sessions	5	26	-22
H0238 Participate in general meetings, such as staff meetings, briefings, conferences, or workshops, other than conducting	29	51	-22
H0256 Write recommendations for awards or decorations	4	26	-22
H0212 Establish performance standards for subordinates	5	27	-22
H0199 Develop or establish work methods or procedures	14	37	-22
A0013 Develop web pages using programs, such as Microsoft Front Page	19	39	-20

TABLE 12

REPRESENTATIVE TASKS PERFORMED BY AD DAFSC 3V071 PERSONNEL

TASKS	PERCENT MEMBERS PERFORMING (N=77)	
A0004	Convert graphic file formats	83
H0199	Develop or establish work methods or procedures	82
A0034	Scan artwork using flatbed scanners	79
H0238	Participate in general meetings, such as staff meetings, briefings, conferences, or workshops, other than conducting	79
H0200	Develop or establish work schedules	75
A0022	Prepare electronic presentations	74
H0191	Conduct supervisory performance feedback sessions	74
H0212	Establish performance standards for subordinates	74
H0225	Evaluate personnel for promotion, demotion, reclassification, or special awards	73
H0204	Direct training activities	73
A0017	Letter certificates using laser printers	73
H0194	Counsel subordinates concerning personal matters	71
K0322	Perform operator-level troubleshooting of VI equipment	71
K0320	Perform operational checks of VI equipment	71
A0006	Create graphics using 2-dimensional vector-based graphics programs	70
H0255	Write or indorse military performance reports	70
I0262	Conduct on-the-job-training (OJT)	70
C0065	Design layouts	69
H0256	Write recommendations for awards or decorations	69
H0224	Evaluate personnel for compliance with performance standards	69
I0264	Counsel trainees on training progress	69
H0228	Evaluate work schedules	69
H0186	Conduct general meetings, such as staff meetings, briefings, conferences, or workshops	69
H0190	Conduct supervisory orientations for newly assigned personnel	69
A0027	Produce color paper hardcopies of visual images	68
H0213	Establish procedures for accountability of equipment, tools, parts, or supplies	68
H0202	Direct electronic imaging activities	66
I0275	Maintain training records or files	66
H0235	Interpret policies, directives, or procedures for subordinates	66
H0229	Evaluate workload requirements	66
A0005	Create graphics using 2-dimensional raster-based graphics programs	65
C0053	Adhere artwork or photographs to graphics or matte boards	65
H0234	Inspect personnel for compliance with military standards	65
H0184	Assign personnel to work areas or duty positions	64
A0010	Design and produce imagery for web pages	64
H0193	Coordinate purchases of electronic imaging equipment with appropriate agencies	64
C0060	Coordinate details of graphics work requests with users	62
K0321	Perform operator-level maintenance of VI equipment	62
H0246	Plan or schedule work assignments or priorities	62
I0271	Evaluate personnel to determine training needs	62

* Average Number of Tasks Performed - 107

TABLE 13

TASKS WHICH BEST DIFFERENTIATE BETWEEN AD DAFSC 3V051 AND DAFSC 3V071 PERSONNEL
(PERCENT MEMBERS PERFORMING)

TASKS	3V051 (N=144)	3V071 (N=77)	DIFFERENCE
D0111	32	8	24
D0110	50	29	21
D0102	49	29	20
Set up or operate sound or slide projectors, other than 35mm slide projectors			
Set up or operate overhead projectors			
Schedule presentation facilities			
H0225	19	73	-53
H0218	16	68	-52
H0255	22	70	-49
H0201	11	60	-49
H0191	26	74	-48
H0204	25	73	-48
H0249	15	64	-48
H0212	27	74	-47
H0247	14	61	-47
H0252	13	60	-47
H0190	22	69	-47
H0235	22	66	-45
H0199	37	82	-45
H0184	20	64	-44
H0228	25	69	-44
H0186	25	69	-44
H0202	22	66	-44
H0229	24	66	-43
H0185	13	56	-43
H0256	26	69	-43
H0215	15	58	-43
H0213	24	68	-43
Evaluate personnel for promotion, demotion, reclassification, or special awards			
Evaluate job or position descriptions			
Write or indorse military performance reports			
Direct administrative activities			
Conduct supervisory performance feedback sessions			
Direct training activities			
Schedule personnel for temporary duty (TDY) assignments, leaves, or passes			
Establish performance standards for subordinates			
Review budget requirements			
Write job or position descriptions			
Conduct supervisory orientations for newly assigned personnel			
Interpret policies, directives, or procedures for subordinates			
Develop or establish work methods or procedures			
Assign personnel to work areas or duty positions			
Evaluate work schedules			
Conduct general meetings, such as staff meetings, briefings, conferences, or workshops			
Direct electronic imaging activities			
Evaluate workload requirements			
Assign sponsors for newly assigned personnel			
Write recommendations for awards or decorations			
Evaluate budget requirements			
Establish procedures for accountability of equipment, tools, parts, or supplies			

ANG Skill-Level Descriptions

A total of 184 ANG members were assigned to AFSC 3V0X1 as of September 1999. ANG personnel were mailed a total of 171 disks with 87 disks returned. Fifty-five of those ANG members were included in the final sample. Thirty-two disks could not be used.

DAFSC 3V051. The 21 members of this group perform an average of 46 tasks. Table 14 provides a comparison of the relative time spent on duties at the 5-skill level and shows that 84 percent of their relative time is spent performing the technical tasks of Duties A through F. This table also shows that ANG DAFSC 3V051 personnel spend 50 percent of their time performing electronic imaging tasks (Duty A) and 22 percent of their time performing general visual information tasks (Duty C).

Table 15 lists representative tasks performed by these ANG DAFSC 3V051 personnel while Table 16 shows the relative percent time spent on the survey duty areas for AD and ANG DAFSC 3V051 members. The ANG 5 skill-level members spend 22 percent more time performing electronic imaging activities (Duty A) and 12 percent less time performing presentations support activities (Duty D) than their AD 5-skill level peers. Table 17 displays the tasks best differentiating between AD and ANG DAFSC 3V051 personnel. A higher percentage of AD 5-skill level members set up and operate various presentations and video teleconferencing equipment versus their ANG counterparts. In contrast, more ANG 5-skill level members are performing specific mobility and contingency tasks and electronic imaging tasks, such as inspecting mobility bags or kits and creating graphics using computer programs.

DAFSC 3V071. These 34 members perform an average of 77 tasks and represent 9 percent of the total survey sample. Table 14 reflects the percent time spent on duties by ANG DAFSC 3V071 members and shows slight increases in the amount of time spent by members performing tasks in four of the six technical duty areas compared to the ANG 5-skill level personnel. The most significant difference between the job performed by the two skill levels is in the electronic imaging area where the 7-skill level members spend 18 percent less time. The 7-skill level members also spend slightly more time performing management and supervisory activities (Duty H), training activities (Duty I), and supply and equipment activities compared to the ANG 5-skill level members. This is an overall increase in time spent performing nontechnical tasks of 11 percent compared to the ANG 5-skill level members.

Representative tasks performed by ANG 7-skill level members are reflected in Table 18. Table 19 shows tasks that best differentiate between ANG 5- and 7-skill levels. The absence of tasks with a higher percentage of ANG 5-skill level members performing compared to the 7-skill level members reinforces the diversity of the ANG 7-skill level job. The table clearly reveals that a much higher percentage of 7-skill levels are performing a wide variety of tasks in 8 of the 11 duty areas.

Table 20 displays the relative time spent on the duty areas for AD and ANG DAFSC 3V071 members. The most significant differences between the tasks performed by AD 7-skill level

members and the ANG 7-skill level members are the amount of time spent performing electronic imaging activities (Duty A) and the amount of time spent performing management and supervisory activities (Duty H). The ANG DAFSC 3V071 members spend 32 percent of their time performing electronic imaging tasks while the AD DAFSC 3V071 members spend 17 percent of their time on similar activities. The ANG members spend only 9 percent of their relative time on managerial and supervisory tasks compared to the 34 percent time spent by the AD 7-skill level members on similar activities. Table 21 displays tasks which best distinguish between the AD and ANG 7-skill level members. Less than 20 percent of the ANG members are performing management and supervisory tasks performed by over 50 percent of their AD peers. The most significant differences between the technical tasks performed by the ANG and AD members appear in specific electronic imaging and visual information graphics areas, such as scanning artwork, photographing artwork, and producing rough sketches.

ANG Skill-Level Analysis Summary

Progression for ANG members in the Visual Information career ladder follows a normal pattern although there is concentration on technical tasks at both the 5- and 7-skill levels. The upgrade from the 5- to the 7-skill level for ANG members also results in a slight increase in the performance of management and supervisory, training, and supply and equipment activities. Compared to the AD DAFSC 3V0X1 members, the ANG DAFSC 3V0X1 members perform more AFSC-specific technical tasks as they progress through the career ladder.

TABLE 14

RELATIVE PERCENT TIME SPENT ON DUTIES BY ANG DAFSC 3V0X1 GROUPS

DUTIES	3V051 (N=21)	3V071 (N=34)
A PERFORMING ELECTRONIC IMAGING ACTIVITIES	50	32
B PREPARING VIEWGRAPHS AND 35MM SLIDES	3	4
C PERFORMING GENERAL VISUAL INFORMATION GRAPHICS ACTIVITIES	22	23
D PERFORMING PRESENTATIONS SUPPORT ACTIVITIES	7	10
E PREPARING ANATOMICAL OR PATHOLOGICAL DRAWINGS	-	-
F PREPARING MODELS, MOULAGES, EXHIBITS, OR DISPLAYS	2	4
G PERFORMING MOBILITY AND CONTINGENCY ACTIVITIES	3	5
H PERFORMING MANAGEMENT AND SUPERVISORY ACTIVITIES	5	9
I PERFORMING TRAINING ACTIVITIES	-	4
J PERFORMING GENERAL ADMINISTRATIVE ACTIVITIES	3	2
K PERFORMING GENERAL SUPPLY AND EQUIPMENT ACTIVITIES	4	6

" - " indicates less than 1 percent

TABLE 15

REPRESENTATIVE TASKS PERFORMED BY ANG DAFSC 3V051 PERSONNEL

TASKS	PERCENT MEMBERS PERFORMING (N=21)	
A0034	Scan artwork using flatbed scanners	100
A0006	Create graphics using 2-dimensional vector-based graphics programs	95
A0004	Convert graphic file formats	95
A0005	Create graphics using 2-dimensional raster-based graphics programs	90
C0065	Design layouts	86
A0033	Scan artwork using film/slide scanners	67
A0022	Prepare electronic presentations	67
A0027	Produce color paper hardcopies of visual images	62
A0023	Produce artwork using mouse or digitizing tablets	62
A0032	Retouch digitized images	62
A0017	Letter certificates using laser printers	62
A0028	Produce presentations using multimedia software	57
C0066	Determine graphic color schemes	57
C0085	Produce paper or parchment certificates or awards	52
C0053	Adhere artwork or photographs to graphics or matte boards	52
C0060	Coordinate details of graphics work requests with users	48
C0086	Produce rough sketches, such as thumbnail or preliminary sketches	48
A0010	Design and produce imagery for web pages	43
A0026	Produce color hardcopies using poster printers	43
A0021	Photograph artwork	43
C0088	Proofread final graphics	43
C0071	Dry mount graphic products	43
A0013	Develop web pages using programs, such as Microsoft Front Page	38
J0298	Maintain visual information work order logs	38
C0076	Maintain completed artwork or masters files	33
H0238	Participate in general meetings, such as staff meetings, briefings, conferences, or workshops, other than conducting	29

* Average Number of Tasks Performed - 46

TABLE 16

RELATIVE PERCENT TIME SPENT ON DUTIES BY DAFSC 3V051 GROUPS

<u>DUTIES</u>	<u>AD</u> <u>(N=144)</u>	<u>ANG</u> <u>(N=21)</u>
A PERFORMING ELECTRONIC IMAGING ACTIVITIES	28	50
B PREPARING VIEWGRAPHS AND 35MM SLIDES	2	3
C PERFORMING GENERAL VISUAL INFORMATION GRAPHICS ACTIVITIES	16	22
D PERFORMING PRESENTATIONS SUPPORT ACTIVITIES	19	7
E PREPARING ANATOMICAL OR PATHOLOGICAL DRAWINGS	1	-
F PREPARING MODELS, MOULAGES, EXHIBITS, OR DISPLAYS	2	2
G PERFORMING MOBILITY AND CONTINGENCY ACTIVITIES	2	3
H PERFORMING MANAGEMENT AND SUPERVISORY ACTIVITIES	14	5
I PERFORMING TRAINING ACTIVITIES	4	-
J PERFORMING GENERAL ADMINISTRATIVE ACTIVITIES	3	3
K PERFORMING GENERAL SUPPLY AND EQUIPMENT ACTIVITIES	9	4

" - " indicates less than 1 percent

TABLE 17

TASKS WHICH BEST DIFFERENTIATE BETWEEN AD AND ANG DAFSC 3V051 PERSONNEL
(PERCENT MEMBERS PERFORMING)

TASKS	AD DAFSC 3V051 (N=144)	ANG DAFSC 3V051 (N=21)	DIFFERENCE
A0024	56	10	46
D0108	64	19	45
D0114	51	10	42
D0093	55	19	36
K0320	49	14	35
D0105	58	24	35
D0102	49	14	34
D0094	47	14	33
K0323	42	10	32
D0110	50	19	31
D0104	49	19	30
A0025	40	10	30
D0098	35	5	30
A0006	67	95	-29
G0156	15	43	-28
A0005	63	90	-28
C0086	25	48	-23
G0181	12	33	-22
G0154	27	48	-21
A0021	22	43	-21

TABLE 18

REPRESENTATIVE TASKS PERFORMED BY ANG DAFSC 3V071 PERSONNEL

TASKS	PERCENT MEMBERS PERFORMING (N=34)	
A0005	Create graphics using 2-dimensional raster-based graphics programs	97
A0034	Scan artwork using flatbed scanners	94
A0004	Convert graphic file formats	94
A0033	Scan artwork using film/slide scanners	91
A0006	Create graphics using 2-dimensional vector-based graphics programs	88
C0066	Determine graphic color schemes	88
C0088	Proofread final graphics	88
C0065	Design layouts	82
A0023	Produce artwork using mouse or digitizing tablets	79
C0053	Adhere artwork or photographs to graphics or matte boards	79
A0017	Letter certificates using laser printers	76
A0032	Retouch digitized images	74
A0027	Produce color paper hardcopies of visual images	74
C0085	Produce paper or parchment certificates or awards	74
A0022	Prepare electronic presentations	74
C0060	Coordinate details of graphics work requests with users	71
G0154	Don or doff chemical warfare personal protective clothing	68
C0054	Adhere emblems, symbols, copy bodies, titles, or drawings on graphics or masters	68
C0086	Produce rough sketches, such as thumbnail or preliminary sketches	65
A0019	Maintain electronic imaging system backup files	65
D0109	Set up or operate monitors or TVs	65
C0071	Dry mount graphic products	65
I0262	Conduct on-the-job-training (OJT)	62
D0110	Set up or operate overhead projectors	59
A0024	Produce black and white paper masters	59
C0055	Adhere vinyl lettering to graphic products, such as charts or displays	59
A0028	Produce presentations using multimedia software	56
C0064	Cut matte boards	56
A0020	Maintain internal electronic imaging system files	56
C0076	Maintain completed artwork or masters files	56
F0132	Design wall displays or murals	56
G0156	Inspect mobility bags or kits	56
C0063	Cut illustration boards, other than matte boards	53
A0021	Photograph artwork	53
D0100	Produce multimedia presentations using electronic imaging systems	53
D0112	Set up or operate video cameras	50
A0010	Design and produce imagery for web pages	50
K0322	Perform operator-level troubleshooting of VI equipment	50
H0202	Direct electronic imaging activities	50
F0133	Mount illustrations or photographs on display or exhibit sections	50
A0014	Establish electronic imaging filing systems	47
A0026	Produce color hardcopies using poster printers	41

* Average Number of Tasks Performed - 77

TABLE 19

TASKS WHICH BEST DIFFERENTIATE BETWEEN ANG DAFSC 3V051 AND DAFSC 3V071 PERSONNEL
(PERCENT MEMBERS PERFORMING)

TASKS	3V051 (N=21)	3V071 (N=34)	DIFFERENCE
A0024 Produce black and white paper masters	10	59	-49
I0262 Conduct on-the-job-training (OJT)	14	62	-47
C0088 Proofread final graphics	43	88	-45
C0054 Adhere emblems, symbols, copy bodies, titles, or drawings on graphics or masters	24	68	-44
F0132 Design wall displays or murals	14	56	-42
D0110 Set up or operate overhead projectors	19	59	-40
C0055 Adhere vinyl lettering to graphic products, such as charts or displays	19	59	-40
A0031 Produce viewgraphs using color printers	10	47	-38
A0020 Maintain internal electronic imaging system files	19	56	-37
D0109 Set up or operate monitors or TVs	29	65	-36
B0035 Align and mount viewgraphs	-	35	-35
C0091 Tape lines on graphics	5	38	-33
I0264 Counsel trainees on training progress	10	41	-32
K0323 Perform periodic inspections of VI equipment	10	41	-32
C0057 Clean paint brushes	10	41	-32
I0272 Evaluate progress of trainees	5	35	-31
H0202 Direct electronic imaging activities	19	50	-31
D0106 Set up or operate 35mm slide projectors	19	50	-31
F0133 Mount illustrations or photographs on display or exhibit sections	19	50	-31
C0066 Determine graphic color schemes	57	88	-31
B0040 Design layouts for viewgraphs	10	38	-29
A0030 Produce viewgraphs using black and white laser printers	10	38	-29
I0271 Evaluate personnel to determine training needs	10	38	-29
F0135 Mount wall displays or murals	10	38	-29
C0063 Cut illustration boards, other than matte boards	24	53	-29
H0199 Develop or establish work methods or procedures	14	41	-27
I0275 Maintain training records or files	14	41	-27

"-" indicates less than 1 percent

TABLE 20

RELATIVE PERCENT TIME SPENT ON DUTIES BY DAFSC 3V071 GROUPS

<u>DUTIES</u>	<u>AD</u> <u>(N=77)</u>	<u>ANG</u> <u>(N=34)</u>
A PERFORMING ELECTRONIC IMAGING ACTIVITIES	17	32
B PREPARING VIEWGRAPHS AND 35MM SLIDES	2	4
C PERFORMING GENERAL VISUAL INFORMATION GRAPHICS ACTIVITIES	12	23
D PERFORMING PRESENTATIONS SUPPORT ACTIVITIES	7	10
E PREPARING ANATOMICAL OR PATHOLOGICAL DRAWINGS	-	-
F PREPARING MODELS, MOULAGES, EXHIBITS, OR DISPLAYS	2	4
G PERFORMING MOBILITY AND CONTINGENCY ACTIVITIES	3	5
H PERFORMING MANAGEMENT AND SUPERVISORY ACTIVITIES	34	9
I PERFORMING TRAINING ACTIVITIES	7	4
J PERFORMING GENERAL ADMINISTRATIVE ACTIVITIES	5	2
K PERFORMING GENERAL SUPPLY AND EQUIPMENT ACTIVITIES	10	6

" - " indicates less than 1 percent

TABLE 21

TASKS WHICH BEST DIFFERENTIATE BETWEEN AD AND ANG DAFSC 3V071 PERSONNEL
(PERCENT MEMBERS PERFORMING)

TASKS	AD DAFSC 3V071 (N=77)	ANG DAFSC 3V071 (N=34)	DIFFERENCE
H0255	70	3	67
H0252	60	1	59
H0225	73	15	58
H0256	69	12	57
H0191	74	18	56
H0247	61	6	55
H0249	64	9	55
H0186	69	15	54
H0212	74	21	53
H0215	58	6	52
<hr/>			
A0033	49	91	-42
G0154	29	68	-39
G0156	22	56	-34
C0055	26	59	-33
A0021	19	53	-33
A0005	65	97	-32
C0086	32	65	-32
C0088	57	88	-31
D0110	29	59	-30
D0106	21	50	-29
C0057	12	41	-29
D0111	8	35	-28

Comparative Analysis of DAFSC Groups

As discussed in their respective sections, AD and ANG DAFSC groups were examined and reported separately. A typical career ladder progression is evident across both service components. At the 5-skill level, members are performing mostly technical tasks. The 7-skill level groups expanded their workload to include more supervisory, management, and training tasks, as they are responsible for the day-to-day management of Visual Information activities. The ANG 5-skill level members are spending more relative time performing electronic imaging and visual information graphics activities and less time performing management and supervisory activities compared to their AD peers. The same pattern is evident for the ANG and AD 7-skill level members with an even greater distinction in the amount of time spent performing management and supervisory activities. In comparison to the AD DAFSC 3V071 members, the ANG DAFSC 3V071 personnel spent significantly more time performing technical visual information tasks.

TRAINING ANALYSIS

Occupational survey data are one of many sources of information that can be used to assist in the development of a training program relevant to the needs of personnel in their first enlistment. Factors which may be used in evaluating training include the overall description of the work being performed by first-job or first-enlistment personnel and their overall distribution across career ladder jobs, percentages of first-job (1-24 months' TAFMS) or first-enlistment (1-48 months' TAFMS) members performing specific tasks, as well as TE and TD ratings (previously explained in the **SURVEY METHODOLOGY** section).

First-Job Personnel

This study has 50 members in their first-job assignment (1-24 months' TAFMS), representing 14 percent of the survey sample. Table 22 displays the relative time spent on duties by first-job personnel. As seen in this table, first-job personnel spend 32 percent of their time performing electronic imaging tasks (Duty A) and 24 percent of their time performing visual information graphics tasks (Duty C). They also spend 23 percent of their time performing presentations support tasks (Duty D). Table 23 lists representative tasks performed by these first-job personnel and reflects the technical nature of the job these newly assigned personnel perform.

First-Enlistment Personnel

The 108 members in their first-enlistment represent 30 percent of the total survey sample. Figure 2 reflects the distribution of first-enlistment personnel within the career ladder. Table 24 displays the relative percent of time spent on duties by first-enlistment personnel. Similar to the first-job members, these personnel spend 32 percent of their time performing electronic imaging tasks of Duty A. The first-enlistment members also spend 24 percent of their time performing presentations support activities of Duty D and 23 percent of their time performing visual information graphics activities of Duty C. Representative tasks performed by first-enlistment personnel are displayed in Table 25. Table 26 lists the assignments accomplished by 29 percent or more of the 1-48 months' TAFMS group members. The equipment used or operated by more than two-thirds of the first-enlistment respondents is listed in Table 27. Table 28 displays the electronic imaging software used by first-enlistment personnel, and Table 29 shows the fundamentals of drawing used by these members.

TABLE 22

RELATIVE PERCENT TIME SPENT ON DUTIES BY
 FIRST-JOB PERSONNEL (1-24 MONTHS' TAFMS)
 (N=50)

DUTIES	PERCENT TIME SPENT
A PERFORMING ELECTRONIC IMAGING ACTIVITIES	32
B PREPARING VIEWGRAPHS AND 35MM SLIDES	3
C PERFORMING GENERAL VISUAL INFORMATION GRAPHICS ACTIVITIES	24
D PERFORMING PRESENTATIONS SUPPORT ACTIVITIES	23
E PREPARING ANATOMICAL OR PATHOLOGICAL DRAWINGS	-
F PREPARING MODELS, MOULAGES, EXHIBITS, OR DISPLAYS	4
G PERFORMING MOBILITY AND CONTINGENCY ACTIVITIES	2
H PERFORMING MANAGEMENT AND SUPERVISORY ACTIVITIES	3
I PERFORMING TRAINING ACTIVITIES	-
J PERFORMING GENERAL ADMINISTRATIVE ACTIVITIES	3
K PERFORMING GENERAL SUPPLY AND EQUIPMENT ACTIVITIES	5

" - " indicates less than 1 percent

TABLE 23

REPRESENTATIVE TASKS PERFORMED BY AFSC 3V0X1
FIRST-JOB PERSONNEL (1-24 MONTHS' TAFMS)

TASKS	PERCENT MEMBERS PERFORMING (N=50)
A0004 Convert graphic file formats	86
C0065 Design layouts	84
A0034 Scan artwork using flatbed scanners	84
A0017 Letter certificates using laser printers	78
A0006 Create graphics using 2-dimensional vector-based graphics programs	74
A0005 Create graphics using 2-dimensional raster-based graphics programs	74
A0026 Produce color hardcopies using poster printers	68
C0053 Adhere artwork or photographs to graphics or matte boards	68
D0105 Set up screens	66
A0027 Produce color paper hardcopies of visual images	64
C0054 Adhere emblems, symbols, copy bodies, titles, or drawings on graphics or masters	64
C0066 Determine graphic color schemes	64
D0104 Set up presentation facilities, such as positioning furniture, setting room temperature, or selecting lighting controls	62
D0110 Set up or operate overhead projectors	62
A0022 Prepare electronic presentations	62
D0115 Straighten, align, or clean conference facilities	58
A0024 Produce black and white paper masters	58
D0108 Set up or operate electronic presentations systems, such as video or data projectors or video or computer inputs	56
D0103 Schedule use of presentations equipment	56
D0114 Set up or operate VTC equipment	56
A0033 Scan artwork using film/slide scanners	54
C0064 Cut matte boards	54
C0063 Cut illustration boards, other than matte boards	52
A0025 Produce charts using plotters	52
C0085 Produce paper or parchment certificates or awards	52
A0028 Produce presentations using multimedia software	52
A0023 Produce artwork using mouse or digitizing tablets	50
A0032 Retouch digitized images	48
D0109 Set up or operate monitors or TVs	48
C0060 Coordinate details of graphics work requests with users	42
C0071 Dry mount graphic products	42
F0139 Shape foam core boards for graphic displays	38

* Average Number of Tasks Performed - 43

**DISTRIBUTION OF 3V0X1 FIRST-ENLISTMENT PERSONNEL
ACROSS SPECIALTY CLUSTERS AND JOBS
(N = 108)**

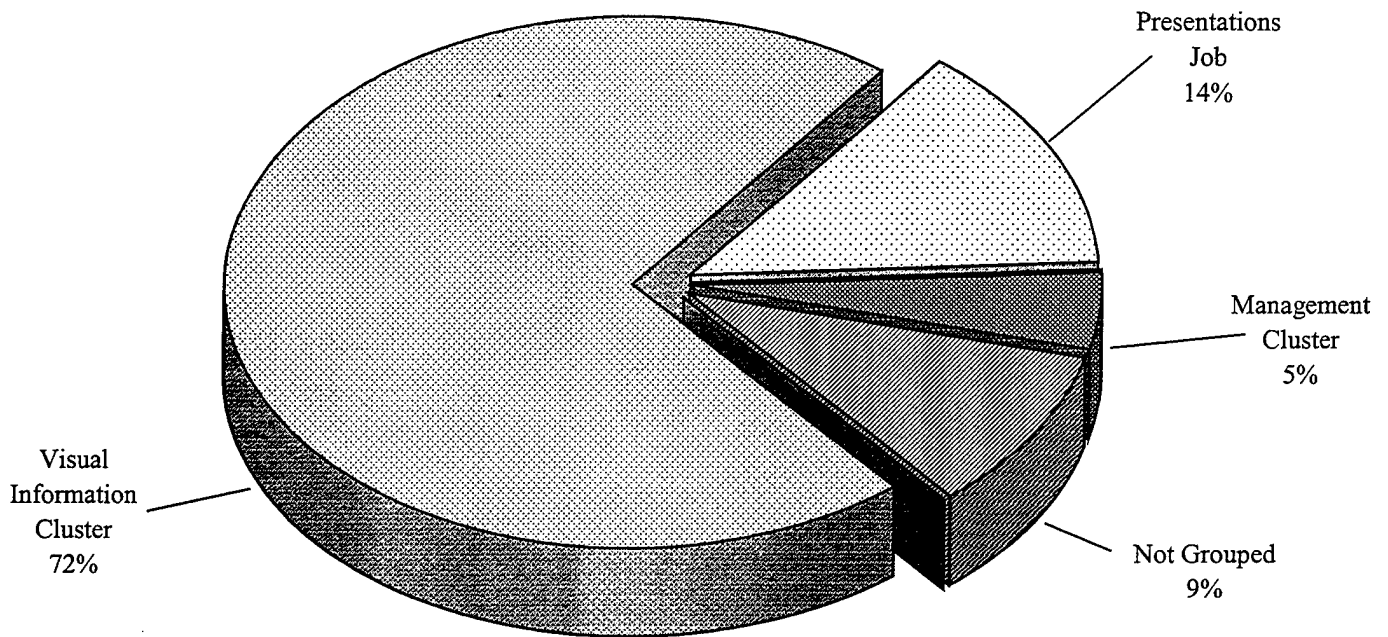


FIGURE 2

TABLE 24

RELATIVE PERCENT TIME SPENT ON DUTIES BY
FIRST-ENLISTMENT PERSONNEL
(N=108)

DUTIES	PERCENT TIME SPENT
A PERFORMING ELECTRONIC IMAGING ACTIVITIES	32
B PREPARING VIEWGRAPHS AND 35MM SLIDES	3
C PERFORMING GENERAL VISUAL INFORMATION GRAPHICS ACTIVITIES	23
D PERFORMING PRESENTATIONS SUPPORT ACTIVITIES	24
E PREPARING ANATOMICAL OR PATHOLOGICAL DRAWINGS	-
F PREPARING MODELS, MOULAGES, EXHIBITS, OR DISPLAYS	4
G PERFORMING MOBILITY AND CONTINGENCY ACTIVITIES	1
H PERFORMING MANAGEMENT AND SUPERVISORY ACTIVITIES	3
I PERFORMING TRAINING ACTIVITIES	1
J PERFORMING GENERAL ADMINISTRATIVE ACTIVITIES	3
K PERFORMING GENERAL SUPPLY AND EQUIPMENT ACTIVITIES	5

" - " indicates less than 1 percent

TABLE 25

REPRESENTATIVE TASKS PERFORMED BY AFSC 3V0X1
FIRST-ENLISTMENT PERSONNEL

TASKS	PERCENT MEMBERS PERFORMING (N=108)	
A0034	Scan artwork using flatbed scanners	87
A0004	Convert graphic file formats	82
C0065	Design layouts	77
A0006	Create graphics using 2-dimensional vector-based graphics programs	74
A0005	Create graphics using 2-dimensional raster-based graphics programs	73
A0017	Letter certificates using laser printers	72
A0027	Produce color paper hardcopies of visual images	70
D0105	Set up screens	70
A0022	Prepare electronic presentations	70
D0108	Set up or operate electronic presentations systems, such as video or data projectors or video or computer inputs	62
A0026	Produce color hardcopies using poster printers	62
C0053	Adhere artwork or photographs to graphics or matte boards	61
C0066	Determine graphic color schemes	61
D0103	Schedule use of presentations equipment	60
D0110	Set up or operate overhead projectors	60
D0104	Set up presentation facilities, such as positioning furniture, setting room temperature, or selecting lighting controls	59
C0064	Cut matte boards	59
A0028	Produce presentations using multimedia software	59
D0115	Straighten, align, or clean conference facilities	56
A0033	Scan artwork using film/slide scanners	56
C0085	Produce paper or parchment certificates or awards	56
C0054	Adhere emblems, symbols, copy bodies, titles, or drawings on graphics or masters	56
D0114	Set up or operate VTC equipment	56
D0109	Set up or operate monitors or TVs	54
C0063	Cut illustration boards, other than matte boards	52
A0025	Produce charts using plotters	52
D0093	Adjust lighting in presentation facilities	52
A0032	Retouch digitized images	51
A0023	Produce artwork using mouse or digitizing tablets	49
F0139	Shape foam core boards for graphic displays	47
C0060	Coordinate details of graphics work requests with users	46
D0113	Set up or operate videocassette players or recorders	46
D0102	Schedule presentation facilities	44

* Average Number of Tasks Performed - 47

TABLE 26

ASSIGNMENTS ACCOMPLISHED
BY FIRST-ENLISTMENT AFSC 3V0X1 PERSONNEL

ASSIGNMENTS ACCOMPLISHED	1ST ENL (N=108)
Posters or Fliers	86%
Certificates or Scrolls	80%
Designs, Display	79%
Designs, Logo	79%
Electronic Presentations	69%
Placecards or Nameplates, Electronic	69%
Maps	68%
Brochure Covers	66%
Electronic Imagings	60%
Interior Signs	59%
Graphs	58%
Matte Cuttings	55%
Illustrations, Design	52%
Designs, Form	51%
Publication Layouts, Electronic	44%
Status Boards or Charts	43%
Slide Layouts, 35mm Electronic	43%
Viewgraphs, Electronic	42%
Web Page Design	42%
Illustrations, Multimedia	35%
Restorations, Photograph	33%
*Other	32%
Digital Video	29%
Flip Charts	29%
Portraits	29%

*"Other" is comprised of the following entries added by 3V0X1 personnel based on assignment accomplished that were not included in the survey listing: Archiving, Digital or Hard Copy; Banners; Book Covers; Designs, Patch or Emblem; Photography, Digital; Interactive CCD Development; Invitations; Laminations; Macromedia Designs and Presentations; Mountings; Multimedia Productions; Video Conferencing, Scheduling or Facilitation.

TABLE 27

EQUIPMENT USED OR OPERATED
BY FIRST-ENLISTMENT AFSC 3V0X1 PERSONNEL

EQUIPMENT	1ST ENL (N=108)
Scanners, Flat-Bed, Color, or Black and White	91%
Printers, Laser	87%
Drives, Zip	81%
Printers, Ink-Jet	78%
Copiers, Color-Laser	76%
Xacto Knives or Scalpels	76%
Cutters, Paper	69%
Projectors, Overhead	67%
Plotters	58%
Printers, Poster	58%
Video Conferencing Equipment	58%
Recorders (VCRs), Videocassette	56%
Cutters, Matte	56%
Straightedges	56%
Cameras, Digital	54%
Scanners, 35mm	53%
Tables, Work	47%
Projectors, 35mm Slide	45%
T-Squares	44%
Tables, Light	43%
Laminators, Small-Format	41%
Cameras, Video	40%
Laminators, Large-Format	39%
Modems	38%
Projectors, Liquid Crystal Display (LCD)	35%
Tables, Drafting	34%

TABLE 28

ELECTRONIC IMAGING SOFTWARE USED
BY FIRST-ENLISTMENT AFSC 3V0X1 PERSONNEL

ELECTRONIC IMAGING SOFTWARE	1ST ENL (N=108)
Microsoft PowerPoint	98%
Adobe Photoshop	93%
Microsoft Word	92%
Microsoft Windows	89%
Corel Draw	90%
Clip Art	88%
Microsoft Outlook	76%
Microsoft Excel	65%
Adobe Illustrator	52%
Adobe Pagemaker	51%
Internet Access	42%
Microsoft Access	27%
Kai's Powertools	26%
Adobe Premiere	25%
Microsoft Front Page	23%
Adobe Pagemill	20%
Macromedia Director	12%
Macromedia Freehand	9%
Quark Xpress	9%
*Other	9%

*"Other" is comprised of the following entries added by 3V0X1 personnel based on electronic imaging software used that were not included in the survey listing: 3-D Studio Max; Adobe Acrobat; Adobe Dimensions; Adobe Framemaker; Adobe GoLive; Adobe Image Ready; Adobe InDesign; Adobe Streamline; Amorphium; Bryce 4; Corel Photo Paint; Crystal Impact Pro; Electric Image; Heuris MPEG Power Pro; JetForm Designer; Lightscape; Lightwave; MacCIDDs Mapping Program; Macromedia DreamWeaver; Macromedia Flash; Mayia; Metatools Canoma; Microsoft Photo Editor; Norton Utilities; Paint Shop Pro; Poser 3-D; Quick Time Player; Ray's Dream Studio; Shockwave; Specular Infini-D; Specular Logomotion; Terran Media Cleaner Pro; WinZip/PK Zip

TABLE 29

FUNDAMENTALS OF DRAWING USED
BY FIRST-ENLISTMENT AFSC 3V0X1 PERSONNEL

FUNDAMENTALS OF DRAWING	1ST ENL (N=108)
Design and Layout	67%
Color Theory	56%
Proportion	55%
Color Media	44%
Shading and Shadow	42%
Form	41%
Realistic	38%
Perspective, Linear	37%
Contour	32%
Perspective, Nonlinear	32%
*Other	7%

*"Other" is comprised of the following entries added by 3V0X1 personnel based on fundamentals of drawing used but not included in the survey listing: Balance; Freehand Portraits for Caricatures; Movement; Murals; Rhythm; Value.

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

TE and TD data are secondary factors that can assist technical school personnel in deciding which tasks should be emphasized in entry-level training. These ratings, based on the judgments of senior career ladder NCOs working at operational units in the field, are collected to provide training personnel with a rank-ordering of those tasks in the JI considered important for first-enlistment personnel training, along with a measure of the difficulty of the JI tasks. When combined with data on the percentages of first-enlistment personnel performing tasks, comparisons can be made to determine if training adjustments are necessary. For example, tasks receiving high ratings on both task factors (TE and TD), accompanied by moderate to high percentages performing, may warrant resident training. Those tasks receiving high task factor ratings but low percentages performing may be more appropriately planned for OJT programs within the career ladder. Low task factor ratings may highlight tasks best omitted from training for first-enlistment personnel, but this decision must be weighed against percentages of personnel performing the tasks, command concerns, and criticality of the tasks.

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

Table 30 presents tasks with the highest TE ratings for AFSC 3V0X1 first-enlistment airmen. For example, this table shows that TE raters reported tasks such as producing presentations using multimedia software and creating graphics using 2-dimensional vector-based graphics programs require a high degree of training emphasis. In general, tasks covering electronic imaging are given high TE ratings, and the data indicate that most airmen in their first job and within their first enlistment are performing these tasks.

Table 31 displays those tasks AFSC 3V0X1 raters judged to be the most difficult to learn to perform satisfactorily. This table shows that TD raters reported creating graphics using 3-dimensional rendering and animation programs and drawing freehand illustrations, such as cartoons, landscapes, or still-life drawings, to be among the most difficult tasks to learn to perform satisfactorily. The TD raters also indicated that tasks such as preparing interactive anatomical video presentations and drawing technical illustrations, other than medical illustrations, to have high task difficulty as well; however, due to the low numbers of first-job and first-enlistment members performing those tasks, they would be inappropriate for inclusion in a resident curriculum and are more appropriately taught as OJT items.

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

TABLE 30

TASKS RATED HIGHEST IN TRAINING EMPHASIS

TASKS	TNG EMP*	PERCENT MEMBERS PERFORMING			TSK DIF**
		1ST JOB (N=50)	1ST ENL (N=108)	1ST ENL (N=108)	
A0028	6.53	52	59	5.89	
A0006	6.50	74	74	5.61	
A0004	6.47	86	82	3.68	
A0005	6.41	74	73	5.45	
A0022	6.31	62	70	4.65	
A0023	6.16	50	49	4.89	
A0032	6.12	48	51	6.26	
C0065	6.06	84	77	5.96	
A0033	6.00	54	56	4.81	
C0066	5.94	64	61	5.81	
A0034	5.75	84	87	4.51	
D0100	5.62	36	43	5.65	
A0010	5.62	36	40	5.93	
C0060	5.25	42	46	4.26	
A0014	5.09	20	20	4.51	
C0088	5.06	42	46	4.81	
A0013	5.00	22	24	6.17	
A0027	4.78	64	70	3.49	
K0321	4.66	32	32	4.79	
K0324	4.66	24	26	4.84	
A0019	4.62	22	31	3.39	

* Mean TE Rating is 1.97, and Standard Deviation is 1.40 (High TE = 3.37)

** Average TD Rating is 5.00

TABLE 31

TASKS RATED HIGHEST IN TASK DIFFICULTY

TASKS	TSK DIF	PERCENT MEMBERS PERFORMING							TNG EMP
		1ST JOB (N=50)	1ST ENL (N=108)	3-SKL LVL (N=83)	5-SKL LVL (N=167)	7-SKL LVL (N=116)			
A0008	7.41	16	19	17	20	25		4.25	
E0124	7.40	0	1	1	2	2		1.31	
A0011	7.39	14	20	19	22	29		4.25	
C0068	7.23	22	23	24	21	33		4.22	
A0007	7.17	12	18	16	19	24		4.38	
E0116	7.12	0	0	1	4	3		1.16	
E0119	7.03	4	4	6	6	3		1.28	
E0120	7.01	2	3	5	2	1		0.62	
E0126	7.01	2	1	2	1	0		0.97	
E0122	7.00	0	3	5	2	2		1.03	
C0070	6.87	8	12	17	13	25		3.62	
E0123	6.85	0	2	4	3	2		1.34	
E0125	6.85	4	3	5	1	2		0.94	
H0253	6.83	0	0	2	5	11		0.41	
E0121	6.55	2	3	5	4	2		1.25	
E0118	6.49	4	6	8	8	3		1.31	
G0152	6.49	0	0	2	3	2		0.34	

* Mean TE Rating is 1.97, and Standard Deviation is 1.40 (High TE = 3.37)

** Average TD Rating is 5.00

Specialty Training Standard (STS)

A comprehensive review of the 3V0X1 STS elements within STS 3V0XX, dated June 1999, was performed by comparing STS elements to survey data. Subject-matter experts (SMEs) from the February 2000 Specialty Knowledge Test (SKT) team matched JI tasks to appropriate STS elements. (The STS elements containing general knowledge information, mandatory entries, subject-matter-knowledge-only requirements, or basic supervisory responsibilities were not examined.) Task knowledge and performance elements of the STS were compared against the standard set forth in AETCI 36-2601 and AFI 36-2623. Typically, STS elements that are matched to tasks with sufficiently high TE and TD ratings and are performed by at least 20 percent of personnel in appropriate skill-level groups, such as first-job (1-24 months' TAFMS) members and 3-skill level members, should be considered for inclusion in the STS. Likewise, elements matched to tasks with less than 20 percent performing in these groups should be considered for deletion from the STS.

Using this criterion, the 3V0X1 section of STS 3V0XX was found to be supported by occupational survey data. Overall, the STS captures the work performed by this career ladder as identified by the career ladder structure analysis of this AFSC. Although some elements did not have high percentages of personnel performing matched tasks, the fact that the supporting tasks were part of an identifiable job being performed in the career ladder supports the retention of the STS element involving those tasks.

Two elements of the 3V0X1 section of the 3V0XX STS were not supported by survey data and require review by training personnel. Table 32 lists the unsupported STS elements with 20 percent or fewer first-job, first-enlistment, and 3-skill level members performing. These tasks reflect low task performance percentages which necessitate evaluation to justify retention in the STS.

TABLE 32

STS ELEMENTS NOT SUPPORTED BY SURVEY DATA
(LESS THAN 20 PERCENT MEMBERS PERFORMING)

UNIT	LEARNING OBJECTIVE	3-SKL LVL	TNG EMP	PERCENT MEMBERS PERFORMING		
				1ST JOB	1ST ENL	3-SKL LVL
10.3.2.3.1.	<i>Video Capture</i>	2b				
Task	A0002. Capture video using video digitizing boards		2.88	8	10	11
15.8.3.	<i>Lettering</i>	2b				
Tasks	C0073. Letter materials, such as charts, posters, wood, plexiglas, or certificates, using freehand pen techniques		1.56	14	10	13
	C0074. Letter materials, such as charts, posters, wood, plexiglas, or certificates, using brush lettering		1.09	6	5	6
	C0075. Letter materials, such as charts, posters, wood, plexiglas, or certificates, using felt-tip markers		1.38	8	8	11

* Mean TE Rating = 1.97 Standard Deviation = 1.40 High TE = 3.37

JOB SATISFACTION ANALYSIS

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

Table 33 presents job satisfaction data for AFSC 3V0X1 TAFMS groups, together with TAFMS data for a comparative sample of Support career ladders surveyed in 1998, including 3N0X1 (Public Affairs), 3N0X2 (Radio and Television Broadcasting), and 3V0X2 (Still Photographic). First- and second-enlistment personnel indicated lower job interest, utilization of talents, utilization of training, and sense of accomplishment compared to the 1998 sample. The 1-48 months' TAFMS group rated their intentions to reenlist the same as the comparative sample's ratings, while the second-enlistment personnel indicated that their reenlistment intentions are slightly lower than the comparative sample. Career airmen rated job interest, utilization of talents, and sense of accomplishment higher than the comparative sample, but their reenlistment intentions were slightly lower than the 1998 Support career ladder ratings.

An indication of how job satisfaction perceptions have changed over time is provided in Table 34, where TAFMS data for the current survey respondents are compared to the 1997 survey respondents' perceptions. Utilization of talents, utilization of training, and sense of accomplishment have increased for the 1-48 months' TAFMS groups over the past 2 years while the same factors have decreased for the second-enlistment members. Reenlistment intentions are lower for all TAFMS groups compared to the 1997 survey.

In Table 35, a review of the job satisfaction ratings for the specialty clusters and jobs identified in this survey reveals high satisfaction ratings for all areas among the Visual Information members with the exception of the Presentations Job members' ratings for all factors. The members of the Computer Animation Job and the Resources Job appear to be the most satisfied with their jobs while the core of the career ladder (Visual Information Cluster) and members in the Management Job follow close behind with their high job interest, perceived utilization of talents and training, and sense of accomplishment.

TABLE 33

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

	1-48 MOS TAFMS		49-96 MOS TAFMS		97+ MOS TAFMS	
	2000 3V0X1 (N=108)	COMP SAMPLE* (N=249)	2000 3V0X1 (N=51)	COMP SAMPLE* (N=190)	2000 3V0X1 (N=145)	COMP SAMPLE* (N=383)
<u>EXPRESSED JOB INTEREST:</u>						
INTERESTING	71	77	75	80	84	81
SO-SO	14	13	12	10	8	12
DULL	15	10	13	10	8	7
<u>PERCEIVED UTILIZATION OF TALENTS:</u>						
FAIRLY WELL TO PERFECTLY	75	85	78	83	95	83
LITTLE OR NOT AT ALL	25	15	22	17	5	17
<u>PERCEIVED UTILIZATION OF TRAINING:</u>						
FAIRLY WELL TO PERFECTLY	77	87	69	85	80	81
LITTLE OR NOT AT ALL	23	13	31	15	20	19
<u>SENSE OF ACCOMPLISHMENT GAINED FROM WORK:</u>						
SATISFIED	71	74	63	72	81	73
NEUTRAL	17	10	12	12	5	9
DISSATISFIED	12	16	25	16	14	18
<u>REENLISTMENT INTENTIONS:</u>						
YES OR PROBABLY YES	47	47	53	56	66	72
NO OR PROBABLY NO	53	53	47	44	5	11
PLAN TO RETIRE	0	0	0	0	29	17

* Comparative sample of Support career ladders surveyed in 1998, including AFSCs 3N0X1, 3N0X2, and 3V0X2.

TABLE 34

COMPARISON OF CURRENT SURVEY AND 1997 TAFMS GROUPS
(PERCENT MEMBERS RESPONDING)

	1-48 MOS TAFMS		49-96 MOS TAFMS		97+ MOS TAFMS	
	2000 3V0X1 (N=108)	1997 3V0X1 (N=82)	2000 3V0X1 (N=51)	1997 3V0X1 (N=48)	2000 3V0X1 (N=145)	1997 3V0X1 (N=68)
<u>EXPRESSED JOB INTEREST:</u>						
INTERESTING	71	75	75	75	84	84
SO-SO	14	13	12	12	8	10
DULL	15	12	13	13	8	6
<u>PERCEIVED UTILIZATION OF TALENTS:</u>						
FAIRLY WELL TO PERFECTLY	75	68	78	82	95	81
LITTLE OR NOT AT ALL	25	32	22	18	5	19
<u>PERCEIVED UTILIZATION OF TRAINING:</u>						
FAIRLY WELL TO PERFECTLY	77	77	69	75	80	79
LITTLE OR NOT AT ALL	23	23	31	25	20	21
<u>SENSE OF ACCOMPLISHMENT GAINED FROM WORK:</u>						
SATISFIED	71	68	63	75	81	80
NEUTRAL	17	10	12	10	5	8
DISSATISFIED	12	22	25	15	14	12
<u>REENLISTMENT INTENTIONS:</u>						
YES OR PROBABLY YES	47	55	53	63	66	77
NO OR PROBABLY NO	53	45	47	35	5	6
PLAN TO RETIRE	0	0	0	2	29	17

TABLE 35

COMPARISON OF JOB SATISFACTION INDICATORS BY SPECIALTY CLUSTERS AND JOBS
(PERCENT MEMBERS RESPONDING)

Visual Information Cluster (STG020) (N=160)	Presentations Job (STG046) (N=22)	ANG Electronic Imaging Job (STG049) (N=9)	Computer Animation Job (STG033) (N=5)	Resources Job (STG030) (N=5)	Management Cluster (STG021) (N=131)
81	55	89	100	100	85
10	14	0	0	0	10
9	31	11	0	0	5
86	50	77	100	80	89
14	50	23	0	20	11
83	50	78	40	80	82
17	50	22	60	20	18
76	36	78	100	100	84
8	32	11	0	0	6
16	32	11	0	0	10

EXPRESSED JOB INTEREST:

INTERESTING
SO-SO
DULL

PERCEIVED UTILIZATION OF TALENTS:

FAIRLY WELL TO PERFECTLY
LITTLE OR NOT AT ALL

PERCEIVED UTILIZATION OF TRAINING:

FAIRLY WELL TO PERFECTLY
LITTLE OR NOT AT ALL

SENSE OF ACCOMPLISHMENT GAINED FROM WORK:

SATISFIED
NEUTRAL
DISSATISFIED

IMPLICATIONS

This survey was initiated to provide current job and task data for use in evaluating the AFMAN 36-2108 *Specialty Description* and appropriate training documents. Survey results clearly indicate that the present classification structure, as described in the latest specialty description, accurately portrays the jobs performed in this career ladder.

The survey data indicate that the career ladder training documents are well supported although some adjustments may be warranted as discussed in the STS analysis section of this report. In addition, comments received from the survey respondents concerning training at Ft Meade MD indicated that training in the latest software programs is needed to keep up with the rapidly advancing technology in the computer graphics arena.

The career ladder progression for the total sample is typical with the move from technical work at the 3- and 5-skill levels to supervisory and management tasks at the 7- skill level. The 7-skill level members are still spending the majority of their time performing tasks that are technical in nature, but they are also spending 26 percent of their time performing management and supervisory activities. The ANG members are performing more technical tasks as they progress from the 5-skill level to the 7-skill level although the career ladder progression for these members is still typical.

Overall, job satisfaction is higher for career airmen but lower for first- and second-enlistment members compared to the sample of like Support AFSCs surveyed in 1998. The 49-96 months' TAFMS group members in this sample are also less satisfied compared to the same TAFMS group in the 1997 study. Reenlistment intentions are lower for all TAFMS groups compared to the members in the previous study.

APPENDIX A
SELECTED REPRESENTATIVE TASKS PERFORMED
BY SPECIALTY JOB GROUPS

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TABLE A1
VISUAL INFORMATION CLUSTER (STG020)

REPRESENTATIVE TASKS	PERCENT MEMBERS PERFORMING (N=160)	
A0034	Scan artwork using flatbed scanners	96
A0004	Convert graphic file formats	92
C0065	Design layouts	89
A0017	Letter certificates using laser printers	86
A0006	Create graphics using 2-dimensional vector-based graphics programs	83
A0005	Create graphics using 2-dimensional raster-based graphics programs	83
A0027	Produce color paper hardcopies of visual images	80
C0066	Determine graphic color schemes	78
C0053	Adhere artwork or photographs to graphics or matte boards	76
A0022	Prepare electronic presentations	76
C0085	Produce paper or parchment certificates or awards	72
A0023	Produce artwork using mouse or digitizing tablets	69
A0033	Scan artwork using film/slide scanners	69
A0026	Produce color hardcopies using poster printers	68
C0054	Adhere emblems, symbols, copy bodies, titles, or drawings on graphics or masters	68
C0088	Proofread final graphics	67
A0024	Produce black and white paper masters	67
A0032	Retouch digitized images	66
C0064	Cut matte boards	65
C0063	Cut illustration boards, other than matte boards	63
C0060	Coordinate details of graphics work requests with users	61
C0071	Dry mount graphic products	61
A0028	Produce presentations using multimedia software	59
D0105	Set up screens	55
C0079	Produce cardstock place cards	53
C0076	Maintain completed artwork or masters files	52
D0108	Set up or operate electronic presentations systems, such as video or data projectors or video or computer inputs	52
A0031	Produce viewgraphs using color printers	51
A0025	Produce charts using plotters	49
A0010	Design and produce imagery for web pages	49
D0114	Set up or operate VTC equipment	48
A0019	Maintain electronic imaging system backup files	48
F0139	Shape foam core boards for graphic displays	47
D0103	Schedule use of presentations equipment	44
C0086	Produce rough sketches, such as thumbnail or preliminary sketches	44
D0115	Straighten, align, or clean conference facilities	43

TABLE A2

PRESENTATIONS JOB (STG046)

REPRESENTATIVE TASKS		PERCENT MEMBERS PERFORMING (N=22)
D0105	Set up screens	100
D0104	Set up presentation facilities, such as positioning furniture, setting room temperature, or selecting lighting controls	95
D0108	Set up or operate electronic presentations systems, such as video or data projectors or video or computer inputs	95
D0110	Set up or operate overhead projectors	95
D0115	Straighten, align, or clean conference facilities	91
D0093	Adjust lighting in presentation facilities	91
D0109	Set up or operate monitors or TVs	91
D0102	Schedule presentation facilities	86
D0103	Schedule use of presentations equipment	86
D0113	Set up or operate videocassette players or recorders	86
D0106	Set up or operate 35mm slide projectors	82
D0111	Set up or operate sound or slide projectors, other than 35mm slide projectors	68
D0107	Set up or operate audio recording devices	59
A0022	Prepare electronic presentations	55
K0320	Perform operational checks of VI equipment	50
D0112	Set up or operate video cameras	50
K0322	Perform operator-level troubleshooting of VI equipment	45
K0309	Identify and report equipment or supply problems	45
A0034	Scan artwork using flatbed scanners	45
A0004	Convert graphic file formats	45
K0321	Perform operator-level maintenance of VI equipment	41
K0323	Perform periodic inspections of VI equipment	41
D0114	Set up or operate VTC equipment	41
A0028	Produce presentations using multimedia software	36
D0094	Coordinate availability of video teleconferencing (VTC) satellite times with appropriate agencies	36
D0100	Produce multimedia presentations using electronic imaging systems	23

TABLE A3

AIR NATIONAL GUARD ELECTRONIC IMAGING JOB (STG049)

REPRESENTATIVE TASKS		PERCENT MEMBERS PERFORMING (N=9)
A0004	Convert graphic file formats	100
A0005	Create graphics using 2-dimensional raster-based graphics programs	100
A0006	Create graphics using 2-dimensional vector-based graphics programs	100
A0032	Retouch digitized images	89
C0065	Design layouts	89
A0034	Scan artwork using flatbed scanners	89
A0023	Produce artwork using mouse or digitizing tablets	56
A0010	Design and produce imagery for web pages	44
A0027	Produce color paper hardcopies of visual images	44
A0033	Scan artwork using film/slide scanners	44
D0109	Set up or operate monitors or TVs	44
A0013	Develop web pages using programs, such as Microsoft Front Page	33
C0066	Determine graphic color schemes	33
A0028	Produce presentations using multimedia software	33
C0084	Produce graphs, such as bar, graduated, or line	33
C0053	Adhere artwork or photographs to graphics or matte boards	33
D0110	Set up or operate overhead projectors	33
A0021	Photograph artwork	22
C0088	Proofread final graphics	22
A0011	Develop animations using electronic imaging systems	22
D0112	Set up or operate video cameras	22
F0139	Shape foam core boards for graphic displays	22
C0054	Adhere emblems, symbols, copy bodies, titles, or drawings on graphics or masters	22
C0060	Coordinate details of graphics work requests with users	22
A0022	Prepare electronic presentations	22
C0068	Draw freehand illustrations, such as cartoons, landscapes, or still life drawings	11
A0031	Produce viewgraphs using color printers	11

TABLE A4

COMPUTER ANIMATION JOB (STG033)

REPRESENTATIVE TASKS		PERCENT MEMBERS PERFORMING (N=5)
A0011	Develop animations using electronic imaging systems	100
A0008	Create graphics using 3-dimensional rendering and animation programs	100
A0007	Create graphics using 3-dimensional modeling programs	100
A0006	Create graphics using 2-dimensional vector-based graphics programs	100
A0004	Convert graphic file formats	100
A0005	Create graphics using 2-dimensional raster-based graphics programs	100
A0023	Produce artwork using mouse or digitizing tablets	80
D0097	Determine TV graphics size requirements	80
A0002	Capture video using video digitizing boards	80
D0095	Coordinate graphic requirements with television (TV) writers or directors	60
C0066	Determine graphic color schemes	60
A0022	Prepare electronic presentations	60
H0238	Participate in general meetings, such as staff meetings, briefings, conferences, or workshops, other than conducting	60
C0065	Design layouts	60
A0032	Retouch digitized images	60
A0010	Design and produce imagery for web pages	60
D0100	Produce multimedia presentations using electronic imaging systems	40
A0028	Produce presentations using multimedia software	40
H0229	Evaluate workload requirements	40
H0200	Develop or establish work schedules	40
C0082	Produce comprehensive drawings	40
H0246	Plan or schedule work assignments or priorities	40
H0202	Direct electronic imaging activities	40
K0307	Develop equipment checklists	40
H0245	Plan self-inspection or self-assessment programs	40
H0234	Inspect personnel for compliance with military standards	40
C0070	Draw technical illustrations, other than medical illustrations	40
C0054	Adhere emblems, symbols, copy bodies, titles, or drawings on graphics or masters	40
H0184	Assign personnel to work areas or duty positions	20

TABLE A5
RESOURCES JOB (STG030)

REPRESENTATIVE TASKS	PERCENT MEMBERS PERFORMING (N=5)	
K0322	Perform operator-level troubleshooting of VI equipment	100
K0321	Perform operator-level maintenance of VI equipment	100
A0034	Scan artwork using flatbed scanners	100
A0003	Conduct operator maintenance of electronic imaging system hardware	80
A0015	Evaluate electronic imaging system hardware	80
A0019	Maintain electronic imaging system backup files	80
K0324	Perform preventive maintenance of VI equipment, such as cleaning or lubricating	80
K0323	Perform periodic inspections of VI equipment	80
K0308	Evaluate serviceability of equipment, tools, parts, or supplies	80
H0193	Coordinate purchases of electronic imaging equipment with appropriate agencies	80
K0326	Schedule VI equipment for inspection, cleaning, or preventive maintenance	80
A0006	Create graphics using 2-dimensional vector-based graphics programs	80
K0325	Pick up, deliver, or store equipment, tools, parts, or supplies	80
K0309	Identify and report equipment or supply problems	80
K0320	Perform operational checks of VI equipment	80
A0016	Evaluate electronic imaging system software	80
H0238	Participate in general meetings, such as staff meetings, briefings, conferences, or workshops, other than conducting	80
A0004	Convert graphic file formats	80
A0017	Letter certificates using laser printers	80
A0033	Scan artwork using film/slide scanners	80
C0060	Coordinate details of graphics work requests with users	60
H0221	Evaluate logistics requirements, such as personnel, equipment, tools, parts, supplies, or workspace	60
K0305	Coordinate maintenance of equipment with appropriate agencies, other than contract maintenance	60
K0314	Inventory equipment, tools, parts, or supplies, other than VI projection equipment	60
A0005	Create graphics using 2-dimensional raster-based graphics programs	60
K0304	Coordinate contract maintenance of visual information (VI) equipment with supply activities or contractors	60
C0066	Determine graphic color schemes	60
A0028	Produce presentations using multimedia software	60
C0053	Adhere artwork or photographs to graphics or matte boards	60
A0010	Design and produce imagery for web pages	60
C0064	Cut matte boards	60
D0100	Produce multimedia presentations using electronic imaging systems	60
A0032	Retouch digitized images	60
A0020	Maintain internal electronic imaging system files	40
C0076	Maintain completed artwork or masters files	40
C0065	Design layouts	40
H0222	Evaluate maintenance or utilization of equipment, tools, parts, supplies, or workspace	40

TABLE A6
MANAGEMENT CLUSTER (STG021)

REPRESENTATIVE TASKS	PERCENT MEMBERS PERFORMING (N=131)	
A0004	Convert graphic file formats	86
H0199	Develop or establish work methods or procedures	85
H0238	Participate in general meetings, such as staff meetings, briefings, conferences, or workshops, other than conducting	84
A0034	Scan artwork using flatbed scanners	82
H0200	Develop or establish work schedules	82
A0022	Prepare electronic presentations	80
K0322	Perform operator-level troubleshooting of VI equipment	79
I0262	Conduct on-the-job-training (OJT)	79
I0264	Counsel trainees on training progress	77
C0065	Design layouts	76
A0006	Create graphics using 2-dimensional vector-based graphics programs	76
K0321	Perform operator-level maintenance of VI equipment	76
H0194	Counsel subordinates concerning personal matters	76
H0204	Direct training activities	76
H0212	Establish performance standards for subordinates	76
K0320	Perform operational checks of VI equipment	76
H0224	Evaluate personnel for compliance with performance standards	74
H0191	Conduct supervisory performance feedback sessions	74
H0228	Evaluate work schedules	74
I0271	Evaluate personnel to determine training needs	73
H0234	Inspect personnel for compliance with military standards	73
A0005	Create graphics using 2-dimensional raster-based graphics programs	72
H0186	Conduct general meetings, such as staff meetings, briefings, conferences, or workshops	72
H0235	Interpret policies, directives, or procedures for subordinates	72
H0213	Establish procedures for accountability of equipment, tools, parts, or supplies	71
H0203	Direct presentations support activities	70
I0272	Evaluate progress of trainees	70
H0229	Evaluate workload requirements	70
H0256	Write recommendations for awards or decorations	70
A0017	Letter certificates using laser printers	70
I0275	Maintain training records or files	69
H0246	Plan or schedule work assignments or priorities	68
K0323	Perform periodic inspections of VI equipment	68
H0184	Assign personnel to work areas or duty positions	66
H0202	Direct electronic imaging activities	66
A0027	Produce color paper hardcopies of visual images	66
A0028	Produce presentations using multimedia software	66
H0225	Evaluate personnel for promotion, demotion, reclassification, or special awards	66
K0309	Identify and report equipment or supply problems	66
C0053	Adhere artwork or photographs to graphics or matte boards	66
K0308	Evaluate serviceability of equipment, tools, parts, or supplies	66
H0219	Evaluate job-related suggestions	66
C0066	Determine graphic color schemes	65