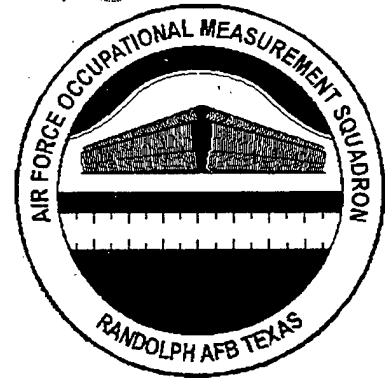




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UNITED STATES AIR FORCE

OCCUPATIONAL SURVEY REPORT

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ENVIRONMENTAL

AFSC 3E4X3

OSSN 2275

AUGUST 1997

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OCCUPATIONAL MEASUREMENT SQUADRON
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 AFSC 3E4X3 Environmental career ladder. Authority to conduct occupational surveys is contained in AFI 36-2623. Computer products used in this report are available for use by operations and training officials. Copies of this report and pertinent computer printouts are distributed to the Air Force Functional Manager, the operations training location, all major using commands, and other interested operations and training officials.

Ms. Kimberly G. Williams, Inventory Development Specialist, developed the survey instrument. Mr. James T. "Tom" Duffy, Occupational Analyst, analyzed the data and wrote the final report. Mrs. Rebecca R. Hernandez provided computer programming support, while Senior Airman Therese A. Cofer provided administrative support. Lieutenant Colonel Roger W. Barnes, Chief, Airman Analysis Section, Occupational Analysis Flight, Air Force Occupational Measurement Squadron (AFOMS), reviewed and approved this report for release.

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 AFB 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>.

GEORGE KAILIWAI III, Lt Col, USAF
Commander
Air Force Occupational Measurement Squadron

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

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SUMMARY OF RESULTS

1. **Survey Coverage:** The AFSC 3E4X3 Environmental career ladder was surveyed to identify current task performance and to validate training requirements. Survey results are based on responses from 240 AFSC 3E4X3 personnel (74 percent of the assigned population). Skill levels and paygrades were well represented.
2. **Career Ladder Structure:** Structure analysis identified two clusters and one job: General Pest Control Cluster, Hazardous Materials/Waste Supervisory job, and Environmental Cluster.
3. **Career Ladder Progression:** After completion of AFSC 3E4X3 basic resident course, career field personnel follow a somewhat different than normal career progression pattern. Survey data indicates that 3- and 5-skill level members perform little if any tasks pertaining to hazardous material/waste. The core of their job performance centers around pest management. Career ladder progression is typical within the pest management arena as personnel progress through the career ladder in a normal manner. However, the 7-skill level is equally divided between pest management and hazardous material/waste jobs.
4. **Training Analysis:** Matching survey data to the AFSC 3E4X3 Specialty Training Standard (STS), and Plan of Instruction (POI) J3ABR3E433-001 revealed that both documents are well supported by career ladder personnel. Survey data indicated that 15 performance coded items in the STS did not meet the 20 percent performing criteria, but all performance level criterion objectives in the POI satisfy or exceed the 30 percent performing requirement.
5. **Job Satisfaction Analysis:** Overall, AFSC 3E4X3 members appear quite satisfied with their jobs. However, one serious job satisfaction problem surfaced during the analysis of job satisfaction within the career ladder. The members of the Hazardous Materials/Waste Supervisory Job indicated a very low (only 20 percent) perception of use of training.
6. **Implications:** Training personnel and career ladder managers should review the AFSC 3E4X3 STS for those performance coded items that are not supported by survey data to see if they warrant deletion from the STS. Career ladder managers should review the job satisfaction data to determine if the low perception of training indication from Hazardous Materials/Waste Supervisory Job members can be improved upon.

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**OCCUPATIONAL SURVEY REPORT (OSR)
ENVIRONMENTAL CAREER LADDER
(AFSC 3E4X3)**

INTRODUCTION

This is an Air Force Occupational Measurement Squadron (AFOMS) OSR of the Environmental career ladder (AFSC 3E4X3). This survey will validate training requirements and verify changes within the career ladder. AFSC 3E4X3 personnel were last surveyed in 1986 (then AFSC 566X0, Pest Management). The specialty description for AFSC 3E4X3 was revised to retitle the specialty from Pest Management to Environmental effective 31 Oct 94. Environmental tasks and functions within AFSCs 3E1X1, 3E2X1, 3E3X1, 3E4X1, 3E5X1, 3E6X1, and 3E7X1 were merged into AFSC 3E4X3.

Background

According to the specialty descriptions in *AFSC 3E4X3 Career Field Education and Training Plan*, 3-(Apprentice), 5-(Journeyman), and 7-(Craftsman) skill level personnel evaluate, execute, and manage environmental compliance, hazardous materials and waste operations, pollution prevention, and pest management. Members perform integrated pest management functions by: conducting pest management surveys, determining appropriate pest management actions to control and prevent infestation of plant and animal pests, interacting with medical activities to control health hazards, and selecting chemicals and operating pesticide dispersal equipment. They also provide guidance and oversight for programs such as environmental compliance, conservation and pollution prevention by initiating, maintaining, and monitoring environmental permits, conducting customer orientation and training courses, and providing technical expertise in emergency hazardous material response actions.

Initial 3-skill level training for AFSC 3E4X3 personnel is provided through a 5-week course at Sheppard AFB TX. The Environmental Apprentice Course, J3ABR3E433-001, covers procedures for identifying, surveying for, and controlling disease-vectoring pests, venomous arthropods and reptiles, stored products pests, structural pests, ornamental and turf pests, household pests, vertebrate pests, bird pests, and weeds. Also, it includes training on the pest management laws and regulations, civil engineering structure and management, formulation of chemicals, operation of pesticide dispersal equipment, and pest management safety.

Entry into this career ladder requires a General Armed Forces Vocational Aptitude Test Battery (ASVAB) score of at least 39. In addition, they must meet or exceed the Strength and Stamina Requirement of "J" (lifting a weight of 60 lbs).

SURVEY METHODOLOGY

Inventory Development

The data collection instrument for this occupational survey was USAF Job Inventory (JI), OSSN 2275, dated September 1996. A tentative task list was prepared after reviewing pertinent career ladder publications and directives and tasks from previous applicable OSRs. The preliminary task list was refined and validated through personal interviews with 21 subject-matter experts (SME) at the following locations:

<u>BASE</u>	<u>REASON FOR VISIT</u>
Sheppard AFB TX	Technical Training School
Hurlburt Field FL	Hazardous Materials Pharmacy
Eglin AFB FL	Pest Management
Tyndall AFB FL	Pest Management
Travis AFB CA	California Environmental Regulations
Nellis AFB NV	Pest Management, Mobility, Prime Beef

Other contacts included Air Force functional and resource managers and the career field training manager. The resulting JI contained a comprehensive listing of 623 tasks grouped under 21 duty headings, with a background section requesting the following information: organizational level, number of civilian personnel assigned to the shop, number of military assigned to the shop, status of immediate supervisor, job title, functional work area, location of geographic area in, number of hours performing airfield bird control, DOD pest control certification, state pest control certification, number of days deployed performing pest management duties, number of days deployed performing environmental duties, number of mobility exercises participated in during the last 12 months, contingency team or mobile operation assigned to, equipment used or operated, safety equipment used, pesticides used, and forms used. Also requested was information on grade, time in present job, time in service, time in career field, and job satisfaction indicators.

Survey Administration

From November 1996 through March 1997, Military Personnel Flights at operational bases worldwide administered the inventory to all eligible DAFSC 3E4X3 personnel. Members eligible for the survey consisted of the total assigned 3-, 5-, and 7-skill level population, excluding the following: (1) hospitalized personnel; (2) personnel in transition for a permanent change of station; (3) personnel retiring within the time the inventories were administered to the field; and (4) personnel in their jobs less than 6 weeks. Military participants were selected from a computer-generated mailing list obtained from personnel data tapes maintained by AFPC, Randolph AFB TX.

Each individual who completed the inventory first filled in an identification and biographical information section and then checked each task performed in his or her current job. After checking tasks performed, each individual rated the tasks checked on a 9-point scale showing relative time spent on that task, compared to other tasks performed. The ratings ranged from 1 (very small amount time spent) to 9 (very large amount time spent).

To determine relative time spent for each task, all of the incumbent's ratings are assumed to account for 100 percent of 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 spent on each task.

Survey Sample

Personnel were selected to participate in this study so as to ensure an accurate representation across skill levels and paygrades. Table 1 reflects the MAJCOM representation in the survey sample. Table 2 reflects the survey distribution by paygrade groups. As shown by both tables, the survey sample accurately reflects the overall populations of each career ladder.

TABLE 1

MAJCOM REPRESENTATION OF TOTAL SAMPLE

<u>COMMAND</u>	<u>PERCENT OF ASSIGNED</u>	<u>PERCENT OF SAMPLE</u>
AETC	11	14
ACC	24	23
AFMC	13	11
AMC	20	18
PACAF	13	14
USAFE	8	8
AFSOC	2	3
AFSPACE	8	9
OTHER	1	0

TOTAL ASSIGNED	326
TOTAL ELIGIBLE	302
TOTAL IN SAMPLE	240
PERCENT OF ASSIGNED IN SAMPLE	74
PERCENT OF ELIGIBLE IN SAMPLE	79

* OTHER INCLUDES: USAFA, AFDW, and AIA

TABLE 2

PAYGRADE DISTRIBUTION OF TOTAL SAMPLE

<u>PAYGRADE</u>	<u>PERCENT OF ASSIGNED</u>	<u>PERCENT OF SAMPLE</u>
E-1 to E-4	43	45
E-5	29	28
E-6	14	13
E-7	13	13
E-8	*	0
E-9	*	*

* Indicates less than 1%

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 3E4X3 personnel (generally E-6 or E-7 craftsmen) also completed a second booklet for either training emphasis (TE) or task difficulty (TD). The TE and TD booklets were processed separately from the JIs. This information is used in a number of analyses discussed in more detail within this report.

Training Emphasis (TE). Training emphasis is defined as the degree of emphasis that should be placed on each task for structured training of first-enlistment personnel. Structured training is defined as resident technical schools, field training detachments, mobile training teams, formal on-the-job training (OJT), or any other organized training method. Twenty-four experienced AFSC 3E4X3 NCOs rated the tasks in the inventory on a 10-point scale ranging from 0 (no training required) to 9 (extremely high training emphasis). Overall agreement among the raters was acceptable. The average TE rating for this study is 2.52, with a standard deviation of 1.71. Tasks with a TE rating of 4.23 or greater are considered important to train new AFSC 3E4X3 personnel to perform.

Task Difficulty (TD). Task difficulty is defined as the amount of time needed to learn to perform each task satisfactorily. Twenty-three experienced AFSC 3E4X3 supervisors rated the difficulty of the tasks in the inventory using a 9-point scale ranging from 1 (extremely low difficulty) to 9 (extremely high difficulty). Interrater agreement among these respondents was satisfactory. TD ratings are normally adjusted so tasks of average difficulty have a value of 5.00 and a standard deviation of 1.00. Any task with a difficulty of 6.00 or greater is considered to be difficult to learn.

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

SPECIALTY JOBS (Career Ladder Structure)

The first step in the analysis process is to identify the structure of career ladders in terms of the jobs performed by the respondents. The Comprehensive Occupational Data Analysis Programs (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 job structure resulting from this grouping process (the various jobs within the career ladder) can be used to evaluate the changes that have occurred in the AFSC since the merger in 1994. The above terminology will be used in the discussion of the AFSC 3E4X3 career ladder.

Overview of Specialty Jobs

Based on the analysis of tasks performed and the amount of time spent performing each task, two clusters and one job were identified within the surveyed career ladder. Figure 1 illustrates the jobs performed by AFSC 3E4X3 personnel.

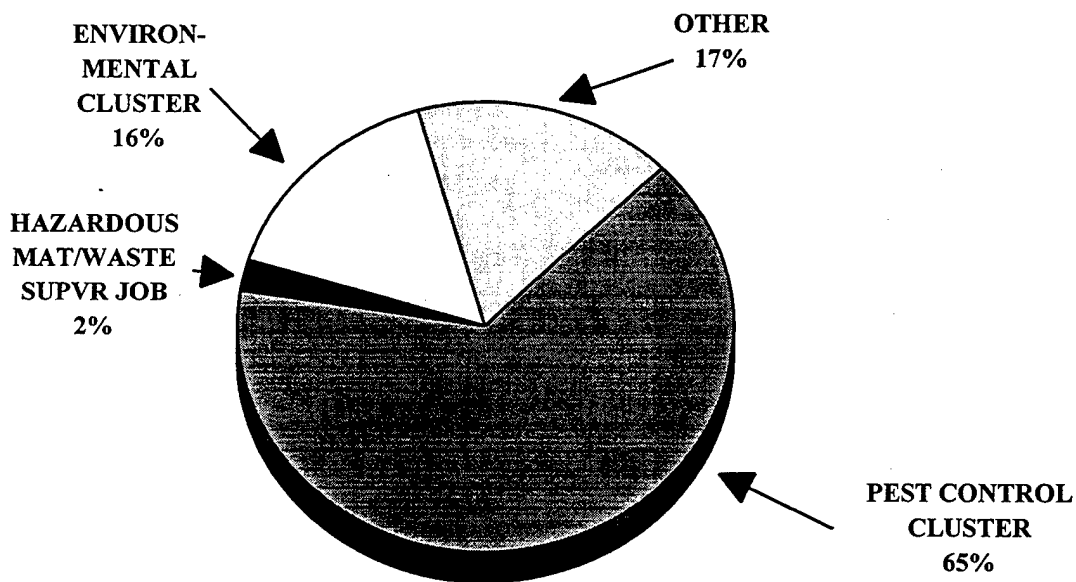


Figure 1. Identifies job structure and percentages of total survey sample.

A listing of these job clusters and independent jobs is provided below. The stage (STG) number shown beside each title references computer-printed information, while the letter "N" represents the number of personnel in each group.

- I. PEST CONTROL CLUSTER (STG28, N=156)
 - A. Termite Control
 - B. Pest Management Supervisor
- II. HAZARDOUS MATERIALS/WASTE SUPERVISORY JOB (STG26, N=5)
- III. ENVIRONMENTAL CLUSTER (STG10, N=38)
 - A. HW NCOIC
 - B. Hazardous Waste

The respondents forming these groups account for 83 percent of the survey sample. The remaining 17 percent were performing tasks which did not group with any of the other defined jobs. Some of the job titles given by respondents which were representative of these personnel include: Quality Advisor, Chief Horizontal Repair, and Installation Restoration.

Group Descriptions

The following paragraphs contain brief descriptions of the two clusters and one job identified through the career ladder structure analysis. Appendix A lists representative tasks performed by identified cluster and job groups. Table 3 displays time spent on duties, while Table 4 provides demographic information for each cluster and job discussed within this report.

Another way to illustrate these jobs is to summarize tasks performed into groups of tasks (task modules (TM)). This allows for a very concise display of where job incumbents spend most of their time and develops a comprehensive overview of each job. Each job/cluster description contains a display of related TMs. This display shows the number of tasks included in a module, the average percent time spent on that module, and an average percent of members performing the particular TM. These modules were identified through CODAP copformance clustering, which calculates the probability that members who perform one task will also perform a second task or group of related tasks. Representative TMs are listed as part of the job description. The list of modules with respective tasks is presented in Appendix B.

TABLE 3

AVERAGE PERCENT TIME SPENT ON DUTIES BY CAREER LADDER JOBS

DUTIES	PEST CONTROL CLUSTER (STG28)	HAZARDOUS MATERIALS/		ENVIRON- MENTAL CLUSTER (STG10)
		WASTE SUPVR JOB (STG26)		
A PERFORMING GENERAL PEST MANAGEMENT ACTIVITIES	13	*	2	
B PERFORMING PEST CONTROL SURVEY ACTIVITIES	12	0	*	
C PERFORMING PEST MANAGEMENT AND HANDLING ACTIVITIES	18	*	*	
D PERFORMING TERMITE CONTROL ACTIVITIES	3	0	*	
E PERFORMING INSECT OR ARTHROPOD CONTROL ACTIVITIES	6	*	*	
F PERFORMING VERTEBRATE OR REPTILE CONTROL ACTIVITIES	5	0	*	
G PERFORMING MOLLUSK OR MOLD CONTROL ACTIVITIES	*	0	0	
H PERFORMING FUMIGATION ACTIVITIES	*	0	0	
I PERFORMING VEGETATION CONTROL ACTIVITIES	2	0	*	
J PERFORMING QUARANTINE ACTIVITIES	*	0	0	
K PERFORMING EQUIPMENT MAINTENANCE FACILITIES	14	*	1	
L PERFORMING POLLUTION PREVENTION ACTIVITIES	1	2	5	
M PERFORMING HAZARDOUS MATERIALS ACTIVITIES	1	7	7	
N PERFORMING HAZARDOUS WASTE ACTIVITIES	1	6	22	
O PERFORMING ENVIRONMENTAL COMPLIANCE ACTIVITIES	*	2	10	
P PERFORMING MOBILITY AND CONTINGENCY ACTIVITIES	6	*	11	
Q PERFORMING PRIME BASE ENGINEERING FORCE (PRIME BEEF) ACTIVITIES	1	0	3	
R PERFORMING MANAGEMENT AND SUPERVISORY ACTIVITIES	10	54	24	
S PERFORMING TRAINING ACTIVITIES	3	20	5	
T PERFORMING GENERAL ADMINISTRATIVE ACTIVITIES	2	5	5	
U PERFORMING GENERAL SUPPLY AND EQUIPMENT ACTIVITIES	3	3	4	

* Indicates less than 1%

I. PEST CONTROL CLUSTER (STG28). The 156 members of this cluster represent 65 percent of the total survey sample. This is the largest cluster in the sample survey and represents the core work of the Environmental career ladder. Personnel within the Pest Control Cluster spend nearly 57 percent of their time performing pest management and handling, equipment maintenance, general pest management, and pest control survey tasks (see Table 3). To illustrate the deep division between the members of the Pest Control Cluster and the Environmental Cluster, personnel in this cluster indicate they spend less than 3 percent of their time on tasks pertaining to hazardous materials/waste activities. On average, Pest Control Cluster members perform 179 tasks.

PEST CONTROL CLUSTER	
Number of members	156
Percent of total sample	65%
Average number of tasks performed	179
Average time in present job	3.5 yrs
Average time in career field	6.6 yrs
Average TAFMS	8 yrs
Predominant paygrades	E-4/E-5

Representative tasks for this cluster include:

- inspect personal safety equipment
- clean, wash, and dry personal safety equipment
- load or unload pesticides on or off vehicles
- identify household pests, such as ants, crickets, or cockroaches
- transport pesticides
- inventory pesticides
- conduct surveys for household pests, such as ants, crickets, or cockroaches

Representative TMs for this cluster include:

TM	Module Title	No. of Tasks	Percent Time Spent	Percent Members Performing
0001	General Household Pest Management	40	27	92
0002	Personal Safety Equipment	4	3	85
0003	Periodic Maintenance Scheduler	4	2	68
0004	Sprayer Maintenance	10	4	69

This data shows the emphasis of this job is on Pest Control functions. The majority of members (92 percent) in the Pest Control Cluster indicate they spend 27 percent of their time performing tasks in the General Household Pest Management TM.

Respondents in this cluster have an average time of over 6 years in the AFSC 3E4X3 career ladder and average almost 8 years Total Active Federal Military Service (TAFMS). They have an average paygrade of E-4 and the majority (58 percent) hold the 5-skill level (see Table 4).

Two jobs were identified in the Pest Control Cluster. These are: Termite Control Job and Pest Management Supervisor Job. Although most of the members of this cluster indicated they perform tasks pertaining to general household pest management, these jobs warrant discussion on their own. A description of each of the two jobs are as follows:

A. Termite Control Job (STG87, N=6). Members of this job perform an average of 82 tasks and were the only group in the sample survey that indicated performing tasks pertaining to controlling termites. With an average paygrade of E-3 and less than 2 years in the career field, this job is performed by the most junior members in the survey sample. Eighty-three percent are 3-skill level and 17 percent hold the 5-skill level AFSC.

Representative tasks performed by this job are:

- clean up after termite control operations
- apply termiticides using subslab injectors
- drill concrete slabs or building foundations using roto-hammers
- patch holes in concrete slabs or building foundations
- dig trenches for termite control

B. Pest Management Supervisor Job (STG46, N=5). The 5 members of this job indicate they spend 24 percent of their time performing supervisory tasks. Along with supervisory tasks, these personnel are also performing tasks related to general pest management, pest management and handling, and training activities. With an average paygrade of E-5, these members have over 5 years in the career ladder. They perform an average of 105 tasks.

TABLE 4

SELECTED BACKGROUND DATA FOR CAREER LADDER JOBS

	PEST CONTROL CLUSTER (STG28)	HAZARDOUS MATERIALS/ WASTE SUPERVISORY JOB (STG26)	ENVIRONMENTAL CLUSTER (STG10)
TOTAL NUMBER IN GROUP	156	5	39
<u>DAFSC DISTRIBUTION</u>			
3E433	26%	0	0%
3E453	58%	0	26%
3E473	16%	100%	74%
<u>PAYGRADE DISTRIBUTION</u>			
E-1 TO E-4	56%	0	8%
E-5	29%	40%	29%
E-6	12%	0	26%
E-7	3%	40%	37%
E-8	0%	20%	0%
AVERAGE NUMBER OF TASKS PERFORMED	179	52	81
AVERAGE MONTHS TAFMS	94	207	187
PERCENT IN FIRST ENLISTMENT	34	0	0

Representative tasks for this job include:

- evaluate extent of pest infestations
- assign personnel to work areas or duty positions
- conduct OJT
- counsel subordinates concerning personnel
- direct handling, transportation, or storing of pesticides matters
- supervise military personnel
- write performance reports or supervisory appraisals
- inspect personnel for compliance with military standards

II. HAZARDOUS MATERIALS/WASTE SUPERVISORY JOB (STG26). The 5 members of this job also spend the majority of their time (54 percent) performing tasks pertaining to supervisory functions, but unlike their Pest Management Supervisor counterparts, they perform in the hazardous materials/waste arena. While spending an additional 13 percent of their time performing tasks related to hazardous materials/waste, they indicate spending only 2 percent of their time performing tasks having to do with Pest Management. Members in this job represent 2 percent of the total survey sample. Table 3 shows the predominate paygrades are E-5 and E-7 (40 percent each). Incumbents in this cluster perform an average of 52 tasks.

HAZARDOUS MATERIALS WASTE SUPERVISORY JOB	
Number of members	5
Percent of total sample	2%
Average number of tasks performed	52
Average time in present job	1.5 yrs
Average time in career field	9.5 yrs
Average TAFMS	17.3 yrs
Predominant paygrade	E-5/E-7

Representative tasks for this cluster include:

- participate in professional meetings or conferences, other than EPC meetings
- conduct supervisory performance feedback sessions
- evaluate personnel for promotion, demotion, reclassification, or special awards
- interpret policies, directives, or procedures for subordinates
- provide technical assistance to installation-level HM users

Representative TMs of this cluster include:

TM	Module Title	No. of Tasks	Percent Time Spent	Percent Members Performing
0017	NCOIC Duties	16	8	34
0023	Hazardous Material Management	24	8	20
0020	Instructor Duties	10	5	26
0025	HW NCOIC	7	3	26

As shown by the above data, members in the Hazardous Materials/Waste Supervisory Job spend the majority of their time performing in supervisory and instructor TMs.

The 5 members of the Hazardous Materials/Waste Supervisory Job average over 9 years in the career field and average just over 17 years TAFMS. Eighty percent hold the 7-skill level and 20 percent the 9-skill level.

III. ENVIRONMENTAL CLUSTER
(STG10). The Environmental Cluster contains 38 respondents and represents 16 percent of the total survey sample. Members of this job indicate they spend the majority of their time performing tasks pertaining to management and supervisory activities (24 percent), plus hazardous waste activities (22 percent). They also indicate spending 11 percent of their time on tasks related to mobility and contingency activities. Unlike their Pest Control Cluster counterparts, they spend little time (less than 5 percent) performing tasks in the Pest Management arena. Environmental Cluster members perform an average of 80 tasks.

ENVIRONMENTAL CLUSTER	
Number of members	38
Percent of total sample	16%
Average number of tasks performed	80
Average time in present job	1.7 yrs
Average time in career field	9.3 yrs
Average TAFMS	15.6 yrs
Predominant paygrades	E-6

Representative tasks for this job include:

- conduct material safety data sheet (MSDS) research
- conduct HW accumulation site inspections
- label HW containers
- coordinate turn-in of HW from accumulation sites
- participate in EPC meetings
- segregate or store HW
- apply HW sampling test results
- erect tents
- identify hazardous waste (HW) streams
- conduct training for HW handlers

Representative TMs for this job include:

TM	Module Title	No. of Tasks	Percent Time Spent	Percent Members Performing
0023	Hazardous Material Management	24	24	56
0013	Deployment	13	7	42
0022	Environmental Management	8	5	38

These data show the emphasis of this job toward hazardous material management, environmental management, plus deployment. Combined, these 3 TMs account for 45 percent of their cumulative job time.

Respondents holding this job are generally more experienced in the career ladder as the tasks they perform are more in the management of hazardous materials/waste programs. The average paygrade is E-6 and members have over 15 years TAFMS.

As in the Pest Control Cluster, two jobs were also identified in the Environmental Cluster. These are: HW NCOIC Job and HW Job. Hazardous Materials/Waste are the main focus of tasks for both of these jobs, however, they warrant discussion on their own. A description of each of the two jobs are as follows:

A. HW NCOIC Job (STG47). The 10 members of this job indicate they spend 35 percent of their time performing tasks that relate to management and supervisory activities. Eighty percent hold the 7-skill level, while the remaining 20 percent indicate they are 5-skill levels. Incumbents in this job are the first-line supervisors in the sample survey. They have an average TAFMS of over 17 years.

Representative tasks performed by this job include:

- determine or establish logistics requirements, such as personnel, equipment, tools, parts, supplies, or workspace
- coordinate work activities with other CE shops
- develop or establish work methods or procedures
- conduct safety inspections of equipment or facilities
- establish organizational policies, such as OIs or standard operating procedures
- inspect HM containers for regulatory guideline procedures

B. Hazardous Waste Job (STG39). The second job in the Environmental Cluster is the Hazardous Waste Job. This job's 17 members indicate spending 35 percent of their time performing tasks related to hazardous waste activities. Incumbents in this job average over 15 years TAFMS and have an average paygrade of E-6, and indicate they do not perform any tasks that pertain to pest management. They perform an average of 65 tasks and are the more technical of the 2 jobs identified in the Environmental Cluster.

Representative tasks performed by this job are:

- Perform ECAMP assessments
- Provide technical assistance to installation-level HW generators
- Monitor HW shipping manifests or land-banned forms
- Maintain HW accumulation site point-of-contact (POC) lists
- Identify signal words or symbols on HM labels
- Generate HW reports for federal, state, or local regulatory agencies
- Maintain HW plans

Comparison of Current Group Descriptions to Previous Study

The results of this specialty job analysis could not be compared to any previous OSR as this AFSC was recently created by combining environmental tasks from numerous Civil Engineering AFSCs with those of the Pest Management AFSC.

Summary

In summary, structure analysis reveals the Environmental career ladder to be very diverse. For example, two clusters were identified in the analysis; Pest Control and Environmental. Those incumbents in the Pest Control Cluster indicated they were performing mainly tasks involved with pest management, and likewise, the respondents in the Environmental Cluster are performing tasks that deal almost exclusively with hazardous materials and hazardous waste. The senior members of the sample survey are found in the Environmental Cluster, as their TAFMS averages over 15 years and they have an average paygrade of E-6. Clearly, the junior members in the sample survey are in the Pest Control Cluster.

ANALYSIS OF DAFSC GROUPS

An analysis of DAFSC groups, in conjunction with the analysis of the career ladder structure, is an important part of each occupational survey. DAFSC analysis examines differences in tasks performed between skill levels. This information may then be used to evaluate how well career ladder documents, such as AFMAN 36-2108 *Specialty Descriptions*, reflect what career ladder personnel are actually doing in the field.

The distribution of AFSC 3E4X3 skill-level groups across the two career ladder Clusters and one job are displayed in Table 5. As can be seen, the majority of DAFSC 3E433 and 3E453 members are performing in the core cluster of the career ladder, the Pest Control Cluster. As personnel progress through the career ladder, they do begin to move into traditional management and supervisory roles. Fifty percent of DAFSC 3E473 members of this AFSC are performing in Environmental related jobs, the Hazardous Materials/Waste Supervisory Job (10 members) and Environmental Cluster (28 members). Career ladder progression is somewhat atypical as personnel do not indicate performing tasks in the Hazardous Materials/Waste arena until reaching the 7-skill level.

Table 6 offers a better perspective by displaying the relative percent time spent on each duty across skill-level groups. As expected, 3-skill level personnel have little to do with supervisory activities (Duty R, Performing Management and Supervisory Activities), and also very little to do with the Environmental duties L, M, N, and O. This indication will be expanded upon more in the Training Analysis section of this report. DAFSC 3E453 personnel show an

TABLE 5

DISTRIBUTION OF AFSC 3E4X3 SKILL-LEVEL MEMBERS
ACROSS CAREER LADDER JOBS

<u>JOB</u>	3E433 (N=50)	3E453 (N=114)	3E473 (N=76)
PEST CONTROL CLUSTER	40	91	25
HAZARDOUS MATERIALS/WASTE SUPERVISORY JOB	0	0	5
ENVIRONMENTAL CLUSTER	0	10	28
NOT GROUPED	10	13	18

TABLE 6

TIME SPENT ON DUTIES BY MEMBERS OF AFSC 3E4X3 SKILL-LEVEL GROUPS
(RELATIVE PERCENT OF JOB TIME)

DUTIES	DAFSC 3E433 (N=50)	DAFSC 3E453 (N=114)	DAFSC 3E473 (N=76)
A PERFORMING GENERAL PEST MANAGEMENT ACTIVITIES	12	12	6
B PERFORMING PEST CONTROL SURVEY ACTIVITIES	14	11	4
C PERFORMING PEST MANAGEMENT AND HANDLING ACTIVITIES	20	15	5
D PERFORMING TERMITE CONTROL ACTIVITIES	4	2	1
E PERFORMING INSECT OR ARTHROPOD CONTROL ACTIVITIES	7	5	1
F PERFORMING VERTEBRATE OR REPTILE CONTROL ACTIVITIES	8	4	1
G PERFORMING MOLLUSK OR MOLD CONTROL ACTIVITIES	*	*	*
H PERFORMING FUMIGATION ACTIVITIES	*	*	*
I PERFORMING VEGETATION CONTROL ACTIVITIES	2	1	1
J PERFORMING QUARANTINE ACTIVITIES	*	*	*
K PERFORMING EQUIPMENT MAINTENANCE ACTIVITIES	16	15	5
L PERFORMING POLLUTION PREVENTION ACTIVITIES	1	1	3
M PERFORMING HAZARDOUS MATERIALS ACTIVITIES	1	2	4
N PERFORMING HAZARDOUS WASTE ACTIVITIES	*	3	10
O PERFORMING ENVIRONMENTAL COMPLIANCE ACTIVITIES	*	1	7
P PERFORMING MOBILITY AND CONTINGENCY ACTIVITIES	6	7	7
Q PERFORMING PRIME BASE EMERGENCY ENGINEERING FORCE (PRIME BEEF ACTIVITIES	2	2	2
R PERFORMING MANAGEMENT AND SUPERVISORY ACTIVITIES	2	11	26
S PERFORMING TRAINING ACTIVITIES	1	2	6
T PERFORMING GENERAL ADMINISTRATIVE ACTIVITIES	1	2	6
U PERFORMING GENERAL SUPPLY AND EQUIPMENT ACTIVITIES	2	3	4

* Indicates less than 1%

increase in time spent in Duty R over their 3-skill level co-workers, but not as much as those in the 7-skill level. As can be seen in Table 6, an increase in the Environmental duties, L, M, N, and O is indicated at the 7-skill level.

Skill-Level Descriptions

DAFSC 3E433. Three-skill level members perform an average of 114 tasks and average just under 2 years in the specialty. Most hold the rank of Airman First Class. Table 5 shows that 40 of the 50 members in this group perform in the Pest Control Cluster. Sixty-five percent of their job time is spent performing tasks that pertain to General Pest Management, Pest Control Survey, Pest Management and Handling, Termite Control, Insect or Arthropod Control, and Vertebrate or Reptile Control Activities (see Table 6). Examples of these tasks can be found in Table 7 and they include: disposing of dead animals, cleaning, washing and drying personal safety equipment, loading and unloading of pesticides on or off vehicles, and inventorying pesticides.

DAFSC 3E453. Five-skill level members comprise the largest group in this career ladder. The 114 members of this group perform an average of 160 tasks and average over 6 years in the career ladder. Nearly half of these members (45 percent) are Staff Sergeants. As with 3-skill level members, the majority of 5-skill level airmen (91 percent) are members of the Pest Control Cluster (see Table 5). DAFSC 3C052 members spend 49 percent of their time performing tasks relating to the same 6 duties as their 3-skill counterparts, those being duties A through F (see Table 6). Table 8 lists representative tasks for these incumbents. Many of these tasks are the same as those performed by 3-skill level personnel. Table 9 depicts tasks which distinguish between 3- and 5-skill level personnel. Since these tasks are mainly supervisory and constitute only a small portion of the 5-skill level job, both the 3- and 5-skill level jobs are highly technical.

DAFSC 3E473. Seven-skill level personnel perform an average of 126 tasks and average 12 years in the career ladder. Members comprise the second largest group in the career ladder. The 76 members of this group have an average rank of Technical Sergeant. Unlike the 3- and 5-skill level groups, this group's time is divided between performing supervisory and management activities (26 percent), environmental duties L through O (24 percent), and pest management duties A through F (18 percent). As the senior members of the career ladder, they perform the majority of activities relating to the environmental arena (see Table 6). Representative tasks performed by 7-skill level personnel are listed in Table 10, and most deal with the performance of tasks related to supervisory activities. Table 11 shows tasks which best distinguish between 5- and 7-skill level members. A higher percentage of 7-skill level members perform those typical supervisory tasks, reflecting the supervisory role of these more senior personnel. Although 5-skill level personnel indicate performing some supervisory tasks, their job is still highly technical as indicated by Table 11.

TABLE 7
REPRESENTATIVE TASKS PERFORMED BY
DAFSC 3E433 PERSONNEL

TASKS		PERCENT MEMBERS PERFORMING (N=50)
F193	Dispose of dead animals	92
K265	Clean, wash, and dry personal safety equipment	90
C114	Load or unload pesticides on or off vehicles	90
C113	Inventory pesticides	90
F200	Place or inspect rodent traps	88
K267	Inspect personal safety equipment	88
A27	Drive vehicles during pesticide applications	86
A23	Direct handling, transporting, or storing of pesticides	80
B54	Conduct surveys for household pests, such as ants, crickets, or cockroaches	80
B73	Identify household pests, such as ants, crickets, or cockroaches	80
C105	Dispose of empty pesticide containers	78
C137	Transport pesticides	78
K264	Clean pesticide tanks or hoppers	78
K263	Clean hand equipment	78
K296	Perform preoperational inspections on compressed air sprayers	78
K314	Perform preoperational inspections on vehicles	76
C116	Maintain pesticide storage areas	76
C130	Prepare rodent baits	74
K287	Perform operator maintenance on personal safety equipment	74
C101	Determine insecticide application methods	72
K309	Perform preoperational inspections on personal safety equipment	70
C112	Interpret pesticide labels	70
C127	Prepare insecticide solutions	70
P397	Erect tents	70

TABLE 8
REPRESENTATIVE TASKS PERFORMED BY
DAFSC 3E453 PERSONNEL

TASKS		PERCENT MEMBERS PERFORMING (N=114)
K267	Inspect personal safety equipment	87
K265	Clean, wash, and dry personal safety equipment	87
B73	Identify household pests, such as ants, crickets, or cockroaches	83
C137	Transport pesticides	82
A29	Evaluate extent of pest infestations	82
C112	Interpret pesticide labels	82
K314	Perform preoperational inspections on vehicles	81
C114	Load or unload pesticides on or off vehicles	81
B54	Conduct surveys for household pests, such as ants, crickets, or cockroaches	79
F193	Dispose of dead animals	79
C136	Transport hand equipment	79
K309	Perform preoperational inspections on personal safety equipment	78
K263	Clean hand equipment	78
A27	Drive vehicles during pesticide applications	77
C113	Inventory pesticides	77
P395	Don or doff chemical warfare personal protective clothing	77
C116	Maintain pesticide storage areas	76
F200	Place or inspect rodent traps	75
C105	Dispose of empty pesticide containers	75
A34	Inspect pesticide storage areas	75
A23	Direct handling, transporting, or storing of pesticides	75
K287	Perform operator maintenance on personal safety equipment	75
C101	Determine insecticide application methods	75
C102	Determine IPM control methods	75
E163	Advise building custodians on IPM measures	75
P397	Erect tents	75
A17	Coordinate pesticide treatment operations with building occupants	74
K275	Perform operator maintenance on compressed air sprayers	74
C135	Transfer or pour pesticides from storage to dispersal equipment	74

TABLE 9

TASKS WHICH BEST DIFFERENTIATE BETWEEN DAFSC 3E433 AND DAFSC 3E453 PERSONNEL

TASKS	DAFSC 3E433 (N=50)	DAFSC 3E453 (N=114)	DIFFERENCE
R476 Develop or establish work methods or procedures	12	48	-36
R470 Determine or establish work assignments or priorities	6	41	-35
R509 Evaluate procedures for storage, inventory, or inspection of property items	4	39	-35
R477 Develop or establish work schedules	12	46	-34
R466 Coordinate work activities with other CE shops	16	49	-33
A41 Schedule periodic insect inspections or surveys, other than rodent or termite	28	61	-33

TABLE 10

REPRESENTATIVE TASKS PERFORMED BY DAFSC 3E473 PERSONNEL

TASKS	PERCENT MEMBERS PERFORMING (N=76)
R526 Participate in general meetings, such as staff meetings, briefings, conferences, or workshops, other than conducting	66
T594 Maintain administrative files	59
R460 Conduct self-inspections or self-assessments	59
R459 Conduct safety inspections of equipment or facilities	54
T591 Initiate requests for TDY orders	54
R527 Participate in professional meetings or conferences, other than EPC meetings	53
R466 Coordinate work activities with other CE shops	53
N343 Conduct material safety data sheet (MSDS) research	51
T585 Compile data for records, logs, or trend analyses	51
P395 Don or doff chemical warfare personal protective clothing	51
R464 Coordinate environmental issues with regulatory agencies	50
R476 Develop or establish work methods or procedures	50
P397 Erect tents	50
R500 Evaluate job hazards or compliance with Air Force Occupational Safety and Health (AFOSH) Program	50
P429 Tear down, inspect, clean, and reassemble weapons, such as M-16 rifles	50
R472 Determine publication requirements	50
U623 Store equipment, tools, parts, or supplies	49
U615 Inventory equipment, tools, parts, or supplies	49
R458 Conduct general meetings, such as staff meetings, briefings, conferences, or workshops	47
R470 Determine or establish work assignments or priorities	46
R477 Develop or establish work schedules	46
A4 Advise appropriate agencies on integrated pest management (IPM) programs	45
S558 Conduct OJT	45
T600 Maintain supply records	43
S581 Schedule training	43
R468 Counsel subordinates concerning personal matters	43
R482 Direct maintenance of administrative files	43

TABLE 11

TASKS WHICH BEST DIFFERENTIATE BETWEEN DAFSC 3E453 AND DAFSC 3E473 PERSONNEL

TASKS	DAFSC 3E453 (N=114)	DAFSC 3E473 (N=76)	DIFFERENCE
F193 Dispose of dead animals	79	28	51
C114 Load or unload pesticides on or off vehicles	81	30	50
C137 Transport pesticides	82	33	50
K265 Clean, wash, and dry personal safety equipment	87	38	49
K263 Clean hand equipment	78	30	48
C112 Interpret pesticide labels	82	34	47
R527 Participate in professional meetings or conferences, other than EPC meetings	12	53	-40
R464 Coordinate environmental issues with regulatory agencies	12	50	-38
T591 Initiate requests for TDY orders	20	54	-34
R525 Participate in EPC meetings	7	38	-31
O378 Perform ECAMP assessments	12	41	-29

TRAINING ANALYSIS

Occupational survey data are sources of information which can be used to assist in the development of relevant training programs for entry-level personnel. Factors used to evaluate entry-level Environmental training include: jobs being performed by first-enlistment personnel, overall distribution of first-enlistment personnel across career ladder jobs, percent first-job (1-24 month TAFMS) and first-enlistment (1-48 months TAFMS) members performing specific tasks or using specific equipment items, ratings of how much TE emphasis tasks should receive in formal training, and ratings of relative TD.

First-Enlistment Personnel

In this study, there are 66 members in their first enlistment (1-48 months TAFMS), representing 27 percent of the survey sample. As displayed in Table 12, approximately 81 percent of their duty time is devoted to technical task performance, the majority of which is contained in duties pertaining to pest management. These duty titles are: performing pest management and handling (20 percent); equipment maintenance (17 percent), pest control survey (14 percent); general pest management (13 percent), vertebrate or reptile control (7 percent); insect or arthropod control (7 percent), and termite control (3 percent) activities. The vast majority of first-enlistment personnel are involved in day-to-day pest control, with only a small amount of their job time (less than 4 percent) being spent on duties pertaining to hazardous materials/waste activities. Table 13 displays some of the tasks performed by first-enlistment personnel. Examples include: loading or unloading pesticides from vehicles, inventorying pesticides, and disposing of dead animals.

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

TE and TD data are secondary task factors that can help training development personnel decide which tasks to emphasize for entry-level training. These ratings, based on the judgments of senior career ladder NCOs at operational units, provide training personnel with a rank-ordering of those tasks considered important for airmen with 1-48 months TAFMS training (TE) and a measure of the relative difficulty of those tasks (TD). When combined with data on the percentages of first-enlistment personnel performing tasks, comparisons can be made to determine if training adjustments are necessary. For example, tasks receiving high ratings on both task factors (TE and TD), accompanied by moderate to high percentages 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 new personnel. These decisions must be weighed against percentages of personnel performing the tasks, command concerns, and criticality of the tasks.

TABLE 12

RELATIVE PERCENT OF TIME SPENT ACROSS DUTIES BY
FIRST-ENLISTMENT AFSC 3E4X3 PERSONNEL

DUTIES	PERCENT TIME SPENT
C PERFORMING PEST MANAGEMENT AND HANDLING ACTIVITIES	20
K PERFORMING EQUIPMENT MAINTENANCE ACTIVITIES	17
B PERFORMING PEST CONTROL SURVEY ACTIVITIES	14
A PERFORMING GENERAL PEST MANAGEMENT ACTIVITIES	13
F PERFORMING VERTEBRATE OR REPTILE CONTROL ACTIVITIES	7
E PERFORMING INSECT OR ARTHROPOD CONTROL ACTIVITIES	7
P PERFORMING MOBILITY AND CONTINGENCY ACTIVITIES	6
D PERFORMING TERMITE CONTROL ACTIVITIES	3
R PERFORMING MANAGEMENT AND SUPERVISORY ACTIVITIES	2
U PERFORMING GENERAL SUPPLY AND EQUIPMENT ACTIVITIES	2
I PERFORMING VEGETATION CONTROL ACTIVITIES	2
Q PERFORMING PRIME BASE EMERGENCY ENGINEERING FORCE (PRIME BEEF) ACTIVITIES	1
T PERFORMING GENERAL ADMINISTRATIVE ACTIVITIES	1
M PERFORMING HAZARDOUS MATERIALS ACTIVITIES	1
N PERFORMING HAZARDOUS WASTE ACTIVITIES	1
L PERFORMING POLLUTION PREVENTION ACTIVITIES	1
H PERFORMING FUMIGATION ACTIVITIES	1
S PERFORMING TRAINING ACTIVITIES	*
J PERFORMING QUARANTINE ACTIVITIES	*
O PERFORMING ENVIRONMENTAL COMPLIANCE ACTIVITIES	*
G PERFORMING MOLLUSK, FUNGI, OR MOLD CONTROL ACTIVITIES	*

* Denotes less than 1%

TABLE 13

REPRESENTATIVE TASKS PERFORMED BY
FIRST-ENLISTMENT AFSC 3E4X3 PERSONNEL

TASKS	PERCENT MEMBERS PERFORMING (N=66)
C114 Load or unload pesticides on or off vehicles	89
C113 Inventory pesticides	89
K265 Clean, wash, and dry personal safety equipment	89
F193 Dispose of dead animals	88
K267 Inspect personal safety equipment	86
F200 Place or inspect rodent traps	85
A27 Drive vehicles during pesticide applications	85
A23 Direct handling, transporting, or storing of pesticides	83
B54 Conduct surveys for household pests, such as ants, crickets, or cockroaches	83
B73 Identify household pests, such as ants, crickets, or cockroaches	82
C137 Transport pesticides	80
K314 Perform preoperational inspections on vehicles	80
K263 Clean hand equipment	80
C105 Dispose of empty pesticide containers	79
K296 Perform preoperational inspections on compressed air sprayers	79
C116 Maintain pesticide storage areas	77
K287 Perform operator maintenance on personal safety equipment	77
K264 Clean pesticide tanks or hoppers	76
A29 Evaluate extent of pest infestations	74
C127 Prepare insecticide solutions	74
K309 Perform preoperational inspections on personal safety equipment	73
C130 Prepare rodent baits	73
C112 Interpret pesticide labels	71
C101 Determine insecticide application methods	71
F202 Remove live animals from attics, vents, or other confined areas	71

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

Tasks having the highest TE ratings for AFSC 3E4X3 personnel with 1-48 months TAFMS are listed in Table 14. Included for each task are the percentage of 1-24 months TAFMS personnel performing the task, the percentage of 1-48 months TAFMS personnel performing the task, and the TD rating. As illustrated in Table 14, tasks with the highest TE ratings deal with cleaning up pesticide spills, interpreting pesticide labels, and determining formulations required for pest control operations. These tasks are performed by high percentages of 1-24 months and 1-48 months TAFMS, and most have average TD ratings.

Table 15 lists the tasks having the highest TD ratings. The percentages of 1-24 months and 1-48 months TAFMS performing, 5- and 7-skill level personnel performing, and TE ratings are also included for each task. Most tasks with high TD ratings are technical functions dealing with overhauling pesticide pumps, calibrating powered dispersal equipment, such as ultra low volume generators or hydraulic sprayers, and identifying plant diseases. Most of the tasks with high TD ratings have average to high TE ratings and are performed by low to high percentages (12 to 68 percent) of 1-24 and 1-48 months TAFMS personnel, and 5- and 7-skill level members.

Various lists of tasks, accompanied by TE and TD ratings, are contained in the **TRAINING EXTRACT** package and should be reviewed in detail by 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.

Specialty Training Standard (STS) Analysis

A comprehensive review of STS 3E4X3, dated 1 April 1997, was made by comparing survey data to STS elements. Training personnel from the 366th Training Squadron (TRS), Sheppard AFB TX matched JI tasks to appropriate STS sections and subsections. A complete computer listing displaying the percent members performing tasks, TE and TD ratings for each task, along with the STS matching, has been forwarded to training personnel for their further review of training documents. STS elements with performance objectives were reviewed for TE, TD, and percent members performing information, as stipulated in AETCI 36-2601. STS paragraphs containing general knowledge information, subject-matter knowledge requirements, or supervisory responsibilities were not reviewed. Typically, STS elements matched to tasks which have sufficient high TE and TD ratings and are performed by at least 20 percent of personnel in appropriate experience of skill-level groups (such as first-enlistment (1-48) months TAFMS, and 5- and 7-skill level groups), should be considered for inclusion in the STS. Likewise, elements matched to tasks with less than 20 percent performing in all of these groups should be considered for deletion from the STS.

TABLE 14

AFSC 3E4X3 TASKS WITH HIGHEST TRAINING EMPHASIS RATINGS

TASKS	TNG EMP	PERCENT MEMBERS PERFORMING			TSK DIF
		1-24 MOS	1-48 MOS		
C93 Clean up pesticide spills	7.38	61	62	5.15	
C112 Interpret pesticide labels	7.29	65	71	4.74	
C98 Determine formulations required for pest control operations	6.62	52	53	5.24	
C102 Determine IPM control procedures	6.62	61	65	5.60	
K309 Perform preoperational inspections on personal safety equipment	6.50	70	73	3.68	
E163 Advise building custodians on IPM measures	6.25	63	67	4.45	
K287 Perform operator maintenance on personal safety equipment	6.25	74	77	4.22	
C137 Transport pesticides	6.08	80	80	3.25	
C101 Determine insecticide application methods	5.67	76	77	4.65	
K275 Perform operator maintenance on compressed air sprayers	5.62	72	70	4.59	
B54 Conduct surveys for household pests, such as ants, crickets, or cockroaches	5.50	83	83	4.85	
C100 Determine herbicide application methods	5.50	67	67	4.98	

TE Mean = 2.52; S.D. = 1.71; High = 4.23

TD Mean = 5.00; S.D. = 1.00; High = 6.00

TABLE 15

AFSC 3E4X3 TASKS WITH HIGHEST TASK DIFFICULTY RATINGS

TASKS	PERCENT MEMBERS PERFORMING						
	TSK DIF	1-24 MOS	1-48 MOS	5- LVL	7- LVL	TNG EMP	
K270	7.17	17	20	37	17	3.67	
K262	6.66	39	38	62	29	4.99	
B76	6.60	43	42	39	17	3.62	
A37	6.44	33	36	61	33	2.83	
C104	6.32	37	39	51	14	7.21	
N341	6.31	15	12	9	20	1.04	
C110	6.31	20	18	24	11	7.25	
A30	6.30	22	24	36	29	1.79	
B60	6.24	48	48	57	32	5.38	
B57	6.17	39	39	34	14	3.42	
B84	6.17	65	67	65	30	3.58	
B80	6.15	33	30	28	20	4.21	
B78	6.11	35	38	49	29	4.25	
B81	6.11	35	35	37	26	4.08	
L316	6.09	20	17	28	38	4.71	

TD Mean = 5.00; S.D. = 1.00; High = 6.00

TE Mean = 2.52; S.D. = 1.71; High = 4.23

STS paragraphs containing performance information were reviewed. Of the 93 performance coded items in the STS, 15 were found to be unsupported by occupational survey data. Examples of these unsupported items can be found in Table 16. STS item 15.2.1.1 deals with identifying disease vectors, item 15.2.12.1 pertains to identifying quarantine pests, items 20.2.1 through 20.2.2.4 have to do with setting up expedient field facilities, and items 20.3.2.1 pertain to implementing controls for disease vectors, vertebrate pests and vegetation. Also, items 20.5.1 through 20.5.2.2 deal with water purification equipment/reverse osmosis water purification units. Training personnel and SMEs should review these areas to determine if inclusion in future revisions to the STS is warranted.

Tasks not matched to any element of the STS are listed at the end of the STS computer listing. These were reviewed to determine if there were any tasks concentrated around any particular functions or jobs. Examples of technical tasks performed by at least 20 percent of STS target group respondents, but which are not referenced to any STS element, are displayed in Table 17. While some of these tasks are high in TE and low in TD, percent members performing figures indicate training personnel and SMEs should review these and other unreferenced tasks to determine STS inclusion.

Plan of Instruction (POI) Analysis

JI tasks were matched to related training objectives in POI J3ABR3E433-001 dated 1 October 1996, with assistance from 366 TRS SMEs. The method employed was similar to that of the STS analysis. The data examined included percent members performing data for first-job (1-24 months TAFMS) personnel, first-enlistment (1-48 months TAFMS) personnel, and TE and TD ratings. ATI ratings for each task were also used.

POI blocks, units of instruction, and learning objectives were compared to the standard set forth in AETCI 36-2601 (30 percent or more of the first-enlistment group performing tasks trained, along with sufficiently high TE and TD ratings on those tasks). By this guidance, tasks trained in the course which do not meet these criteria should be considered for elimination from the formal course, if not justified on some other acceptable basis.

Review of the tasks matched to the POI revealed that the POI is well supported by occupational survey data. There were no performance coded learning objectives with less than 30 percent or more personnel in the sample survey performing.

TABLE 16

EXAMPLES OF STS ELEMENTS NOT SUPPORTED BY 3E4X3 OSR DATA

TASKS		PERCENT MEMBERS PERFORMING						TSK		ATI
		1ST JOB	1ST ENL	TNG EMP	DIF					
15.2.1.2	Identify (Disease Vectors)									
P400	Implement controls for disease vectors, vertebrate pests, or vegetation during contingency operations	13	14	4.62	5.62	11				
P409	Obtain or use Disease Vector Ecology Profiles (DVEPs)	7	9	4.62	4.77	11				
15.2.12.1	Identify (Quarantine Pests)									
J253	Inspect cargo for pests	7	9	3.42	6.19	7				
J254	Inspect cargo packing for pests	2	2	2.79	6.11	7				
J255	Inspect dry food products for overseas shipment	2	3	2.38	6.61	2				
20.2.1	Recommend facility location (Set up expedient field facility)									
P392	Determine facility locations for pesticide mixing, washing, cleaning, or storage	11	17	3.58	5.92	7				
R533	Plan layouts of facilities									
20.3.2.1	Disease Vectors (Implement Controls)	2	2	.54	5.67	2				
P400	Implement controls for disease vectors, vertebrate pests, or vegetation during contingency operations	13	14	4.62	5.62	11				
P386	Brief deploying or deployed personnel on disease vectors and local pests	7	9	2.29	6.27	2				

TE Mean = 2.52; S.D. = 1.71

TD Mean = 5.00; S.D. = 1.00

TABLE 17

EXAMPLES OF TECHNICAL TASKS PERFORMED BY 20 PERCENT OR MORE
3E4X3 GROUP MEMBERS AND NOT REFERENCED TO THE STS

TASKS		PERCENT MEMBERS PERFORMING		
		1ST ENL	TNG EMP	TSK DIF
C102	Determine IPM control methods	65	6.62	5.60
E163	Advise building custodians on IPM measures	67	6.25	4.45
C137	Transport pesticides	80	6.08	3.25
C101	Determine insecticide application methods	71	5.71	4.65
C100	Determine herbicide application methods	67	5.50	4.98
A29	Evaluate extent of pest infestations	74	5.12	5.59
E173	Apply liquid insecticides for insect or arthropod control	68	4.71	4.14

TE Mean = 2.52; S.D. = 1.71

TD Mean = 5.00; S.D. = 1.00

JOB SATISFACTION ANALYSIS

An examination of job satisfaction indicators can give career ladder managers a better understanding of factors that may affect the job performance of career ladder airmen. Therefore, the survey booklet included attitude questions covering job interest, perceived utilization of talents and training, sense of accomplishment from work, and reenlistment intentions. The responses of the current survey sample were analyzed by making comparisons among TAFMS groups of the AFSC 3C0X2 career ladder and a comparative sample of personnel from other direct support career ladders surveyed in 1996 and across specialty groups identified in the **SPECIALTY JOBS** section of the report.

Table 18 compares first-enlistment (1-48 months TAFMS), second-enlistment (49-96 months TAFMS), and career (97+ months TAFMS) group data to corresponding enlistment groups from other direct support groups surveyed in 1996. These data give a relative measure of how the job satisfaction of AFSC 3E4X3 personnel compares with similar Air Force specialties. Environmental personnel reported generally higher job satisfaction than members of the comparative sample, with the exception of reenlistment intention. While not low by any means, reenlistment intentions for the three Environmental TAFMS groups is lower than those of the comparative sample. With the exception of reenlistment intentions, the percentages of positive responses in these comparisons reflect a career ladder where personnel appear to be satisfied with their jobs.

In addition, job satisfaction data for identified clusters and the one job are provided at Table 19. Again, members across all identified groups provided generally positive job satisfaction responses, with the exception of those personnel in the Hazardous Materials/Waste Supervisory Job and their perceived use of training. This could very well stem from the fact that little if any training is provided in Course J3ABR3E433-001, Environmental Apprentice, in the area of Hazardous Waste/Materials. Plus, the only advanced training listed in AFCAT 36-2223, USAF Formal Schools Catalog, dated 1 October 1996 is for Pest Management. Training for Hazardous Waste/Material is through OJT or Contract Training.

IMPLICATIONS

As explained in the **INTRODUCTION**, this survey was conducted to identify current task performance and to validate training requirements. Specialty Job Analysis indicates a clear delineation between pest management personnel and hazardous material/waste personnel. Those personnel identified in the Pest Control Cluster are performing little if any tasks that pertain to hazardous material/waste. Likewise, those members of the career ladder that form the Environmental Cluster and Hazardous Material/Waste Supervisory Job, perform almost no pest management tasks.

TABLE 18

COMPARISON OF JOB SATISFACTION INDICATORS FOR AFSC 3E4X3 TAFMS GROUPS IN
CURRENT STUDY TO A COMPARATIVE SAMPLE (PERCENT MEMBERS RESPONDING)
(ACTIVE DUTY)

	1-48 MONTHS		49-96 MONTHS		97+ MONTHS	
	3E4X3 (N=66)	COMP SAMPLE (N=1,606)	3E4X3 (N=45)	COMP SAMPLE (N=1,024)	3E4X3 (N=129)	COMP SAMPLE (N=2,244)
<u>EXPRESSED JOB INTEREST</u>						
INTERESTING	70	57	87	60	90	73
SO-SO	12	24	9	22	7	17
DULL	18	19	4	18	3	10
<u>PERCEIVED USE OF TALENTS</u>						
FAIRLY WELL TO PERFECT	72	68	87	68	86	79
NONE TO VERY LITTLE	28	32	13	32	14	21
<u>PERCEIVED USE OF TRAINING</u>						
FAIRLY WELL TO PERFECT	87	80	89	78	73	76
NONE TO VERY LITTLE	13	20	11	22	27	24
<u>SENSE OF ACCOMPLISHMENT FROM JOB</u>						
SATISFIED	65	61	77	62	77	71
NEUTRAL	18	19	16	17	11	11
DISSATISFIED	17	20	7	21	12	18
<u>REENLISTMENT INTENTIONS</u>						
YES OR PROBABLY YES	53	59	69	74	73	75
NO OR PROBABLY NO	47	41	29	26	3	8
WILL RETIRE	0	0	2	0	24	17

NOTE: Comparative data are from the Direct Support AFSCs surveyed in 1996

TABLE 19

JOB SATISFACTION INDICATORS FOR
IDENTIFIED JOB GROUPS AND CLUSTERS (PERCENT MEMBERS RESPONDING)
(ACTIVE DUTY)

	PEST CONTROL CLUSTER (N=156)	HAZARDOUS WASTE/MATR JOB (N=5)	ENVIRON- MENTAL CLUSTER (N=38)
<u>EXPRESSED JOB INTEREST</u>			
INTERESTING	83	80	92
SO-SO	10	0	5
DULL	7	20	3
<u>PERCEIVED USE OF TALENTS</u>			
FAIRLY WELL TO PERFECT	85	80	85
NONE TO VERY LITTLE	15	20	15
<u>PERCEIVED USE OF TRAINING</u>			
FAIRLY WELL TO PERFECT	91	20	53
NONE TO VERY LITTLE	9	80	47
<u>SENSE OF ACCOMPLISHMENT FROM JOB</u>			
SATISFIED	74	60	74
NEUTRAL	16	0	8
DISSATISFIED	10	40	18
<u>REENLISTMENT INTENTIONS</u>			
YES OR PROBABLY YES	72	60	60
NO OR PROBABLY NO	23	0	5
WILL RETIRE	5	40	35

Skill-level analysis revealed an atypical career ladder progression for AFSC 3E4X3. Three- and 5-skill level personnel perform little if any tasks which pertain to Hazardous Materials/Waste. The majority of these two groups task performance deals with pest management. Within the pest management arena, career ladder progression is typical, that is, personnel progress through the career ladder in a normal manner. The 7-skill level is split almost evenly between those personnel performing in the pest management area and those in the hazardous materials/waste arena.

STS analysis revealed that 15 proficiency coded items were not supported by the career field. MAJCOM and training personnel should review these unsupported items for possible deletion from the STS. Analysis of the POI revealed that all coded learning objectives were well supported by the career ladder.

One serious job satisfaction problem appeared to exist within this specialty. The 5 members of the Hazardous Materials/Waste Supervisory job indicated a very low (20 percent) perception for use of training. This stems from the fact that these members receive little if any formal training in hazardous material/waste functions. Other than this one exception, the percentages of positive responses for job satisfaction reflect a career ladder where personnel appear to be satisfied with their jobs.

The findings of this OSR come directly from the survey data collected from Environmental personnel worldwide. These data are readily available to training and utilization personnel, functional managers, and other interested parties having a need for such information. Much of the data are compiled into extracts which are excellent tools in the decision-making process. These data extracts should be used when training or utilization decisions are made.

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APPENDIX A

**SELECTED REPRESENTATIVE TASKS PERFORMED BY
MEMBERS OF CAREER LADDER JOBS**

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TABLE A1
PEST CONTROL CLUSTER
(STG28)

SELECTED TASKS	PERCENT MEMBERS PERFORMING (N=156)
K267 Inspect personal safety equipment	97
K265 Clean, wash, and dry personal safety equipment	97
C114 Load or unload pesticides on or off vehicles	95
B73 Identify household pests, such as ants, crickets, or cockroaches	94
C137 Transport pesticides	94
C113 Inventory pesticides	94
A27 Drive vehicles during pesticide applications	93
B54 Conduct surveys for household pests, such as ants, crickets, or cockroaches	92
F193 Dispose of dead animals	91
A29 Evaluate extent of pest infestations	90
C136 Transport hand equipment	90
A23 Direct handling, transporting, or storing of pesticides	90
C116 Maintain pesticide storage areas	90
C112 Interpret pesticide labels	89
C101 Determine insecticide application methods	89
C105 Dispose of empty pesticide containers	89
K263 Clean hand equipment	89
F200 Place or inspect rodent traps	88
A17 Coordinate pesticide treatment operations with building occupants	87
C135 Transfer or pour pesticides from storage to dispersal equipment	87
K287 Perform operator maintenance on personal safety equipment	87
E163 Advise building custodians on IPM measures	87
K314 Perform preoperational inspections on vehicles	86
C102 Determine IPM control methods	86
K309 Perform preoperational inspections on personal safety	85

TABLE A2

HAZARDOUS MATERIALS/WASTE SUPERVISORY JOB
(STG26)

SELECTED TASKS	PERCENT MEMBERS PERFORMING (N=5)
R527 Participate in professional meetings or conferences, other than EPC meetings	100
R519 Inspect personnel for compliance with military standards	100
R468 Counsel subordinates concerning personal matters	100
R463 Conduct supervisory performance feedback sessions	100
R508 Evaluate personnel for promotion, demotion, reclassification, or special awards	100
R526 Participate in general meetings, such as staff meetings, briefings, conferences, or workshops, other than conducting	80
R507 Evaluate personnel for compliance with performance standards	80
R520 Interpret policies, directives, or procedures for subordinates	80
R549 Write performance reports or supervisory appraisals	80
S570 Evaluate personnel to determine training needs	80
R545 Supervise military personnel	80
S569 Evaluate effectiveness of training programs, plans, or procedures	80
R460 Conduct self-inspections or self-assessments	80
S561 Counsel trainees on training progress	80
R454 Assign personnel to work areas or duty positions	80
R476 Develop or establish work methods or procedures	80
T585 Compile data for records, logs, or trend analyses	60
R550 Write recommendations for awards or decorations	60
S580 Recommend personnel for training	60
S581 Schedule training	60
R470 Determine or establish work assignments or priorities	60
S571 Evaluate progress of trainees	60
N338 Analyze HW turn-in documents	60
R497 Evaluate compliance with performance standards	60
R482 Direct maintenance of administrative files	60

TABLE A3
ENVIRONMENTAL CLUSTER
(STG010)

TASKS	PERCENT MEMBERS PERFORMING (N=38)
N343 Conduct material safety data sheet (MSDS) research	84
N342 Conduct HW accumulation site inspections	79
N347 Inspect HW containers for regulatory guideline compliance	76
N348 Label HW containers	71
N345 Coordinate turn in of HW from accumulation sites	71
R526 Participate in general meetings, such as staff meetings, briefings, conferences, or workshops, other than conducting	71
R525 Participate in EPC meetings	66
N360 Segregate or store HW	63
N339 Apply HW sampling test results	63
P397 Erect tents	63
N359 Provide technical assistance to installation-level HW generators	61
L325 Identify hazardous waste (HW) streams	61
T594 Maintain administrative files	61
N344 Conduct training for HW handlers	61
R464 Coordinate environmental issues with regulatory agencies	61
O378 Perform ECAMP assessments	61
P395 Don or doff chemical warfare personal protective clothing	61
N338 Analyze HW turn-in documents	58
T585 Compile data for records, logs, or trend analyses	58
R527 Participate in professional meetings or conferences, other than EPC meetings	58
N350 Maintain HW plans	58
O365 Initiate Environmental Compliance Assessment and Management Program (ECAMP) corrective actions, following site inspections	58
P429 Tear down, inspect, clean, and reassemble weapons, such as M-16 rifles	58
T591 Initiate requests for TDY orders	58
N349 Maintain HW accumulation site point-of-contact (POC) lists	55

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APPENDIX B
LISTING OF MODULES AND TASK STATEMENTS

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These task modules (TMs) were developed in order to organize and summarize the extensive task information of this specialty. The TMs were developed by clustering tasks which are coperformed by the same incumbents. Coperformance is a measure of how probable a task will be performed with another task, based upon the responses of surveyed personnel. For example, if an individual performs one nuclear weapons safety task, the probability is very high that he or she will perform other nuclear weapons safety tasks. Thus, the group of nuclear weapons safety tasks can be considered a "natural group" of associated or related tasks (see TM 0013) below). The statistical clustering generally approximates these "natural groupings."

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

0001	GP04	General Household Pest Management
1	A17	Coordinate pesticide treatment operations with building occupants
2	A23	Direct handling, transporting, or storing of pesticides
3	A27	Drive vehicles during pesticide applications
4	A29	Evaluate extent of pest infestations
5	A34	Inspect pesticide storage areas
6	B49	Conduct surveys for domestic rodents
7	B54	Conduct surveys for household pests, such as ants, crickets, or cockroaches
8	B64	Conduct surveys for weeds
9	B73	Identify household pests, such as ants, crickets, or cockroaches
10	C100	Determine herbicide application methods
11	C101	Determine insecticide application methods
12	C102	Determine IPM control methods
13	C103	Determine rodenticide application methods
14	C105	Dispose of empty pesticide containers
15	C112	Interpret pesticide labels
16	C113	Inventory pesticides
17	C114	Load or unload pesticides on or off vehicles
18	C116	Maintain pesticide storage areas
19	C123	Prepare herbicide solutions
20	C126	Prepare insecticide emulsions
21	C127	Prepare insecticide solutions
22	C128	Prepare insecticide suspensions
23	C130	Prepare rodent baits
24	C135	Transfer or pour pesticides from storage to dispersal equipment
25	C136	Transport hand equipment
26	C137	Transport hand equipment
27	E163	Advise building custodians on IPM measures
28	E173	Apply liquid insecticides for insect or arthropod control
29	E177	Apply space sprays indoors for insect or arthropod control
30	E179	Evaluate effectiveness of insecticide applications
31	F193	Dispose of dead animals

0001	GP04	General Household Pest Management (Continued)
32	F199	Place or inspect poison rodent baits
33	F200	Place or inspect rodent traps
34	F201	Place or inspect stray animal traps, other than rodent traps
35	I240	Apply liquid herbicides to ground surfaces
36	K263	Clean hand equipment
37	K264	Clean pesticide tanks or hoppers
38	K275	Perform operator maintenance on compressed air
39	K296	Perform preoperational inspections on compressed air sprayers
40	K314	Perform preoperational inspections on vehicles
0002	GP08	Personal Safety Equipment
1	K265	Clean, wash, and dry personal safety equipment
2	K267	Inspect personal safety equipment
3	K287	Perform operator maintenance on personal safety equipment
4	K309	Perform preoperational inspections on personal safety equipment
0003	ST449	Periodic Maintenance Scheduler
1	A40	Schedule occupied quarters for treatments
2	A41	Schedule periodic insect inspections or surveys, other than rodent or termite
3	A42	Schedule periodic rodent inspections or surveys
4	A44	Schedule vacant quarters for treatments
0004	ST403	Sprayer Maintenance
1	A37	Plan IPM programs
2	C111	Inspect containers and contents for serviceability and expiration dates
3	C115	Maintain operating supply levels of pesticides
4	C117	Place or remove warning signs
5	C124	Prepare herbicide suspensions
6	K261	Calibrate nonpowered dispersal equipment, such as compressed air sprayers
7	K262	Calibrate powered dispersal equipment, such as ultra low volume (ULV) generators or hydraulic sprayers
8	K268	Isolate malfunctions of hand equipment items
9	K281	Perform operator maintenance on hydraulic sprayers
10	K302	Perform preoperational inspections on hydraulic sprayers
0005	ST302	IPM Advice
1	A2	Advise appropriate agencies on bird control or bird proofing measures
2	A3	Advise appropriate agencies on insect control or insect proofing measures other than termites
3	A4	Advise appropriate agencies on integrated pest management (IPM) programs
4	A6	Advise appropriate agencies on rodent control or rodent proofing measures

0005	ST302	IPM Advice (Continued)
5	A7	Advise appropriate agencies on termite control or termite proofing measures
6	A9	Advise appropriate agencies on vertebrate pest control measures, other than birds or rodents
7	A13	Coordinate fumigation, fogging, or misting operations with other installation activities
0006	ST361	Reptiles and Venomous Arthropods
1	B58	Conduct surveys for reptiles
2	B62	Conduct surveys for venomous arthropods
3	B77	Identify reptiles
4	B82	Identify venomous arthropods
0007	ST289	Ornamental and Turf Pests
1	B56	Conduct surveys for ornamental pests
2	B57	Conduct surveys for plant diseases
3	B61	Conduct surveys for turf pests
4	B75	Identify ornamental pests
5	B76	Identify plant diseases
6	B81	Identify turf pests
7	B170	Apply granular insecticides for turf pest control
8	B175	Apply liquid insecticides for turf pest control
0008	ST305	Termite Control
1	A43	Schedule periodic termite inspections or surveys
2	B60	Conduct surveys for structural pests
3	B79	Identify structural pests
4	D142	Apply insecticides to trenches
5	D146	Apply residual or space sprays to control swarmers
6	D147	Apply termiticides by long or short rodding
7	D148	Apply termiticides using subslab injectors
8	D149	Clean up after termite control operations
9	D150	Dig trenches for termite control
10	D151	Drill concrete slabs or building foundations using roto-hammers
11	D152	Evaluate effectiveness of structural pest control applications
12	D159	Patch holes in concrete slabs or building foundations
13	K290	Perform operator maintenance on roto-hammers
14	K291	Perform operator maintenance on subslab injectors
15	K312	Perform preoperational inspections on roto-hammers
16	K313	Perform preoperational inspections on subslab injectors

0009	ST310	Duster Maintenance
1	K274	Perform operator maintenance on compressed air dusters
2	K276	Perform operator maintenance on dusters, other than compressed air dusters
3	K295	Perform preoperational inspections on compressed air dusters
4	K297	Perform preoperational inspections on dusters, other than compressed air dusters
0010	ST327	ULV and Related Equipment
1	K272	Perform operator maintenance on backpack-mist-dust blowers
2	K286	Perform operator maintenance on nonportable ULV generators
3	K293	Perform preoperational inspections on backpack-mist-dust blowers
4	K307	Perform preoperational inspections on nonportable ULV generators
0011	ST347	Bird Control
1	A35	Plan airfield or building bird control projects
2	A39	Schedule bird inspections or surveys
3	B46	Conduct surveys for birds at airfields
4	B47	Conduct surveys for birds, other than at airfields
5	B67	Identify birds frequenting airfields or structures
6	C94	Determine bird control methods
7	F191	Control birds using weapons
0012	ST156	Pesticide Poisoning
1	C95	Determine first aid procedures for victims of dermal pesticide poisoning
2	C96	Determine first aid procedures for victims of oral pesticide poisoning
3	C97	Determine first aid procedures for victims of respiratory pesticide poisoning
4	C104	Determine signs and symptoms of pesticide poisoning
5	C107	Implement emergency decontamination procedures
6	C108	Initiate first aid procedures for victims of dermal pesticide poisoning
7	C109	Initiate first aid procedures for victims of oral pesticide poisoning
8	C110	Initiate first aid procedures for victims of respiratory pesticide poisoning
0013	GP06	Deployment
1	P395	Don or doff chemical warfare personal protective clothing
2	P396	Erect camouflage nettings
3	P397	Erect tents
4	P401	Inspect mobility bags
5	P411	Operate chemical warfare personal protective equipment during contingency operations
6	P416	Operate portable radios, such as field radios, during contingency operations
7	P419	Participate in convoy exercises

0013	GP06	Deployment (Continued)
8	P421	Perform camouflage procedures
9	P422	Perform camp security
10	P423	Perform chemical warfare agent decontamination procedures
11	P424	Perform cover and concealment techniques for work party security
12	P428	Set up or tear down shelters
13	P429	Tear down, inspect, clean, and reassemble weapons, such as M-16 rifles
0014	ST320	Mobility Equipment
1	P402	Inspect packed or palletized mobility or contingency equipment prior to transport
2	P418	Pack or palletize mobility or contingency equipment for shipment or movement
3	P426	Prepare equipment for deployments
4	P430	Transport mobility or contingency equipment to or from deployed locations
0015	ST319	Equipment Management
1	U610	Evaluate serviceability of equipment, tools, parts, or supplies
2	U611	Identify and report equipment or supply problems
3	U615	Inventory equipment, tools, parts, or supplies
4	U621	Pick up or deliver equipment, tools, parts, or supplies
5	U623	Store equipment, tools, parts, or supplies
0016	ST333	Supply
1	U607	Coordinate maintenance of equipment with appropriate agencies
2	U608	Coordinate supply-related matters with appropriate agencies
3	U612	Initiate documentation to turn in excess or surplus property
4	U613	Initiate letters of justification for supply-related matters
5	U614	Initiate requisitions for equipment, tools, parts, or supplies
6	U616	Issue or log turn-ins of equipment, tools, parts, or supplies
7	U620	Maintain unit equipment or supply records, such as custodian authorization/custody receipt listings (CA/CRLs)
8	U622	Research Table of Allowance (TA) standards
0017	GP01	NCOIC Duties
1	A11	Coordinate disease vector surveillance or controls with bioenvironmental engineering or military public health
2	A14	Coordinate industrial physicals or health hazards with bioenvironmental engineering or military public health
3	A18	Coordinate procurement, handling, or storage of toxic chemicals with bioenvironmental engineering or military public health
4	A22	Coordinate use of pesticides with command-level activities

0017	GP01	NCOIC Duties (Continued)
5	R454	Assign personnel to work areas or duty positions
6	R455	Assign sponsors for newly assigned personnel
7	R462	Conduct supervisory orientations for newly assigned personnel
8	R470	Determine or establish work assignments or priorities
9	R476	Develop or establish work methods or procedures
10	R477	Develop or establish work schedules
11	R501	Evaluate job or position descriptions
12	R511	Evaluate work schedules
13	R512	Evaluate workload requirements
14	R514	Indorse performance reports or supervisory appraisals
15	R543	Schedule work assignments or priorities
16	R548	Write job or position descriptions
0018	ST379	Base Level Pest Control Advisor
1		Evaluate installation pest management programs
2		Develop pest management narrative plans
3		Implement pest management narrative plans
4		Maintain MAJCOM or installation pest management activity records
5		Maintain pest management narrative plans
0019	ST332	Coordination
1	A11	Coordinate disease vector surveillance or controls with bioenvironmental engineering or military public health
2	A14	Coordinate industrial physicals or health hazards with bioenvironmental engineering or military public health
3	A18	Coordinate procurement, handling, or storage of toxic chemicals with bioenvironmental engineering or military public health
4	A22	Coordinate use of pesticides with command-level activities
0020	GP07	Instructor Duties
1	S553	Administer or score tests
2	S557	Conduct formal course classroom training
3	S564	Develop formal course curricula, plans of instruction (POIs), or specialty training standards (STSs)
4	S565	Develop performance tests
5	S566	Develop training materials or aids
6	S567	Develop training programs, plans, or procedures
7	S568	Establish or maintain study reference files
8	S578	Personalize lesson plans
9	S579	Procure training aids, space, or equipment
10	S582	Write test questions

0021	ST360	Fungicide Applications
1	C99	Determine fungicide application methods
2	C119	Prepare fungicide solutions
3	C120	Prepare fungicide suspensions
4	G206	Apply fungicides to ornamentals
5	G208	Apply liquid fungicides to turf
6	G211	Evaluate effectiveness of fungicide applications
0022	GP02	Environmental Management
1	O365	Initiate Environmental Compliance Assessment and Management Program (ECAMP) corrective actions, following site inspections
2	O368	Maintain environmental permits
3	O370	Monitor compliance with Clean Air Act
4	O371	Monitor compliance with Clean Water Act
5	O372	Monitor ECAMP evaluation findings
6	O378	Perform ECAMP assessments
7	O381	Prepare applications for permits
8	R536	Request contract services
0023	GP05	Hazardous Material Management
1	L325	Identify hazardous waste (HW) streams
2	M331	Identify signal words or symbols on HM labels
3	M332	Inspect HM containers for regulatory guideline compliance
4	M333	Label HM containers
5	N338	Analyze HW turn-in documents
6	N339	Apply HW sampling test results
7	N340	Assist in development of hazardous materials (HAZMAT) response plans
8	N341	Complete HAZMAT spill reports
9	N342	Conduct HW accumulation site inspections
10	N344	Conduct training for HW handlers
11	N345	Coordinate turn in of HW from accumulation sites
12	N346	Generate HW reports for federal, state, or local regulatory agencies
13	N347	Inspect HW containers for regulatory guideline compliance
14	N348	Label HW containers
15	N349	Maintain HW accumulation site point-of-contact (POC) lists
16	N350	Maintain HW plans
17	N351	Maintain inspection checklists for tracking HW
18	N352	Monitor HW shipping manifests or land-banned forms
19	N353	Participate in HAZMAT spill cleanup procedures
20	N354	Participate in installation HAZMAT emergency response planning
21	N357	Prepare HW shipping manifests or land-banned forms
22	N358	Prepare sites for sampling
23	N359	Provide technical assistance to installation-level HW generators
24	N360	Segregate or store HW

0024	GP03	Site Specific Training
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- | | | |
|----|------|--|
| 1 | H215 | Aerate fumigated areas |
| 2 | H217 | Coordinate fumigation activities with appropriate activities |
| 3 | H224 | Place or remove tarps from buildings, stacks, or vegetated areas |
| 4 | H229 | Test fumigated areas for safe reentry |
| 5 | H230 | Test gas concentrations during fumigation |
| 6 | H231 | Turn off ignition sources and electrical power sources prior to fumigation procedures |
| 7 | J249 | Advise transportation or aerial port personnel on standards and controls for sterile holding areas |
| 8 | J255 | Inspect dry food products for overseas shipment |
| 9 | P387 | Clean dempsey dumpster bins |
| 10 | P390 | Coordinate mobility exercise or contingency requirements with appropriate agencies |

0025	ST328	HW NCOIC
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- | | | |
|---|------|---|
| 1 | R469 | Determine or establish logistics requirements, such as personnel, equipment, tools, parts, supplies, or workspace |
| 2 | R483 | Direct utilization of equipment |
| 3 | R500 | Evaluate job hazards or compliance with Air Force Occupational Safety and Health (AFOSH) Program |
| 4 | R504 | Evaluate logistics requirements, such as personnel, equipment, tools, parts, supplies, or workspace |
| 5 | R505 | Evaluate maintenance or utilization of equipment, tools, parts, supplies, or workspace |
| 6 | R509 | Evaluate procedures for storage, inventory, or inspection of property items |
| 7 | R510 | Evaluate safety or security programs |