UNITED STATES
AIR FORCE

OCCUPATIONAL SURVEY REPORT

AEROSPACE PHYSIOLOGIST

AFSCs 43AX, M11XXY, AND M122XY
(FORMERLY AFSCs 916X, 149XA, AND 229XY)

AFPT 90-916-959

DECEMBER 1993

OCCUPATIONAL ANALYSIS PROGRAM
USAF OCCUPATIONAL MEASUREMENT SQUADRON
AIR EDUCATION and TRAINING COMMAND
1550 5th STREET EAST
RANDOLPH AFB, TEXAS 78150-4449

DISTRIBUTION FOR AFSC 916X (43AX), 1495A (M11XXY), AND 2295A (M122XY)
OSR AND SUPPORTING DOCUMENTS

	OSR	ANL EXT	TNG EXT	JOB INV
AL/HRMM	2			
ARMY OCCUPATIONAL SURVEY BRANCH	1			
CCAF/AYX	1			
DEFENSE TECHNICAL INFORMATION CENTER	2			
HQ ACC/DPTTF	2		2	
HQ ACC/SGPA (162 DODD BOULEVARD, STE 100, LANGLEY AFB VA 23665-1995)	3		3	
HQ AETC/DPAEE	2		2	
HQ AETC/SGAT	2		1	
HQ AETC/SGT (61 MAIN CIRCLE, RANDOLPH AFB TX, 78150-5001)	3		3	
HQ AFC4A/RMPP	2		2	
HQ AFMC/DPUE	2		2	
HQ AFMOA/SGPA (170 LUKE AVE, BOLLING AFB DC 20332-5113)	3	-	3	3
HQ AFMPC/DPMYCO3	2			
HQ AFOTEC/SAH (5800 GIBSON SE, KIRTLAND AFB, NM 87117-7001)	3		3	
HQ AFSOC/DPAPT	2		2	
HQ AIA/DPAT	2		2	
HQ AMC/DPAET	2		2	
HQ PACAF/DPAET	2		2	
NODAC	1			
STANDARDS BRANCH (MAGTEC)	1			
USAFA/DFB (2354 FAIRCHILD, STE 2A29, USAF ACADEMY CO 80840-6226)	3		3	
USAFMEDC/SGT (2290 3RD ST, WRIGHT-PATTERSON AFB OH 45433-7007)	3		3	
USAFOMS/OMDQ	1			
USAFOMS/OMYXL	10		5	10
USAFSAM/CC (2513 KENNEDY CIRCLE, BROOKS AFB TX, 78235-5123 (ATTN: COL ROBERT J. STEPP))	1		1	1
USAFSAM/DA	1		1	1
USAFSAM/FP, (2513 KENNEDY CIRCLE, BROOKS AFB TX, 78235-5123 (ATTN: LT COL BOLEY))	3	1	3	3
9 SRS/SGT (RAF ALCONBURY UK 09470-5000)	3		3	
15 PTF UNIT 5186 APO AP 96368-5186	3		3	
18 MEDGP/SGT (UNIT 5142, KADENA AFB JA 96368-5142)	3		3	
21 MEDGP/SGT (799 VINCENT ST, PETERSON AFB CO 80914-1530)	3		3	
81 TTG/CCVT	1			
380 TSS/TSOX	1			
1299 PTF (1045 BOSTON RD, ANDREWS AFB MD 20331-5300)	3		3	

TABLE OF CONTENTS

TABLE OF CONTENTS
(Tables, Figures, Appendices)

TABLE OF CONTENTS (CONTINUED)
(Tables, Figures, Appendices)

TABLE OF CONTENTS (CONTINUED)
(Tables, Figures, Appendices)

THIS PAGE INTENTIONALLY LEFT BLANK

PREFACE

This occupational survey report (OSR) presents the results of a detailed Air Force Occupational Survey of AFSCs 916X, 149XA, and 229XA, Aerospace Physiologist personnel. The project was requested by USAF School of Aerospace Medicine, Brooks AFB TX, in a letter by Colonel Kenneth R. Hart, Chief, Education Division, dated August 1990. Authority for conducting occupational surveys is contained in AFR 35-2. Computer products upon which this report is based are available for use by operations and training officials.

The survey instrument was developed by Ms Joan M. Cofield, with computer support furnished by Ms Rebecca Hernandez. Administrative support was furnished by Mr Richard G. Ramos. Ms Cofield also analyzed the data and wrote the final report. This report has been reviewed and approved for release by Mr Gerald R. Clow, Chief, Management Applications Section, USAF Occupational Measurement Squadron.

Copies of this report are distributed to Air Staff sections, major commands, and other interested management and training personnel. Additional copies are available upon request to the USAF Occupational Measurement Squadron, Attention: Chief, Occupational Analysis Flight (OMY), 1550 5th Street East, Randolph AFB Texas 78150-4449 (DSN 487-6623).

JAMES L. ANTENEN, Lt Col, USAF
Commander
USAF Occupational Measurement
Squadron

JOSEPH S. TARTELL
Chief, Occupational Analysis Flight
USAF Occupational Measurement
Squadron

THIS PAGE INTENTIONALLY LEFT BLANK

SUMMARY

1. *Survey Coverage*: Air Force officers in the three AFSCs included within the Aerospace Physiologist utilization field were surveyed to obtain current data which will be used to assist USAF School of Aerospace Medicine and other training staff in making training and future manpower decisions.

2. *Specialty Jobs*: Two clusters containing four jobs and two independent jobs were identified in the job structure analysis. Although the Aerospace Physiologist officers perform many diverse functions, the focus of their worktime (46 percent) is spent mainly performing Specialized Aerospace Physiology Instructions, Training, and those associated duties involved with aerospace physiology and aviation human factors. An indepth analysis of other data, such as grade, MAJCOM, and time in utilization field groups, clearly supports all findings in the job structure analysis. These comparisons also reveal an orderly progression of task performance reflecting increased responsibility of duties within the usual migration to higher rank and higher level staff positions.

3. *Analysis of AFSC Aerospace Physiological Groups*: The analyses of the individual AFSCs 9161, 9166, 1495A, and 2295A, individually and as a whole, along with the overall background data, clearly indicate the task performance differences and similarities that occur across the three targeted AFSCs. The 1955A and 2295A Aerospace Physiologist officers focus the major portion of their job time performing training duties, 68 percent and 57 percent, respectively, and 31 percent and 43 percent, respectively, accomplishing management, supervisory, and other corresponding duties. The 916X officers, however, perform duties in Research, Development, Test, Evaluation, and Acquisition (RDTE&A) (9 percent), less worktime accomplishing training duties (47 percent), and 44 percent in management, supervisory, and other corresponding duties. These data comparisons pinpoint the similarities and differences in time spent by the rated and nonrated Aerospace Physiologist officers performing tasks in the 13 duties included in the USAFOMS Job Inventory (JI), as well as indicate the usual paygrade progression relationships between and within the utilization field.

4. *Selected Background Information*: Of interest to Air Staff, functional managers, and training managers are the data which respond to special interest and concerns of the Aerospace Physiologist personnel. Data were analyzed, examined, and incorporated with responses which were summarized from Aerospace Physiologist personnel in field interviews, USAF JI responses, and write-in comments. These areas are addressed in context and are discussed to a great extent throughout the occupational survey report (OSR) and, specifically, in the ANALYSIS OF SELECTED BACKGROUND DATA section.

Job Satisfaction: Job satisfaction indices within the 916X, 149XA, and 229XA Aerospace Physiologist DAFSCs are relatively high. The incumbents indicate that their jobs are interesting (91 percent), their talents are being utilized fairly well (62 percent), they are well satisfied with their sense of accomplishment (91 percent), and their perceived utilization of training indices shows a positive average of 60 percent. Responses to career progression were in

the medium high indices for the 916X officers (65 percent). The 916X officers also showed high indices in their utilization field plans, with 83 percent of the incumbents reporting they planned to remain in their respective field. It was not unexpected, considering the changes occurring Air Force-wide, that the rated officers were much more undecided about future plans and showed lower overall indices in both utilization field plans and career progression opportunities.

Adequacy of Specific AFSC Training: Overall, the responses proffered by the Aerospace Physiologist officers, in regard to their opinion of the 5-week Aerospace Physiology course curricula being more operationally oriented were in the extremely high "Positive" ranges (91 percent).

Sixty-five percent of the 78 respondents generally reported that they believed the 2-week Instructor Training Workshop prepared them for their major duties of instructing personnel in aerospace physiology and aviation human factors (916X - 65 percent; 1495A - 50 percent; 2295A - 100 percent).

Opinions regarding a specialized flight training course being helpful for Aerospace Physiologists to accomplish their jobs better also had extremely high "Positive" indices of 96 percent.

In regard to confidence level (time) of teaching after the 7-week tech school courses, the short timeframe and high confidence level of teaching aircrew members reported by the 13 rated members (100 percent each within 1 to 3 months) are not unexpected, considering their aviation expertise. The timeframes and confidence levels reported by the 916X officers varied greatly and were in relatively low ranges (1 to 3 months - 38 percent; 4 to 6 months - 29 percent; and 7 to 12 months - 22 percent).

5. *Training Analysis*: Analysis of the Course Training Standard (CTS) for B30BY9161-000, Aerospace Physiology course conducted at Brooks AFB TX, as compared with the occupational survey data, indicates that although all CTS elements were matched, a review of several subelements needs to be made by the training personnel at the resident tech school. USAFOMS recommends that the large number of not matched tasks, particularly those with high training emphasis ratings, be reviewed for inclusion in CTS or Plan of Instruction revisions or in future course development.

6. *AFR 36-1 Specialty Descriptions*: The duties and tasks performed by the targeted AFSCs correspond accurately with those listed in the respective AFR 36-1 Specialty Descriptions for the 916X, 149XA, and 229XA Aerospace Physiologist officers. Career progression was evident throughout all analysis groups. The scope of the lower ranking officers was evident in the types of tasks performed, as well as within the number of tasks performed and percent time spent on duties. As rank, experience, and time in current jobs increased, the officers generally reported spending greater percentages of their job time performing supervisory and managerial functions. The most senior incumbents do, however, perform a number of technical and teaching type tasks when the need arises, such as during hyperbaric and hypobaric chamber operations and specialized aerospace physiology classroom training requirements.

7. *Implications*: The indepth data analysis indicates that the Aerospace Physiologist officers are performing the duties and tasks according to their Specialty Standards, as well as following the policies and the standards of the Aerospace School of Medicine.

Because of the present changes being made throughout the Air Force, a clear, comprehensive career plan outlining the future needs and scope of duties for all members included within the utilization field (especially the rated members) should be developed and presented to the field in a timely manner.

The OSR data included within the current study can and should be used by Air Staff, functional managers, training managers, and other users to assist in making future mission and manpower decisions.

NOTE: This is the first survey of the Aerospace Physiologist officers. The August 1993 OSR data contained herein DO NOT include the same survey populations, nor the same AFSCs and duty statements of any related USAFOMS OSRs; therefore, no comparisons in kind to previous related USAFOMS field data or OSRs can or will be made.

THIS PAGE INTENTIONALLY LEFT BLANK

OCCUPATIONAL SURVEY REPORT (OSR)
AEROSPACE PHYSIOLOGIST OFFICER PERSONNEL
(AFSCs 916X, 149XA, 229XA, 43AX, M11XXY, AND M122XY)

INTRODUCTION

This is a report of the occupational survey of the Aerospace Physiologist officer personnel, AFSCs 916X, 149XA, and 229XA, completed by the Occupational Analysis Flight, USAF Occupational Measurement Squadron. The original request for the survey was made by Colonel Kenneth R. Hart, Chief, Education Division, USAF School of Aerospace Medicine, Brooks AFB TX in August 1990. There had been no previous occupational survey of this utilization field.

Utilization Field AFSCs

The 916X Aerospace Physiologist utilization field is comprised of three AFSCs:

9161-9166	Aerospace Physiologist
43AX	(New AFSC Designator)
1491A-1495A	Physiological Support Officers Air Operations Officer - Pilot
M11XXY	(New AFSC Designator)
2291A-2295A	Physiological Support Officer Air Operations Officer - Navigator
M122XY	(New AFSC Designator)

SURVEY METHODOLOGY

Inventory Development

The data collection instrument for this occupational survey was USAF Job Inventory (JI) AFPT 90-916-959, dated September 1992. Since there had been no previous occupational survey of the AFSC 916X utilization field, a tentative task list was prepared by reviewing pertinent career

ladder publications and directives, such as AFR 36-1 Specialty Descriptions, course training standards (CTSs) from the resident training school, as well as the corresponding enlisted JIs. Reviewing these documents provided the USAFOMS developer with a broad brush overview of the types of tasks performed by the AFSC 916X, 149XA, and 229XA officers.

This resultant tentative task list was refined and validated during a 3-day workshop with resident course instructors at the School of Aerospace Medicine at Brooks AFB TX. The preliminary JI was further refined and validated by 26 personal field reviews with subject-matter experts (SMEs) at the bases listed below.

HQ USAF/SAM provided USAFOMS with a list of recommended visitation sites from which the following selections were made to ensure coverage of a variety of MAJCOMs, AFSCs, and environments.

BASES	REASON FOR VISIT
Brooks AFB TX	Resident Tech School Centrifuge, Cockpit, and Equipment Integration Lab, Acquisition, Research, Hyperbaric And Hypobaric Chambers
Little Rock AFB AK	High Altitude Airdrop Mission Support (HAAMS)
Holloman AFB NM	Centrifuge Training
Travis AFB CA	Hypobaric Chamber
Beale AFB CA	Life Support Equipment, Pressure Suit
Lackland AFB TX	Wilford Hall Medical Center, Research Support, Development, Test and Evaluation Human and Animal Research Protocols

The resultant field-validated JI contained a comprehensive listing of 828 tasks grouped under 13 duty headings, a biographical section, and a background section. Prior to printing, the final survey instrument was coordinated and approved during February 1992 by 10 Aerospace Physiologist Functional Managers of selected MAJCOMs and HQ USAF/SAM. No security problems were anticipated nor were found with the administration of the survey instrument.

The USAFOMS JI consists of three sections: (1) a BIOGRAPHICAL INFORMATION section where survey participants provide information about themselves; (2) a BACKGROUND INFORMATION section where survey respondents provide general information about their job;

and (3) a DUTY-TASK list section where respondents indicate the tasks they perform in their current job.

The USAF JI BIOGRAPHICAL and BACKGROUND sections include 28 questions. The BIOGRAPHICAL section requested data, such as name, SSAN, sex, grade, time in current job, total active federal military service (TAFMS), DAFSC, MAJCOM of assignment, etc. BACKGROUND questions include Armstrong Laboratory, Human Resources Directorate (AL/HRD) standardized questions (used in all USAFOMS inventories) regarding perceived job satisfaction and sense of accomplishment from their work, job utilization of talents, and utilization of Air Force training received.

AFSC-specific questions added by the Aerospace Physiologist staff include such topics as, opinion of the need to have more of an operational focus to the curricula of the 5-week Aerospace Physiology course, opinion of the 2-week Instructor Training Workshop included at the end of the Aerospace Physiology course, confidence level (time) for teaching aircrew members after the Aerospace Physiology course, use of and type of training received on computers, how often the AFSC members fly in military aircraft during a 6-month period, and AFSC utilization field plans and perceived career progression.

The DUTY-TASK list section consisted of 828 tasks grouped under 13 duty titles. These tasks represent the types of tasks performed by the respondents of the three targeted AFSCs.

Survey Administration

On 22 January 1993, Military Personnel Flights (MPFs) at designated operational units worldwide were shipped a mailing containing the AFSC 916X, 149XA, and 229XA USAF JIs, letter of administration instructions, and a mailing list containing the name, grade, SSAN, duty AFSC, location, and MAJCOM of each Aerospace Physiologist officer to be surveyed at their base. From January 1993 through April 1993, the MPFs administered the survey instrument to the designated military incumbents.

Each officer who completed the survey instrument first filled out the BIOGRAPHICAL and BACKGROUND information section. The respondents were then asked to read each task in the DUTY-TASK section and place a check beside each task they perform in their current job. After checking all tasks performed, each member then rated each of the marked tasks on a 9-point scale showing the relative time spent on that task, as compared to all other tasks checked. The ratings ranged from 1 (very small amount of time spent) through 9 (very large amount of 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 their time spent on their 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 formula provides a basis for comparing tasks in terms of both percent members performing and average percent time spent.

Survey Sample

On 22 January 1993, 106 USAF Aerospace Physiologist JIs were mailed to AFSC 916X, 149XA, and 229XA personnel at the 36 designated bases worldwide, which represented 100 percent of the eligible officer population listed in the current AFMPC computer mailing list.

To qualify for participation in this survey, the respondent MUST HAVE:

a DAFSC of 9161, 9166, 1491A, 1495A, 2291A, or 2295A,

held their DAFSC for at least 6 weeks, and

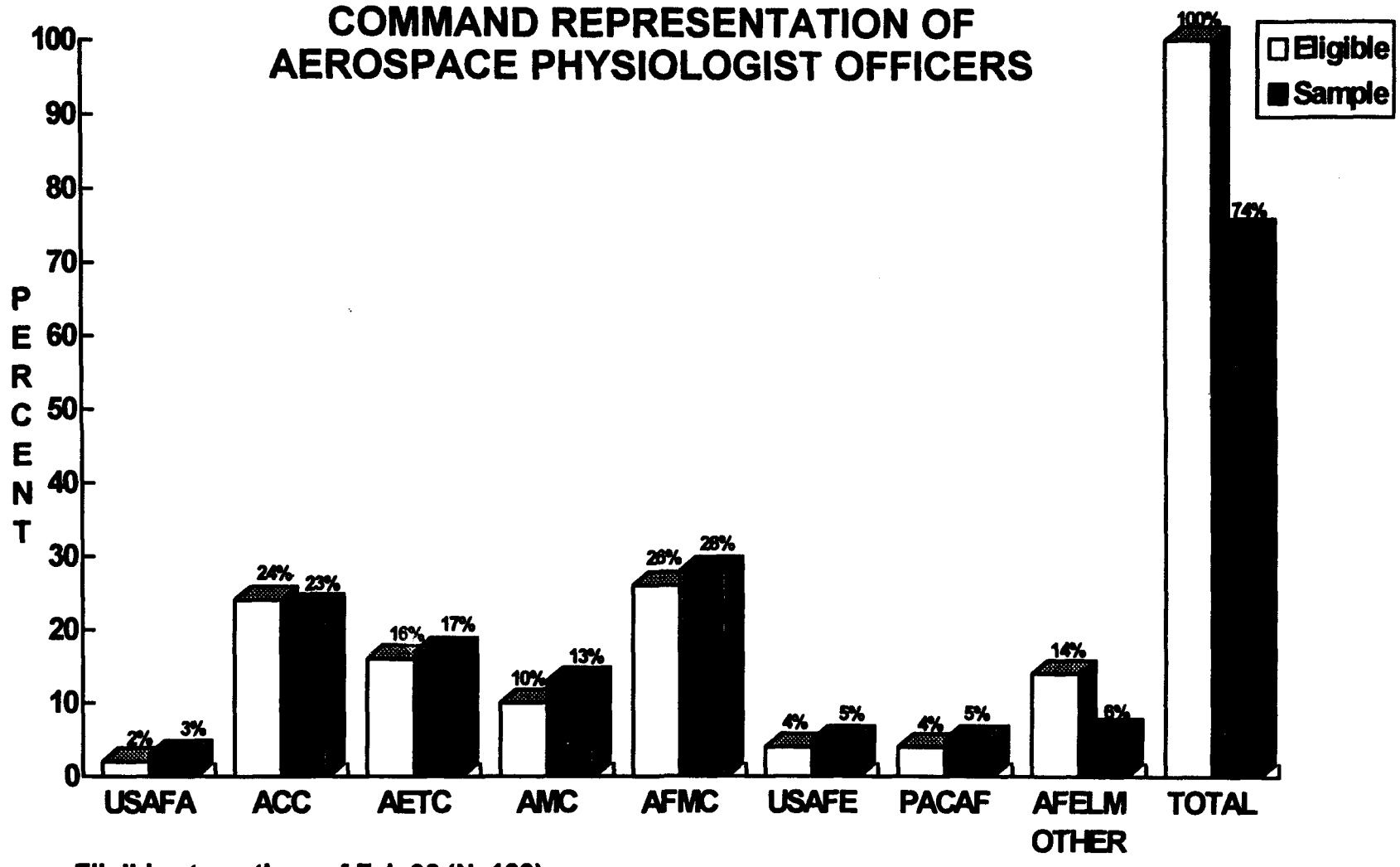
been working in their present job for at least 6 weeks.

HQ USAFSAM/FP concurred with USAFOMS' request to close the survey administration with the return rate listed on 20 April 1993. Eighty-six JIs (81 percent of mailed) had been returned by that date. Of those surveys returned, 78 usable JIs (74 percent) are included in the present survey sample and are the basis for the data contained herewith.

Figures 1 through 3 illustrate general characteristics of the 78 respondents based on background information for the total sample. Figure 1 illustrates the command representation of the participating 916X, 1495A, and 2295A Aerospace Physiologist officer sample. Twenty-eight percent of the population sample are in AFMC, followed by AETC at 17 percent and AMC at 13 percent. Overseas (OS) personnel are represented by USAFE and PACAF at 5 percent each. Figure 2 provides distribution of personnel by AFSC. This figure illustrates that the 65 DAFSC 916X respondents (83 percent) are the largest percentage of the study sample, as well as being representative of the largest number of assigned DAFSC 916X personnel. Figure 3 illustrates the paygrade distribution of the Aerospace Physiologist personnel, which indicates that the 26 captains represent the largest paygrade group or 33 percent of the survey sample.

These three figures compare and illustrate the survey sample with the command representation, paygrades, DAFSCs, and the population characteristics of the utilization field as a whole and within each DAFSC. This survey sample is, therefore, representative of commands and the AFSC 916X, 149XA, and 229XA Aerospace Physiologist officers, and is adequate to allow for valid inferences regarding the presented data.

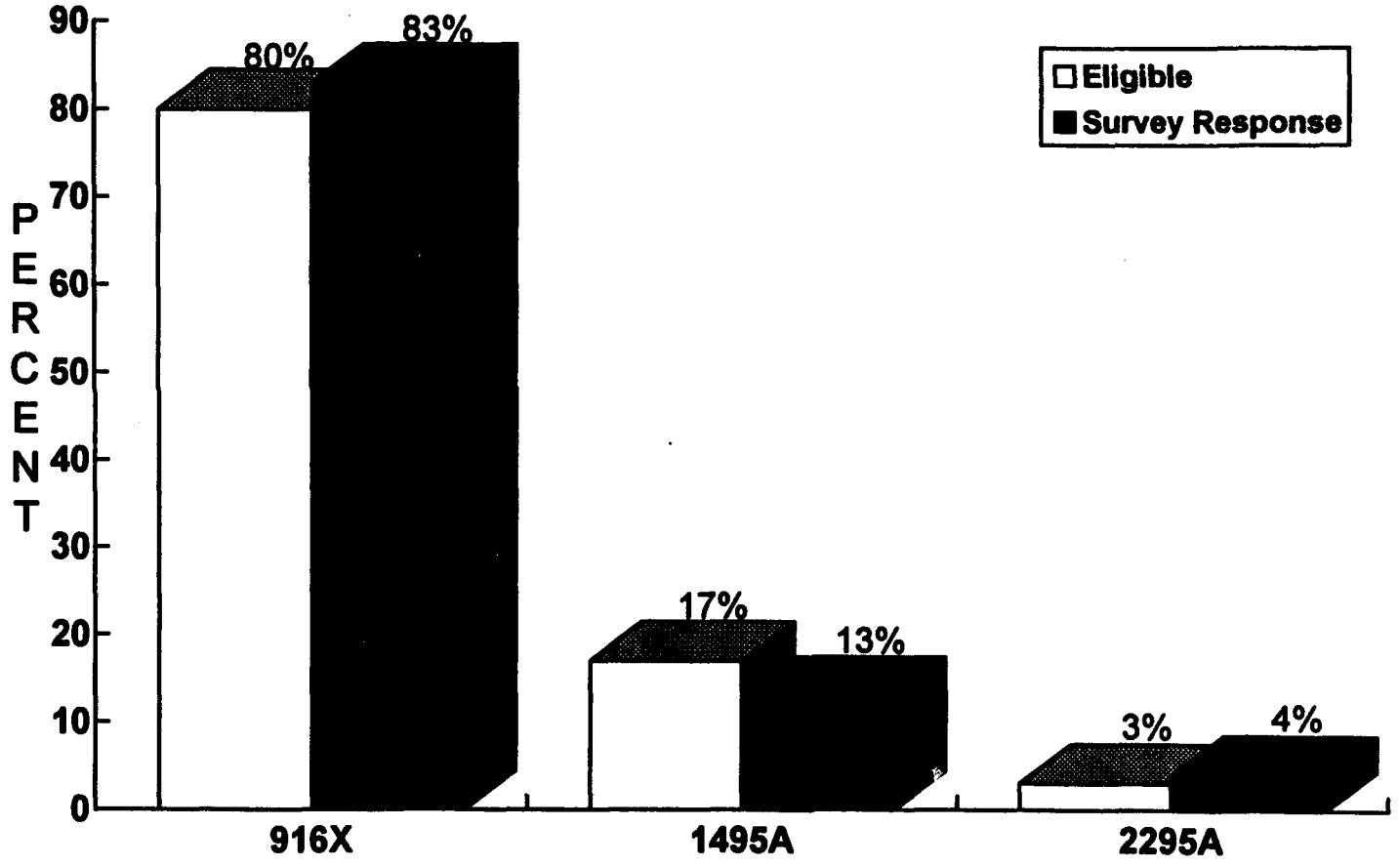
FIGURE 1



Eligible strength as of Feb 92 (N=106)
Survey respondents (N=78)
NOTE: Percentages may not add to 100% due to rounding or nonresponse

FIGURE 2

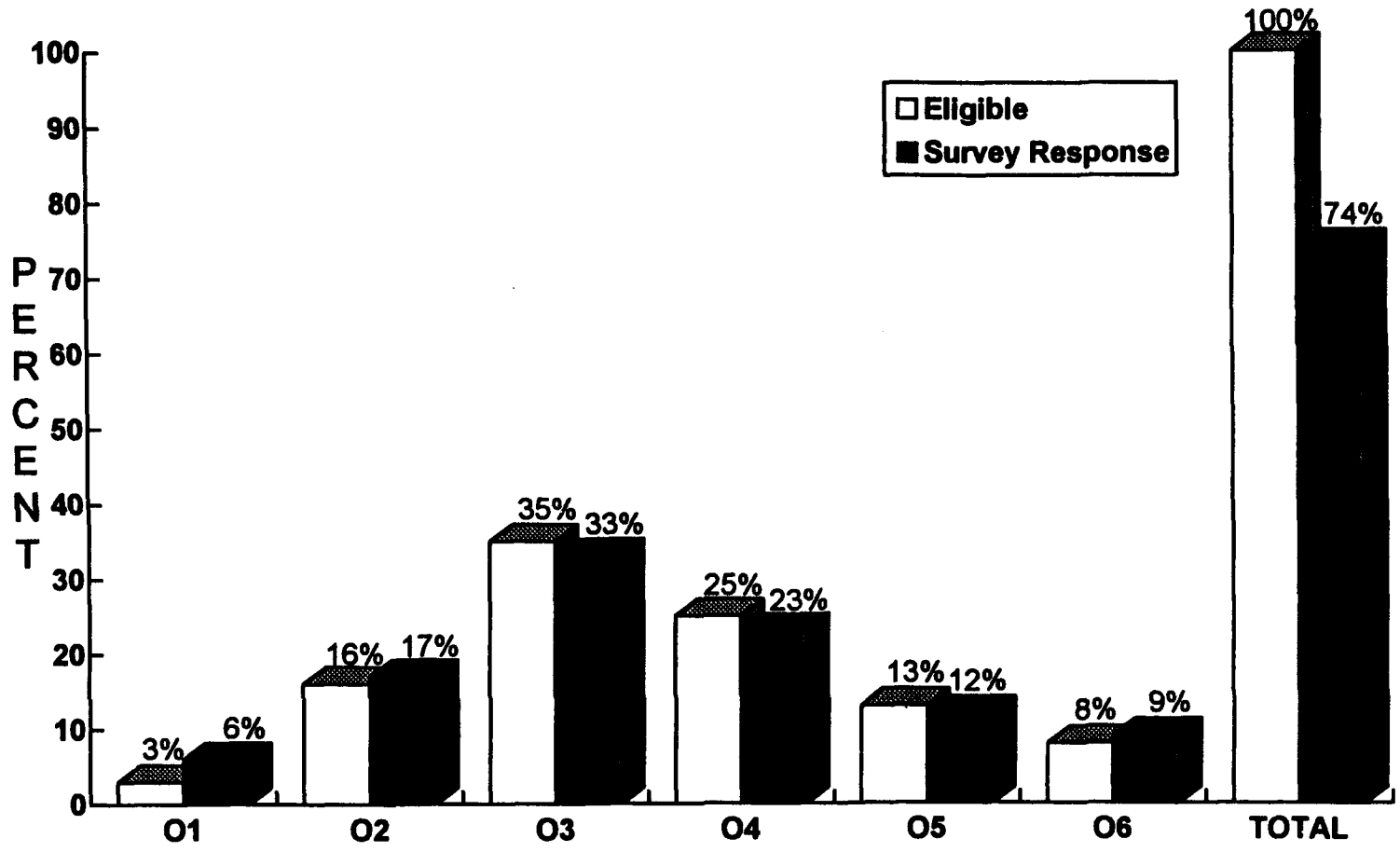
DISTRIBUTION OF AEROSPACE PHYSIOLOGIST OFFICERS BY DAFSC



Eligible strength as of Feb 92 (N=106)
Survey respondents (N=78)
NOTE: Percentages may not add to 100% due to rounding or nonresponse

FIGURE 3

DISTRIBUTION OF AEROSPACE PHYSIOLOGIST OFFICERS BY PAYGRADE



Eligible strength as of Feb 92 (N=106)
Survey respondents (N=78)
NOTE: Percentages may not add to 100% due to rounding or nonresponse

TASK FACTOR ADMINISTRATION

Training Emphasis (TE) Data

In addition to completing the Aerospace Physiologist JI, selected personnel completed a second JI booklet asking for their individual perceptions of TE ratings. These TE booklets were processed separately from the JIs completed by all other AFSC 196X, 149XA, and 229XA officers. The information gained from the TE booklets is used in a number of different analyses discussed in more detail within the report.

Individuals completing TE booklets were asked to rate tasks on a 10-point scale (from no training required to an extremely high amount of training required). Training emphasis is a rating of which tasks require structured training for first-assignment personnel. Structured training is generally construed to be training provided at resident technical schools, field training detachments, mobile training teams, formal OJT, or any other ORGANIZED training method.

A total of 45 TE booklets were sent to Aerospace Physiologist personnel. The officers who received the booklets were hand selected by the USAFOMS analyst to produce a cross-selection of DAFSCs and grades; (colonel - 4, lieutenant colonel - 7, major - 13, and captain - 21). Of the 45 booklets that were mailed, 26 TE booklets were returned, of which 22 were usable and comprise the overall usable return rate of 49 percent.

If all raters were in complete accord on which tasks are important for first-assignment training, the interrater reliability would be 1.0. Since a large number of tasks in the Aerospace Physiologist Occupational Survey were distinctly performed by these officers, there were a number of tasks with minimal responses. This was not unexpected, since members in this AFSC perform a number of tasks which are clearly different. The TE ratings are based on the total 828 tasks, which allowed for more realistic TE values being assigned to tasks and were more reflective of the tasks actually performed by the Aerospace Physiologists.

TE data provided by the 22 Aerospace Physiologist officer SMEs yielded an average of 1.42, with a standard deviation of 1.51. When a given task has an assigned TE rating greater than or equal to the sum of the mean value plus one standard deviation, in this case 2.93, those tasks merit strong consideration for inclusion in some form of structured training for first-assignment officers. There are 88 (of 828) tasks that meet this above average-to-high rating mean criteria.

When used in conjunction with the primary criterion of percent members performing, TE ratings can provide insight into first-assignment officer training requirements. Such insights may suggest a need for lengthening or shortening portions of instruction supporting AFS first-assignment jobs. TE data may also be used to rank order tasks which Aerospace Physiologist officers consider the most important for first-assignment officers to know. Appendix A presents representative tasks that Aerospace Physiologist officer SMEs believe are important to be included in structured training for first-assignment officers and also compares percent members

performing data for first-job and first-assignment officers. Table 1 presents a sampling of representative tasks high in TE ratings.

Ten questions were included in the TE booklet background section requesting each respondent's grade, DAFSC, and time in utilization field. Also included were four questions proffered by USAFSAM/FP, asking each officer's opinion of such data as the resident Aerospace Physiology courses, and in what time period the officers believed they were confident of their teaching abilities.

The majority of the officers who provided usable responses to the TE booklets were captains and majors. All but one respondent (AFSC 1495A) held a 916X DAFSC and had been in their career field from 1 to 96 months.

The responses to the four background questions included in the TE booklet indicate that these members were almost equally divided as to whether the 2-week Instructor Training Workshop, included in the resident course at Brooks AFB TX, prepares them for classroom instructor duty (46 percent Yes to 50 percent No). Almost all members agreed (85 percent) that the 5-week Aerospace Physiology curricula should be more operationally oriented. The 22 members who responded to the background questions believed that Aerospace Physiologists should attend a specialized flight training course (96 percent), while almost half (46 percent) said they believed they were confident to teach within 6 months (five of these respondents stated they still do not feel confident to teach).

COMPARISON OF SURVEY DATA WITH AFR 36-1 SPECIALTY DESCRIPTIONS

Occupational survey data were compared to the three AFR 36-1 Specialty Descriptions for the Aerospace Physiologist Officer (AFSC 9161-9166), dated 1 January 1989; Air Operations Officer, Pilot (AFSC 1491A-1495A) - Physiological Support Officer, dated 1 April 1991; and Air Operations officer, Navigator (AFSC 2291A-2295A) - Physiological Support officer, dated 1 January 1989. Each AFR 36-1 denotes a broad brush view of the types of duties and tasks performed by each specialty.

Generally, the AFR 36-1 officer Air Force Specialty descriptions for the three AFSCs reflect the existent personnel in the Aerospace Physiologist utilization field. The following job structure analysis predominantly describes the specialty descriptions of these officers. The 916X officers are represented in all six jobs; however, the 149XA and 229XA officers are primarily involved in Specialized Aerospace Physiological Instructions, Training, and Management and Supervisory tasks and duties (four jobs).

Since references are made throughout the OSR to duties performed and the amount of time spent performing such duties and tasks, mini-job descriptions of each of the AFSCs are reported below:

TABLE 1

AEROSPACE PHYSIOLOGIST OFFICERS
REPRESENTATIVE TASKS HIGH IN TRAINING EMPHASIS RATINGS

TASKS		TNG EMP
E457	Conduct classroom instruction on effects of elevated partial pressures	6.86
E453	Conduct classroom instruction on compression physics, such as hyperbarics and other hyperbaric technology topics	6.18
G511	Assist flight surgeons on selection of flight profiles during medical evaluation (MEDEVAL) flights	5.64
E447	Conduct classroom instruction on aerospace physiology equipment courses, such as centrifuge	5.45
E450	Conduct classroom instruction on centrifuge profiles	4.59
H566	Respond to chamber related physiological adverse reactions, such as hypoglycemia episodes or oxygen toxicity reactions	4.36
H562	Perform inside attendant functions on hyperbaric chamber dives	4.32
E458	Conduct classroom instruction on experimental aspects of hyperbaric oxygen	4.14
H565	Perform team chief functions during chamber training and proficiency dives	4.05
H558	Perform chamber emergency dive team member functions	3.91
G517	Critique chamber flight lecturers	3.86
D422	Participate in classroom proficiency training	3.77
H563	Perform inside patient attendant functions during hyperbaric chamber dives	3.73
H528	Brief individuals on chamber operations and policies	3.68
G518	Critique chamber proficiency training flights with team members	3.64
D378	Critique student test results with students	3.41
E473	Conduct classroom instruction on USAF Hyperbaric Therapy Programs - Future and Past	3.41
H559	Perform chamber operator functions on hyperbaric chamber dives	3.32
B81	Act as officer-in-charge (OIC) during equipment evaluation dives	3.18
H564	Perform lock operator functions on hyperbaric chamber dives	3.14
K689	Maintain proficiency and currency in cardiopulmonary resuscitation (CPR) techniques	3.09
H540	Direct emergency hyperbaric chamber proficiency training	3.05
E470	Conduct classroom instruction on principles of flight training	3.00
G519	Escort chamber reactors to hospital	3.00
I596	Perform OIC functions on PFT teams	2.95
E468	Conduct classroom instruction on principles of aircraft navigation and weather	2.91

The 916X Aerospace Physiologist Officer MANAGES all functions of the USAF aerospace physiological training units or flights; ORGANIZES and prepares instructional materials; INSTRUCTS personnel in human factors and related subjects; COORDINATES aerospace physiological training programs; SUPERVISES operation of aerospace physiology training devices; MANAGES operation of Hyperbaric chambers; PLANS, COORDINATES, DIRECTS, AND PERFORMS aerospace biotechnology research and development; and MANAGES specialized units supporting high altitude and performance flying activities.

The 149XA Air Operations Officer, Pilot, PLANS AND DIRECTS physiological training and support functions; and PLANS AND DIRECTS aircrew life support functions.

The 229XA Air Operations Officer, Navigator, PLANS AND DIRECTS physiological training and support functions; and PLANS AND DIRECTS aircrew life support functions.

ANALYSIS OF DATA BY JOB STRUCTURE GROUP

Data Processing and Job Structure Analysis

A USAF Occupational Analysis actually begins when the usable JI booklets are optically scanned and the data are merged to automatically form a complete case record of the designated AFSC. This automation sorts, matches, and merges the survey data to generate the appropriate computer files which become the necessary reference materials used by the analyst to perform the actual data analysis.

Conversely, the analysis process itself begins with an examination of the utilization field structure. The structures of the Aerospace Physiologist field as a whole and the two rated DAFSCs within are examined based on the similarity of tasks performed and the percent of time spent ratings provided by job members, independent of other specialty background factors. This analysis is based on what personnel are doing on their jobs, as determined from task responses.

Analysis of the resulting groups identified:

(1) the number and characteristics of the different jobs which existed across the Aerospace Physiologist DAFSCs;

(2) the tasks which were performed together by groups of respondents; and,

(3) tasks and incumbent characteristics which may be peculiar to specific functional requirements AS THEY EXISTED AT THE TIME OF THE SURVEY.

A standardized automated job clustering program is used to identify specific jobs. This hierarchical grouping program is a basic part of the USAFOMS Comprehensive Occupational Data Analysis Program (CODAP) system for job analysis. Each individual job description (all of the tasks performed by that individual and the relative amount of time spent on those tasks) in the sample is compared to every other job description for tasks performed and the relative amount of time spent on each task in the JI. The automated system is designed to locate the two job descriptions with the most similar tasks and percent time spent ratings and combine them to form a composite job description. In successive stages, new members are added to initial groups, or new groups are formed, based on the similarity of tasks performed and similar time ratings in the individual job descriptions.

The basic identifying group used in this hierarchical job structuring process is the job. A job is a group of individuals who perform many of the same tasks and spend similar amounts of time performing them. When there are variations in the combinations of tasks and time spent by sample respondents, a number of different jobs are identified. When there is a substantial degree of similarity between different jobs, they are grouped together and labeled as clusters. Specialized jobs too dissimilar to fit within a cluster are labeled independent jobs (IJs). Differences in the job descriptions of the work being performed are driven by kinds of similar tasks performed, number of tasks performed, and percent of members performing tasks.

The job structure information resulting from this grouping process (the various jobs within the utilization field) can be used to evaluate the accuracy of utilization field documents, such as AFR 36-1 Specialty Descriptions and CTSs, as well as to gain a better understanding of current utilization patterns.

Overview of Specialty Jobs

As discussed in the INTRODUCTION section previously, this occupational survey contains data regarding the Aerospace Physiologist officers by job structure groups, individually by DAFSCs, paygrade and MAJCOM groups, and additionally by the AFSC group as a whole. Accordingly, the following job structure data are reflective of the task similarity and relative time spent on duties by all Aerospace Physiologist officers included in the study.

Structure analysis of the computer products and associated data indicates the presence of two clusters and two IJs. For comparison purposes, Table 2, Job Structure Groups, provides a listing of each of the six jobs included within the clusters and IJs in the survey sample. The stage (ST) number shown beside each title in the listing is a reference to computer-printed information; while the number of personnel in each group (N) is also shown. The user should be aware that the number of personnel in the subgroups does not always equal the total number shown for a cluster, nor are all officers in the total survey included within the clusters and IJs. The jobs performed by these individuals are, however, adequately described and covered within and by the stages included in the following narrative descriptions. It will assist the reader to understand and compare indices, if reference is made to the following figures, tables, and appendices while reading the following narrative. Tables 2 through 10 present selected data of the many indices

TABLE 2

JOB STRUCTURE GROUPS*

I. AEROSPACE PHYSIOLOGICAL TRAINING OFFICERS CLUSTER (ST15, N=29 - 37%)

   A. Aerospace Physiological Specialized Training Instructors (ST25, N=11)
   B. Aerospace Physiological Training Officers (ST21, N=16)

II. AEROSPACE PHYSIOLOGICAL PLANS AND OPERATIONS MANAGERS CLUSTER (ST13, N=32 - 41%)

   A. Aerospace Physiological Operations Directors (ST18, N=22)
   B. Aerospace Physiological Deputy Directors (ST20, N=8)

III. AEROSPACE PHYSIOLOGICAL HYPERBARIC OPERATIONS CHIEFS INDEPENDENT JOB (ST14, N=4 - 5%)

IV. AEROSPACE PHYSIOLOGICAL RESEARCH, DEVELOPMENT, TEST, EVALUATION AND ACQUISITION OFFICERS INDEPENDENT JOB (ST17, N=3 - 4%)

* Individuals (10) not included in above jobs because of specificity of jobs or low numbers of personnel performing tasks are generally described within those jobs discussed in the Job Structure Analysis

NOTE: Percentages may not add up to 100 percent due to rounding or nonresponse

used to support the comparisons and discussions presented in the following specialty job descriptions.

Specialty Job Descriptions

The data in the resulting job structure are determined by performing a comprehensive analysis of the responses from the 78 officers of the targeted DAFSC groups. Based on these CODAP products containing variations in combinations of tasks performed, similarity, and time spent on tasks, the USAFOMS job structure analysis identified two clusters and two IJs within the survey sample. As shown in Figure 4, a total of 68 officers (87 percent) are captured in the analysis.

The two clusters containing four jobs and accounting for 78 percent of the total survey population are:

I. AEROSPACE PHYSIOLOGICAL TRAINING OFFICERS CLUSTER (ST15, N=29)

II. AEROSPACE PHYSIOLOGICAL PLANS AND OPERATIONS MANAGERS CLUSTER (ST13, N=32)

The two IJs accounting for 9 percent of the total survey population are:

III. AEROSPACE PHYSIOLOGICAL HYPERBARIC OPERATIONS CHIEFS INDEPENDENT JOB (ST14, N=4)

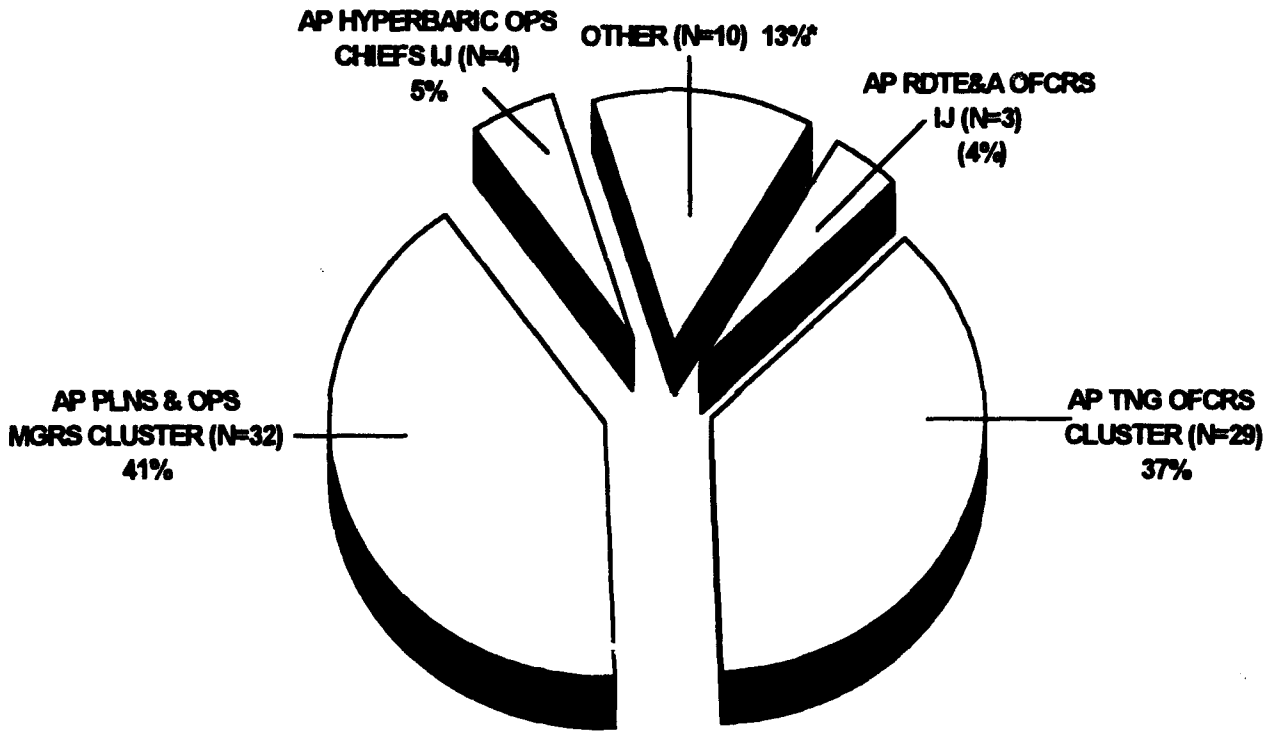
IV. AEROSPACE PHYSIOLOGICAL RESEARCH, DEVELOPMENT, TEST, EVALUATION, AND ACQUISITION OFFICERS INDEPENDENT JOB (ST17, N=3)

The 78 Aerospace Physiologist survey respondents perform tasks in all duties to some measurable extent. There are only 23 of the 828 tasks included in the USAFOMS JI that were not performed by any of the respondents. A major focus of the incumbents' worktime is performing Management and Supervisory functions (29 percent), followed by Specialized Aerospace Physiology Instructions functions (18 percent), Training functions (14 percent), and Organizing, Planning, and Command functions (13 percent). Eighty-three percent of the survey sample are represented by DAFSC 916X, 13 percent by DAFSC 1495A, and 4 percent by DAFSC 2295A.

An indicator of the variability and diversity of jobs performed by the Aerospace Physiologist officers is the number and type of tasks performed by a substantial percentage of all

FIGURE 4

DISTRIBUTION OF AEROSPACE PHYSIOLOGIST OFFICERS ACROSS SPECIALTY CLUSTERS AND INDEPENDENT JOBS



* Individuals not included in specialty jobs because of low numbers of personnel performing tasks or of specificity of jobs. Jobs performed by those not included are generally described within the clusters and independent jobs discussed in Job Structure Analysis.

Eligible strength as of Feb 92 (N=106)
Survey respondents (N=78)

responding officers. Data analysis indicates that 23 tasks are performed by all respondents, 80 tasks by 90 percent of the respondents, and 123 tasks by 80 percent of the respondents.

Tasks performed by 100 percent of respondents are:

determine requirements for personnel, workspace, equipment, or supplies
develop and establish work methods
write replies to matters of command or organizational interests
approve or disapprove AF Forms 988 (Leave Request/Authorization)
approve or disapprove staff documents, such as staff summary sheets
attend relevant scientific meetings
consult with concerned organization on physiological questions or problems
participate in safety meetings
participate in staff meetings or briefings
plan special training or orientation programs
prepare abstracts for scientific meetings
prepare charts, graphs, or slides for briefings
proofread correspondence, reports, or forms
write letters of counseling, appreciation, or reprimand
write narrative correspondence or reports
write point, position, or talking papers
conduct classroom instruction on acceleration and anti-G clothing and equipment
conduct classroom instruction on hypoxia and hyperventilation
conduct classroom instruction on physics of the atmosphere
advise inside observers of appropriate treatment measures for reactors
monitor chamber inside and outside observer positions during proficiency flights
perform inside observer functions during hypobaric proficiency flights

Representative tasks performed by 90 percent of the respondents include:

conduct safety inspections, briefings, or debriefings
advise staff or unit personnel on training matters
approve or disapprove lesson plans
conduct inservice training sessions
conduct instructor in-house training
prepare lesson plans

write test questions, such as for block tests
brief aircrew students on safety precautions associated with flying and life support equipments
brief or demonstrate physiological aids used in flying, such as survival equipment and ejection seats
conduct classroom instruction on decompression sickness (DCS)
conduct classroom instruction on self-imposed stresses
conduct classroom instruction on respiration and circulation

Representative tasks performed by 80 percent of the respondents include:

conduct classroom instruction on chamber flights
conduct classroom instruction on principles and problems associated with vision, including night vision
demonstrate or operate Barany chairs
instruct and critique procedures for treatment of hypoxia
critique chamber proficiency training flights with team members
perform chamber operator functions on hyperbaric chamber dives
instruct Tanker, Transport, and Bomber (TTB) courses
direct completion of corrective actions on inspection, standardization, or evaluation reports
direct special inspections of hyperbaric chamber equipment and assemblies
schedule special aerospace physiologist orientation programs, such as for hyperbaric chambers

JOB STRUCTURE GROUPS

The following section identifies each of the clusters and IJs, as well as providing a detailed narrative description of each of the six jobs included within the structure analysis. In describing the groups, the provided data include a brief summary of the characteristics of the respondents, sample tasks which illustrate the nature of their jobs, differences and similarities of the tasks performed by the groups, and what major findings caused the group to become a separate entity within the job structure analysis.

Figure 4 displays Distribution of Aerospace Physiologist Personnel Across Clusters and Independent Jobs. The average percentage of time spent on the four major functional duties performed by clusters and IJs is illustrated in Table 3. Selected background data for these same groups are shown in Table 4. Tables 5 through 10 provide other statistical supportive data for the

TABLE 3

AEROSPACE PHYSIOLOGIST OFFICERS
AVERAGE PERCENT TIME SPENT ON MAJOR FUNCTIONAL DUTIES BY CLUSTERS AND INDEPENDENT JOBS

DUTIES	# OF TASKS	AP TRAINING OFFICERS CLUSTER (ST15, N=29)	AP PLNS & OPNS MANAGERS CLUSTER (ST13, N=32)	AP HYPERBARIC OPS CHIEFS IJ (ST14, N=4)	AP RDTE&A OFFICERS IJ (ST17, N=3)
A. ORGANIZING, PLANNING, AND COMMAND FUNCTIONS	80	5%	19%	10%	2%
B. MANAGEMENT AND SUPERVISORY FUNCTIONS	205	19%	35%	37%	17%
C. INSPECTION AND EVALUATION FUNCTIONS	59	2%	6%	4%	-
D. TRAINING FUNCTIONS	97	17%	15%	5%	-
E. SPECIALIZED AEROSPACE PHYSIOLOGY INSTRUCTIONS	45	36%	9%	3%	3%
F. OPERATING AND MAINTAINING ASSOCIATED AEROSPACE PHYSIOLOGY EQUIPMENT FUNCTIONS	23	-	-	-	3%
G. HYPOBARIC CHAMBER FUNCTIONS	18	9%	3%	2%	4%
H. HYPERBARIC CHAMBER FUNCTIONS	48	3%	3%	25%	-
I. PARACHUTE FAMILIARIZATION TRAINING (PFT) FUNCTIONS	24	-	-	-	-
J. PRESSURE SUIT AND LIFE SUPPORT EQUIPMENT FUNCTION	64	4%	1%	-	2%
K. CONDUCTING CENTRIFUGE TRAINING AND OPERATIONS FUNCTIONS	41	3%	-	-	2%
L. HIGH ALTITUDE AIRDROP MISSION SUPPORT (HAAMS) FUNCTIONS	30	-	-	-	-
M. RESEARCH, DEVELOPMENT, TEST & EVALUATION, AND ACQUISITION FUNCTIONS	94	-	6%	14%	67%

TOTAL - 828 TASKS

- Response under 1 percent or nonresponse

NOTE: Columns may not add to 100 percent due to rounding or nonresponse

TABLE 4

AEROSPACE PHYSIOLOGIST OFFICERS
SELECTED BACKGROUND DATA FOR CLUSTERS AND INDEPENDENT JOBS

	AP TNG OFCRS CLUSTER (ST15)	AP PLNS & OPNS MGRS CLUSTER (ST13)	AP HYPERBARIC OPS CHIEFS IJ (ST14)	AP RDTE&A OFCRS IJ (ST17)
GROUP SIZE	29	32	4	3
% OF SURVEY SAMPLE	37%	41%	5%	4%
AVG # OF TASKS	107	251	118	66
OFFICER GRADE				
O-1	7%	-	-	33%
O-2	34%	6%	-	-
O-3	38%	19%	75%	33%
O-4	14%	34%	-	33%
O-5	7%	19%	25%	-
O-6	-	22%	-	-
SUPERVISE	48%	91%	50%	-
TIME IN PRESENT JOB				
1-24 MOS	82%	57%	50%	100%
25+ MOS	18%	38%	50%	-
TIME IN UTILIZATION FIELD				
1-48 MOS	52%	21%	50%	33%
49+ MOS	48%	79%	50%	66%

- Less than 1 percent or no response

NOTE: Columns may not add to 100 percent due to rounding or nonresponse

TABLE 4 (CONTINUED)

AEROSPACE PHYSIOLOGIST OFFICERS
SELECTED BACKGROUND DATA FOR CLUSTERS AND INDEPENDENT JOBS

	AP TNG OFCRS CLUSTER (ST15)	AP PLNS & OPNS MGRS CLUSTER (ST13)	AP HYPERBARIC OPS CHIEFS IJ (ST14)	AP RDTE&A OFCRS IJ (ST17)
AFSCs				
9161	21%	9%	-	
9166	48%	78%	100%	100%
1495A	28%	6%	-	-
2295A	3%	6%	-	-
CONUS	86%	84%	100%	100%
OVERSEAS	14%	16%	-	-
MAJCOM OR OPERATING AGENCY				
USAFA	3%	3%	-	-
USAFE	7%	6%	-	-
AETC	21%	16%	-	-
PACAF	7%	6%	-	-
ACC	28%	25%	-	-
AMC	14%	16%	25%	-
AFMC	21%	22%	50%	100%
OTHER	-	6%	25%	-
MALE	86%	81%	75%	100%
FEMALE	14%	19%	25%	-

- Less than 1 percent or no response

NOTE: Columns may not add to 100 percent due to rounding or nonresponse

TABLE 5

AEROSPACE PHYSIOLOGIST OFFICERS
TOTAL ACTIVE FEDERAL MILITARY SERVICE (TAFMS) DISTRIBUTION
BY CLUSTER AND INDEPENDENT JOBS

TAFMS	AP TNG OFCRS CLUSTER (ST15)	AP PLNS & OPNS MGRS CLUSTER (ST13)	AP HYPERBARIC OPS CHIEFS IJ (ST14)	AP RDTE&A OFCRS IJ (ST17)
1-24	14%	3%	25%	33%
25-48	24%	3%	-	-
49-96	24%	13%	50%	33%
97-144	14%	6%	-	-
145-192	10%	19%	-	-
193+	13%	56%	25%	33%
TOTAL IN GROUP	29	32	4	3

NOTE: Columns may not add to 100 percent because of rounding, under 1 percent, or nonresponse

- Less than 1 percent or no response

TABLE 6

DISTRIBUTION OF AEROSPACE PHYSIOLOGIST OFFICER GRADES ACROSS CLUSTERS AND INDEPENDENT SPECIALTY JOBS

PAYGRADE	AP TNG OFCRS CLUSTER (ST15, N=29)	AP PLNS & OPNS MGRS CLUSTER (ST13, N=32)	AP HYPERBARIC OPS CHIEFS IJ (ST14, N=4)	AP RDTE&A OFCRS IJ (ST17, N=3)
O-1 (N=5)	7%	-	-	33%
O-2 (N=13)	34%	6%	-	-
O-3 (N=26)	38%	19%	75%	33%
O-4 (N=18)	14%	34%	-	33%
O-5 (N=9)	7%	19%	25%	-
O-6 (N=7)	-	22%	-	

- Less than 1 percent or no response (N=68)

NOTE: Columns may not add to 100 percent due to rounding or nonresponse

TABLE 7

DISTRIBUTION OF AEROSPACE PHYSIOLOGIST DAFSC GROUP MEMBERS ACROSS CLUSTERS AND INDEPENDENT SPECIALTY JOBS

DAFSC	AP TNG OFCRS CLUSTER (ST15, N=29)	AP PLNS & OPNS MGRS CLUSTER (ST13, N=32)	AP HYPERBARIC OPS CHIEFS IJ (ST14, N=4)	AP RDTE&A OFCRS IJ (ST17, N=3)
9161 (N=11)	21%	9%	-	-
9166 (N=54)	48%	78%	100%	100%
1495A (N=10)	28%	6%	-	-
2295A (N=3)	3%	6%	-	-

- Less than 1 percent or no response

NOTE: Columns may not add to 100 percent due to rounding or nonresponse

TABLE 8

AEROSPACE PHYSIOLOGICAL OFFICERS
AERONAUTICAL RATING STATUS OF CLUSTERS
AND INDEPENDENT JOBS

	AP TNG OFCRS CLUSTER (ST15, N=29)	AP PLNS & OPNS MGRS CLUSTER (ST13, N=32)	AP HYPERBARIC OPS CHIEFS IJ (ST14, N=4)	AP RDTE&A OFCRS IJ (ST17, N=3)
NONRATED PERSONNEL	69%	88%	100%	100%
1495A (PILOT)				
RATED	24%	3%	-	-
NONRATED-SUPP POSITION	3%	3%	-	-
2295A-NAVIGATOR				
RATED	3%	6%	-	-
NONRATED-SUPP POSITION	-	-	-	-

NOTE: Columns may not add to 100 percent due to rounding or nonresponse

- Less than 1 percent or no response

TABLE 9

AEROSPACE PHYSIOLOGIST OFFICERS
MAJCOM DISTRIBUTION BY SPECIALTY JOBS

	AP TNG OFCRS CLUSTER (ST15, N=29)	AP PLNS & OPNS MGRS CLUSTER (ST13, N=32)	AP HYPERBARIC OPS CHIEFS IJ (ST14, N=4)	AP RDTE&A OFCRS IJ (ST17, N=3)
USAFA	3%	3%	-	-
USAFE	7%	6%	-	-
ATC	21%	16%	-	-
PACAF	7%	6%	-	-
ACC	28%	25%	-	-
AMC	14%	16%	25%	-
AFMC	20%	22%	50%	100%
AFELM OTHER	-	6%	25%	-

- Less than 1 percent or no response

NOTE: Columns may not add to 100 percent due to rounding or nonresponse

TABLE 10

AEROSPACE PHYSIOLOGIST OFFICERS
JOB SATISFACTION INDICATORS BY JOB STRUCTURE CLUSTERS AND INDEPENDENT JOBS

	AP TNG OFCRS CLUSTER (ST15, N=29)	AP PLNS & OPNS MGRS CLUSTER (ST13, N=32)	AP HYPERBARIC OPS CHIEFS IJ (ST14, N=4)	AP RDTE&A OFCRS IJ (ST17, N=3)
EXPRESSED JOB INTEREST:				
INTERESTING	86%	94%	100%	100%
SO-SO	10%	3%	-	-
DULL	3%	-	-	-
PERCEIVED UTILIZATION OF TALENTS:				
EXCELLENT TO PERFECT	24%	50%	25%	33%
FAIRLY WELL TO VERY WELL	66%	50%	75%	67%
VERY LITTLE OR NOT AT ALL	10%	-	-	-
PERCEIVED UTILIZATION OF TRAINING:				
EXCELLENT TO PERFECT	21%	56%	-	33%
FAIRLY WELL TO VERY WELL	69%	44%	100%	67%
VERY LITTLE OR NOT AT ALL	10%	-	-	-
SENSE OF ACCOMPLISHMENT:				
SATISFIED	83%	97%	75%	100%
NEUTRAL	7%	-	25%	-
DISSATISFIED	10%	3%	-	-

- Less than 1 percent or no response

NOTE: Columns may not add to 100 percent due to rounding or nonresponse

following specialty job descriptions. Representative tasks for all groups forming the clusters and IJs are presented in Appendices B1 through B4.

I. AEROSPACE PHYSIOLOGICAL TRAINING OFFICERS CLUSTER (ST15, N=29). The first cluster contains 29 officers who represent 37 percent of the survey respondents. Sixty-nine percent of the respondents hold a 916X DAFSC, representing 31 percent of the responding 916X DAFSC officers; 28 percent of the respondents hold a 1495A DAFSC, representing 80 percent of the responding 1495A officers; and one member holds a 2295A DAFSC, representing one-third of the responding 2295A officers. As the title suggests, all members of this cluster are characterized by the relatively large amount of job time spent performing Aerospace Physiology Training functions. Overall, these cluster members perform an average of 107 tasks, of which 34 common tasks account for 41 percent of their worktime.

Analysis identified two separate jobs within the Aerospace Physiological Training officers cluster. While these two jobs are fairly similar in nature with types of duties performed, there is a considerable range in average number of tasks performed by the incumbents, with 139 being the largest and 64 being the smallest number of tasks performed by any of the incumbents. Percent time spent indices also present a considerable range between the two jobs (53 to 25 percent). Forty-eight percent of these officers indicated they supervise other personnel. The greater majority are assigned to CONUS (ACC - 28 percent), with the remaining officers being assigned to AETC and AFMC (21 percent each), and AMC (14 percent). Only 14 percent of this cluster group are stationed overseas at USAFE or PACAF bases (7 percent each).

Of the members within the cluster, 41 percent have been in their current jobs from 1 to 12 months, 41 percent from 13 to 24 months, and 18 percent for 25+ months. The majority of the officers are captains (38 percent) and first lieutenants (34 percent), with 14 percent being majors. Only four of the respondents are stationed at OS bases in Wing or Group positions. Fourteen percent of the cluster are female. Thirty percent indicate they are rated.

Overall job satisfaction indices were high for this cluster group. Of the 29 members represented, 86 percent find their job "Interesting;" 66 percent believe their job utilizes their talents "Fairly Well To Very Well," while utilization of training indices of 69 percent are also in the "Fairly Well to Well" category. These members also report a very high percentage (83 percent) of personal "Satisfaction" with their sense of accomplishment from work. Representative tasks performed by this cluster group are presented in Appendix B1.

The two identified jobs are:

A. Aerospace Physiological Specialized Training Instructors (ST25, N=11)
B. Aerospace Physiological Training Officers (ST21, N=16)

As would be expected, these training officers spend proportionally more of their worktime focusing on Specialized Aerospace Physiology Instructions and Training functions (36 percent), followed by Management, Supervisory, Organizing, Planning, and Command functions (24 percent). Commonly reported job titles are Physiological Training Officer, Department Chairman, Department of Aerospace Physiologist, Aerospace Physiologist officer, and Human Factors Test Physiologist.

The differences in the job descriptions of the work being performed by incumbents in the two jobs include, but are not limited to, kinds of similar tasks performed, the number of tasks performed (e.g., 64 to 139 tasks), percent members performing tasks (e.g., 83 percent to 100 percent), and time spent on tasks (e.g., Specialized Aerospace Physiological Instructions functions (25 percent to 53 percent)). These differences, as stated, will be common to all data included in the job structure groups. An example of tasks common across the Aerospace Physiologist Training officers cluster include:

conduct classroom instructions on human factors
conduct classroom instructions on hypoxia and hyperventilation
certify AF Forms 702 (Individual Physiological Training Record)
brief trainees prior to chamber flights to prevent unwarranted chamber reactions
prepare lesson plans
brief aircrew students on safety precautions associated with flying and life support equipment
participate in safety meetings
practice classroom presentations
demonstrate or operate Barany chairs
prepare charts, graphs, or slides for briefings
monitor inside observer positions and students during rapid decompression

A. Aerospace Physiological Specialized Training Instructors (ST25, N=11). The first of the two jobs in the Aerospace Physiological Training officers cluster is distinct in that these members spend the largest amount of their worktime performing specialized Aerospace Physiology Instructions functions (53 percent). The remainder of their job time is occupied primarily performing Management and Supervisory functions (13 percent), Training functions (12 percent), Organizing, Planning, and Command (11 percent) and Hypobaric Chamber functions (5 percent).

These incumbents have a narrow scope in their jobs in respect to the other specialty jobs in the study in that they perform the least average number of common tasks (21) with 64 tasks accounting for 45 percent of their job time. These officers differ from the other 16 members of the cluster in that 91 percent have been in their present jobs from 1 to 24 months, which makes them the junior members of the cluster group. The membership is equally divided between

DAFSCs 1495A and 196X (five each). Analysis indicates that the six rated officers are basically performing the same types of tasks as do the 916X officers.

This membership spends 55 percent of their worktime supervising other personnel. Seven of the officers are captains, while the other four officers represent all other grades except colonel. All members are stationed at CONUS bases and report working in positions with job titles such as Physiological Training officer, Chief of Academics, and Aerospace Physiologist Instructor. Tasks which differentiate the Aerospace Physiologist Specialized Instructors from the other members of the cluster include:

conduct classroom instructions on principles and problems associated with vision, including night vision
conduct classroom instruction on respiration and circulation
conduct classroom instruction on decompression sickness (DCS)
conduct classroom instruction on physics of atmosphere
instruct and critique student procedures for treatment of hyperventilation
instruct and critique student on performing anti-G straining maneuvers
brief aircrew students on safety precautions associated with flying and life support equipment

B. Aerospace Physiological Training Officers (ST21, N=16). The second of the two jobs identified in this cluster differs from the Aerospace Physiology Specialized Training officers in that they spend 47 percent of their worktime in training; however, it is divided between Specialized Aerospace Physiology Instructions (25 percent) and Training functions (22 percent). They also spend a larger percent of their worktime performing Management and Supervisory functions (25 percent), as well as working more closely training aircrew members in hyperbaric chamber, parachute familiarization, pressure suit and life support equipment, centrifuge training, and HAAMS tasks.

Overall, these officers perform an average of 139 tasks, with 55 common tasks accounting for 43 percent of their job time. Fifty-six percent of the membership report they are supervisors. These members, like their counterparts in the cluster group, are also relatively new in their jobs in that 81 percent report being in their present jobs from 1 to 24 months.

Nine of the members are first lieutenants, three are majors, two are captains, and one each lieutenant colonel and second lieutenant. Almost all incumbents (13) have a 916X DAFSC, while 3 members are rated officers with a 1495A DAFSC. Job titles such as OIC Aircrew Training, Chief, Aerospace Physiologist, and PSD Operations Officer are commonly reported. Tasks that differentiate these officers from the other 11 members of the Aerospace Physiological Training officers cluster include:

conduct classroom instruction on health and wellness
conduct classroom instruction on aircrew attention management
instruct tanker, transport, and bomber (TTB) courses
prepare charts, graphs, or slides for briefings
certify AF Forms 1274 (Physiological Training)
participate in staff meetings or briefings
coordinate formal classroom training with appropriate personnel
conduct facility tours
advise staff or unit personnel on training matters
conduct hypobaric chamber team training initiate recalls
perform daily office security inspections

II. AEROSPACE PHYSIOLOGICAL PLANS AND OPERATIONS MANAGERS CLUSTER (ST13, N=32). This second cluster group represents 41 percent of the survey sample and is the larger of the two clusters. Incumbents in the two jobs identified within the Aerospace Physiologist Plans and Operations Managers cluster are differentiated from each other in the broad scope of their duties by the concentration of their worktime performing Management and Supervisory duties (34 to 35 percent) and Organizing, Planning, and Command functions (19 to 22 percent). The largest majority of the incumbents are higher ranking officers (majors, colonels, and lieutenant colonels - 75 percent), while captains and first lieutenants comprise the remainder of the population.

These members perform the largest numbers of tasks of the survey group with an overall average of 251 tasks, of which 92 are commonly performed and account for 32 percent of their worktime. As is to be expected, Management, Supervisory, Organizing, Planning, and Command functions comprise the dominant proportion of the members' worktime (54 percent). They also perform the largest percent of time spent in Inspection and Evaluation functions (8 percent), as well as performing tasks included in all other duty areas of the USAFOMS JI to some measurable amount.

Eighty-seven percent of the members hold a 916X DAFSC, which represents 43 percent of the responding AFSC 916X officers and is the largest representation of this DAFSC. Ninety-one percent of the incumbents supervise. They also report the most longevity in their current jobs with 1 to 24 months (57 percent), 25 to 36 months (19 percent), and 37 to 48 months (19 percent). Six of the incumbents are female. Four of the incumbents are overseas and attached to PACAF or USAFE (6 percent each), with the remaining members being stationed largely at ACC - 25 percent, AFMC - 22 percent, and AETC and AMC - 16 percent each. Four of the officers indicate they are rated personnel in nonrated positions (2 each pilots and navigators) and comprise 12 percent of this population.

The two separate jobs that were identified within the Aerospace Physiological Plans and Operations Managers cluster are listed below. Representative tasks performed by this cluster group are presented in Appendix B2.

A. Aerospace Physiological Operations Directors (ST18, N=22)
B. Aerospace Physiological Deputy Directors (ST20, N=8)

These supervisory and management officers report high indices in their sense of accomplishment from their work (97 percent), while 94 percent of the group find their jobs "Interesting." The members of this cluster believe their talents are utilized "Fairly Well To Very Well," (50 percent) and "Excellent to Perfect" (50 percent). They also perceive their utilization of training as "Excellent To Perfect" (56 percent) and "Fairly Well To Well" (44 percent). Examples of tasks common across the Aerospace Physiological Plans and Operations Managers cluster include:

counsel personnel on career, personal, or military related-problems
write narrative correspondence or reports
interpret policies, directives, or procedures
analyze unit plans for effectiveness
establish and administer procedures for implementation of programs, policies, or plans
approve or disapprove budget and financial expenditures
advise staff or unit personnel on training matters
write point, position, or talking papers
conduct classroom training on aircrew attention management
conduct classroom training on mechanical effects of pressure changes
chair ad hoc groups, special conferences, or planning committees

A. Aerospace Physiological Operations Directors (ST18, N=22). The members of the first of the two jobs identified differentiate themselves from the other eight members of this cluster in that they spend the largest amount of time of any of the members of this study performing Inspection and Evaluation functions (8 percent) and also have an equal number of representatives (two each) from both rated DAFSCs. The membership consists of mostly higher ranking personnel, seven colonels, seven majors, and four lieutenant colonels. All but three members supervise. Thirteen of these incumbents have been in their current jobs from 1 to 24 months and 9 for 25 to 48 months.

Over half (53 percent) of the incumbent's worktime is spent performing Management and Supervisory (34 percent) and Organizing, Planning, and Command functions (19 percent). The remaining time is divided between Training functions (19 percent), Inspection and Evaluation functions (8 percent), as well as working with both chambers, pressure suit and life support equipment, centrifuge, and HAAMS. These incumbents do not, however, perform Research,

Development, Test, Evaluation, and Acquisition (RDTE&A) functions, as do the other members of the cluster group.

These Aerospace Physiological Operations Directors perform an average of 275 tasks, with 163 commonly performed tasks accounting for 53 percent of their job time. A few of the job titles reported by these officers are Human Factors Consultant, Director, Physiological Training, and Chief, Physiological Support Division. Examples of tasks that are performed by members of this job are:

evaluate command or organizational training plans and programs
track timeliness and effectiveness of unit corrective actions
evaluate inspection report findings
analyze inspection reports or procedures
conduct follow-up actions on open report discrepancies
direct completion of corrective actions on inspection, standardization, or evaluation reports
brief aircrew students on safety precautions
brief personnel on changes in training methods or procedures
review instructor evaluations
determine if training for assigned courses follows established policies and directives

B. Aerospace Physiological Deputy Directors (ST20, N=8). The second job in this cluster differs from the other in that it is less broad in scope since members spend a fourth of their time accomplishing tasks in RDTE&A functions. There are no rated members reported in this job since all eight members hold a 916X DAFSC. These incumbents perform an average of 211 tasks, with 83 commonly performed tasks accounting for 39 percent of their worktime. The largest amount of worktime (57 percent) for these incumbents is, as with the other members of the cluster, concentrated on Management and Supervisory functions (35 percent) and Organizing, Planning, and Command functions (22 percent). In contrast to the Aerospace Physiological Operation Directors job, this group does not perform tasks in HAAMS and parachute familiarization training, and performs fewer tasks in hypobaric chamber, pressure suit and life support equipment, and centrifuge training duties.

The membership consists of two lieutenant colonels, four majors, and two captains. Three officers report being in their current position from 1 to 24 months and five from 25 to 48 months. All members report supervising other personnel. Commonly reported job titles for these members are Chief, Aerospace Physiologist Division, OIC Cockpit Integration Laboratory, and Chief, Clinical Investigations. Tasks which are typically accomplished by the Aerospace Physiologist Deputy Directors are:

originate protocols for human and animal research
analyze research related data
monitor ongoing research protocols
advocate funding for projected research projects
approve or disapprove justifications for new or additional facilities or equipment
determine requirements for personnel, workspace, equipment, or supplies
approve or disapprove directives, regulations, or manuals
approve or disapprove work priorities
approve or disapprove justifications for manning or manpower changes

III. AEROSPACE PHYSIOLOGICAL HYPERBARIC OPERATIONS CHIEFS INDEPENDENT JOB (ST14, N=4). The four members of this IJ represent 5 percent of the survey sample and are distinctive from the members of the other Aerospace Physiologist officer groups in the study in that they fairly evenly divide their worktime in four duties. Almost half of their job time (47 percent) is spent performing Management and Supervisory (37 percent) and Organizing, Planning, and Command (10 percent) functions, with the remaining (39 percent) performing Hyperbaric Chamber functions (25 percent) and RDTE&A functions (14 percent). All four incumbents hold a 916X DAFSC, and only two of the members supervise other personnel. These members are stationed largely in CONUS at AFMC (50 percent) and AMC (25 percent) bases.

Two of the members are relatively new in their current job (1 to 12 months), while the other two officers have from 25 to 36 months' expertise in duty functions. These four incumbents represent 5 percent of the survey sample and perform an average of 118 tasks, with 52 common tasks accounting for 40 percent of their worktime. Representative tasks performed by these officers are presented in Appendix B3.

The membership includes one lieutenant colonel and three captains, and none of the members report being rated. Commonly reported job titles for this IJ are Chief, Hyperbaric Operations and Chief, Life Sciences. Again, extremely high indices in job satisfaction are reported by the Aerospace Physiologist Operations Chiefs, who find their job "Interesting" (100 percent) and believe that their job utilizes their training "Fairly Well To Very Well" (100 percent). Three quarters (75 percent each) of these officers report being "Satisfied" with sense of accomplishment from work and utilization of their talents in the "Fairly Well To Very Well" range. Tasks which differentiate these members from the other Aerospace Physiologist officers are:

perform chamber operator functions on hyperbaric chamber dives
monitor scheduling of hyperbaric medicine team monthly crew dives
monitor status of hyperbaric equipment and supply orders

evaluate research protocols and test plans for compliance with human use committee directives
perform routine research functions, such as investigative or research assistant
direct emergency hyperbaric chamber proficiency training
review periodic inspection documentation of hyperbaric chamber assemblies
establish supply requirements in support of hyperbaric research needs
direct loading and unloading of patients to or from hyperbaric chambers

IV. AEROSPACE PHYSIOLOGICAL RESEARCH, DEVELOPMENT, TEST, EVALUATION, & ACQUISITION (RDTE&A) OFFICERS INDEPENDENT JOB (ST17, N=3). The final job identified in this data analysis contains three officers and represents 4 percent of the survey sample. These members are distinct in respect to all other members of the survey in that these are junior members in their first job and are the newest members with only 1 to 12 months in their current jobs. They also perform the smallest average number of tasks (66) of all the job structure groups. Fifty commonly performed tasks account for 68 percent of their worktime.

These officers also spend the largest percentage of job time spent on duties by any of the respondents in the study performing RDTE&A duties (67 percent), followed by Management and Supervisory functions (17 percent). These two areas comprise the major portion (87 percent) of their total worktime. These incumbents also differ in that they do not perform training and hypobaric chamber functions as do the majority of the survey respondents. Representative tasks performed by these officers are presented in Appendix B4.

This RDTE&A IJ includes a major, a captain, and a second lieutenant who are stationed at AFMC CONUS bases in a Research Laboratory position. All members hold a 916X DAFSC. None of the members report being rated or supervising other personnel. Typical tasks performed by this group are:

conduct tests and evaluations on aerospace physiologist equipment
test and evaluate life support equipment for compliance to specifications and standards
analyze and compare customer's ongoing needs with applicable technological changes
analyze related research data
operate laboratory based data acquisition systems, such as strip chart and computer driven recording hardware
select appropriate biomedical instrumentation for research chamber flights

demonstrate current technology to management, interested users, and VIPs
monitor ongoing research protocols
review and collate data for research publications
provide input to systems program office (SPO) for use and maintenance of prototype equipment

The membership of this IJ report extremely high indices of "Satisfaction" with their sense of accomplishment from work and find their jobs "Interesting" (100 percent each). Two of the members believe their jobs utilize their talents and training "Fairly Well To Very Well" (67 percent each). All of these incumbents also indicate "Positive" in their perception of career progression opportunities.

ANALYSIS OF DATA BY DAFSC

DAFSC Group Descriptions

A major portion of analysis within any OSR, particularly one with three different AFSCs, is an indepth analysis of the targeted DAFSC, including, but not limited to, such factors as corresponding paygrade groups, selected background data, MAJCOMs of assignment, and TAFMS indices, which are used by the analyst to determine differences and similarities of tasks, numbers of tasks performed, and time spent on duties. Figure 2 presents the distribution of survey sample by AFSCs.

The analysis of the three targeted DAFSCs, paygrade groups, MAJCOM groups, and selected background data indicates both the similarity and diversity of the tasks performed among the survey respondents, particularly in the specialized aerospace physiologist instructions, hypobaric chamber functions, and RDTE&A, and centrifuge training and operations. An indepth analysis and comparison of occupational survey data were made with the appropriate AFR 36-1 and the current duties and tasks performed. These data accurately describe and reflect the jobs of the officers in the 916X, 149XA, and 229XA specialty descriptions. Information from these analyses can and should be used to identify areas which should be included in training and classification documents, such as the CTSs and AFR 36-1 Specialty Descriptions.

On the whole, data analysis confirms there are minor differences between types of duties and tasks performed by the 1495A and 2295A rated officers when compared to the 916X officers. As would be expected, there are differences in percent time spent and percent members performing indices, but overall, the rated officers perform relatively the same tasks and duties as do the nonrated officers whenever they are assigned in the same duty areas. The 916X officers perform duties in RDTE&A (9 percent) and less time accomplishing training duties (47 percent); whereas the 1495A and 2295A rated officers spend a larger percentage of time performing

training and specialized aerospace physiology instructions (68 and 57 percent, respectively). As discussed previously, all rated and nonrated officers spend the majority of their worktime performing whatever those duties are in their specific assignment (centrifuge training, hypobaric, or hyperbaric chambers, etc.).

Representative tasks which show the differentiation in time spent on duties among the DAFSC officers are presented in Table 11. (These indices indicate commonality of time spent performing these tasks.) The most consistent tasks performed across the three DAFSC groups are Performing Specialized Aerospace Physiology Instructions (a high of 41 percent to a low of 14 percent), Management and Supervisory (a high of 30 percent and a low of 20 percent), and Training functions (a high of 14 percent and a low of 12 percent).

AIR FORCE SPECIALTY DISCUSSION

A review of the following additional tables and appendices will assist the user in understanding the various data included in the following discussion of each of the three targeted AFSCs. Table 12 presents selected background characteristics of DAFSC officers, Table 13 illustrates job satisfaction indicators by DAFSC groups, while Table 14 presents level of education and Professional Military Education (PME) school attendance by DAFSC respondents. Appendices C1 to C3 provide representative tasks performed by each of the DAFSC groups.

DAFSC 9161 and 9166 - Aerospace Physiologist Officers. The 65 respondents in DAFSC 916X (9161 (11) and 9166 (54)) comprise 83 percent of the total survey population, which is 78 percent of the eligible 916X officers. The tasks accomplished by these personnel indicate a broad knowledge of a substantial body of principles, concepts, and objectives, while coordinating instruction of personnel in aerospace physiologist and aviation human factors. Since the major focus of the aerospace physiologist officer's worktime is managing aerospace physiological training and hyperbaric therapy units, it is not surprising that the largest percentage of their worktime (47 percent) is spent in the many facets of their training duties. Management and Supervisory functions comprise 44 percent of their job time, followed by 9 percent in related RDTE&A functions.

These 916X officers perform an average of 159 tasks, and 49 percent report supervising from 1 to 10 employees. Twenty percent of the members of this DAFSC are female, and all grades are represented, with the majority of the responding 916X officers being captains (31 percent) followed equally (20 percent) by majors and first lieutenants. Fourteen of the members are lieutenant colonels and colonels (seven each). Sixty-eight percent of the 916X officers have been in their present jobs from 1 to 24 months, with 32 percent having over 25 months, which indicates the expertise of these 916X officers in their duties. In military experience, TAFMS indices indicate that a little less than 50 percent have from 1 to 96 months, 23 percent have 97 to 196 months, and 29 percent have 193+ months of experience. The largest number of the 916X

TABLE 11

AVERAGE PERCENT TIME SPENT ON DUTIES BY
AEROSPACE PHYSIOLOGIST DAFSC OFFICERS
(N=78)

DUTIES	916X (N=65)	1495A (N=10)	2295A (N=3)
A. PERFORMING ORGANIZING, PLANNING, AND COMMAND FUNCTIONS	14%	8%	9%
B. PERFORMING MANAGEMENT AND SUPERVISORY FUNCTIONS	30%	20%	29%
C. PERFORMING INSPECTION AND EVALUATION FUNCTIONS	4%	3%	5%
D. PERFORMING TRAINING FUNCTIONS	14%	12%	14%
E. PERFORMING SPECIALIZED AEROSPACE PHYSIOLOGY INSTRUCTIONS AND ACQUISITION FUNCTIONS	14%	41%	30%
F. OPERATING AND MAINTAINING ASSOCIATED AEROSPACE PHYSIOLOGY EQUIPMENT	-	-	-
G. PERFORMING HYPOBARIC CHAMBER FUNCTIONS	4%	10%	7%
H. PERFORMING HYPERBARIC CHAMBER FUNCTIONS	5%	-	3%
I. CONDUCTING PARACHUTE FAMILIARIZATION TRAINING (PFT)	-	1%	-
J. PERFORMING PRESSURE SUIT AND LIFE SUPPORT EQUIPMENT FUNCTIONS	2%	3%	2%
K. CONDUCTING CENTRIFUGE TRAINING AND OPERATIONS FUNCTIONS	2%	-	-
L. PERFORMING HIGH ALTITUDE AIRDROP MISSION SUPPORT (HAAMS) FUNCTIONS	-	-	-
M. PERFORMING RESEARCH, DEVELOPMENT, TEST, EVALUATION, AND ACQUISITION FUNCTIONS	9%	-	-

- Under 1 percent or no response

NOTE: Columns may not add to 100 percent due to rounding or nonresponse

TABLE 12

SELECTED BACKGROUND CHARACTERISTICS OF AEROSPACE PHYSIOLOGIST OFFICERS BY DAFSC GROUPS

GROUP SIZE	916X (N=65)	1495A (N=10)	2295A (N=3)
AVG # OF TASKS	159	118	191
MALE	80%	90%	100%
FEMALE	20%	10%	-
OVERSEAS	12%	10%	33%
CONUS	88%	90%	67%
SUPERVISE			
0	40%	20%	33%
1-5	31%	50%	67%
6-10	18%	-	-
11-24	11%	-	-
TIME IN PRESENT JOB			
1-12 MOS	40%	40%	-
13-24 MOS	28%	50%	67%
25-36 MOS	20%	10%	-
37-219 MOS	12%	-	-
OFFICER GRADE			
O1	8%	-	-
O2	20%	-	-
O3	31%	40%	67%
O4	20%	50%	-
O5	11%	10%	33%
O6	11%	-	-

- Under 1 percent or no response

NOTE: Columns may not add to 100 percent due to rounding or nonresponse

TABLE 12 (CONTINUED)

SELECTED BACKGROUND CHARACTERISTICS OF AEROSPACE PHYSIOLOGIST OFFICERS BY DAFSC GROUPS

GROUP SIZE	916X (N=65)	1495A (N=10)	2295A (N=3)
TAFMS			
1-24 MOS	12%	-	-
25-48 MOS	15%	-	-
49-96 MOS	20%	30%	67%
97+ MOS	52%	80%	33%
MAJCOM			
USAFA	3%	-	-
USAFE	6%	-	-
AETC	12%	5%	-
PACAF	5%	1%	-
ACC	23%	2%	1%
AMC	12%	-	2%
AFMC	31%	2%	-
AFELM OTHER	8%	-	-
AERONAUTICAL RATING STATUS			
NONRATED	100%	-	-
PILOT IN RATED SUPPLEMENT	-	80%	-
PILOT IN NONRATED SUPPLEMENT	-	20%	-
NAVIGATOR IN RATED SUPPLEMENT	-	-	100%
NAVIGATOR IN NONRATED SUPPLEMENT	-	-	-

- Under 1 percent or no response

NOTE: Columns may not add to 100 percent due to rounding or nonresponse

TABLE 13

JOB SATISFACTION INDICATORS OF AEROSPACE PHYSIOLOGIST OFFICERS BY DAFSC

	ALL DAFSC OFS (N=78)	916X (N=65)	1495A (N=10)	2295A (N=3)
EXPRESSED JOB INTEREST:				
INTERESTING	91%	94%	80%	67%
SO-SO	6%	5%	10%	33%
DULL	1%	2%	-	-
PERCEIVED UTILIZATION OF TALENTS:				
EXCELLENT TO PERFECT	35%	35%	30%	33%
FAIRLY WELL TO VERY WELL	62%	60%	70%	67%
VERY LITTLE OR NOT AT ALL	4%	5%	-	-
PERCEIVED UTILIZATION OF TRAINING:				
EXCELLENT TO PERFECT	35%	35%	30%	33%
FAIRLY WELL TO VERY WELL	60%	60%	60%	67%
VERY LITTLE OR NOT AT ALL	5%	5%	10%	-
SENSE OF ACCOMPLISHMENT:				
SATISFIED	91%	92%	80%	100%
NEUTRAL	4%	2%	20%	-
DISSATISFIED	5%	6%	-	-

- Less than 1 percent or no response

NOTE: Columns may not add to 100 percent due to rounding or no response

TABLE 14

AEROSPACE PHYSIOLOGIST OFFICERS
LEVEL OF EDUCATION AND PME ATTENDANCE
BY DAFSC GROUPS

	916X (N=65)	1495A (N=10)	2295A (N=3)
BACHELOR'S +, NO MASTER'S	33%	60%	67%
MASTER'S DEGREE	46%	20%	-
MASTER'S +, NO ADV DEGREE	2%	20%	33%
DOCTORAL LEVEL	14%	-	-
POST DOCTORAL	6%	-	-
WHAT PROFESSIONAL MILITARY EDUCATION COURSES (PME) HAVE YOU ATTENDED?			
PME COURSE ATTENDED			
SQUADRON OFFICERS SCHOOL (SOS)	46%	80%	67%
AIR COMMAND AND STAFF COLLEGE OR EQUIVALENT	32%	50%	33%
AIR WAR COLLEGE OR EQUIVALENT	15%	10%	-
INDUSTRIAL COLLEGE, ARMED FORCES, OR EQUIVALENT	-	-	-

- Less than 1 percent or no response

officers are stationed in AFMC (31 percent), ACC (23 percent), or AETC and AMC (12 percent each).

The 916X officers have the highest indices of the Aerospace Physiologist respondents in finding their jobs "Interesting" (94 percent) and in reporting high job satisfaction with their sense of accomplishment from work (92 percent). Over half of the members believe their job utilizes their talents "Fairly Well To Very Well" (60 percent), as well as utilizing their training "Fairly Well To Very Well" (60 percent). None of the 916X respondents report being rated. Eighty-three percent indicate their career plans are to remain in the 916X utilization field, with only 11 percent indicating they would crosstrain, while 2 percent indicate they will separate. These 916X officers also perceive their career progression more positively (78 percent) than do the other DAFSC Aerospace Physiologist officers. Sixty-eight percent of the members report having higher level (master, doctoral, and post-doctoral) degrees.

DAFSCs 14X1A and 14X5A - Air Operations Officer, Pilot. The 10 officers in this DAFSC account for 13 percent of the population sample. They perform an average of 118 tasks, which are the smallest number of tasks performed by the aerospace physiologist DAFSC personnel. The tasks accomplished by the 1495A respondents indicate a broad knowledge of aviation operations and management activities which they use in conducting and coordinating specialized aerospace physiology instructions, training, and hypobaric chamber functions.

One of the respondents in the 1495A DAFSC is female. There are no lieutenants or colonels included among these respondents who report the largest percentage of members supervising (80 percent) other personnel. The membership of this DAFSC includes five majors, four captains, and one lieutenant colonel. These 10 officers spend the largest proportion of their worktime performing tasks in 5 duties (68 percent) instructing aerospace physiology and aviation human factors, while the remaining 32 percent of their worktime occupies tasks in the other 8 duties.

Ninety percent of the officers have been in their present job from 1 to 24 months, with 10 percent reporting 25 to 36 months. In military experience, however, their TAFMS indices indicate a larger expertise, with 40 percent reporting from 49 to 144 months and 60 percent from 145 to 240 months. Ninety percent of the members are stationed in CONUS, in either AETC (50 percent) and ACC or AFMC (20 percent each). One hundred percent of the members reported being rated.

Eighty percent of these officers find their job "Interesting," believe their job utilizes their talents "Fairly Well To Very Well" (70 percent), and also believe their job utilizes their training "Fairly Well To Very Well" (60 percent). Eighty percent of the members note they are "Satisfied" with their sense of accomplishment from their work. Forty percent report they will leave the 1495A utilization field, and 50 percent indicate they believe their career progression is "not positive." Forty percent of the membership report having a master's or master's-plus degree.

DAFSCs 2295A - Air Operations Officer, Navigator. The three 2295A officer respondents represent 4 percent of the population survey. Like their counterpart-rated officers, they spend the largest portion of their job time (57 percent) instructing aerospace physiology and aviation human factors and 43 percent performing tasks in the other eight duties. These incumbents perform the largest average number of tasks performed by any members of the sample group (113 tasks). This membership is male respondents and is represented by one lieutenant colonel and two captains. Two members report supervising from one to five personnel, and two of the incumbents report being in their current position from 13 to 24 months, while one member reports from 37 to 48 months. Their military expertise, as indicated by TAFMS, for the two captains is 49 to 96 months and 193 to 360 months for the lieutenant colonel. Two of the officers are stationed in CONUS at either AMC or ACC bases.

The highest indices reported by these 2295A respondents in regard to their duties are in the medium-high ranges: "Interesting Job" (67 percent); responses in the "Fairly Well To Very Well" category in both "Utilization of Talents" (67 percent), and "Utilization of Training" (67 percent). In sense of accomplishment from work, these members report 100 percent "Satisfied." Two of the members perceive their career progression opportunities as positive. Two officers plan to remain in the 2295A utilization field, and one officer indicates an interest in career broadening. All three members are rated Navigators, and one member indicates having a master's degree.

ANALYSIS OF AEROSPACE PHYSIOLOGIST UTILIZATION FIELD

Another major portion of an OSR, which includes three AFSCs, is an indepth analysis of the utilization field as a whole. Again, factors include, but are not limited to, selected background data, MAJCOM of assignment, TAFMS, and paygrade groups which are used by the analyst to determine differences and similarities of tasks, number of tasks performed, and time spent on duties.

A total of 78 officers responded to the 916X, 149XA, and 229XA Aerospace Physiologist USAF JI. The following narrative provides data regarding the group as a whole, which naturally follows and validates the specific data provided above on each of the individual DAFSCs. Information from these analyses can be used to identify areas which should be used in training and classification documents, such as CTSs and AFR 36-1 Specialty Descriptions. The user should also be able to perform both overall Aerospace Physiologist utilization field and individual DAFSC comparisons by using the comprehensive narratives, figures, tables, and appendices provided throughout the OSR.

The 78 officers included in this study perform an average of 155 tasks, with 107 tasks accounting for the majority of their worktime. Eighty-two percent of the field responses are from males and 18 percent are from female officers. The tasks performed by the overall group indicates a broad knowledge of the Aerospace Physiologist utilization field whose focus is to

manage aerospace physiology training and hyperbaric therapy units, and instruct personnel in aerospace physiological and aviation human factors. Of all members responding to the study, a large portion of their worktime is spent performing Management and Supervisory functions (29 percent), Specialized Aerospace Physiology Instructions (18 percent), Training (29 percent), and Organizing, Planning, and Command functions (17 percent). Table 15 illustrates the average percent time spent on all 13 duties, as well as number of total tasks included in each duty.

Selected background characteristics of the 78 officers included in the study are presented in Table 16. The membership of the survey group is 18 lieutenants (02 - 5, 01 - 13), 26 captains (which is the largest representation of all officers), 18 majors, 9 lieutenant colonels, and 7 colonels. Only 37 percent of the members do not supervise other personnel. Generally, an average of 70 percent have been in their present job from 1 to 24 months, while 27 percent average 25 to 48 months, and only 3 percent report 49+ months' experience. TAFMS indices are much higher, with 23 percent of the officers reporting 1 to 48 months, 32 percent reporting 49 to 144 months, and 44 percent reporting 145 to 316 months' service. Table 17 presents average percent time spent on duties by TAFMS groups.

The 65 916X DAFSC members comprise 83 percent of the sample population. The 10 DAFSC 1495A Air Operations Officer - Pilot Aerospace Physiological Support officers represent 13 percent, while the three DAFSC 2295A Air Operations officers - Navigator Aerospace Physiological Support officers represent 4 percent of the survey population. Responses from the 78 officers indicate they are assigned mostly to 7 operating agencies, with AFMC (28 percent), ACC (23 percent), and AETC (17 percent) indicating the highest indices. The 13 percent of the membership (10) who are stationed at OS commands report being in USAFE or PACAF (5 percent each). Table 18 reports average percent time spent on duties by MAJCOM groups. Average percent time spent by CONUS and OS members are provided in Table 19. Representative tasks performed by MAJCOM, CONUS, and OS groups are presented in Appendices D1 through D10.

The overall job satisfaction indices are relatively high for the total respondents. Ninety-one percent of the Aerospace Physiologist officers find their jobs "Interesting" and are "Satisfied" with their sense of accomplishment from their work. The utilization of talents and training indices are medium-high at 62 and 60 percent, respectively, in the "Fairly Well To Well" indices. Review DAFSC job satisfaction indices individually and as a group in Table 13.

The 78 members who participated in the study indicate a high level of educational interest in that 46 percent report having master's or master's plus, 12 percent doctoral level, and 5 percent post-doctoral degrees. Considering the grades of the officers, attendance at the PME schools is also positive, with 51 percent having attended Squadron Officers School, 35 percent having attended Air Command and Staff College, and 14 percent having attended Air War College.

TABLE 15

AVERAGE PERCENT TIME SPENT ON DUTIES
BY AEROSPACE PHYSIOLOGIST OFFICERS

DUTIES	# OF TASKS	AVERAGE PERCENT
A. ORGANIZING, PLANNING, AND COMMAND FUNCTIONS	80	13%
B. MANAGEMENT AND SUPERVISORY FUNCTIONS	205	29%
C. INSPECTION AND EVALUATION FUNCTIONS	59	4%
D. TRAINING FUNCTIONS	97	14%
E. SPECIALIZED AEROSPACE PHYSIOLOGY INSTRUCTIONS	45	18%
F. OPERATING AND MAINTAINING ASSOCIATED AEROSPACE PHYSIOLOGY EQUIPMENT FUNCTIONS	23	-
G. HYPOBARIC CHAMBER FUNCTIONS	18	6%
H. HYPERBARIC CHAMBER FUNCTIONS	48	4%
I. PARACHUTE FAMILIARIZATION TRAINING (PFT) FUNCTIONS	24	-
J. PRESSURE SUIT AND LIFE SUPPORT EQUIPMENT FUNCTIONS	54	2%
K. CONDUCTING CENTRIFUGE TRAINING AND OPERATIONS FUNCTIONS	41	2%
L. HIGH ALTITUDE AIRDROP MISSION SUPPORT (HAAMS) FUNCTIONS	30	-
M. RESEARCH, DEVELOPMENT, TEST & EVALUATION, AND ACQUISITION FUNCTIONS	94	8%

- Less than 1 percent or no response

NOTE: Columns may not add to 100 percent due to rounding or nonresponse

TABLE 16

SELECTED BACKGROUND CHARACTERISTICS OF TOTAL AEROSPACE PHYSIOLOGIST OFFICERS

GROUP SIZE - 78

AVG # OF TASKS - 155

MALE - 82%
FEMALE - 18%

OVERSEAS - 13%
CONUS - 87%

OFFICER GRADE

O1 - 6%
O2 - 17%
O3 - 33%
O4 - 23%
O5 - 12%
O6 - 9%

SUPERVISE

0 - 37%
1-5 - 35%
6-10 - 15%
11-24 - 13%

TIME IN PRESENT JOB

1-12 MOS - 38%
13-24 MOS - 32%
25-36 MOS - 18%
37-219 MOS 12%

TAFMS

1-24 MOS - 38%
25-48 MOS - 13%
49-96 MOS - 23%
97+ MOS - 12%

DAFSCs

9161 - 14%
9166 - 69%
1495A - 13%
2295A - 4%

MAJCOM

USAFA - 3%
USAFE - 5%
AETC - 17%
AFOTEC - 3%
PACAF - 5%
ACC - 23%
AMC - 13%
AFMC - 28%
OTHER - 4%

NOTE: Columns may not add to 100 percent due to rounding or nonresponse

- Less than 1 percent or no response

TABLE 17

AVERAGE PERCENT TIME SPENT PERFORMING DUTIES
BY TOTAL ACTIVE FEDERAL MILITARY SERVICE (TAFMS) AEROSPACE
PHYSIOLOGIST OFFICERS

DUTIES	1 - 48 MOS	49 - 96 MOS	97+ MOS
A. ORGANIZING, PLANNING, AND COMMAND FUNCTIONS	7%	12%	15%
B. MANAGEMENT AND SUPERVISORY FUNCTIONS	25%	26%	32%
C. INSPECTION AND EVALUATION FUNCTIONS	2%	3%	5%
D. TRAINING FUNCTIONS	18%	11%	12%
E. SPECIALIZED AEROSPACE PHYSIOLOGY INSTRUCTIONS	21%	16%	16%
F. OPERATING AND MAINTAINING ASSOCIATED AEROSPACE PHYSIOLOGY EQUIPMENT FUNCTIONS	-	-	-
G. HYPOBARIC CHAMBER FUNCTIONS	6%	6%	5%
H. HYPERBARIC CHAMBER FUNCTIONS	4%	5%	3%
I. PARACHUTE FAMILIARIZATION TRAINING (PFT) FUNCTIONS	-	-	-
J. PRESSURE SUIT AND LIFE SUPPORT EQUIPMENT FUNCTION	4%	2%	1%
K. CONDUCTING CENTRIFUGE TRAINING AND OPERATIONS FUNCTIONS	-	4%	1%
L. HIGH ALTITUDE AIRDROP MISSION SUPPORT (HAAMS) FUNCTIONS	1%	-	-
M. RESEARCH, DEVELOPMENT, TEST & EVALUATION, AND ACQUISITION FUNCTIONS	9%	7%	1%

- Less than 1 percent or no response

NOTE: Columns may not add to 100 percent due to rounding or nonresponse

TABLE 18

AVERAGE PERCENT TIME SPENT ON DUTIES
BY AEROSPACE PHYSIOLOGY OFFICERS IN MAJCOM GROUPS

DUTIES	USAFA (N=2)	AETC (N=13)	ACC (N=18)	AMC (N=10)	AFMC (N=22)	USAFE (N=4)	PACAF (N=4)
A. PERFORMING ORGANIZING, PLANNING, AND COMMAND FUNCTIONS	16%	8%	11%	9%	15%	23%	13%
B. PERFORMING MANAGEMENT AND SUPERVISORY FUNCTIONS	27%	21%	30%	25%	31%	37%	28%
C. PERFORMING INSPECTION AND EVALUATION FUNCTIONS	-	4%	4%	6%	4%	2%	5%
D. PERFORMING TRAINING FUNCTIONS	23%	20%	16%	19%	7%	10%	19%
E. PERFORMING SPECIALIZED AEROSPACE PHYSIOLOGY INSTRUCTIONS	29%	29%	20%	22%	13%	15%	18%
F. OPERATING AND MAINTAINING ASSOCIATED AEROSPACE PHYSIOLOGY EQUIPMENT	-	-	-	-	1%	-	-
G. PERFORMING HYPOBARIC CHAMBER FUNCTIONS	3%	9%	5%	6%	4%	4%	6%
H. PERFORMING HYPERBARIC CHAMBER FUNCTIONS	-	1%	3%	6%	5%	2%	7%
I. CONDUCTING PARACHUTE FAMILIARIZATION TRAINING (PFT)	-	2%	-	-	-	-	-
J. PERFORMING PRESSURE SUIT AND LIFE SUPPORT EQUIPMENT FUNCTIONS	-	2%	4%	2%	-	2%	3%
K. CONDUCTING CENTRIFUGE TRAINING AND OPERATIONS FUNCTIONS	-	-	5%	-	-	-	-
L. PERFORMING HIGH ALTITUDE AIRDROP MISSION SUPPORT (HAAMS) FUNCTIONS	-	-	-	2%	-	-	-
M. PERFORMING RESEARCH, DEVELOPMENT, TEST, EVALUATION, AND ACQUISITION FUNCTIONS	-	2%	2%	3%	19%	5%	-

- Under 1 percent or nonresponse

NOTE: Columns may not add to 100 percent due to rounding or nonresponse

TABLE 19

AVERAGE PERCENT TIME SPENT ON DUTIES BY AEROSPACE PHYSIOLOGICAL OFFICERS IN CONUS AND OVERSEAS

DUTIES	CONUS (N=68)	OVERSEAS (N=10)
A. PERFORMING ORGANIZING, PLANNING, AND COMMAND FUNCTIONS	12%	20%
B. PERFORMING MANAGEMENT AND SUPERVISORY FUNCTIONS	28%	33%
C. PERFORMING INSPECTION AND EVALUATION FUNCTIONS	4%	3%
D. PERFORMING TRAINING FUNCTIONS	14%	13%
E. PERFORMING SPECIALIZED AEROSPACE PHYSIOLOGY INSTRUCTIONS	19%	14%
F. OPERATING AND MAINTAINING ASSOCIATED AEROSPACE PHYSIOLOGY EQUIPMENT	-	-
G. PERFORMING HYPOBARIC CHAMBER FUNCTIONS	6%	4%
H. PERFORMING HYPERBARIC CHAMBER FUNCTIONS	4%	4%
I. CONDUCTING PARACHUTE FAMILIARIZATION TRAINING (PFT)	-	-
J. PERFORMING PRESSURE SUIT AND LIFE SUPPORT EQUIPMENT FUNCTIONS	2%	2%
K. CONDUCTING CENTRIFUGE TRAINING AND OPERATIONS FUNCTIONS	2%	-
L. PERFORMING HIGH ALTITUDE AIRDROP MISSION SUPPORT (HAAMS) FUNCTIONS	-	-
M. PERFORMING RESEARCH, DEVELOPMENT, TEST, EVALUATION, AND ACQUISITION FUNCTIONS	8%	5%

- Under 1 percent or no response

NOTE: Columns may not add to 100 percent due to rounding or nonresponse

Analysis of Aerospace Physiologist AFSC Data by Paygrade Groups

Within the analysis of the Aerospace Physiologist utilization field as a whole are the comparisons of paygrade groups within the selected DAFSCs using data such as time spent or percent members performing tasks.

Overall, the comparison of the representative tasks performed by the paygrade groups indicates the normal career progression relationships which develop between paygrade groups when similar tasks are performed. The analysis also verifies that there is a definitive broadening of duties and responsibilities when officers are promoted to higher level or staff-level paygrades, where the majority of their job time is spent performing Organizing, Planning, Command, Management, and Supervisory functions.

Table 20 presents data comparing and illustrating the similarities and differences between each of the paygrade groups. An assessment of the sorted difference columns for the representative tasks performed by each paygrade group clearly delineates the similarities and the differences between the types of tasks performed, the percent members performing, levels of performance, and the respective progression within the paygrade groups.

For further clarification, Table 21 provides the 13 major duties and the average percent time spent performing such duties by the compared paygrade groups. Colonels and lieutenant colonels spend the largest amount of their worktime performing Management and Supervisory functions (38 and 33 percent, respectively), while majors and colonels are involved in Organizing, Planning, and Command functions (31 and 24 percent, respectively). As would be expected in this utilization field where the major focuses are managing aerospace physiology training and hyperbaric therapy units, and instructing personnel in aerospace physiological and aviation human factors, a larger percentage of the officer personnel spends their duty time performing Specialized Aerospace Physiologist Instructions, Training, and the corresponding associated functions.

Selected background characteristics of paygrade groups are presented in Table 22. Higher ranking officers represent 44 percent of the overall respondents (majors - 23 percent, lieutenant colonels - 12 percent, and colonels - 9 percent). The largest number of respondents in the survey sample are the 26 captains (33 percent). Second lieutenants comprise the smallest group represented (6 percent), while first lieutenants account for 17 percent of the population.

Eighteen percent of the Aerospace Physiologist officers are female. The majority of the incumbents supervise other personnel, with the highest percent being lieutenant colonels (100 percent), followed by majors (78 percent), and colonels (71 percent). It is interesting to note that in this utilization field, the higher ranking officers appear to be "hands on" supervisors and managers, since data show the largest numbers of tasks performed among all incumbents in the study are performed by them (colonels - 272, lieutenant colonels - 235, and majors - 184). As would be expected of the newest members in training status, second lieutenants perform the least number of tasks (45).

TABLE 20

REPRESENTATIVE TASKS WHICH DIFFERENTIATE BETWEEN AEROSPACE PHYSIOLOGIST O1 AND O2 OFFICER PAYGRADES (PERCENT MEMBERS PERFORMING (PMP))

TASKS		O-1 (N=5)	O-2 (N=13)	DIFF
D359	Complete inprocessing or outprocessing training checklists	40%	0%	40%
M81	Perform outside observer functions on research chamber flights	20%	8%	32%
E444	Brief or demonstrate rapid decompression techniques during chamber flights	80%	62%	18%
M789	Monitor clinical investigations research projects	20%	0%	20%
M811	Prepare research protocols in compliance with animal or human use directives	20%	0%	20%
K691	Monitor console profiles and inner gondola TV screens during centrifuge profile runs	20%	0%	20%
A88	Evaluate procedures for storage or inventory of property items	20%	0%	20%
D378	Critique student test results with students	0%	69%	-69%
D365	Conduct periodic checks of qualified team members' proficiency	0%	69%	-69%
G526	Perform inside observer functions during hypobaric proficiency flights	20%	85%	-65%
B140	Counsel personnel on career, personal, or military-related problems	0%	69%	-69%
G513	Brief trainees prior to chamber flights to prevent unwarranted chamber reactions	20%	77%	-57%

TABLE 20 (CONTINUED)

REPRESENTATIVE TASKS WHICH DIFFERENTIATE BETWEEN AEROSPACE PHYSIOLOGIST O2 AND O3 OFFICER PAYGRADES (PERCENT MEMBERS PERFORMING (PMP))

TASKS		O-2 (N=13)	O-3 (N=26)	DIFF
B169	Evaluate and endorse entries on AF Forms 701 (Chamber Flight Record)	85%	27%	58%
E451	Conduct classroom instruction on chamber flights	85%	42%	43%
B161	Direct storage of restricted items, such as medical security controlled items	38%	0%	38%
C313	Document and address hyperbaric QA/RM issues at monthly meetings	38%	4%	34%
H540	Perform high-altitude rapid decompression training	31%	0%	31%
E468	Conduct classroom training on principles of aircraft navigation and weather	0%	27%	-27%
A38	Determine requirements for personnel, workspace, equipment and supplies	15%	38%	-23%
M804	Perform routine research functions, such as investigative or research assistant	0%	19%	-19%
A35	Determine annual student training requirements	8%	19%	-19%
H569	Review periodic inspection documentation of hyperbaric chamber assemblies	0%	12%	-12%

TABLE 20 (CONTINUED)

REPRESENTATIVE TASKS WHICH DIFFERENTIATE BETWEEN AEROSPACE PHYSIOLOGIST O3 AND O4 OFFICER PAYGRADES (PERCENT MEMBERS PERFORMING (PMP))

TASKS		O-3 (N=26)	O-4 (N=18)	DIFF
E447	Conduct classroom instruction on aerospace physiology equipment courses, such as centrifuge	27%	11%	16%
B176	Evaluate contract performance requirements	15%	0%	15%
M741	Approve or disapprove requests for special customer needs	12%	0%	12%
B264	Schedule special aerospace physiology orientation programs, such as for hyperbaric chambers	27%	17%	10%
G523	Operate diagnostic devices in hypobaric chambers	27%	17%	10%
B134	Coordinate manning requirements with HQs, MAJCOMs, and other designated agencies	4%	50%	-46%
A57	Evaluate personnel under operational conditions	27%	72%	-45%
B116	Certify starting or stopping of hazardous duty incentive pay for team members	19%	61%	-42%
C298	Coordinate resolutions of problems identified during inspections with subordinate personnel	12%	50%	-38%
D381	Determine if training for assigned courses follows established policies and directives	12%	44%	-32%

TABLE 20 (CONTINUED)

REPRESENTATIVE TASKS WHICH DIFFERENTIATE BETWEEN
AEROSPACE O4 AND O5 OFFICER PAYGRADES
(PERCENT MEMBERS PERFORMING (PMP))

TASKS		O-4 (N=18)	O-5 (N=9)	DIFF
A56	Evaluate operational activity reports	39%	0%	39%
D393	Direct construction of required training mockups	33%	0%	33%
H528	Brief individuals on chamber operations and policies	56%	33%	23%
A43	Direct preparation of bulletins or memoranda pertaining to aerospace physiology operations	33%	11%	22%
H556	Participate in hyperbaric research dives	22%	0%	22%
E479	Indoctrinate aircrews on associated procedures of chemical defense equipment	0%	44%	-44%
B196	Initiate personnel action requests, such as AF Forms 2095 (Assignment/Personnel Action)	6%	44%	-38%
B163	Endorse and upchannel contractor performance evaluations	0%	33%	-33%
M792	Negotiate budgets with outside agencies for RDT&E projects	0%	33%	-33%
D402	Direct physiological training programs, such as for hypobaric technology	6%	33%	-27%

TABLE 20 (CONTINUED)

REPRESENTATIVE TASKS WHICH DIFFERENTIATE BETWEEN AEROSPACE PHYSIOLOGIST O5 AND O6 OFFICER PAYGRADES (PERCENT MEMBERS PERFORMING (PMP))

TASKS		O5 (N=9	O6 (N=7	DIFF
D390	Develop training programs for new systems or equipment	44%	0%	44%
E443	Brief or demonstrate physiological aids used in flying, such as survival equip or ejection seats	56%	14%	42%
M778	Establish and maintain approved protocol files	33%	0%	33%
M751	Conduct human use protocols	33%	0%	33%
E474	Conduct pre- or postflight briefings following chamber flights	44%	14%	30%
D385	Develop course curricula or plans of instruction (POIs)	22%	100%	-78%
D430	Research technical materials used in training courses	11%	68%	-75%
B135	Coordinate mission activities with other military services, civilian agencies, & international forces	22%	86%	-64%
G525	Perform inside instructor functions in hypobaric chambers	44%	100%	-56%
B179	Evaluate effectiveness of operations and training programs	33%	86%	-53%

TABLE 21

AVERAGE PERCENT TIME SPENT ON DUTIES
BY AEROSPACE PHYSIOLOGIST PAYGRADE GROUPS

DUTIES	PAYGRADE GROUPS O-1 (N=5)	O-2 (N=13)	O-3 (N=26)	O-4 (N=18)	O-5 (N=9)	O-6 (N=7)
A. ORGANIZING, PLANNING, AND COMMAND FUNCTIONS	9%	6%	10%	31%	17%	24%
B. MANAGEMENT AND SUPERVISORY FUNCTIONS	26%	27%	25%	16%	33%	38%
C. INSPECTION AND EVALUATION FUNCTIONS	-	3%	3%	6%	4%	7%
D. TRAINING FUNCTIONS	14%	19%	13%	12%	11%	5%
E. SPECIALIZED AEROSPACE PHYSIOLOGY INSTRUCTIONS	22%	23%	24%	13%	12%	8%
F. OPERATING AND MAINTAINING ASSOCIATED AEROSPACE PHYSIOLOGY EQUIPMENT FUNCTIONS	1%	-	-	-	-	-
G. HYPOBARIC CHAMBER FUNCTIONS	6%	7%	7%	5%	5%	3%
H. HYPERBARIC CHAMBER FUNCTIONS	2%	4%	4%	5%	3%	2%
I. PARACHUTE FAMILIARIZATION TRAINING (PFT) FUNCTIONS	-	-	-	-	-	-
J. PRESSURE SUIT AND LIFE SUPPORT EQUIPMENT FUNCTION	3%	5%	2%	1%	-	2%
K. CONDUCTING CENTRIFUGE TRAINING AND OPERATIONS FUNCTIONS	1%	-	3%	-	2%	-
L. HIGH ALTITUDE AIRDROP MISSION SUPPORT (HAAMS) FUNCTIONS	-	1%	-	-	-	-
M. RESEARCH, DEVELOPMENT, TEST & EVALUATION, AND ACQUISITION FUNCTIONS	15%	3%	9%	9%	10%	-

- Less than 1 percent or no response

NOTE: Columns may not add to 100 percent due to rounding or nonresponse

TABLE 22

SELECTED BACKGROUND CHARACTERISTICS OF
AEROSPACE PHYSIOLOGIST OFFICERS BY PAYGRADE GROUPS

GROUP SIZE	O-1 (N=5)	O-2 (N=13)	O-3 (N=26)	O-4 (N=18)	O-5 (N=9)	O-6 (N=7)
AVG # OF TASKS	45	128	110	185	235	272
MALE	60%	69%	85%	83%	89%	100%
FEMALE	40%	31%	15%	17%	11%	-
OVERSEAS	-	15%	12%	6%	33%	14%
CONUS	100%	85%	88%	94%	67%	89%
SUPERVISE						
0	60%	46%	54%	22%	-	29%
1-5	20%	23%	38%	22%	67%	43%
6-10	20%	23%	8%	28%	-	14%
11-24	-	8%	-	22%	33%	14%

NOTE: Columns may not add to 100 percent due to rounding or nonresponse

- Less than 1 percent or no response

TABLE 22 (CONTINUED)

SELECTED BACKGROUND CHARACTERISTICS OF
AEROSPACE PHYSIOLOGIST OFFICERS BY PAYGRADE GROUPS

	O-1 (N=5)	O-2 (N=13)	O-3 (N=26)	O-4 (N=18)	O-5 (N=9)	O-6 (N=7)
GROUP SIZE						
TIME IN PRESENT JOB						
1-12 MOS	100%	46%	46%	17%	22%	29%
13-24 MOS	-	38%	23%	44%	44%	29%
25-36 MOS	-	15%	27%	22%	11%	-
37-219 MOS	-	-	4%	17%	22%	43%
TAFMS						
1-24 MOS	60%	31%	4%	-	-	-
25-48 MOS	-	54%	12%	-	-	-
49-96 MOS	40%	8%	58%	-	-	-
97+ MOS	-	8%	27%	100%	100%	100%

NOTE: Columns may not add to 100 percent due to rounding or nonresponse

- Less than 1 percent or no response

TABLE 22 (CONTINUED)

SELECTED BACKGROUND CHARACTERISTICS OF
AEROSPACE PHYSIOLOGIST OFFICERS BY PAYGRADE GROUPS

GROUP SIZE	O-1 (N=5)	O-2 (N=13)	O-3 (N=26)	O-4 (N=18)	O-5 (N=9)	O-6 (N=7)
DAFSC						
9161	80%	31%	12%	-	-	-
9166	20%	69%	65%	72%	78%	100%
1495A	-	-	15%	28%	11%	-
2295A	-	-	8%	-	11%	-
MAJCOM						
USAFA	-	-	4%	-	-	14%
USAFE	-	8%	-	6%	11%	14%
AETC	20%	15%	19%	28%	-	-
AFOTEC	3%					
PACAF	-	8%	8%	-	11%	-
ACC	20%	38%	15%	22%	22%	29%
AMC	-	15%	19%	6%	11%	14%
AFMC	60%	15%	27%	22%	44%	29%
AFELM OTHER	-	-	8%	18%	9%	7%

NOTE: Columns may not add to 100 percent due to rounding or nonresponse

- Less than 1 percent or no response

TABLE 22 (CONTINUED)

SELECTED BACKGROUND CHARACTERISTICS OF
AEROSPACE PHYSIOLOGIST OFFICERS BY PAYGRADE GROUPS

GROUP SIZE	O-1 (N=5)	O-2 (N=13)	O-3 (N=26)	O-4 (N=18)	O-5 (N=9)	O-6 (N=7)
AERONAUTICAL RATING STATUS						
NONRATED	100%	100%	77%	72%	78%	100%
PILOT IN RATED SUPPLEMENT	-	-	15%	22%	-	-
PILOT IN NONRATED SUPPLEMENT	-	-	-	6%	11%	-
NAVIGATOR IN RATED SUPPLEMENT	-	-	8%	-	11%	-
NAVIGATOR IN NONRATED SUPPLEMENT	-	-	-	-	-	-

NOTE: Columns may not add to 100 percent due to rounding or nonresponse

- Less than 1 percent or no response

Time in present job indices indicate that colonels report from 37 to 219 months' expertise (43 percent) and second lieutenants report the least (100 percent from 1 to 12 months). Almost all of the first lieutenants and captains indicate they have at least 36 months in their present positions (99 and 96 percent, respectively).

Overall, Job Satisfaction Indicators of Aerospace Physiologist paygrade groups (Table 23) indicate that the respondents report extremely high indices in finding their job "interesting" (a low of 77 percent to a high of 100 percent). On the average, the indices show that colonels, majors, and second lieutenants (100 percent each) are extremely "Satisfied" with their sense of accomplishment from work. Utilization of talents and training indices of "Fairly Well To Very Well" are still in medium-high average ranges of 75 and 66 percent, respectively. Appendices E1 through E6 present Representative Tasks Performed by Aerospace Physiologist Officers by Paygrade Groups.

OFFICER TRAINING ANALYSIS

Since occupational survey data provide several sources of information which can be used to ensure that training programs are more relevant and meaningful to students, the following two products were used to help evaluate training documents.

(1) Training Emphasis data (see SURVEY METHODOLOGY SECTION),

(2) Match of Aerospace Physiologist Course Training Standards and Aerospace Physiologist JI

The Aerospace Physiologist CTS for B30BY9161-000 AEROSPACE PHYSIOLOGIST course, dated January 1993, was examined by the analyst and technical school course supervisor at Brooks AFB TX. The 828 tasks included in the Aerospace Physiological USAFOMS JI administered to the field were matched with the appropriate sections of the above CTS. It is upon this CTS matching completed in July 1993 that comparisons of the following documents are made. Complete computer printouts of these documents, such as a Training Extract and an Analysis Extract are furnished to and maintained by the technical training school for their further review and use. Summary data of this documentation are presented below.

Course Training Standard Analysis

Review of the TE data and percent members performing data for tasks matched to the CTS revealed that the content of the CTS is highly supported by the survey data. Task knowledge and performance codes assigned to the 10 elements of the CTS were also reviewed.

TABLE 23

AEROSPACE PHYSIOLOGIST OFFICERS
JOB SATISFACTION INDICATORS BY PAYGRADE GROUPS

	GRADES					
	O-1 (N=5)	O-2 (N=13)	O-3 (N=26)	O-4 (N=18)	O-5 (N=9)	O-6 (N=7)
EXPRESSED JOB INTEREST:						
INTERESTING	100%	77%	92%	94%	89%	100%
SO-SO	-	15%	8%	-	11%	-
DULL	-	8%	-	-	-	-
PERCEIVED UTILIZATION OF TALENTS:						
EXCELLENT TO PERFECT	20%	23%	27%	50%	44%	43%
FAIRLY WELL TO VERY WELL	80%	62%	69%	50%	56%	57%
VERY LITTLE OR NOT AT ALL	-	15%	4%	-	-	-
PERCEIVED UTILIZATION OF TRAINING:						
EXCELLENT TO PERFECT	20%	15%	23%	50%	33%	86%
FAIRLY WELL TO VERY WELL	60%	77%	73%	50%	56%	14%
VERY LITTLE OR NOT AT ALL	20%	8%	4%	0%	11%	0%
SENSE OF ACCOMPLISHMENT:						
SATISFIED	100%	85%	88%	100%	78%	100%
NEUTRAL	-	-	4%	-	22%	-
DISSATISFIED	-	15%	8%	-	-	-

- Less than 1 percent or no response

NOTE: Columns many not add to 100 percent due to rounding or nonresponse

The analysis indicated that although all elements were matched, a review of several subelements may be needed by the training personnel at the tech school. Although tasks with average to high TE ratings were matched to all elements during the CTS matching, a review of the 88 tasks with high TE ratings by the 22 TE field raters indicates that other elements could eventually be added to the curricula, if only in an overview status. A number of tasks matched to task knowledge and performance elements have high percent members performing and above average TE.

Additional review of a few CTS paragraphs with subject-knowledge codes indicates that TE indices and percent members performing for these elements definitely support a review of and probable increase in proficiency level, as well as a review of the course content within the CTS. Table 24 presents examples of several CTS elements with the majority of the tasks matched being above average in TE ratings.

Aerospace Physiologist officers perform specialized jobs, such as Hypobaric Chamber Operations, Centrifuge Training and Operations, Life Support Systems, HAAMS, and RDTE&A, which are not taught in a resident technical school environment, because they require specialized equipment and job experienced training personnel. It was not unexpected, therefore, that the USAF Aerospace Physiologist JI included a large number of tasks that were NOT MATCHED to the CTS elements. USAFOMS recommends that the NOT MATCHED tasks, particularly those with very high TE ratings be reviewed by USAFSAM staff to determine which of those tasks should be included in ongoing CTS and POI revisions or new courses slated for the future. Representative tasks NOT MATCHED to CTS elements, which have an average to high TE rating, are presented in Appendix F.

ANALYSIS OF SELECTED BACKGROUND DATA

The final major area addressed in each OSR is an indepth analysis of selected background data. Data addressed in the following sections indicate responses by the Aerospace Physiological officer respondents to the various questions contained in the USAFOMS JI. Of special interest to training personnel and Air Staff are responses to several background questions and specific concerns proffered by USAFSAM and other field commanders who requested opinions from the surveyed Aerospace Physiologist officers regarding:

(1) the opinion of the 2-week Instructor Training Workshop provided by the tech school;

(2) the need for the 5-week Aerospace Physiological course to be more operationally oriented;

(3) would attendance at some kind of specialized flight training course assist Aerospace Physiologist officers in performing their jobs better;

TABLE 24

AEROSPACE PHYSIOLOGIST OFFICER CTS B3OBY9161-000,
MATCHED WITH JOB INVENTORY TASKS

CTS ITEMS ARE LISTED BELOW THE SOLID LINES, FOLLOWED BY A LISTING OF MATCHED TASKS. THESE DATA CAN BE USED TO VALIDATE STS CONTENT AND CODE LEVELS

CTS ELEMENTS			TNG EMP	1ST JOB (PMP)	1ST ASMT (PMP)
0007	1e. Basic Flight Ground School (Nonrated Students Only)	B			
J636	Instruct Trainer, Attack, Reconnaissance, and Fighter (TARF) courses		4.45	49	44
J635	Instruct Tanker, Transport, and Bomber (TTB) courses		4.18	46	50
J633	Instruct Low and Slow (L&S) Weapons Systems Refresher courses		3.50	31	33
0010	2b. Selected Gas Laws	B			
E455	Conduct classroom instruction on decompression sickness (DCS)		7.55	79	72
E461	Conduct classroom instruction on hypoxia and hyperventilation		7.55	85	78
E462	Conduct classroom instruction on mechanical effects of pressure changes		7.45	77	72
0023	2c. Acceleration Physiology	B			
E483	Instruct and critique students on performing anti-G straining maneuvers		7.32	59	44
E446	Conduct classroom instruction on acceleration and anti-G clothing and equipment		6.55	72	67
J636	Instruct Trainer, Attack, Reconnaissance, and Fighter (TARF) courses		4.45	49	44

TABLE 24 (CONTINUED)

AEROSPACE PHYSIOLOGIST OFFICER CTS B3OBY9161-000,
MATCHED WITH JOB INVENTORY TASKS

CTS ITEMS ARE LISTED BELOW THE SOLID LINES, FOLLOWED BY A LISTING OF MATCHED TASKS. THESE DATA CAN BE USED TO VALIDATE STS CONTENT AND CODE LEVELS

CTS ELEMENTS			TNG EMP	1ST JOB (PMP)	1ST ASMT (PMP)
K687	Instruct aircrews on countering of G-induced loss of consciousness (GLOC)		3.18	21	11
K688	Instruct and critique students during centrifuge qualification runs		2.09	5	0
K673	Debrief and critique student centrifuge qualification runs with individualized VCR tapes		1.95	5	0
0036	3g. Ejection Seat - Live Fire	2c			
E443	Brief or demonstrate physiological aids used in flying, such as survival equipment and ejection seats		5.55	36	28
E445	Brief or demonstrate use of ejection seat trainers		4.64	13	11
I578	Brief or demonstrate in-flight egress procedures		1.91	8	11
0037	3h. Advance Life Support Systems	B			
E442	Brief aircrew students on safety precautions associated with flying and life support equipment		6.32	62	61
B221	Participate in safety meetings		2.86	54	56

TABLE 24 (CONTINUED)

AEROSPACE PHYSIOLOGIST OFFICER CTS B3OBY9161-000,
MATCHED WITH JOB INVENTORY TASKS

CTS ITEMS ARE LISTED BELOW THE SOLID LINES, FOLLOWED BY A LISTING OF MATCHED TASKS. THESE DATA CAN BE USED TO VALIDATE STS CONTENT AND CODE LEVELS

CTS ELEMENTS			TNG EMP	1ST JOB (PMP)	1ST ASMT (PMP)
0038	4. Human Factors				
E460	Conduct classroom instruction on human factors		8.09	77	72
B215	Organize and present Flying Safety Programs		4.23	33	33
B221	Participate in safety meetings		2.86	54	56
B84	Advise local commanders, flying safety officers (FSOs), or flight surgeons of human factor concerns		2.77	41	39
B124	Consult with concerned organizations on physiological questions or problems		2.23	41	50
0057	6d. Chamber Reactors	B			
G510	Advise inside observers of appropriate treatment measures for reactors		7.18	69	56
E482	Instruct and critique student procedures for treatment of hypoxia		7.09	69	61
G522	Monitor serious reactors until arrival of flight surgeon		7.09	59	56
E481	Instruct and critique student procedures for treatment of hyperventilation		7.0	69	61
G512	Assist in treatment of chamber reactors with evolved gas disorders		6.59	59	61
G525	Perform inside instructor functions in hypobaric chambers		6.36	62	56

TABLE 24 (CONTINUED)

AEROSPACE PHYSIOLOGIST OFFICER CTS B3OBY9161-000,
MATCHED WITH JOB INVENTORY TASKS

CTS ITEMS ARE LISTED BELOW THE SOLID LINES, FOLLOWED BY A LISTING OF MATCHED TASKS. THESE DATA CAN BE USED TO VALIDATE STS CONTENT AND CODE LEVELS

CTS ELEMENTS			TNG EMP	1ST JOB (PMP)	1ST ASMT (PMP)
G513	Brief trainees prior to chamber flights to prevent unwarranted chamber reactions		6.09	59	56
G526	Perform inside observer functions during hypobaric proficiency flights		5.64	54	78
E451	Conduct classroom instruction on chamber flights		5.27	64	56
E474	Conduct pre- or postflight briefings following chamber flights		5.00	28	22
G523	Operate diagnostic devices in hypobaric chambers		3.68	8	0
0058	6e. Chamber Operations	2c			
G525	Perform inside instructor functions in hypobaric chambers		6.36	62	56
E444	Brief or demonstrate rapid decompression techniques during chamber flights		5.77	69	67
G526	Perform inside observer functions during hypobaric proficiency flights		5.64	54	78
G521	Monitor inside observer position and students during rapid decompression flights		5.55	69	61
E451	Conduct classroom instruction on chamber flights		5.27	64	56
G527	Perform lock operator functions on hypobaric chamber flights		5.09	26	28
G515	Conduct hypobaric chamber team training		4.50	44	50
G520	Monitor chamber inside and outside observer positions during proficiency flights		4.50	44	39
E478	Evaluate functions of aerospace physiology equipment, such as proper operation		4.45	26	22

TABLE 24 (CONTINUED)

AEROSPACE PHYSIOLOGIST OFFICER CTS B3OBY9161-000,
MATCHED WITH JOB INVENTORY TASKS

CTS ITEMS ARE LISTED BELOW THE SOLID LINES, FOLLOWED BY A LISTING OF MATCHED TASKS. THESE DATA CAN BE USED TO VALIDATE STS CONTENT AND CODE LEVELS

CTS ELEMENTS			TNG EMP	1ST JOB (PMP)	1ST ASMT (PMP)
G524	Perform chamber operator functions on hypobaric chamber flights		4.45	10	17
B157	Direct posting of emergency procedures for chamber operations, such as loss of oxygen or freon into chambers		2.23	28	22
C312	Direct special inspections of hypobaric chamber equipment		2.05	10	11
0064	7c. Basic Exercise Physiology	B			
E486	Instruct students on differences between aerobic and anaerobic types of training exercises		6.36	0	0
E459	Conduct classroom instruction on health and wellness		6.14	72	72
K686	Instruct aircrews on basic exercise physiology, such as Warrior Fitness Training Programs		2.68	8	6
K675	Diagnose and develop individual student diet and fitness programs		2.36	10	6
0065	7d. G-Tolerance and Exercise	B			
E446	Conduct classroom instruction on acceleration and anti-G clothing and equipment		6.55	72	67
E486	Instruct students on differences between aerobic and anaerobic types of training exercises		6.36	0	0
J636	Instruct Trainer, Attack, Reconnaissance, and Fighter (TARF) courses		4.45	49	44

TABLE 24 (CONTINUED)

AEROSPACE PHYSIOLOGIST OFFICER CTS B3OBY9161-000,
MATCHED WITH JOB INVENTORY TASKS

CTS ITEMS ARE LISTED BELOW THE SOLID LINES, FOLLOWED BY A LISTING OF MATCHED TASKS. THESE DATA CAN BE USED TO VALIDATE STS CONTENT AND CODE LEVELS

CTS ELEMENTS			TNG EMP	1ST JOB (PMP)	1ST ASMT (PMP)
K687	Instruct aircrews on countering of G-induced loss of consciousness (GLOC)		3.18	21	11
K686	Instruct aircrews on basic exercise physiology, such as Warrior Fitness Training Programs		2.68	8	6
K675	Diagnose and develop individual student diet and fitness programs		2.36	10	6
0066	7e. USAF Fitness Program	B			
E472	Conduct classroom instruction on self-imposed stresses		7.41	74	72
E459	Conduct classroom instruction on health and wellness		6.14	72	72
0073	8c. Rotary-Wing Orientation	1a			
E456	Conduct classroom instruction on disorientation		8.00	74	67
J633	Instruct Low and Slow (L&S) Weapons Systems Refresher courses		3.50	31	33

TABLE 24 (CONTINUED)

AEROSPACE PHYSIOLOGIST OFFICER CTS B3OBY9161-000,
MATCHED WITH JOB INVENTORY TASKS

CTS ITEMS ARE LISTED BELOW THE SOLID LINES, FOLLOWED BY A LISTING OF MATCHED TASKS. THESE DATA CAN BE USED TO VALIDATE STS CONTENT AND CODE LEVELS

CTS ELEMENTS			TNG EMP	1ST JOB (PMP)	1ST ASMT (PMP)
0076	9b. Laser Threat/Protection	B			
E467	Conduct classroom instruction on principles and problems associated with vision, including night vision		7.45	79	78
E442	Brief aircrew students on safety precautions associated with flying and life support equipment		6.32	62	61
0077	9c. USAF Operational Briefs	B			
J636	Instruct Trainer, Attack, Reconnaissance, and Fighter (TARF) courses		4.45	49	44
J635	Instruct Tanker, Transport, and Bomber (TTB) courses		4.18	46	50

TABLE 24 (CONTINUED)

AEROSPACE PHYSIOLOGIST OFFICER CTS B3OBY9161-000,
MATCHED WITH JOB INVENTORY TASKS

CTS ITEMS ARE LISTED BELOW THE SOLID LINES, FOLLOWED BY A LISTING OF MATCHED TASKS. THESE DATA CAN BE USED TO VALIDATE STS CONTENT AND CODE LEVELS

CTS ELEMENTS		TNG EMP	1ST JOB (PMP)	1ST ASMT (PMP)
0078	10. Principles of Instructions			
D425	Prepare lesson plans	6.59	72	72
D440	Write test questions, such as for block tests	4.64	36	39
D424	Practice classroom presentations	4.23	67	67
D350	Approve or disapprove lesson plans	3.41	38	33
D411	Evaluate instructor's classroom presentations	3.00	33	39
D345	Administer tests	2.95	41	50
D410	Evaluate course outlines, lesson plans, or presentation methods	2.95	41	44
D347	Analyze test results	2.91	51	50
D379	Demonstrate methods of locating technical information	2.86	21	22
D420	Oversee student critiques	2.86	44	44
D387	Develop phase, block, or end of course tests	2.82	31	39
D419	Observe and critique classroom instructions	2.73	54	44
D427	Procure training aids, equipment, or space	2.64	41	44
D385	Develop course curricula or plans of instruction (POIs)	2.55	23	28
B235	Prepare charts, graphs, or slides for briefings	2.50	72	72
B259	Review instructor evaluations	2.36	36	33

TABLE 24 (CONTINUED)

AEROSPACE PHYSIOLOGIST OFFICER CTS B3OBY9161-000,
MATCHED WITH JOB INVENTORY TASKS

CTS ITEMS ARE LISTED BELOW THE SOLID LINES, FOLLOWED BY A LISTING OF MATCHED TASKS. THESE DATA CAN BE USED TO VALIDATE STS CONTENT AND CODE LEVELS

CTS ELEMENTS		TNG EMP	1ST JOB (PMP)	1ST ASMT (PMP)
D432	Review and update test materials	2.14	23	39
D433	Safeguard test materials	1.95	15	28
D364	Conduct instructor in-house training	1.73	21	22
D348	Approve or disapprove changes to course summary documents and course objective documents	1.68	31	33
D418	Inspect training aids for operation or suitability	1.68	15	11
D413	Evaluate OJT instructors	.91	8	11
D389	Develop specialty training standards (STSs) or course training standards (CTSs)	.64	3	6

(4) in what period of time after the Aerospace Physiological course did Aerospace Physiologist officers believe they have the confidence level to teach aircrew members; and,

(5) to what extent did Aerospace Physiologist officers use computers in their daily duties.

Other areas that USAFOMS normally reviews in all occupational surveys for officer, enlisted, and civilian personnel are career progression, utilization or career field plans, as well as sense of satisfaction from jobs, sense of accomplishment from work, and utilization of talents and training.

It is not unexpected then, that a myriad of computer data products, responses from field validation interviews, and review of write-in comments were analyzed and considered by the analyst in responding to these questions. Table 25 presents relative responses to JI Selected Background Data.

Responses to Utilization Field Special Interest Concerns

Over half (53 percent) of the Aerospace Physiologist officers believe that the 2-week Instructor Training Workshop does not prepare them for classroom instructor duties (47 percent indicate it does). Indices by DAFSC, however, indicate that the three 2295A officers and 5 of the 10 1495A officers DO believe that the course prepares them for such duties (100 and 50 percent, respectively). Considering the fact that these DAFSC members are pilots and navigators, who have some amount of familiarity with and expertise in flying and aeronautical related terminology (which the 916X officers do not) these data are not surprising.

Over three-quarters (86 percent) of the survey respondents believe that the 5-week course should be more operationally oriented. This is reinforced by the individual DAFSC indices of 2295A, 1495A, and 916X personnel (100, 90, and 85 percent, respectively).

Almost 100 percent total agreement is noted by the survey respondents in their belief that attendance at some kind of a specialized flight training course would help aerospace physiologists accomplish their jobs better (97 percent). Indices by the rated DAFSC personnel are also at a high range (1495A - 90 percent and 2295A - 100 percent). Ninety-eight percent of the nonrated officers (916X) definitely agree that this type of training would be especially helpful to them and, in turn, to the students they are teaching.

Responses to amount of time Aerospace Physiologist officers believe they feel confident to instruct personnel in aerospace physiology and aviation human factors show interesting parallels among the rated and nonrated officers. The rated officers believe that within 1 to 3 months they are confident (100 percent each); whereas, only 38 percent of the 916X members have this belief. Overall, 51 percent of the 916X officers believe that it takes, at the very least, 4 to 12 months to

TABLE 25

AEROSPACE PHYSIOLOGIST OFFICERS
RESPONSES TO JOB INVENTORY
(SELECTED BACKGROUND DATA)

	DAFSC ALL (N=78)	DAFSC 916X (N=65)	DAFSC 1495A (N=10)	DAFSC 2295A (N=3)
DOES 2-WEEK INSTRUCTOR TRAINING WORKSHOP PREPARE YOU FOR INSTRUCTOR DUTIES?				
YES	47%	45%	50%	100%
NO	53%	55%	50%	-
SHOULD THE 5-WEEK AP CURRICULA BE MORE OPERATIONALLY ORIENTED?				
YES	86%	85%	90%	100%
NO	14%	15%	10%	-
COULD AP ACCOMPLISH JOBS BETTER IF ATTENDED SPECIALIZED FLIGHT TRAINING COURSE?				
YES	97%	98%	90%	100%
NO	3%	2%	10%	-

TABLE 25 (CONTINUED)

AEROSPACE PHYSIOLOGIST OFFICERS
RESPONSES TO JOB INVENTORY
(SELECTED BACKGROUND DATA)

	DAFSC ALL (N=78)	DAFSC 916X (N=65)	DAFSC 1495A (N=10)	DAFSC 2295A (N=3)
WHEN DID YOU FEEL CONFIDENT TO TEACH AIRCREW MEMBERS AFTER THE AP COURSE?				
1-3 MOS	49%	38%	100%	100%
4-6 MOS	24%	29%	-	-
7-12 MOS	18%	22%	-	-
STILL NOT CONFIDENT TO TEACH	1%	2%	-	-
HOW OFTEN DO YOU FLY IN MILITARY AIRCRAFT DURING 6-MONTH PERIOD IN PRESENT AP POSITION?				
NOT AT ALL	56%	60%	40%	33%
1-3 TIMES	22%	26%	-	-
4-6 TIMES	9%	9%	-	33%
7 OR MORE TIMES	13%	5%	60%	33%
COMPUTER USE AND TRAINING				
DO YOU OPERATE COMPUTERS IN DAILY DUTIES?				
YES	72%	75%	60%	33%

TABLE 25 (CONTINUED)

AEROSPACE PHYSIOLOGIST OFFICERS
RESPONSES TO JOB INVENTORY
(SELECTED BACKGROUND DATA)

	DAFSC ALL (N=78)	DAFSC 916X (N=65)	DAFSC 1495A (N=10)	DAFSC 2295A (N=3)
TYPE OF TRAINING RECEIVED				
DO NOT USE COMPUTER	14%	9%	40%	33%
NO FORMAL TRAINING	40%	42%	40%	-
FORMAL RES COURSE TRAINING-(AETC TRAINER)	-	-	-	-
FORMAL IN-HOUSE TRAINING	18%	22%	-	-
FORMAL TRAINING AT VOCATIONAL TECH-TYPE SCHOOL	1%	2%	-	-
INFORMAL SELF-PACED TRAINING	19%	17%	20%	67%
IF DO NOT USE COMPUTER IN DAILY DUTIES				
NO COMPUTER AVAILABLE	4%	5%	-	-
CHOOSE NOT TO USE	5%	3%	10%	33%
NOT ENOUGH TRAINING	1%	2%	-	-
ADMIN WORK DONE BY OTHERS	18%	15%	30%	33%
NO RESPONSE	72%	75%	60%	33%

perceive a confidence level in teaching. Eleven percent of the 916X respondents either did not respond to this background question or do not still feel confident to teach (2 percent).

During a 6-month period, again the rated officers spend more time flying in a military aircraft than do the 916X personnel. Sixty-percent of the 916X Aerospace Physiological officers do not fly at all, and with those that do, indices are not high; 1 to 3 times (26 percent), 4 to 6 times (9 percent), and 7 or more times (5 percent).

Adequacy of Computer Training

Overall, the Aerospace Physiological officers use computers minimally (from 25 percent to 67 percent) in their daily duties. The 916X officers report the highest computer usage (25 percent), followed by 1495A DAFSC personnel (40 percent).

Indices do, however, note that less than half of the officers (42 percent) have received no formal training in using computers and rely mostly on self-paced types of training. Eighteen percent of the members report having their administrative work accomplished by others.

These indices highlight the need for Air Force Training Staff to review computer training priorities, since a large percentage of officer personnel are NOT being adequately trained for this segment of their daily duties.

In regard to level of education of the Aerospace Physiologist officers, 46 percent of the members have a master's degree or master's degree plus. Twelve percent of the members hold a doctoral degree, and 5 percent indicate post doctoral level work. The major focus of their bachelor's degrees are Biology, Zoology, Physiology, Chemistry, and Physical Education. Master's degrees differ somewhat in their focus: Physiology, Exercise Physiology, Biology, Business, Management, Organizational Development, and Human Factors.

JOB SATISFACTION INDICATORS OVERVIEW

As addressed thoroughly within the various sections of the OSR, job satisfaction indices are included in every USAF JI Background section, with the resultant data being reported to an ongoing research project at AL/HRD, Brooks AFB TX. Job satisfaction is also an extremely important part of the indepth analyses of the survey data, because it presents the prevailing attitudes of the respondents for job satisfaction and training issues. The user should understand and note that an individual's job satisfaction may be easily influenced by many factors, such as the particular DAFSC, supervisors, the tasks performed, command of assignment, and paygrade.

The user should review the associated tables throughout the OSR on job satisfaction. To assess the above areas, job satisfaction and training data were extracted from the selected background characteristics, which include all Aerospace Physiologist survey respondents.

Overall, job satisfaction responses are generally in the high-positive range by the three targeted DAFSCs across all indicators queried: expressed job interest (91 percent - "Interesting"), perceived utilization of talents (62 percent -"Fairly Well To Very Well"), sense of accomplishment (91 percent - "Satisfied"), and perceived utilization of training (60 percent - "Fairly Well To Very Well").

Contrastable to indications of job satisfaction is perception of career progression and future utilization field plans. The Aerospace Physiologist officers, as a whole, again show some interesting parallels in these responses. The 916X officers indicate high positive indices (78 percent) in career progression opportunities and plan to remain in the utilization field (83 percent), with only 11 percent indicating an interest in career broadening or crosstraining. In contrast, the rated officers are much lower (2295A - 67 percent positive) and 1495A (50 percent - not positive). In regard to utilization field plans, 67 percent of the 2295A officers indicate they will remain in the field, however, 33 percent report they plan to crosstrain for career broadening. Thirty percent of the 1495A officers indicate they plan to remain within the field, 40 percent plan to leave, and 10 percent of the members appear to be undecided about future plans.

WRITE-IN COMMENTS

Individuals are encouraged to add additional information about their jobs or training on the last page of each USAF JI survey booklet. This includes adding additional duties that are performed, additional degrees that are held by the officers, as well as suggestions for training, opinions regarding their AFSCs, and any other pertinent data (to the respondents) that were not included in the JI.

If and whenever there are problems or major concerns in the AFSC being surveyed, the respondents are usually quite free with write-in comments, indicating real or perceived concerns. There were 40 comment sheets filled out and returned from the 78 Aerospace Physiologist officers. Overall, the comments have a positive and informative tone.

A few of the officers discussed such commonly received responses from the field, such as "the length of the inventory - too long"; the type of scale used for time spent in present job category is - "too complex and too broad of a range"; "inventory did not cover a sufficient number of questions on technical knowledge required to accomplish jobs"; and "enforced suspense (24 hours) to answer both the TE and JI booklets was ludicrous."

Other comments indicated additional schools such as Lieutenant Professional Development that respondents have attended; one person indicated that "the Aerospace

Physiologist School training course was one of the best training courses the individual ever attended." A rated member noted "Aerospace Physiology is a dead end field for any pilot since all promotions go to BSCS above the grade of major."

Eight additional tasks* were added by the respondents, such as "Attend TQM courses," "Perform as member of Quality Council of Medical Center," "Plan, execute, and evaluate BEET team," and "Develop plans and programs for Laboratory."

Eight additional undergraduate and advanced degrees were added by the respondents which had not been included in the original listings, such as Plant Physiologist, Forensic Science; Anatomy/Neurophysiological, Physical Therapy, Medical Microbiology, and Molecular Biology.

* Many of the added tasks are often too specific for addressing the duties of the majority of the AFSC respondents; however, USAFOMS maintains copies of these additional tasks, and they are routinely reviewed by the job inventory developers when the utilization field is again surveyed.

NOTE: Users should be aware that many pages held three or more responses to the various background questions. The Analyst has taken "liberty" when reviewing the write-in comments to consolidate and synthesize these comments for clarity, continuity, and cohesiveness.

IMPLICATIONS

This occupational survey was the result of a request in August 1990 by USAF School of Aerospace Medicine, Brooks AFB TX to provide relative data to assist in future training and manpower decisions, as well as evaluate the cohesiveness of the three DAFSCs included within the Aerospace Physiologist utilization field. Interest was also proffered regarding the responses to the four questions added to the background area regarding Aerospace training. Responses to these items are covered thoroughly in the ANALYSIS OF SELECTED BACKGROUND DATA section. The 78 respondents who provide the basis of data presented in this survey were AFSC 916X, 1495A, and 2295A Aerospace Physiologist officers.

In the final analysis of the tasks performed by the members of the targeted AFSCs, corresponding paygrade groups, and selected background information, the data indicate that Aerospace Physiologist officer personnel perform many diverse functions. The AFSCs appear to be extremely compatible, as far as their performance of the generalized administrative and supervisory officer tasks in Management and Supervisory and Planning and Command functions. Their major job focus, however, remains in specialized training of aerospace physiology and aviation human factors and the associated related tasks. The specificity of the daily duties and tasks performed by the officers in the three AFSCs targeted in this study, other than those duties noted above, is covered thoroughly throughout the various analyses by Job Structure, DAFSC, Operating Command, and paygrade groups. Tasks performed by the survey respondents follow

closely and validate the positions and requirements for AFSC Aerospace Physiologist officers as described in the current AFR 36-1 Specialty Descriptions for each of the targeted DAFSCs.

Air Staff, Training Managers, and other Aerospace Physiologist Staff should review thoroughly all OSR tables, figures, appendices, and extracts which can be used to their full advantage in formulating future training decisions. The overall data included in these analyses are indicative of the general attitudes of the personnel and accurately describe the duties and tasks performed by the 78 respondents included in the survey sample. A reiteration of some of the findings which should be considered for training implications are:

(1) The members included in the Job Structure analysis perform common administrative and supervisory officer tasks across the Management and Supervisory and Organizing, Planning, and Command functional areas, which by their commonality are included in the six identified jobs. The wide variations, as well as the exclusivity of the tasks included within each of the clusters and IJs, indicate much diversity within the jobs themselves. Although the members of the two IJs perform some similar tasks to the two major cluster groups, each perform tasks, sometimes in a more technical or research manner, which are distinctly different from the members included in the four jobs within the major cluster groups.

(2) The indepth analysis of the three targeted AFSC groups, the AFSC as a whole, along with corresponding paygrade groups and selected background characteristics, indicates that members perform many diverse functions within their Aerospace Physiologist utilization field. There are few discernible differences (with the exception of amount of time spent) in the duties and tasks performed by the three DAFSCs included within this utilization field. The largest majority of the officers focus their time and energies instructing personnel in aerospace physiology and aviation human factors, according to their specific duty assignments.

(3) AFSC group analysis indicates that a definitive agreement exists between the tasks performed and the AFR 36-1 Specialty Descriptions, which in turn ensures officer theoretical career progression within the Aerospace Physiological utilization field officers.

(4) Job descriptions are included for both the job structure and each of the DAFSC groups. Similarity and differences between paygrade groups, and within AFSCs and job structure groups, are also presented in figures, tables, and appendices included in the OSR. These descriptions provide the tasks, percent members performing each task, and the relative measure of how much time is spent on that task. Representative tasks performed by job structure groups, AFSC groups, paygrade groups, and TAFMS groups are presented in Appendices A through F.

(5) Job Satisfaction indicators are relatively high. Overall, the Aerospace Physiologist officers believe their jobs are "interesting" (91 percent), and they report having high "satisfaction" (91 percent) with sense of accomplishment gained from their work. They also perceive that their current jobs "utilize their talents" (62 percent), and "utilize their training" (60 percent). Interesting to note, however, in contrast to the positive job satisfaction indicators, the majority of the 916X survey respondents report medium to high indices (65 percent) in responses to career progression and interest in remaining in their present careers (83 percent); the 13 rated officers

are undecided about their future careers as Aerospace Physiologist officers and showed much lower indices in both utilization field plans and career progression.

The analysis of the 916X, 1495A, and 2295A Aerospace Physiologist officers as a whole, identified minimal differences between the rated and nonrated officers among the duties and tasks performed. The focus of the officers' responsibilities is driven by the specific duty to which each aerospace physiological officer is assigned, such as hypobaric or hyperbaric chambers, centrifuge training and operations, pressure suit and life support equipment, HAAMS, or RTDE&A. The Aerospace Physiologist course taught at the school of Aerospace Medicine provides the basic overview knowledge to perform the required duties as an aerospace physiologist. Follow-on instructions are provided at the bases of assignment for those specific functions which the officers are expected to perform, such as hyperbaric and hypobaric chambers, centrifuge operations and training, etc. The comprehensive data from this analysis can and should be used to identify areas which may be included in any revisions or changes made to training and classification documents, such as CTSs, POIs, and AFR 36-1 Specialty Descriptions and in all future course development.

THIS PAGE INTENTIONALLY LEFT BLANK

APPENDIX A

AEROSPACE PHYSIOLOGIST OFFICERS
916X, 1495A, AND 2295A

REPRESENTATIVE TASKS HIGH TO AVERAGE TRAINING EMPHASIS WITH FIRST-JOB AND FIRST-ASSIGNMENT INDICES (PERCENT MEMBERS PERFORMING (PMP))

THIS PAGE INTENTIONALLY LEFT BLANK

APPENDIX A

AEROSPACE PHYSIOLOGICAL OFFICERS
REPRESENTATIVE TASKS WITH VERY HIGH TO AVERAGE TRAINING EMPHASIS RATINGS
WITH FIRST-JOB AND FIRST-ASSIGNMENT INDICES
(PERCENT MEMBERS PERFORMING (PMP))

TASKS		TNG EMP	1ST JOB (PMP)	1ST ASMT (PMP)
E460	Conduct classroom instruction on human factors	8.09	77	72
E456	Conduct classroom instruction on disorientation	8.00	74	67
E461	Conduct classroom instruction on hypoxia and hyperventilation	7.55	85	78
E455	Conduct classroom instruction on decompression sickness (DCS)	7.55	79	72
E467	Conduct classroom instruction on principles and problems associated with vision, including night vision	7.45	79	78
E462	Conduct classroom instruction on mechanical effects of pressure changes	7.45	77	72
E472	Conduct classroom instruction on self-imposed stresses	7.41	74	72
E483	Instruct and critique students on performing anti-G straining maneuvers	7.32	59	44
E480	Instruct and critique student procedures for treatment of DCS	7.32	64	56
E448	Conduct classroom instruction on aircrew attention management	7.23	67	50
G510	Advise inside observers of appropriate treatment measures for reactors	7.18	69	56
E482	Instruct and critique student procedures for treatment of hypoxia	7.09	69	61
G522	Monitor serious reactors until arrival of flight surgeon	7.09	59	56
E481	Instruct and critique student procedures for treatment of hyperventilation	7.00	69	61
E471	Conduct classroom instruction on respiration and circulation	6.95	79	72
E452	Conduct classroom instruction on cockpit task management	6.95	64	50
E457	Conduct classroom instruction on effects of elevated partial pressures	6.86	54	44
E465	Conduct classroom instruction on physics of the atmosphere	6.77	82	78
E464	Conduct classroom instruction on noise effect	6.73	79	78
E475	Demonstrate or operate Barony chairs	6.64	64	56

APPENDIX A (CONTINUED)

AEROSPACE PHYSIOLOGICAL OFFICERS
REPRESENTATIVE TASKS WITH VERY HIGH TO AVERAGE TRAINING EMPHASIS RATINGS
WITH FIRST-JOB AND FIRST-ASSIGNMENT INDICES
(PERCENT MEMBERS PERFORMING (PMP))

TASKS		TNG EMP	1ST JOB (PMP)	1ST ASMT (PMP)
D425	Prepare lesson plans	6.59	72	72
G512	Assist in treatment of chamber reactors with evolved gas disorders	6.59	59	61
G514	Complete AF Forms 361 (Chamber Reactor/Treatment Report) upon hospitalization of chamber reactors	6.55	49	61
E446	Conduct classroom instruction on acceleration and anti-G clothing and equipment	6.55	72	67
G525	Perform inside instructor functions in hypobaric chambers	6.36	62	56
E486	Instruct students on differences between aerobic and anaerobic types of training exercises	6.36	0	0
E442	Brief aircrew students on safety precautions associated with flying and life support equipment	6.32	62	61
E453	Conduct classroom instruction on compression physics, such as hyperbarics and other hyperbaric technology topics	6.18	26	33
E459	Conduct classroom instruction on health and wellness	6.14	72	72
G513	Brief trainees prior to chamber flights to prevent unwarranted chamber reactions	6.09	59	56
E476	Demonstrate or operate spatial disorientation equipment, such as advanced disorientation demonstrators (ASDDs)	5.91	15	11
E444	Brief or demonstrate rapid decompression techniques during chamber flights	5.77	69	67
G511	Assist flight surgeons on selection of flight profiles during medical evaluation (MEDEVAL) flights	5.64	46	50
G526	Perform inside observer functions during hypobaric proficiency flights	5.64	54	78
E443	Brief or demonstrate physiological aids used in flying, such as survival equipment and ejection seats	5.55	36	28
G521	Monitor inside observer position and students during rapid decompression flights	5.55	69	61
E449	Conduct classroom instruction on carbon monoxide poisoning	5.55	77	61

APPENDIX A (CONTINUED)

AEROSPACE PHYSIOLOGICAL OFFICERS
REPRESENTATIVE TASKS WITH VERY HIGH TO AVERAGE TRAINING EMPHASIS RATINGS
WITH FIRST-JOB AND FIRST-ASSIGNMENT INDICES
(PERCENT MEMBERS PERFORMING (PMP))

TASKS		TNG EMP	1ST JOB (PMP)	1ST ASMT (PMP)
E447	Conduct classroom instruction on aerospace physiology equipment courses, such as centrifuge	5.45	10	6
E451	Conduct classroom instruction on chamber flights	5.27	64	56
G527	Perform lock operator functions on hypobaric chamber flights	5.09	26	28
E474	Conduct pre- or postflight briefings following chamber flights	5.00	28	22
E454	Conduct classroom instruction on crash survival equipment and emergency escapes from aircraft	4.91	8	6
A69	Participate in Aircraft Physiological Incident Investigations	4.86	8	11
A68	Participate in Aircraft Mishap Investigations	4.68	10	11
E445	Brief or demonstrate use of ejection seat trainers	4.64	13	11
D440	Write test questions, such as for block tests	4.64	36	39
E450	Conduct classroom instruction on centrifuge profiles	4.59	13	6
G515	Conduct hypobaric chamber team training	4.50	44	50
G520	Monitor chamber inside and outside observer positions during proficiency flights	4.50	44	39
E466	Conduct classroom instruction on pressure suit principles	4.45	8	6
E478	Evaluate functions of aerospace physiology equipment, such as for proper operation	4.45	26	22
G524	Perform chamber operator functions on hypobaric chamber flights	4.45	10	17
J63	Instruct Trainer, Attack, Reconnaissance, and Fighter (TARF) courses	4.45	49	44

APPENDIX A (CONTINUED)

AEROSPACE PHYSIOLOGICAL OFFICERS
REPRESENTATIVE TASKS WITH VERY HIGH TO AVERAGE TRAINING EMPHASIS RATINGS
WITH FIRST-JOB AND FIRST-ASSIGNMENT INDICES
(PERCENT MEMBERS PERFORMING (PMP))

TASKS		TNG EMP	1ST JOB (PMP)	1ST ASMT (PMP)
VERY HIGH TE - MEAN PLUS 2 SD (4.44+)				
H566	Respond to chamber-related physiological adverse reactions, such as hypoglycemia episodes or oxygen toxicity reactions	4.36	18	28
H562	Perform inside attendant functions on hyperbaric chamber dives	4.32	28	28
B215	Organize and present Flying Safety Programs	4.23	33	33
D424	Practice classroom presentations	4.23	67	67
J635	Instruct Tanker, Transport, and Bomber (TTB) courses	4.18	46	50
E458	Conduct classroom instruction on experimental aspects of hyperbaric oxygen	4.14	26	22
H565	Perform team chief functions during chamber training and proficiency dives	4.05	26	28
H558	Perform chamber emergency dive team member functions	3.91	31	28
G517	Critique chamber flight lecturers	3.86	51	44
D422	Participate in classroom proficiency training	3.77	38	33
H563	Perform inside patient attendant functions during hyperbaric chamber dives	3.73	8	6
G523	Operate diagnostic devices in hypobaric chambers	3.68	8	0
H528	Brief individuals on chamber operations and policies	3.68	33	28
G518	Critique chamber proficiency training flights with team members	3.64	33	28
J633	Instruct Low and Slow (L&S) Weapons Systems Refresher courses	3.50	31	33
B112	Certify AF Forms 1274 (Physiological Training)	3.45	67	56
B114	Certify AF Forms 712 (Instructor's Flight/Dive Record)	3.45	28	33

APPENDIX A (CONTINUED)

AEROSPACE PHYSIOLOGICAL OFFICERS
REPRESENTATIVE TASKS WITH VERY HIGH TO AVERAGE TRAINING EMPHASIS RATINGS
WITH FIRST-JOB AND FIRST-ASSIGNMENT INDICES
(PERCENT MEMBERS PERFORMING (PMP))

TASKS		TNG EMP	1ST JOB (PMP)	1ST ASMT (PMP)
E473	Conduct classroom instruction on USAF Hyperbaric Therapy Programs - Future and Past	3.41	8	6
D378	Critique student test results with students	3.41	49	56
D350	Approve or disapprove lesson plans	3.41	38	33
B113	Certify AF Forms 702 (Individual Physiological Training Record)	3.36	69	61
H559	Perform chamber operator functions on hyperbaric chamber dives	3.32	23	28
B81	Act as officer-in-charge (OIC) during equipment evaluation dives	3.18	28	44
K687	Instruct aircrews on countering of G-induced loss of consciousness (GLOC)	3.18	21	11
H564	Perform lock operator functions on hyperbaric chamber dives	3.14	15	11
D380	Design student training literature	3.14	46	56
K689	Maintain proficiency and currency in cardiopulmonary resuscitation (CPR) techniques	3.09	18	11
H540	Direct emergency hyperbaric chamber proficiency training	3.05	26	33
G519	Escort chamber reactors to hospital	3.00	33	28
D411	Evaluate instructor's classroom presentations	3.00	33	39
E470	Conduct classroom instruction on principles of flight training	3.00	8	0
D345	Administer tests	2.95	41	50
I591	Instruct principles and procedures of crash survival	2.95	0	0
I596	Perform OIC functions on PFT teams	2.95	13	11
D410	Evaluate course outlines, lesson plans, or presentation methods	2.95	41	44

APPENDIX A (CONTINUED)

AEROSPACE PHYSIOLOGICAL OFFICERS
REPRESENTATIVE TASKS WITH VERY HIGH TO AVERAGE TRAINING EMPHASIS RATINGS
WITH FIRST-JOB AND FIRST-ASSIGNMENT INDICES
(PERCENT MEMBERS PERFORMING (PMP))

TASKS		TNG EMP	1ST JOB (PMP)	1ST ASMT (PMP)
HIGH TE RATINGS - MEAN PLUS 1SD (2.93+)				
E469	Conduct classroom instruction on principles of flight	2.91	8	0
D347	Analyze test results	2.91	51	50
E468	Conduct classroom instruction on principles of aircraft navigation and weather	2.91	13	0
B221	Participate in safety meetings	2.86	54	56
J629	Instruct Base Instrument Refresher Courses (IRCs)	2.86	21	17
D379	Demonstrate methods of locating technical information	2.86	21	22
H560	Perform crew chief functions on hyperbaric chamber dives	2.86	15	17
D420	Oversee student critiques	2.86	44	44
B275	Write EPRs	2.82	28	11
D387	Develop phase, block, or end of course tests	2.82	31	39
B146	Direct aerospace physiology equipment maintenance or utilization, such as for hyperbaric chamber facilities	2.82	23	33
E485	Instruct or demonstrate water survival procedures in which pressure suits are not worn	2.77	0	0
L708	Brief aircrew and parachutists on high altitude hazards	2.77	3	6
B84	Advise local commanders, flying safety officers (FSOs), or flight surgeons of human factor concerns	2.77	41	39
J631	Instruct High Altitude Life Support System Survival Orientation courses	2.73	3	6
D419	Observe and critique classroom instructions	2.73	54	44

APPENDIX A (CONTINUED)

AEROSPACE PHYSIOLOGICAL OFFICERS
REPRESENTATIVE TASKS WITH VERY HIGH TO AVERAGE TRAINING EMPHASIS RATINGS
WITH FIRST-JOB AND FIRST-ASSIGNMENT INDICES
(PERCENT MEMBERS PERFORMING (PMP))

TASKS		TNG EMP	1ST JOB (PMP)	1ST ASMT (PMP)
B169	Evaluate and endorse entries on AF Forms 701 (Chamber Flight Record)	2.68	59	61
D426	Prepare training schedules	2.68	31	39
K686	Instruct aircrews on basic exercise physiology, such as Warrior Fitness Training Programs	2.68	8	6
E484	Instruct or demonstrate water survival procedures in which pressure suit assemblies are worn	2.68	3	6
B116	Certify starting or stopping of hazardous duty incentive pay for team members	2.68	28	11
D427	Procure training aids, equipment, or space	2.64	41	44
F488	Assist in operation of ASDDs	2.64	0	0
C303	Develop unit or organizational quality control (QC) programs	2.59	21	22
B194	Implement total quality management (TQM) programs	2.59	31	33
I594	Oversee descent and landing techniques training	2.59	13	11
I584	Conduct PLF training	2.59	3	0
D385	Develop course curricula or plans of instruction (POIs)	2.55	23	28
B272	Verify proper storage of high pressure gas storage cylinders	2.55	23	28
A37	Determine budget or financial priorities or requirements	2.50	23	11
B235	Prepare charts, graphs, or slides for briefings	2.50	72	72
A70	Participate in mishap investigations, other than aircraft accidents or incidents	2.50	3	6
B89	Approve and upchannel AF Forms 700 (Physiological Training Monthly Report)	2.45	26	17
J630	Instruct basic fighter transition (BFT) courses	2.45	5	0
D405	Endorse AF Forms such as, AF Forms 1274 (Physiological Training)	2.41	54	56
K666	Assume supervision of centrifuge reactors prior to flight surgeon or emergency medical team support	2.41	5	0

APPENDIX A (CONTINUED)

AEROSPACE PHYSIOLOGICAL OFFICERS
REPRESENTATIVE TASKS WITH VERY HIGH TO AVERAGE TRAINING EMPHASIS RATINGS
WITH FIRST-JOB AND FIRST-ASSIGNMENT INDICES
(PERCENT MEMBERS PERFORMING (PMP))

TASKS		TNG EMP	1ST JOB (PMP)	1ST ASMT (PMP)
K675	Diagnose and develop individual student diet and fitness programs	2.36	10	6
B259	Review instructor evaluations	2.36	36	33
K669	Conduct remedial G-situational awareness (SA) training for centrifuge qualification students	2.32	5	0
B281	Write OPRs	2.32	18	6
C311	Direct special inspections of hyperbaric chamber equipment and assemblies	2.32	10	17
B168	Evaluate AF Forms 700	2.32	21	28
G516	Coordinate crew member integration checks with appropriate personnel	2.32	18	6
I580	Brief or demonstrate PLFs during parasail tow-downs	2.32	3	6
B119	Conduct and record personnel counseling sessions	2.27	38	28
A47	Endorse and upchannel enlisted performance reports (EPRs)	2.27	31	17
K674	Debrief centrifuge students on G-load and G-suit pressures with annotated strip-charts	2.27	5	0
B157	Direct posting of emergency procedures for chamber operations, such as loss of oxygen or freon into chambers	2.23	28	22
D369	Coordinate formal classroom training with appropriate personnel	2.23	62	61
E479	Indoctrinate aircrews on associated procedures of chemical defense equipment	2.23	3	0
K667	Brief profiles and standardized procedures used during centrifuge qualification runs	2.23	3	0
B124	Consult with concerned organizations on physiological questions or problems	2.23	41	50
B141	Determine justifications for manning or manpower changes	2.18	10	0
I598	Verify weather conditions prior to departure to PFT area	2.18	15	17
E477	Document classroom instruction on aircrew member's self-first aid training	2.18	3	0

APPENDIX A (CONTINUED)

AEROSPACE PHYSIOLOGICAL OFFICERS
REPRESENTATIVE TASKS WITH VERY HIGH TO AVERAGE TRAINING EMPHASIS RATINGS
WITH FIRST-JOB AND FIRST-ASSIGNMENT INDICES
(PERCENT MEMBERS PERFORMING (PMP))

TASKS		TNG EMP	1ST JOB (PMP)	1ST ASMT (PMP)
J634	Instruct Pilot Protection Assembly (PPA) training courses, such as original or refresher U-2 Courses	2.18	8	6
B117	Complete accident or incident report forms	2.18	15	17
A20	Approve or disapprove unit regulations, OIs, or SOPs	2.18	28	22
J607	Coordinate flight surgeon participation in MEDEVAL flights with appropriate personnel	2.18	10	11
I579	Brief or demonstrate parachute landing falls (PLFs) during parasail releases	2.18	3	6
D432	Review and update test materials	2.14	23	39
K676	Direct cessation of centrifuge runs for student techniques, safety concerns, or emergencies	2.14	5	0
H561	Perform designated consultant functions for military and civilian hyperbaric chamber procedures and concerns	2.14	8	11
K693	Perform centrifuge aerospace physiologist (CAP) functions during centrifuge profiles	2.14	5	0
B191	Implement Safety Programs	2.14	18	22
B262	Schedule annual student training	2.09	26	22
K688	Instruct and critique students during centrifuge qualification runs	2.09	5	0
B260	Review training evaluations	2.09	23	22
H543	Direct periodic air samplings in compressed air accumulators	2.09	10	11
E463	Conduct classroom instruction on mobility exercises and deployment	2.09	8	6
B270	Verify medical status and flight physical currency of students scheduled for chamber flights	2.05	33	33
D346	Advise staff or unit personnel on training matters	2.05	44	50
D381	Determine if training for assigned courses follows established policies and directives	2.05	23	28
I582	Conduct classroom instruction on principles of aircraft instruments	2.05	3	0

APPENDIX A (CONTINUED)

AEROSPACE PHYSIOLOGICAL OFFICERS
REPRESENTATIVE TASKS WITH VERY HIGH TO AVERAGE TRAINING EMPHASIS RATINGS
WITH FIRST-JOB AND FIRST-ASSIGNMENT INDICES
(PERCENT MEMBERS PERFORMING (PMP))

TASKS		TNG EMP	1ST JOB (PMP)	1ST ASMT (PMP)
B159	Direct proficiency training in use of approved USAF Hyperbaric Medicine Program treatment table (dive profile)	2.05	33	39
C312	Direct special inspections of hypobaric chamber equipment and assemblies	2.05	10	11
C300	Critique and oversee daily inspections of aerospace physiology equipment, such as night vision trainers	2.05	8	6
D428	Provide input for training manual updates	2.05	18	33
B239	Prepare recommendations for changes to unit instructor guides	2.00	33	33
B227	Plan safety programs	2.00	13	17
H530	Chart step-by-step action and time lines for hyperbaric dives	2.00	8	0
A26	Conduct routine or on-spot checks of units, such as hyperbaric chambers	2.00	8	11
K665	Assist physician with crash cart equipment during medical emergencies	1.95	5	0
K673	Debrief and critique student centrifuge qualification runs with individualized VCR tapes	1.95	5	0
B277	Write letters of counseling, appreciation, or reprimand	1.95	38	39
D402	Direct physiological training programs, such as for hypobaric technology	1.95	3	0
D433	Safeguard test materials	1.95	15	28
D363	Conduct inservice training sessions	1.95	31	44
I578	Brief or demonstrate in-flight egress procedures	1.91	8	11
J628	Instruct aircrew training for physiological support division (PSD) staff	1.91	3	6
C301	Critique corrective actions for resolution of discrepancies identified in inspections or evaluations	1.91	15	6
B145	Develop unit self-inspection checklists	1.91	21	11
B271	Verify posting of emergency procedures signs	1.91	28	33

APPENDIX A (CONTINUED)

AEROSPACE PHYSIOLOGICAL OFFICERS
REPRESENTATIVE TASKS WITH VERY HIGH TO AVERAGE TRAINING EMPHASIS RATINGS
WITH FIRST-JOB AND FIRST-ASSIGNMENT INDICES
(PERCENT MEMBERS PERFORMING (PMP))

TASKS		TNG EMP	1ST JOB (PMP)	1ST ASMT (PMP)
B137	Coordinate questions on class scheduling with concerned organizations	1.86	38	39
H529	Certify monthly hyperbaric dive and patient statistical summary reports	1.86	10	6
C327	Perform daily and periodic inspections of hyperbaric chamber fire suppression systems	1.86	5	6
I590	Direct positioning of PFT launch and landing zones	1.82	5	6
K668	Complete and certify student centrifuge data card during centrifuge qualification runs	1.82	5	0
B155	Direct maintenance of treatment records, such as AF Forms (Hyperbaric Patient Information and Therapy Record)	1.82	18	22
L720	Maintain flying efficiency in instructional aircraft	1.77	3	6
J653	Perform high-altitude training flights	1.77	5	6
B233	Prepare AF Forms 932 (NCO Performance Feedback Worksheet)	1.77	21	11
C313	Document and address hyperbaric Quality Assurance/Resource Management (QA/RM) issues at monthly meetings	1.77	18	22
H551	Notify HQ USAF/SGPA, MAJCOM/SG, and AL/AOH of suspension of hyperbaric operations	1.77	13	11
B153	Direct maintenance of records on status of inspections of equipment	1.77	21	22
C307	Direct periodic inspections of aerospace physiology equipment, such as live fire ejection seat trainers	1.77	3	0
I577	Brief or demonstrate ground egress escape procedures	1.77	3	0
D439	Write requests for copyright releases	1.77	3	6
K671	Conduct team code training for initial and proficiency training, such as Code Blue	1.77	8	0
H570	Schedule and monitor tests of pressure in hyperbaric chambers	1.73	8	6
D364	Conduct instructor in-house training	1.73	21	22

APPENDIX A (CONTINUED)

AEROSPACE PHYSIOLOGICAL OFFICERS
REPRESENTATIVE TASKS WITH VERY HIGH TO AVERAGE TRAINING EMPHASIS RATINGS
WITH FIRST-JOB AND FIRST-ASSIGNMENT INDICES
(PERCENT MEMBERS PERFORMING (PMP))

TASKS		TNG EMP	1ST JOB (PMP)	1ST ASMT (PMP)
A36	Determine annual student training schedules	1.73	28	28
D365	Conduct periodic checks of qualified team members' proficiency	1.73	41	44
I597	Perform various related crew positions on PFT teams, such as canopy assistant or release operator	1.73	13	17
I595	Oversee fitting of parasail harnesses	1.73	3	0
D409	Evaluate and counsel students or trainees on training progress or academic problems	1.73	18	17
I583	Conduct classroom instruction on swing landings	1.73	0	0
F503	Oversee removal or replacement of oxygen mask components and associated assemblies	1.73	0	0
A38	Determine requirements for personnel, workspace, equipment, or supplies	1.68	26	17
A6	Approve or disapprove budget and financial expenditures	1.68	15	6
D418	Inspect training aids for operation or suitability	1.68	15	11
B242	Proofread correspondence, reports, or forms	1.68	46	39
B232	Prepare AF Forms 931 (Airman Performance Feedback Worksheet)	1.68	3	6
D348	Approve or disapprove changes to course summary documents and course objective documents	1.68	31	33
C293	Conduct safety inspections, briefings, or debriefings	1.68	18	11
L705	Advise aircraft commander on disposition of flight reactors	1.68	3	6
J619	Direct 911X0 and 122X0 personnel during high altitude training flights	1.68	8	6
A57	Evaluate personnel under operational conditions	1.68	33	28
A3	Analyze unit plans for effectiveness of unit operations	1.68	21	11
M751	Conduct Human Use protocols	1.68	5	6
H542	Direct loading or unloading of patients to or from hyperbaric chambers	1.64	21	28
C286	Analyze inspection reports or procedures	1.64	15	11

APPENDIX A (CONTINUED)

AEROSPACE PHYSIOLOGICAL OFFICERS
REPRESENTATIVE TASKS WITH VERY HIGH TO AVERAGE TRAINING EMPHASIS RATINGS
WITH FIRST-JOB AND FIRST-ASSIGNMENT INDICES
(PERCENT MEMBERS PERFORMING (PMP))

TASKS		TNG EMP	1ST JOB (PMP)	1ST ASMT (PMP)
K664	Annotate strip chart of G-load and G-pressure suit pressures during centrifuge qualification runs	1.64	5	0
C310	Direct special inspections of full pressure suits and associated assemblies	1.64	3	0
H552	Notify USAF Hyperbaric Center upon election of hyperbaric oxygen therapy treatment for acute-disorder patients	1.64	13	17
B166	Establish indoctrination programs for newly assigned personnel	1.64	15	11
J652	Perform high-altitude rapid decompression training	1.64	13	11
C314	Document results of inspections and evaluations	1.64	13	11
J604	Conduct classroom instructions for full pressure suit training	1.64	5	6
I585	Conduct post ejection sequence training using procedural trainers	1.64	5	6
A41	Develop and upchannel multiyear equipment acquisition plans	1.64	13	6
H567	Review and implement resolutions to problems elevated to MTF QA/RM Committee	1.64	8	11
B142	Develop and upchannel organizational policies, OIs, or SOPs	1.59	36	28
D352	Approve or disapprove recommendations for changes to unit instructor guides	1.59	26	22
B82	Administer unit or organizational equipment maintenance programs	1.59	8	6
D404	Direct self-study training	1.59	3	6
D353	Approve or disapprove student training literature	1.59	26	28
J603	Conduct classroom instruction for Instructor Qualification Training courses	1.59	0	0
A1	Advise higher headquarters, wing, base commander, or key personnel of serious incidents	1.59	26	28
D414	Evaluate proficiency of upgrade personnel prior to certification	1.55	18	17
B208	Manage computer resources	1.55	28	28
B258	Review completeness and accuracy of personnel folders	1.55	18	17

APPENDIX A (CONTINUED)

AEROSPACE PHYSIOLOGICAL OFFICERS
REPRESENTATIVE TASKS WITH VERY HIGH TO AVERAGE TRAINING EMPHASIS RATINGS
WITH FIRST-JOB AND FIRST-ASSIGNMENT INDICES
(PERCENT MEMBERS PERFORMING (PMP))

TASKS		TNG EMP	1ST JOB (PMP)	1ST ASMT (PMP)
A48	Endorse and upchannel officer performance reports (OPRs)	1.55	18	6
D406	Establish instructor committees for editing, reorganizing, and writing course materials	1.55	18	22
B148	Direct dissemination of aerospace physiology records or reports	1.55	21	17
D358	Brief personnel on changes in training methods or procedures	1.55	28	28
B279	Write military job descriptions	1.55	8	0
J605	Conduct specialized pressure suit operational use testing	1.55	0	0
D415	Evaluate training methods, techniques, programs, or requirements	1.55	26	17
D441	Write training reports	1.55	5	6
D407	Establish study reference files	1.50	10	17
B173	Evaluate and upchannel hazardous duty orders for duty personnel	1.50	18	11
D357	Audit training products	1.50	18	11
L721	Observe aircrew and parachutists during flights	1.50	3	6
D377	Counsel student personnel on military, career, or personal problems	1.50	36	44
H537	Coordinate transportation for patients to and from hyperbaric treatments with designated personnel	1.50	10	11
J608	Design and produce training aids, such as instructional tapes or video cassette recorders (VCRs)	1.45	8	11
D366	Conduct qualification training for newly assigned officers	1.45	31	28
I592	Instruct principles and procedures of parasailing	1.45	0	0
C304	Direct completion of corrective actions on inspection, standardization, or evaluation reports	1.45	21	11
B147	Direct compliance with operational directives	1.45	36	28

APPENDIX A (CONTINUED)

AEROSPACE PHYSIOLOGICAL OFFICERS
REPRESENTATIVE TASKS WITH VERY HIGH TO AVERAGE TRAINING EMPHASIS RATINGS
WITH FIRST-JOB AND FIRST-ASSIGNMENT INDICES
(PERCENT MEMBERS PERFORMING (PMP))

TASKS		TNG EMP	1ST JOB (PMP)	1ST ASMT (PMP)
H541	Direct general maintenance on hyperbaric chamber assemblies, such as charging of compressed air flasks	1.45	8	17
D373	Coordinate training matters with unit branches and staff	1.45	21	17
F497	Oversee assembly and fitting of crewmembers' life support equipment	1.45	0	0
AVERAGE TO ABOVE AVERAGE TE (MEAN TO 1SD)				

APPENDIX A

AEROSPACE PHYSIOLOGICAL OFFICERS
REPRESENTATIVE TASKS WITH VERY HIGH TO AVERAGE TRAINING EMPHASIS RATINGS
WITH FIRST-JOB AND FIRST-ASSIGNMENT INDICES
(PERCENT MEMBERS PERFORMING (PMP))

FORMULA....TRAINING EMPHASIS DATA: When a given task has an assigned TE rating greater than or equal to sum of the Mean value (1.42), plus 1 SD (1.51), these tasks merit strong consideration for inclusion in some form of structured training for first-assignment officers.

MEAN TO 1 S.D.	(1.42 TO 1.51) = AVERAGE TO ABOVE AVERAGE TE
MEAN PLUS 1 S.D.	(2.93) = HIGH TE
MEAN PLUS 2 S.D.	(4.44) = VERY HIGH TE

APPENDIX B

AEROSPACE PHYSIOLOGIST OFFICERS
916X, 1495A, AND 2295A

REPRESENTATIVE TASKS PERFORMED BY JOB STRUCTURE GROUPS

THIS PAGE INTENTIONALLY LEFT BLANK

APPENDIX B1

REPRESENTATIVE TASKS PERFORMED BY JOB STRUCTURE GROUPS

GROUP TITLE & ST NUMBER: AEROSPACE PHYSIOLOGICAL TRAINING OFFICERS CLUSTER (ST15) (2 JOBS)
GROUP SIZE: 29 PERCENT OF SAMPLE: 37%
AVERAGE TIME IN CURRENT JOB: 16 MOS SUPERVISE: 48%
AVERAGE TAFMS: 94 MOS AVERAGE NUMBER OF TASKS PERFORMED: 107
AVERAGE DAFSC DISTRIBUTION: 916X - 69%
RATED MEMBERS: 1495A - 28%, 2295A - 3%
AVERAGE GRADE DISTRIBUTION: O3 - 38%, O2 - 34%, O4 - 14%, O6 & O1 - 7%

THE FOLLOWING TASKS ARE IN DESCENDING ORDER BY PERCENT MEMBERS PERFORMING:

TASKS		PERCENT MEMBERS PERFORMING
E460	Conduct classroom instruction on human factors	100
E461	Conduct classroom instruction on hypoxia and hyperventilation	100
E456	Conduct classroom instruction on disorientation	100
E467	Conduct classroom instruction on principles and problems associated with vision, including night vision	100
E464	Conduct classroom instruction on noise effect	100
E471	Conduct classroom instruction on respiration and circulation	100
E465	Conduct classroom instruction on physics of the atmosphere	100
E462	Conduct classroom instruction on mechanical effects of pressure changes	97
E455	Conduct classroom instruction on decompression sickness (DCS)	97
E472	Conduct classroom instruction on self-imposed stresses	93
E448	Conduct classroom instruction on aircrew attention management	90
E446	Conduct classroom instruction on acceleration and anti-G clothing and equipment	90
E449	Conduct classroom instruction on carbon monoxide poisoning	90
E452	Conduct classroom instruction on cockpit task management	86
G510	Advise inside observers of appropriate treatment measures for reactors	86
B113	Certify AF Forms 702 (Individual Physiological Training Record)	86
E459	Conduct classroom instruction on health and wellness	83

APPENDIX B2

REPRESENTATIVE TASKS PERFORMED BY JOB STRUCTURE GROUPS

GROUP TITLE & ST NUMBER: AEROSPACE PHYSIOLOGICAL PLANS AND OPERATIONS MANAGERS CLUSTER (ST13) (2 JOBS)
GROUP SIZE: 32
PERCENT OF SAMPLE: 41%
AVERAGE TIME IN CURRENT JOB: 31 MOS
SUPERVISE: 91%
AVERAGE TAFMS: 191 MOS
AVERAGE NUMBER OF TASKS PERFORMED: 251
AVERAGE DAFSC DISTRIBUTION: 916X - 87%
RATED DAFSCs: 1495A - 6%, 2295A - 6%
AVERAGE GRADE DISTRIBUTION: O4 - 34%, O6 - 22%, O5 & O3 - 19%, O2 - 6%

THE FOLLOWING TASKS ARE IN DESCENDING ORDER BY PERCENT MEMBERS PERFORMING:

TASKS		PERCENT MEMBERS PERFORMING
B110	Attend relevant scientific meetings	94
B140	Counsel personnel on career, personal, or military-related problems	91
A6	Approve or disapprove budget and financial expenditures	91
B92	Approve or disapprove AF Forms 988 (Leave Request/Authorization)	88
B277	Write letters of counseling, appreciation, or reprimand	88
A45	Elevate major discrepancies or unresolvable problems to designated higher-level personnel	88
B242	Proofread correspondence, reports, or forms	84
D346	Advise staff or unit personnel on training matters	84
A20	Approve or disapprove unit regulations, OIs, or SOPs	84
B200	Interpret policies, directives, or procedures for subordinates	84
B124	Consult with concerned organizations on physiological questions or problems	84
A19	Approve or disapprove unit plans, policies, programs, or administrative procedures	84
B84	Advise local commanders, flying safety officers (FSOs), or flight surgeons of human factor concerns	84
A37	Determine budget or financial priorities or requirements	84
B217	Participate in ad hoc groups, special conferences, or planning committees	84
B104	Approve or disapprove work priorities	84

APPENDIX B3

REPRESENTATIVE TASKS PERFORMED BY JOB STRUCTURE GROUPS

GROUP TITLE & ST NUMBER: AEROSPACE PHYSIOLOGICAL HYPERBARIC OPERATIONS CHIEFS INDEPENDENT JOB (ST14)
GROUP SIZE: 4
PERCENT OF SAMPLE: 5%
AVERAGE TIME IN CURRENT JOB: 94 MOS
SUPERVISE: 50%
AVERAGE TAFMS: 109 MOS
AVERAGE NUMBER OF TASKS PERFORMED: 118
AVERAGE DAFSC DISTRIBUTION: 916X - 100%
AVERAGE GRADE DISTRIBUTION: O5 - 25%, O3 - 75%

THE FOLLOWING TASKS ARE IN DESCENDING ORDER BY PERCENT MEMBERS PERFORMING:

TASKS		PERCENT MEMBERS PERFORMING
H559	Perform chamber operator functions on hyperbaric chamber dives	100
H560	Perform crew chief functions on hyperbaric chamber dives	100
H562	Perform inside attendant functions on hyperbaric chamber dives	100
H565	Perform team chief functions during chamber training and proficiency dives	100
H558	Perform chamber emergency dive team member functions	100
B211	Monitor scheduling of hyperbaric medicine team monthly crew dives	100
B269	Verify entries on hyperbaric reports, such as AF Forms 1354 (Hyperbaric Chamber Operation Record)	100
B81	Act as officer-in-charge (OIC) during equipment evaluation dives	100
D361	Conduct facility tours	100
H550	Monitor status of hyperbaric equipment and supply orders	100
H540	Direct emergency hyperbaric chamber proficiency training	100
B147	Direct compliance with operational directives	100
H544	Direct periodic inspections of hyperbaric chamber equipment and assemblies	100
H546	Direct removal or replacement of oxygen equipment items in hyperbaric chambers	100
B159	Direct proficiency training in use of approved USAF Hyperbaric Medicine Program treatment table (dive profile)	100
M783	Evaluate research protocols and test plans for compliance with Human Use Committee directives	75

APPENDIX B4

REPRESENTATIVE TASKS PERFORMED BY JOB STRUCTURE GROUPS

GROUP TITLE & ST NUMBER: AEROSPACE PHYSIOLOGICAL RESEARCH, DEVELOPMENT, TEST AND EVALUATION, AND ACQUISITION OFFICERS INDEPENDENT JOB (ST17)

GROUP SIZE: 3
PERCENT OF SAMPLE: 4%
AVERAGE TIME IN CURRENT JOB: 7 MOS
SUPERVISE: 0%
AVERAGE TAFMS: 72 MOS
AVERAGE NUMBER OF TASKS PERFORMED: 66

AVERAGE DAFSC DISTRIBUTION: 916X - 100%
AVERAGE GRADE DISTRIBUTION: O3 - 33%, O2 - 33%, O4 - 33%

THE FOLLOWING TASKS ARE IN DESCENDING ORDER BY PERCENT MEMBERS PERFORMING:

TASKS		PERCENT MEMBERS PERFORMING
M751	Conduct Human Use protocols	100
M825	Test and evaluate life support equipment for compliance to specifications and standards	100
M736	Analyze and compare customer's ongoing needs with applicable technological changes	100
M794	Operate laboratory based data acquisition systems, such as strip chart and computer driven recording hardware	100
M746	Brief research protocol subjects	100
M823	Select appropriate biomedical instrumentation for research subjects	100
M811	Prepare research protocols in compliance with animal or human use directives	100
M801	Perform outside observer functions on research chamber flights	100
M796	Originate protocols for human and animal research	100
B248	Recruit volunteers for research protocols	100
M800	Perform inside observer functions on research chamber flights	100
M761	Demonstrate current technology to management, interested users, and VIPs	100
M742	Assist in operation of Doppler ultrasound devices	100
M777	Document informed consent of research subjects	100
G514	Complete AF Forms 361 (Chamber Reactor/Treatment Report) upon hospitalization of chamber reactors	100

APPENDIX C

AEROSPACE PHYSIOLOGIST OFFICERS
916X, 1495A, AND 2295A

REPRESENTATIVE TASKS PERFORMED BY DAFSC OFFICERS

THIS PAGE INTENTIONALLY LEFT BLANK

APPENDIX C1

REPRESENTATIVE TASKS PERFORMED BY
AEROSPACE PHYSIOLOGIST OFFICERS BY DAFSC 196X
(N=65 - SORTED BY PERCENT MEMBERS PERFORMING (PMP))

TASKS		PMP
B110	Attend relevant scientific meetings	86
B235	Prepare charts, graphs, or slides for briefings	74
B222	Participate in staff meetings or briefings	71
E461	Conduct classroom instruction on hypoxia and hyperventilation	69
D425	Prepare lesson plans	68
E455	Conduct classroom instruction on decompression sickness (DCS)	68
G510	Advise inside observers of appropriate treatment measures for reactors	66
E465	Conduct classroom instruction on physics of the atmosphere	66
E472	Conduct classroom instruction on self-imposed stresses	65
G526	Perform inside observer functions during hypobaric proficiency flights	65
E446	Conduct classroom instruction on acceleration and anti-G clothing and equipment	65
E460	Conduct classroom instruction on human factors	63
E471	Conduct classroom instruction on respiration and circulation	63
E462	Conduct classroom instruction on mechanical effects of pressure changes	63
E456	Conduct classroom instruction on disorientation	62
E467	Conduct classroom instruction on principles and problems associated with vision, including night vision	62
E464	Conduct classroom instruction on noise effect	62
G512	Assist in treatment of chamber reactors with evolved gas disorders	62
B140	Counsel personnel on career, personal, or military-related problems	62
E442	Brief aircrew students on safety precautions associated with flying and life support equipment	60
E449	Conduct classroom instruction on carbon monoxide poisoning	58
E444	Brief or demonstrate rapid decompression techniques during chamber flights	58
D424	Practice classroom presentations	58
G521	Monitor inside observer position and students during rapid decompression flights	58
B221	Participate in safety meetings	58
G522	Monitor serious reactors until arrival of flight surgeon	58
B242	Proofread correspondence, reports, or forms	57
A39	Determine work priorities	57
D361	Conduct facility tours	57

APPENDIX C2

REPRESENTATIVE TASKS PERFORMED BY AEROSPACE PHYSIOLOGIST 1495A DAFSC OFFICERS (N=10 - SORTED ON PERCENT MEMBERS PERFORMING (PMP))

TASKS		PMP
E460	Conduct classroom instruction on human factors	100
E461	Conduct classroom instruction on hypoxia and hyperventilation	100
E462	Conduct classroom instruction on mechanical effects of pressure changes	100
E452	Conduct classroom instruction on cockpit task management	100
E456	Conduct classroom instruction on disorientation	100
E448	Conduct classroom instruction on aircrew attention management	100
E464	Conduct classroom instruction on noise effect	100
E467	Conduct classroom instruction on principles and problems associated with vision, including night vision	100
E455	Conduct classroom instruction on decompression sickness (DCS)	100
E465	Conduct classroom instruction on physics of the atmosphere	100
E471	Conduct classroom instruction on respiration and circulation	100
E449	Conduct classroom instruction on carbon monoxide poisoning	90
E482	Instruct and critique student procedures for treatment of hypoxia	90
E481	Instruct and critique student procedures for treatment of hyperventilation	90
E480	Instruct and critique student procedures for treatment of DCS	90
E472	Conduct classroom instruction on self-imposed stresses	90
G521	Monitor inside observer position and students during rapid decompression flights	90
G510	Advise inside observers of appropriate treatment measures for reactors	90
E475	Demonstrate or operate Barony chairs	90
E483	Instruct and critique students on performing anti-G straining maneuvers	80
E446	Conduct classroom instruction on acceleration and anti-G clothing and equipment	80
E459	Conduct classroom instruction on health and wellness	80
G522	Monitor serious reactors until arrival of flight surgeon	80
D425	Prepare lesson plans	80
E444	Brief or demonstrate rapid decompression techniques	80

APPENDIX C3

REPRESENTATIVE TASKS PERFORMED BY AEROSPACE PHYSIOLOGIST DAFSC 2295A OFFICERS (N=3 - SORTED BY PERCENT MEMBERS PERFORMING (PMP))

TASKS		PMP
E449	Conduct classroom instruction on carbon monoxide poisoning	100
E467	Conduct classroom instruction on principles and problems associated with vision, including night vision	100
E472	Conduct classroom instruction on self-imposed stresses	100
E461	Conduct classroom instruction on hypoxia and hyperventilation	100
E462	Conduct classroom instruction on mechanical effects of pressure changes	100
E455	Conduct classroom instruction on decompression sickness (DCS)	100
E464	Conduct classroom instruction on noise effect	100
E459	Conduct classroom instruction on health and wellness	100
E460	Conduct classroom instruction on human factors	100
E456	Conduct classroom instruction on disorientation	100
E448	Conduct classroom instruction on aircrew attention management	100
B112	Certify AF Forms 1274 (Physiological Training)	100
E481	Instruct and critique student procedures for treatment of hyperventilation	100
E482	Instruct and critique student procedures for treatment of hypoxia	100
E457	Conduct classroom instruction on effects of elevated partial pressures	100
G513	Brief trainees prior to chamber flights to prevent unwarranted chamber reactions	100
G525	Perform inside instructor functions in hypobaric chambers	100
G521	Monitor inside observer position and students during rapid decompression flights	100
G510	Advise inside observers of appropriate treatment measures for reactors	100
E446	Conduct classroom instruction on acceleration and anti-G clothing and equipment	100
D369	Coordinate formal classroom training with appropriate personnel	100
E465	Conduct classroom instruction on physics of the atmosphere	100
E471	Conduct classroom instruction on respiration and circulation	100
E444	Brief or demonstrate rapid decompression techniques during chamber flights	100
B147	Direct compliance with operational directives	100
D361	Conduct facility tours	100
D419	Observe and critique classroom instructions	100
B110	Attend relevant scientific meetings	100
G519	Escort chamber reactors to hospital	100
B92	Approve or disapprove AF Forms 988 (Leave Request/Authorization)	100

THIS PAGE INTENTIONALLY LEFT BLANK

APPENDIX D

AEROSPACE PHYSIOLOGIST OFFICERS 916X, 1495A, AND 2295A

REPRESENTATIVE TASKS BY MAJCOM GROUPS AND CONUS AND OVERSEAS GROUPS

THIS PAGE INTENTIONALLY LEFT BLANK

APPENDIX D1

REPRESENTATIVE TASKS PERFORMED BY AEROSPACE PHYSIOLOGIST OFFICERS IN USAFA (N=2)

TASKS		PMP
E461	Conduct classroom instruction on hypoxia and hyperventilation	100
E462	Conduct classroom instruction on mechanical effects of pressure changes	100
E446	Conduct classroom instruction on acceleration and anti-G clothing and equipment	100
E467	Conduct classroom instruction on principles and problems associated with vision, including night vision	100
E472	Conduct classroom instruction on self-imposed stresses	100
E456	Conduct classroom instruction on disorientation	100
E455	Conduct classroom instruction on decompression sickness (DCS)	100
E442	Brief aircrew students on safety precautions associated with flying and life support equipment	100
E475	Demonstrate or operate Barany chairs	100
E460	Conduct classroom instruction on human factors	100
D425	Prepare lesson plans	100
D345	Administer tests	100
D347	Analyze test results	100
E444	Brief or demonstrate rapid decompression techniques during chamber flights	100
D346	Advise staff or unit personnel on training matters	100
D436	Score tests	100
D387	Develop phase, block, or end of course tests	100
E465	Conduct classroom instruction on physics of the atmosphere	100
A75	Prepare agendas for workshops, conferences, or symposiums	100
B110	Attend relevant scientific meetings	100
D409	Evaluate and counsel students or trainees on training progress or academic problems	100
D380	Design student training literature	100
E464	Conduct classroom instruction on noise effect	100
D377	Counsel student personnel on military, career, or personal problems	100
A80	Write replies to matters of command or organizational interests	100
E452	Conduct classroom instruction on cockpit task management	100
A57	Evaluate personnel under operational conditions	100
D420	Oversee student critiques	100
E459	Conduct classroom instruction on health and wellness	100
D440	Write test questions, such as for block tests	100
A35	Determine annual student training requirements	100

APPENDIX D2

REPRESENTATIVE TASKS PERFORMED BY AEROSPACE PHYSIOLOGIST OFFICERS IN AETC (N=13)

TASKS		PMP
E461	Conduct classroom instruction on hypoxia and hyperventilation	92
D425	Prepare lesson plans	92
E464	Conduct classroom instruction on noise effect	92
G521	Monitor inside observer position and students during rapid decompression flights	92
E472	Conduct classroom instruction on self-imposed stresses	85
E460	Conduct classroom instruction on human factors	85
E471	Conduct classroom instruction on respiration and circulation	85
E449	Conduct classroom instruction on carbon monoxide poisoning	85
E482	Instruct and critique student procedures for treatment of hypoxia	85
E481	Instruct and critique student procedures for treatment of hyperventilation	85
E444	Brief or demonstrate rapid decompression techniques during chamber flights	85
E467	Conduct classroom instruction on principles and problems associated with vision, including night vision	85
E462	Conduct classroom instruction on mechanical effects of pressure changes	85
E465	Conduct classroom instruction on physics of the atmosphere	85
E455	Conduct classroom instruction on decompression sickness (DCS)	85
E459	Conduct classroom instruction on health and wellness	77
E483	Instruct and critique students on performing anti-G straining maneuvers	77
E446	Conduct classroom instruction on acceleration and anti-G clothing and equipment	77
E456	Conduct classroom instruction on disorientation	77
E452	Conduct classroom instruction on cockpit task management	77
E475	Demonstrate or operate Barany chairs	77
G510	Advise inside observers of appropriate treatment measures for reactors	77
E448	Conduct classroom instruction on aircrew attention management	77
E480	Instruct and critique student procedures for treatment of DCS	77
D345	Administer tests	77
G512	Assist in treatment of chamber reactors with evolved gas disorders	77
G522	Monitor serious reactors until arrival of flight surgeon	77

APPENDIX D3

REPRESENTATIVE TASKS PERFORMED BY AEROSPACE PHYSIOLOGIST OFFICERS IN ACC (N=18)

TASKS		PMP
B110	Attend relevant scientific meetings	94
E460	Conduct classroom instruction on human factors	89
E456	Conduct classroom instruction on disorientation	89
E461	Conduct classroom instruction on hypoxia and hyperventilation	89
E446	Conduct classroom instruction on acceleration and anti-G clothing and equipment	89
E467	Conduct classroom instruction on principles and problems associated with vision, including night vision	89
E464	Conduct classroom instruction on noise effect	89
E471	Conduct classroom instruction on respiration and circulation	89
E448	Conduct classroom instruction on aircrew attention management	83
E442	Brief aircrew students on safety precautions associated with flying and life support equipment	83
E452	Conduct classroom instruction on cockpit task management	83
E449	Conduct classroom instruction on carbon monoxide poisoning	83
E462	Conduct classroom instruction on mechanical effects of pressure changes	83
E455	Conduct classroom instruction on decompression sickness (DCS)	83
E465	Conduct classroom instruction on physics of the atmosphere	83
E459	Conduct classroom instruction on health and wellness	78
B235	Prepare charts, graphs, or slides for briefings	78
E472	Conduct classroom instruction on self-imposed stresses	78
E483	Instruct and critique students on performing anti-G straining maneuvers	78
E481	Instruct and critique student procedures for treatment of hyperventilation	78
E482	Instruct and critique student procedures for treatment of hypoxia	78
E480	Instruct and critique student procedures for treatment of DCS	78
E451	Conduct classroom instruction on chamber flights	78
G525	Perform inside instructor functions in hypobaric chambers	78
D424	Practice classroom presentations	78
B113	Certify AF Forms 702 (Individual Physiological Training Record)	78
B221	Participate in safety meetings	78
G510	Advise inside observers of appropriate treatment measures for reactors	78

APPENDIX D4

REPRESENTATIVE TASKS PERFORMED BY
AEROSPACE PHYSIOLOGIST OFFICERS IN AMC
(N=10)

TASKS		PMP
D361	Conduct facility tours	100
B235	Prepare charts, graphs, or slides for briefings	90
B112	Certify AF Forms 1274 (Physiological Training)	90
E460	Conduct classroom instruction on human factors	80
E456	Conduct classroom instruction on disorientation	80
E459	Conduct classroom instruction on health and wellness	80
E472	Conduct classroom instruction on self-imposed stresses	80
E455	Conduct classroom instruction on decompression sickness (DCS)	80
E448	Conduct classroom instruction on aircrew attention management	80
E462	Conduct classroom instruction on mechanical effects of pressure changes	80
E461	Conduct classroom instruction on hypoxia and hyperventilation	80
E482	Instruct and critique student procedures for treatment of hypoxia	80
E467	Conduct classroom instruction on principles and problems associated with vision, including night vision	80
G513	Brief trainees prior to chamber flights to prevent unwarranted chamber reactions	80
E481	Instruct and critique student procedures for treatment of hyperventilation	80
E449	Conduct classroom instruction on carbon monoxide poisoning	80
E446	Conduct classroom instruction on acceleration and anti-G clothing and equipment	80
E464	Conduct classroom instruction on noise effect	80
G521	Monitor inside observer position and students during rapid decompression flights	80
D369	Coordinate formal classroom training with appropriate personnel	80
D378	Critique student test results with students	80
E471	Conduct classroom instruction on respiration and circulation	80
E465	Conduct classroom instruction on physics of the atmosphere	80
B242	Proofread correspondence, reports, or forms	80
D346	Advise staff or unit personnel on training matters	80
D419	Observe and critique classroom instructions	80
B222	Participate in staff meetings or briefings	80
B110	Attend relevant scientific meetings	80

APPENDIX D5

REPRESENTATIVE TASKS PERFORMED BY AEROSPACE PHYSIOLOGIST OFFICERS IN AFMC (N=22)

TASKS		PMP
B110	Attend relevant scientific meetings	86
B235	Prepare charts, graphs, or slides for briefings	73
B222	Participate in staff meetings or briefings	59
E455	Conduct classroom instruction on decompression sickness (DCS)	59
G526	Perform inside observer functions during hypobaric proficiency flights	59
B140	Counsel personnel on career, personal, or military-related problems	59
A39	Determine work priorities	55
E461	Conduct classroom instruction on hypoxia and hyperventilation	55
E465	Conduct classroom instruction on physics of the atmosphere	55
G512	Assist in treatment of chamber reactors with evolved gas disorders	55
B93	Approve or disapprove correspondence, such as letters	55
B277	Write letters of counseling, appreciation, or reprimand	55
B92	Approve or disapprove AF Forms 988 (Leave Request/Authorization)	55
B119	Conduct and record personnel counseling sessions	55
B242	Proofread correspondence, reports, or forms	50
E462	Conduct classroom instruction on mechanical effects of pressure changes	50
A37	Determine budget or financial priorities or requirements	50
B217	Participate in ad hoc groups, special conferences, or planning committees	50
M752	Conduct literature reviews	50
E471	Conduct classroom instruction on respiration and circulation	50
E472	Conduct classroom instruction on self-imposed stresses	50
A22	Assign special projects	50
B280	Write narrative correspondence or reports	50
B285	Write trip reports	50
D425	Prepare lesson plans	50
G514	Complete AF Forms 361 (Chamber Reactor/Treatment Report) upon hospitalization of chamber reactors	50
D361	Conduct facility tours	50
B221	Participate in safety meetings	50
M751	Conduct Human Use protocols	45
A40	Develop and establish work methods	45
G510	Advise inside observers of appropriate treatment measures for reactors	45
B124	Consult with concerned organizations on physiological questions or problems	45

APPENDIX D6

REPRESENTATIVE TASKS PERFORMED BY AEROSPACE PHYSIOLOGIST OFFICERS IN USAFE (N=4)

TASKS		PMP
B222	Participate in staff meetings or briefings	100
A22	Assign special projects	100
B217	Participate in ad hoc groups, special conferences, or planning committees	100
B140	Counsel personnel on career, personal, or military-related problems	100
E460	Conduct classroom instruction on human factors	75
E448	Conduct classroom instruction on aircrew attention management	75
E452	Conduct classroom instruction on cockpit task management	75
A68	Participate in Aircraft Mishap Investigations	75
A60	Evaluate safety programs	75
B235	Prepare charts, graphs, or slides for briefings	75
B109	Assign suspense dates to action items	75
E456	Conduct classroom instruction on disorientation	75
A3	Analyze unit plans for effectiveness of unit operations	75
E467	Conduct classroom instruction on principles and problems associated with vision, including night vision	75
A23	Chair ad hoc groups, special conferences, or planning committees	75
E461	Conduct classroom instruction on hypoxia and hyperventilation	75
E446	Conduct classroom instruction on acceleration and anti-G clothing and equipment	75
B188	Evaluate training charts, graphs, or related training data	75
E472	Conduct classroom instruction on self-imposed stresses	75
E455	Conduct classroom instruction on decompression sickness (DCS)	75
A24	Conduct boards, councils, workshops, or seminars	75
B141	Determine justifications for manning or manpower changes	75
A2	Analyze manpower utilization data	75
E465	Conduct classroom instruction on physics of the atmosphere	75
B280	Write narrative correspondence or reports	75
A9	Approve or disapprove justifications for manning or manpower changes	75
D360	Conduct briefings on new training techniques	75
A17	Approve or disapprove special projects	75
A6	Approve or disapprove budget and financial expenditures	75
A80	Write replies to matters of command or organizational interests	75

APPENDIX D7

REPRESENTATIVE TASKS PERFORMED BY AEROSPACE PHYSIOLOGIST OFFICERS IN PACAF (N=4)

TASKS		PMP
E442	Brief aircrew students on safety precautions associated with flying and life support equipment	100
E460	Conduct classroom instruction on human factors	100
E448	Conduct classroom instruction on aircrew attention management	100
E456	Conduct classroom instruction on disorientation	100
D425	Prepare lesson plans	100
D385	Develop course curricula or plans of instruction (POIs)	100
E472	Conduct classroom instruction on self-imposed stresses	100
E452	Conduct classroom instruction on cockpit task management	100
E461	Conduct classroom instruction on hypoxia and hyperventilation	100
E446	Conduct classroom instruction on acceleration and anti-G clothing and equipment	100
E459	Conduct classroom instruction on health and wellness	100
D369	Coordinate formal classroom training with appropriate personnel	100
E462	Conduct classroom instruction on mechanical effects of pressure changes	100
D419	Observe and critique classroom instructions	100
E455	Conduct classroom instruction on decompression sickness (DCS)	100
E471	Conduct classroom instruction on respiration and circulation	100
E464	Conduct classroom instruction on noise effect	100
B146	Direct aerospace physiology equipment maintenance or utilization, such as for hyperbaric chamber facilities	100
E449	Conduct classroom instruction on carbon monoxide poisoning	100
E467	Conduct classroom instruction on principles and problems associated with vision, including night vision	100
E457	Conduct classroom instruction on effects of elevated partial pressures	100
E465	Conduct classroom instruction on physics of the atmosphere	100
D424	Practice classroom presentations	100
D405	Endorse AF Forms such as, AF Forms 1274 (Physiological Training)	100
G521	Monitor inside observer position and students during rapid decompression flights	100
B221	Participate in safety meetings	100
G510	Advise inside observers of appropriate treatment measures for reactors	100
B112	Certify AF Forms 1274 (Physiological Training)	100
G517	Critique chamber flight lecturers	100

APPENDIX D8

REPRESENTATIVE TASKS PERFORMED BY
AEROSPACE PHYSIOLOGIST OFFICERS IN AF ELEMENT OTHER
(N=5)

TASKS		PMP
M821	Review and collate data for research publications	100
A74	Plan or provide input to facility layout plans	100
A75	Prepare agendas for workshops, conferences, or symposiums	100
A58	Evaluate procedures for storage or inventory of property items	100
M813	Present lectures, reports, or papers on research investigations at scientific meetings	100
M824	Submit manuscripts for publication in Scientific Journals or Texts	100
A40	Develop and establish work methods	100
A52	Evaluate and select individuals for specialized training	100
B83	Administer use of personnel, workspace, equipment, or supplies	100
B229	Prepare abstracts for scientific meetings	100
A38	Determine requirements for personnel, workspace, equipment, or supplies	100
B81	Act as officer-in-charge (OIC) during equipment evaluation dives	100
A60	Evaluate safety programs	100
B235	Prepare charts, graphs, or slides for briefings	100
A39	Determine work priorities	100
B110	Attend relevant scientific meetings	100
M791	Monitor ongoing research protocols	100
B122	Conduct staff meetings	100
B251	Review and approve presentations for scientific meetings	100
M788	Monitor clinical and research related grants or gifts programs	100
B252	Review and approve scientific papers prior to publication	100
A24	Conduct boards, councils, workshops, or seminars	100
B147	Direct compliance with operational directives	100
A10	Approve or disapprove justifications for new or additional facilities or equipment	100
A20	Approve or disapprove unit regulations, OIs, or SOPs	100
G515	Conduct hypobaric chamber team training	100
B146	Direct aerospace physiology equipment maintenance or utilization, such as for hyperbaric chamber facilities	100
G520	Monitor chamber inside and outside observer positions during proficiency flights	100
B124	Consult with concerned organizations on physiological questions or problems	100

APPENDIX D9

REPRESENTATIVE TASKS PERFORMED BY
AEROSPACE PHYSIOLOGIST OFFICERS
(OVERSEAS - N=10)

TASKS		PMP
B217	Participate in ad hoc groups, special conferences, or planning committees	90
A17	Approve or disapprove special projects	80
E460	Conduct classroom instruction on human factors	80
E448	Conduct classroom instruction on aircrew attention management	80
E456	Conduct classroom instruction on disorientation	80
E452	Conduct classroom instruction on cockpit task management	80
E472	Conduct classroom instruction on self-imposed stresses	80
E461	Conduct classroom instruction on hypoxia and hyperventilation	80
E446	Conduct classroom instruction on acceleration and anti-G clothing and equipment	80
E467	Conduct classroom instruction on principles and problems associated with vision, including night vision	80
E455	Conduct classroom instruction on decompression sickness (DCS)	80
E465	Conduct classroom instruction on physics of the atmosphere	80
B221	Participate in safety meetings	80
G510	Advise inside observers of appropriate treatment measures for reactors	80
G517	Critique chamber flight lecturers	80
A6	Approve or disapprove budget and financial expenditures	70
B110	Attend relevant scientific meetings	70
B285	Write trip reports	70
E442	Brief aircrew students on safety precautions associated with flying and life support equipment	70
A3	Analyze unit plans for effectiveness of unit operations	70
B222	Participate in staff meetings or briefings	70
E462	Conduct classroom instruction on mechanical effects of pressure changes	70
E449	Conduct classroom instruction on carbon monoxide poisoning rapid decompression flights	70
B116	Certify starting or stopping of hazardous duty incentive pay for team members	70
G513	Brief trainees prior to chamber flights to prevent unwarranted chamber reactions	70
E444	Brief or demonstrate rapid decompression techniques during chamber flights	70
D361	Conduct facility tours	70
G511	Assist flight surgeons on selection of flight profiles during medical evaluation (MEDEVAL) flights	70
B282	Write point, position, or talking papers	70
G512	Assist in treatment of chamber reactors with evolved gas disorders	70
A22	Assign special projects	60
A37	Determine budget or financial priorities or requirements	60

APPENDIX D10

REPRESENTATIVE TASKS PERFORMED BY AEROSPACE PHYSIOLOGIST OFFICERS (IN CONUS - N=68)

TASKS		PMP
B110	Attend relevant scientific meetings	81
B235	Prepare charts, graphs, or slides for briefings	75
E461	Conduct classroom instruction on hypoxia and hyperventilation	74
E455	Conduct classroom instruction on decompression sickness (DCS)	72
E465	Conduct classroom instruction on physics of the atmosphere	71
E462	Conduct classroom instruction on mechanical effects of pressure changes	69
E471	Conduct classroom instruction on respiration and circulation	69
G510	Advise inside observers of appropriate treatment measures for reactors	69
E460	Conduct classroom instruction on human factors	68
E472	Conduct classroom instruction on self-imposed stresses	68
E464	Conduct classroom instruction on noise effect	68
D425	Prepare lesson plans	68
E456	Conduct classroom instruction on disorientation	66
E467	Conduct classroom instruction on principles and problems associated with vision, including night vision	66
E446	Conduct classroom instruction on acceleration and anti-G clothing and equipment	66
B222	Participate in staff meetings or briefings	65
E449	Conduct classroom instruction on carbon monoxide poisoning	63
G521	Monitor inside observer position and students during rapid decompression flights	63
G526	Perform inside observer functions during hypobaric proficiency flights	62
E444	Brief or demonstrate rapid decompression techniques during chamber flights	62
G522	Monitor serious reactors until arrival of flight surgeon	62
E459	Conduct classroom instruction on health and wellness	60
G512	Assist in treatment of chamber reactors with evolved gas disorders	60
B140	Counsel personnel on career, personal, or military-related problems	60
E448	Conduct classroom instruction on aircrew attention management	59
B242	Proofread correspondence, reports, or forms	59
E442	Brief aircrew students on safety precautions associated with flying and life support equipment	59
E482	Instruct and critique student procedures for treatment of hypoxia	57
E481	Instruct and critique student procedures for treatment of hyperventilation	57

APPENDIX E

AEROSPACE PHYSIOLOGIST OFFICERS
916X, 1495A, AND 2295A

REPRESENTATIVE TASKS PERFORMED BY AEROSPACE PHYSIOLOGIST OFFICERS BY PAYGRADE GROUPS

THIS PAGE INTENTIONALLY LEFT BLANK

APPENDIX E1

REPRESENTATIVE TASKS PERFORMED BY AEROSPACE PHYSIOLOGIST OFFICERS IN PAYGRADE 01 (N=5 - SORTED BY PERCENT MEMBERS PERFORMING (PMP))

TASKS		PMP
E444	Brief or demonstrate rapid decompression techniques during chamber flights	80
E461	Conduct classroom instruction on hypoxia and hyperventilation	80
D425	Prepare lesson plans	60
B169	Evaluate and endorse entries on AF Forms 701 (Chamber Flight Record)	60
B112	Certify AF Forms 1274 (Physiological Training)	60
B113	Certify AF Forms 702 (Individual Physiological Training Record)	60
B222	Participate in staff meetings or briefings	60
E449	Conduct classroom instruction on carbon monoxide poisoning	60
D422	Participate in classroom proficiency training	60
G525	Perform inside instructor functions in hypobaric chambers	60
G512	Assist in treatment of chamber reactors with evolved gas disorders	60
E465	Conduct classroom instruction on physics of the atmosphere	60
B221	Participate in safety meetings	60
B224	Perform escort duties for DVs, such as greeting at flight line or escorting to designated site visits	40
D359	Complete inprocessing or outprocessing training checklists	40
E457	Conduct classroom instruction on effects of elevated partial pressures	40
A39	Determine work priorities	40
D369	Coordinate formal classroom training with appropriate personnel	40
B277	Write letters of counseling, appreciation, or reprimand	40
B109	Assign suspense dates to action items	40
B110	Attend relevant scientific meetings	40
M800	Perform inside observer functions on research chamber flights	40
M742	Assist in operation of Doppler ultrasound devices	40
D410	Evaluate course outlines, lesson plans, or presentation methods	40
B188	Evaluate training charts, graphs, or related training data	40
G510	Advise inside observers of appropriate treatment measures for reactors	40
E462	Conduct classroom instruction on mechanical effects of pressure changes	40
E472	Conduct classroom instruction on self-imposed stresses	40
E471	Conduct classroom instruction on respiration and circulation	40
E459	Conduct classroom instruction on health and wellness	40

APPENDIX E2

REPRESENTATIVE TASKS PERFORMED BY AEROSPACE PHYSIOLOGIST OFFICERS PAYGRADE 02 (N=13 - SORTED BY PERCENT MEMBERS PERFORMING (PMP))

TASKS		PMP
E472	Conduct classroom instruction on self-imposed stresses	92
E461	Conduct classroom instruction on hypoxia and hyperventilation	92
E462	Conduct classroom instruction on mechanical effects of pressure changes	92
E455	Conduct classroom instruction on decompression sickness (DCS)	92
E465	Conduct classroom instruction on physics of the atmosphere	92
E471	Conduct classroom instruction on respiration and circulation	92
E460	Conduct classroom instruction on human factors	85
E459	Conduct classroom instruction on health and wellness	85
E456	Conduct classroom instruction on disorientation	85
E467	Conduct classroom instruction on principles and problems associated with vision, including night vision	85
B235	Prepare charts, graphs, or slides for briefings	85
G526	Perform inside observer functions during hypobaric proficiency flights	85
E446	Conduct classroom instruction on acceleration and anti-G clothing and equipment	85
D425	Prepare lesson plans	85
E464	Conduct classroom instruction on noise effect	85
E449	Conduct classroom instruction on carbon monoxide poisoning	85
B113	Certify AF Forms 702 (Individual Physiological Training Record)	85
D369	Coordinate formal classroom training with appropriate personnel	85
B169	Evaluate and endorse entries on AF Forms 701 (Chamber Flight Record)	85
D405	Endorse AF Forms such as, AF Forms 1274 (Physiological Training)	85
E451	Conduct classroom instruction on chamber flights	85
E482	Instruct and critique student procedures for treatment of hypoxia	77
E442	Brief aircrew students on safety precautions associated with flying and life support equipment	77
E481	Instruct and critique student procedures for treatment of hyperventilation	77
E480	Instruct and critique student procedures for treatment of DCS	77
G510	Advise inside observers of appropriate treatment measures for reactors	77
G513	Brief trainees prior to chamber flights to prevent unwarranted chamber reactions	77

APPENDIX E3

REPRESENTATIVE TASKS PERFORMED BY AEROSPACE PHYSIOLOGIST OFFICERS IN PAYGRADE 03 (N=26 - SORTED BY PERCENT MEMBERS PERFORMING (PMP))

TASKS		PMP
B110	Attend relevant scientific meetings	85
E471	Conduct classroom instruction on respiration and circulation	69
E461	Conduct classroom instruction on hypoxia and hyperventilation	69
E467	Conduct classroom instruction on principles and problems associated with vision, including night vision	69
E464	Conduct classroom instruction on noise effect	69
B235	Prepare charts, graphs, or slides for briefings	69
E465	Conduct classroom instruction on physics of the atmosphere	69
E460	Conduct classroom instruction on human factors	65
E472	Conduct classroom instruction on self-imposed stresses	65
E462	Conduct classroom instruction on mechanical effects of pressure changes	65
E456	Conduct classroom instruction on disorientation	62
B222	Participate in staff meetings or briefings	62
E455	Conduct classroom instruction on decompression sickness (DCS)	62
E448	Conduct classroom instruction on aircrew attention management	58
E446	Conduct classroom instruction on acceleration and anti-G clothing and equipment	58
E481	Instruct and critique student procedures for treatment of hyperventilation	58
E482	Instruct and critique student procedures for treatment of hypoxia	58
G521	Monitor inside observer position and students during rapid decompression flights	58
E449	Conduct classroom instruction on carbon monoxide poisoning	58
G510	Advise inside observers of appropriate treatment measures for reactors	58
D361	Conduct facility tours	58
E459	Conduct classroom instruction on health and wellness	54
G526	Perform inside observer functions during hypobaric proficiency flights	54
E457	Conduct classroom instruction on effects of elevated partial pressures	54
E444	Brief or demonstrate rapid decompression techniques during chamber flights	54
G525	Perform inside instructor functions in hypobaric chambers	54
D425	Prepare lesson plans	54
G522	Monitor serious reactors until arrival of flight surgeon	54
E480	Instruct and critique student procedures for treatment of DCS	50

APPENDIX E4

REPRESENTATIVE TASKS PERFORMED BY AEROSPACE PHYSIOLOGIST OFFICERS IN PAYGRADE 04 (N=9 - SORTED ON PERCENT MEMBERS PERFORMING (PMP))

TASKS		PMP
B277	Write letters of counseling, appreciation, or reprimand	83
G510	Advise inside observers of appropriate treatment measures for reactors	78
B242	Proofread correspondence, reports, or forms	78
E455	Conduct classroom instruction on decompression sickness (DCS)	78
B235	Prepare charts, graphs, or slides for briefings	78
B110	Attend relevant scientific meetings	78
B140	Counsel personnel on career, personal, or military-related problems	78
B93	Approve or disapprove correspondence, such as letters	72
A39	Determine work priorities	72
B282	Write point, position, or talking papers	72
A47	Endorse and upchannel enlisted performance reports (EPRs)	72
B174	Evaluate and upchannel staff documents, such as point, position, or talking papers	72
A57	Evaluate personnel under operational conditions	72
A37	Determine budget or financial priorities or requirements	72
B122	Conduct staff meetings	72
B119	Conduct and record personnel counseling sessions	72
B92	Approve or disapprove AF Forms 988 (Leave Request/Authorization)	72
E461	Conduct classroom instruction on hypoxia and hyperventilation	67
E446	Conduct classroom instruction on acceleration and anti-G clothing and equipment	67
A4	Approve and upchannel awards and decoration recommendation, such as AF Commendation or AF Meritorious Service Medals	67
D425	Prepare lesson plans	67
B112	Certify AF Forms 1274 (Physiological Training)	67
A80	Write replies to matters of command or organizational interests	67
G521	Monitor inside observer position and students during rapid decompression flights	67
B170	Evaluate and submit individuals or units for awards or decorations	67
B124	Consult with concerned organizations on physiological questions or problems	67
B142	Develop and upchannel organizational policies, OIs, or SOPs	67
B200	Interpret policies, directives, or procedures for subordinates	67
A45	Elevate major discrepancies or unresolvable problems to designated higher level personnel	67
B97	Approve or disapprove leaves or passes	67
B98	Approve or disapprove letters of appreciation or reprimand	67
G526	Perform inside observer functions during hypobaric proficiency flights	61
E460	Conduct classroom instruction on human factors	61

APPENDIX E5

REPRESENTATIVE TASKS PERFORMED BY
AEROSPACE PHYSIOLOGIST OFFICERS IN PAYGRADE 05
(N=9 - SORTED ON PERCENT MEMBERS PERFORMING (PMP))

TASKS		PMP
B122	Conduct staff meetings	100
B280	Write narrative correspondence or reports	100
B140	Counsel personnel on career, personal, or military-related problems	100
B281	Write OPRs	100
A20	Approve or disapprove unit regulations, OIs, or SOPs	100
B116	Certify starting or stopping of hazardous duty incentive pay for team members	100
B92	Approve or disapprove AF Forms 988 (Leave Request/Authorization)	100
B97	Approve or disapprove leaves or passes	100
A49	Establish and administer procedures for implementation of programs, policies, or plans	89
A12	Approve or disapprove organizational policies, operating instructions (OIs), or standard operating procedures (SOPs)	89
A6	Approve or disapprove budget and financial expenditures	89
A47	Endorse and upchannel enlisted performance reports (EPRs)	89
B217	Participate in ad hoc groups, special conferences, or planning committees	89
A37	Determine budget or financial priorities or requirements	89
B147	Direct compliance with operational directives	89
A39	Determine work priorities	89
A48	Endorse and upchannel officer performance reports (OPRs)	89
B93	Approve or disapprove correspondence, such as letters	89
A16	Approve or disapprove replies to matters of command or organizational interests	89
B143	Develop organizational or functional lines of responsibility for personnel	89
B119	Conduct and record personnel counseling sessions	89
A14	Approve or disapprove personnel for TDYs	89
B110	Attend relevant scientific meetings	89
D425	Prepare lesson plans	78
E455	Conduct classroom instruction on decompression sickness (DCS)	78
B200	Interpret policies, directives, or procedures for subordinates	78
G510	Advise inside observers of appropriate treatment measures for reactors	78
A3	Analyze unit plans for effectiveness of unit operations	78
B235	Prepare charts, graphs, or slides for briefings	78
B84	Advise local commanders, flying safety officers (FSOs), or flight surgeons of human factor concerns	78
B109	Assign suspense dates to action items	78
G514	Complete AF Forms 361 (Chamber Reactor/Treatment Report) upon hospitalization of chamber reactors	78
A23	Chair ad hoc groups, special conferences, or planning committees	78
B275	Write EPRs	78

APPENDIX E6

REPRESENTATIVE TASKS PERFORMED BY AEROSPACE PHYSIOLOGIST OFFICERS IN PAYGRADE 06 (N=7 - SORTED ON PERCENT MEMBERS PERFORMING (PMP))

TASKS		PMP
A16	Approve or disapprove replies to matters of command or organizational interests	100
B124	Consult with concerned organizations on physiological questions or problems	100
D346	Advise staff or unit personnel on training matters	100
B280	Write narrative correspondence or reports	100
A2	Analyze manpower utilization data	100
A3	Analyze unit plans for effectiveness of unit operations	100
A28	Consolidate and upchannel input for command or organizational budget and financial expenditures	100
B282	Write point, position, or talking papers	100
A10	Approve or disapprove justifications for new or additional facilities or equipment	100
A6	Approve or disapprove budget and financial expenditures	100
B84	Advise local commanders, flying safety officers (FSOs), or flight surgeons of human factor concerns	100
B111	Brief changes to higher headquarters plans	100
A53	Evaluate and upchannel justifications for manning or manpower changes	100
B222	Participate in staff meetings or briefings	100
B136	Coordinate questions of policy or procedures with Air Staff, MAJCOM, or other designated agencies	100
E460	Conduct classroom instruction on human factors	100
B110	Attend relevant scientific meetings	100
A22	Assign special projects	100
E442	Brief aircrew students on safety precautions associated with flying and life support equipment	100
D385	Develop course curricula or plans of instruction (POIs)	100
B256	Review and upchannel recommendations or changes in procedures or policies to higher headquarters	100
A52	Evaluate and select individuals for specialized training	100
E472	Conduct classroom instruction on self-imposed stresses	100
E456	Conduct classroom instruction on disorientation	100
E446	Conduct classroom instruction on acceleration and anti-G clothing and equipment	100
D349	Approve or disapprove formal school forecasts	100
A1	Advise higher headquarters, wing, base commander, or key personnel of serious incidents	100
G525	Perform inside instructor functions in hypobaric chambers	100
E444	Brief or demonstrate rapid decompression techniques during chamber flights	100
G512	Assist in treatment of chamber reactors with evolved gas disorders	100
G510	Advise inside observers of appropriate treatment measures for reactors	100

APPENDIX F

AEROSPACE PHYSIOLOGIST OFFICERS
916X, 1495A, AND 2295A

REPRESENTATIVE TASKS NOT MATCHED TO COURSE TRAINING STANDARDS WITH HIGH TO AVERAGE TRAINING EMPHASIS RATINGS AND FIRST-JOB AND FIRST-ASSIGNMENT INDICES (PERCENT MEMBERS PERFORMING (PMP))

THIS PAGE INTENTIONALLY LEFT BLANK

APPENDIX F

AEROSPACE PHYSIOLOGIST OFFICERS
TASKS NOT MATCHED TO CTS ELEMENTS

THESE UNMATCHED TASKS SHOULD BE CAREFULLY REVIEWED TO IDENTIFY NEW AREAS WHICH MAY WARRANT INCLUSION IN FUTURE CTS REVIEWS AND REVISIONS
(SORTED BY TRAINING EMPHASIS (TE) INDICES AND PERCENT MEMBERS PERFORMING (PMP))

TASKS		TNG EMP	1ST JOB (PMP)	1ST ASMT (PMP
E457	Conduct classroom instruction on effects of elevated partial pressures	6.86	54	44
E453	Conduct classroom instruction on compression physics, such as hyperbarics and other hyperbaric technology topics	6.18	26	33
G511	Assist flight surgeons on selection of flight profiles during medical evaluation (MEDEVAL) flights	5.64	46	50
E447	Conduct classroom instruction on aerospace physiology equipment courses, such as centrifuge	5.45	10	6
E450	Conduct classroom instruction on centrifuge profiles	4.59	13	6
	VERY HIGH TE - 2 SD (4.44)			
H566	Respond to chamber related physiological adverse reactions, such as hypoglycemia episodes or oxygen toxicity reactions	4.36	18	28
H562	Perform inside attendant functions on hyperbaric chamber dives	4.32	28	28
E458	Conduct classroom instruction on experimental aspects of hyperbaric oxygen	4.14	26	22
H565	Perform team chief functions during chamber training and proficiency dives	4.05	26	28
H558	Perform chamber emergency dive team member functions	3.91	31	28
G517	Critique chamber flight lecturers	3.86	51	44
D422	Participate in classroom proficiency training	3.77	38	33

APPENDIX F (CONTINUED)

AEROSPACE PHYSIOLOGIST OFFICERS
TASKS NOT MATCHED TO CTS ELEMENTS

THESE UNMATCHED TASKS SHOULD BE CAREFULLY REVIEWED TO IDENTIFY NEW AREAS WHICH MAY WARRANT INCLUSION IN FUTURE CTS REVIEWS AND REVISIONS
(SORTED BY TRAINING EMPHASIS (TE) INDICES AND PERCENT MEMBERS PERFORMING (PMP))

TASKS		TNG EMP	1ST JOB (PMP)	1ST ASMT (PMP
H563	Perform inside patient attendant functions during hyperbaric chamber dives	3.73	8	6
H528	Brief individuals on chamber operations and policies	3.68	33	28
G518	Critique chamber proficiency training flights with team members	3.64	33	28
D378	Critique student test results with students	3.41	49	56
E473	Conduct classroom instruction on USAF Hyperbaric Therapy Programs - Future and Past	3.41	8	6
H559	Perform chamber operator functions on hyperbaric chamber dives	3.32	23	28
B81	Act as officer-in-charge (OIC) during equipment evaluation dives	3.18	28	44
H564	Perform lock operator functions on hyperbaric chamber dives	3.14	15	11
K689	Maintain proficiency and currency in cardiopulmonary resuscitation (CPR) techniques	3.09	18	11
H540	Direct emergency hyperbaric chamber proficiency training	3.05	26	33
E470	Conduct classroom instruction on principles of flight training	3.00	8	0
G519	Escort chamber reactors to hospital	3.00	33	28
I596	Perform OIC functions on PFT teams	2.95	13	11

APPENDIX F (CONTINUED)

AEROSPACE PHYSIOLOGIST OFFICERS
TASKS NOT MATCHED TO CTS ELEMENTS

THESE UNMATCHED TASKS SHOULD BE CAREFULLY REVIEWED TO IDENTIFY NEW AREAS WHICH MAY WARRANT INCLUSION IN FUTURE CTS REVIEWS AND REVISIONS
(SORTED BY TRAINING EMPHASIS (TE) INDICES AND PERCENT MEMBERS PERFORMING (PMP))

TASKS		TNG EMP	1ST JOB (PMP)	1ST ASMT (PMP
	HIGH TE - 1 SD (2.93)			
E468	Conduct classroom instruction on principles of aircraft navigation and weather	2.91	13	0
E469	Conduct classroom instruction on principles of flight	2.91	8	0
H560	Perform crew chief functions on hyperbaric chamber dives	2.86	15	17
B275	Write EPRs	2.82	28	11
E485	Instruct or demonstrate water survival procedures in which pressure suits are not worn	2.77	0	0
J631	Instruct High Altitude Life Support System Survival Orientation courses	2.73	3	6
B116	Certify starting or stopping of hazardous duty incentive pay for team members	2.68	28	11
D426	Prepare training schedules	2.68	31	39
E484	Instruct or demonstrate water survival procedures in which pressure suit assemblies are worn	2.68	3	6
B194	Implement total quality management (TQM) programs	2.59	31	33
C303	Develop unit or organizational quality control (QC) programs	2.59	21	22
I594	Oversee descent and landing techniques training	2.59	13	11
A70	Participate in mishap investigations, other than aircraft accidents or incidents	2.50	3	6
B89	Approve and upchannel AF Forms 700 (Physiological Training Monthly Report)	2.45	26	17
J630	Instruct basic fighter transition (BFT) courses	2.45	5	0

APPENDIX F (CONTINUED)

AEROSPACE PHYSIOLOGIST OFFICERS
TASKS NOT MATCHED TO CTS ELEMENTS

THESE UNMATCHED TASKS SHOULD BE CAREFULLY REVIEWED TO IDENTIFY NEW AREAS WHICH MAY WARRANT INCLUSION IN FUTURE CTS REVIEWS AND REVISIONS
(SORTED BY TRAINING EMPHASIS (TE) INDICES AND PERCENT MEMBERS PERFORMING (PMP))

TASKS		TNG EMP	1ST JOB (PMP)	1ST ASMT (PMP
D405	Endorse AF Forms such as, AF Forms 1274 (Physiological Training)	2.41	54	56
K666	Assume supervision of centrifuge reactors prior to flight surgeon or emergency medical team support	2.41	5	0
B281	Write OPRs	2.32	18	6
C311	Direct special inspections of hyperbaric chamber equipment and assemblies	2.32	10	17
G516	Coordinate crewmember integration checks with appropriate personnel	2.32	18	6
K669	Conduct remedial G-situational awareness (SA) training for centrifuge qualification students	2.32	5	0
A47	Endorse and upchannel enlisted performance reports (EPRs)	2.27	31	17
B119	Conduct and record personnel counseling sessions	2.27	38	28
K674	Debrief centrifuge students on G-load and G-suit pressures with annotated strip-charts	2.27	5	0
D369	Coordinate formal classroom training with appropriate personnel	2.23	62	61
E479	Indoctrinate aircrews on associated procedures of chemical defense equipment	2.23	3	0
K667	Brief profiles and standardized procedures used during centrifuge qualification runs	2.23	3	0
A20	Approve or disapprove unit regulations, OIs, or SOPs	2.18	28	22
B117	Complete accident or incident report forms	2.18	15	17
B141	Determine justifications for manning or manpower changes	2.18	10	0
E477	Document classroom instruction on aircrew member's self-first aid training	2.18	3	0
I598	Verify weather conditions prior to departure to PFT area	2.18	15	17

APPENDIX F (CONTINUED)

AEROSPACE PHYSIOLOGIST OFFICERS
TASKS NOT MATCHED TO CTS ELEMENTS

THESE UNMATCHED TASKS SHOULD BE CAREFULLY REVIEWED TO IDENTIFY NEW AREAS WHICH MAY WARRANT INCLUSION IN FUTURE CTS REVIEWS AND REVISIONS
(SORTED BY TRAINING EMPHASIS (TE) INDICES AND PERCENT MEMBERS PERFORMING (PMP))

TASKS		TNG EMP	1ST JOB (PMP)	1ST ASMT (PMP
J607	Coordinate flight surgeon participation in MEDEVAL flights with appropriate personnel	2.18	10	11
J634	Instruct Pilot Protection Assembly (PPA) training courses, such as original or refresher U-2 Courses	2.18	8	6
B191	Implement Safety Programs	2.14	18	22
H561	Perform designated consultant functions for military and civilian hyperbaric chamber procedures and concerns	2.14	8	11
K676	Direct cessation of centrifuge runs for student techniques, safety concerns, or emergencies	2.14	5	0
K693	Perform centrifuge aerospace physiologist (CAP) functions during centrifuge profiles	2.14	5	0
B260	Review training evaluations	2.09	23	22
B262	Schedule annual student training	2.09	26	22
H543	Direct periodic air samplings in compressed air accumulators	2.09	10	11
B159	Direct proficiency training in use of approved USAF Hyperbaric Medicine Program treatment table (dive profile)	2.05	33	39
D346	Advise staff or unit personnel on training matters	2.05	44	50
D381	Determine if training for assigned courses follows established policies and directives	2.05	23	28
D428	Provide input for training manual updates	2.05	18	33
I582	Conduct classroom instruction on principles of aircraft instruments	2.05	3	0
A26	Conduct routine or onspot checks of units, such as hyperbaric chambers	2.00	8	11

APPENDIX F (CONTINUED)

AEROSPACE PHYSIOLOGIST OFFICERS
TASKS NOT MATCHED TO CTS ELEMENTS

THESE UNMATCHED TASKS SHOULD BE CAREFULLY REVIEWED TO IDENTIFY NEW AREAS WHICH MAY WARRANT INCLUSION IN FUTURE CTS REVIEWS AND REVISIONS
(SORTED BY TRAINING EMPHASIS (TE) INDICES AND PERCENT MEMBERS PERFORMING (PMP))

TASKS		TNG EMP	1ST JOB (PMP)	1ST ASMT (PMP
B227	Plan safety programs	2.00	13	17
B239	Prepare recommendations for changes to unit instructor guides	2.00	33	33
H530	Chart step-by-step action and time lines for hyperbaric dives	2.00	8	0
B277	Write letters of counseling, appreciation, or reprimand	1.95	38	39
D363	Conduct inservice training sessions	1.95	31	44
D402	Direct physiological training programs, such as for hypobaric technology	1.95	3	0
K665	Assist physician with crash cart equipment during medical emergencies	1.95	5	0
B145	Develop unit self-inspection checklists	1.91	21	11
B271	Verify posting of emergency procedures signs	1.91	28	33
C301	Critique corrective actions for resolution of discrepancies identified in inspections or evaluations	1.91	15	6
J628	Instruct aircrew training for physiological support division (PSD) staff	1.91	3	6
B137	Coordinate questions on class scheduling with concerned organizations	1.86	38	39
C327	Perform daily and periodic inspections of hyperbaric chamber fire suppression systems	1.86	5	6
H529	Certify monthly hyperbaric dive and patient statistical summary reports	1.86	10	6
B155	Direct maintenance of treatment records, such as AF Forms (Hyperbaric Patient Information and Therapy Record)	1.82	18	22
I590	Direct positioning of PFT launch and landing zones	1.82	5	6
K668	Complete and certify student centrifuge data card during centrifuge qualification runs	1.82	5	0

APPENDIX F (CONTINUED)

AEROSPACE PHYSIOLOGIST OFFICERS
TASKS NOT MATCHED TO CTS ELEMENTS

THESE UNMATCHED TASKS SHOULD BE CAREFULLY REVIEWED TO IDENTIFY NEW AREAS WHICH MAY WARRANT INCLUSION IN FUTURE CTS REVIEWS AND REVISIONS
(SORTED BY TRAINING EMPHASIS (TE) INDICES AND PERCENT MEMBERS PERFORMING (PMP))

TASKS		TNG EMP	1ST JOB (PMP)	1ST ASMT (PMP
B153	Direct maintenance of records on status of inspections of equipment	1.77	21	22
B233	Prepare AF Forms 932 (NCO Performance Feedback Worksheet)	1.77	21	11
C313	Document and address hyperbaric Quality Assurance/Resource Management (QA/RM) issues at monthly meetings	1.77	18	22
D439	Write requests for copyright releases	1.77	3	6
H551	Notify HQ USAF/SGPA, MAJCOM/SG, and AL/AOH of suspension of hyperbaric operations	1.77	13	11
J653	Perform high-altitude training flights	1.77	5	6
K671	Conduct team code training for initial and proficiency training, such as Code Blue	1.77	8	0
L720	Maintain flying efficiency in instructional aircraft	1.77	3	6
A36	Determine annual student training schedules	1.73	28	28
D365	Conduct periodic checks of qualified team members' proficiency	1.73	41	44
D409	Evaluate and counsel students or trainees on training progress or academic problems	1.73	18	17
F503	Oversee removal or replacement of oxygen mask components and associated assemblies	1.73	0	0
H570	Schedule and monitor tests of pressure in hyperbaric chambers	1.73	8	6
I583	Conduct classroom instruction on swing landings	1.73	0	0
I595	Oversee fitting of parasail harnesses	1.73	3	0
I597	Perform various related crew positions on PFT teams, such as canopy assistant or release operator	1.73	13	17

APPENDIX F (CONTINUED)

AEROSPACE PHYSIOLOGIST OFFICERS
TASKS NOT MATCHED TO CTS ELEMENTS

THESE UNMATCHED TASKS SHOULD BE CAREFULLY REVIEWED TO IDENTIFY NEW AREAS WHICH MAY WARRANT INCLUSION IN FUTURE CTS REVIEWS AND REVISIONS
(SORTED BY TRAINING EMPHASIS (TE) INDICES AND PERCENT MEMBERS PERFORMING (PMP))

TASKS		TNG EMP	1ST JOB (PMP)	1ST ASMT (PMP
A3	Analyze unit plans for effectiveness of unit operations	1.68	21	11
A6	Approve or disapprove budget and financial expenditures	1.68	15	6
A57	Evaluate personnel under operational conditions	1.68	33	28
B232	Prepare AF Forms 931 (Airman Performance Feedback Worksheet)	1.68	3	6
B242	Proofread correspondence, reports, or forms	1.68	46	39
C293	Conduct safety inspections, briefings, or debriefings	1.68	18	11
J619	Direct 911X0 and 122X0 personnel during high altitude training flights	1.68	8	6
L705	Advise aircraft commander on disposition of flight reactors	1.68	3	6
M751	Conduct Human Use protocols	1.68	5	6
A41	Develop and upchannel multiyear equipment acquisition plans	1.64	13	6
B166	Establish indoctrination programs for newly assigned personnel	1.64	15	11
C286	Analyze inspection reports or procedures	1.64	15	11
C310	Direct special inspections of full pressure suits and associated assemblies	1.64	3	0
C314	Document results of inspections and evaluations	1.64	13	11
H542	Direct loading or unloading of patients to or from hyperbaric chambers	1.64	21	28
H552	Notify USAF Hyperbaric Center upon election of hyperbaric oxygen therapy treatment for acute-disorder patients	1.64	13	17
H567	Review and implement resolutions to problems elevated to MTF QA/RM Committee	1.64	8	11

APPENDIX F (CONTINUED)

AEROSPACE PHYSIOLOGIST OFFICERS
TASKS NOT MATCHED TO CTS ELEMENTS

THESE UNMATCHED TASKS SHOULD BE CAREFULLY REVIEWED TO IDENTIFY NEW AREAS WHICH MAY WARRANT INCLUSION IN FUTURE CTS REVIEWS AND REVISIONS
(SORTED BY TRAINING EMPHASIS (TE) INDICES AND PERCENT MEMBERS PERFORMING (PMP))

TASKS		TNG EMP	1ST JOB (PMP)	1ST ASMT (PMP
J604	Conduct classroom instructions for full pressure suit training	1.64	5	6
J652	Perform high-altitude rapid decompression training	1.64	13	11
K664	Annotate strip chart of G-load and G-pressure suit pressures during centrifuge qualification runs	1.64	5	0
A1	Advise higher headquarters, wing, base commander, or key personnel of serious incidents	1.59	26	28
B142	Develop and upchannel organizational policies, OIs, or SOPs	1.59	36	28
D352	Approve or disapprove recommendations for changes to unit instructor guides	1.59	26	22
D353	Approve or disapprove student training literature	1.59	26	28
J603	Conduct classroom instruction for Instructor Qualification Training courses	1.59	0	0
A48	Endorse and upchannel officer performance reports (OPRs)	1.55	18	6
B208	Manage computer resources	1.55	28	28
B258	Review completeness and accuracy of personnel folders	1.55	18	17
B279	Write military job descriptions	1.55	8	0
D358	Brief personnel on changes in training methods or procedures	1.55	28	28
D406	Establish instructor committees for editing, reorganizing, and writing course materials	1.55	18	22
D414	Evaluate proficiency of upgrade personnel prior to certification	1.55	18	17
D415	Evaluate training methods, techniques, programs, or requirements	1.55	26	17
D441	Write training reports	1.55	5	6
J605	Conduct specialized pressure suit operational use testing	1.55	0	0

APPENDIX F (CONTINUED)

AEROSPACE PHYSIOLOGIST OFFICERS
TASKS NOT MATCHED TO CTS ELEMENTS

THESE UNMATCHED TASKS SHOULD BE CAREFULLY REVIEWED TO IDENTIFY NEW AREAS WHICH MAY WARRANT INCLUSION IN FUTURE CTS REVIEWS AND REVISIONS
(SORTED BY TRAINING EMPHASIS (TE) INDICES AND PERCENT MEMBERS PERFORMING (PMP))

TASKS		TNG EMP	1ST JOB (PMP)	1ST ASMT (PMP
B173	Evaluate and upchannel hazardous duty orders for duty	1.50	18	11
D357	Audit training products	1.50	18	11
D407	Establish study reference files	1.50	10	17
H537	Coordinate transportation for patients to and from hyperbaric treatments with designated personnel	1.50	10	11
L721	Observe aircrew and parachutists during flights	1.50	3	6
B147	Direct compliance with operational directives	1.45	36	28
C304	Direct completion of corrective actions on inspection, standardization, or evaluation reports	1.45	21	11
D366	Conduct qualification training for newly assigned officers	1.45	31	28
D373	Coordinate training matters with unit branches and staff	1.45	21	17
F497	Oversee assembly and fitting of crewmembers' life support equipment	1.45	0	0
H541	Direct general maintenance on hyperbaric chamber assemblies, such as charging of compressed air flasks	1.45	8	17
I592	Instruct principles and procedures of parasailing	1.45	0	0
J608	Design and produce training aids, such as instructional tapes or video cassette recorders (VCRs)	1.45	8	11

AVERAGE TO ABOVE AVERAGE (MEAN - 1.42)

APPENDIX F (CONTINUED)

AEROSPACE PHYSIOLOGICAL OFFICERS
TASKS NOT MATCHED TO CTS ELEMENTS

FORMULA....TRAINING EMPHASIS DATA: When a given task has an assigned TE rating greater than or equal to sum of the Mean value (1.42), plus 1 SD (1.51), these tasks merit strong consideration for inclusion in some form of structured training for first-assignment officers.

MEAN TO 1 S.D.	(1.42 TO 1.51) = AVERAGE TO ABOVE AVERAGE TE
MEAN PLUS 1 S.D.	(2.93) = HIGH TE
MEAN PLUS 2 S.D.	(4.44) = VERY HIGH TE

APPENDIX F (CONTINUED)

AEROSPACE PHYSIOLOGIST OFFICERS
TASKS NOT MATCHED TO CTS ELEMENTS

Tasks with a TE rating of 1.42 (Mean Value) and above which were not matched with CTS items are included in this section. These unmatched tasks with corresponding percent time spent on tasks by First Job and First Assignment should be carefully reviewed to identify new areas which may warrant inclusion in future CTSs.(For complete list of tasks not matched with CTS items see Training Extract). Contact USAFOMS/OMYA at DSN 487-3694, for assistance in interpretation of this printout.