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ABSTRACT

Two Automated Apprenticeship Training (AAT) courses were developed for Air Force Security Police Law Enforcement and Security specialists. The AAT was a systematized audio-visual approach to self-paced job training employing an easily operated teaching device. AAT courses were job specific and based on a behavioral task analysis of the two Security Police speciality areas. AAT graduates were compared with graduates of comparable Airmen Basic Resident courses and Career Development Courses by Aptitude Group design. Evaluation criteria included a job specific performance test, an apprentice knowledge test, and supervisor's ratings. Results indicated superior scores for the AAT graduates on all three. AAT reduced the dependence on reading skills, and this, combined with the self-paced and audiovisual features, aided training of low aptitude trainees without penalizing those of higher aptitude. Trainee manhour requirements were lowered 30% and supervisory manhours 70%. Lastly instructors preferred the AAT courses and easily integrated them into training programs. (Author/PB)

AIR FORCE

HUMAN RESOURCES

LABORATORY

AFHRL-TR-72-20

AUTOMATED APPRENTICESHIP TRAINING (AAT)

A SYSTEMATIZED AUDIO-VISUAL APPROACH TO SELF-PACED JOB TRAINING

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13. ABSTRACT

Two Automated Apprenticeship Training (AAT) courses were developed, administered, and evaluated for Air Force Security Police Law Enforcement and Security specialists. AAT is a systematized audio-visual approach to self-paced job training which employs an easily operated, portable and reliable teaching device. AAT courses were developed to be job specific and were based on a behavioral task analysis of the two Security Police speciality areas. AAT graduates were compared with graduates of comparable Airman Basic Resident (ABR) course and Career Development Course (CDC) for the same jobs in a Training Regime by Aptitude Group design. Evaluation criteria included a job specific performance test, and apprentice knowledge test and supervisor's ratings. Results indicated superior scores for the AAT graduates on the job performance test, and apprentice knowledge test and supervisor's ratings. Results indicated superior scores for the AAT graduates on the job performance test, and no differences among Training Regimes on the other criteria. A significant Aptitude effect was also obtained on the job performance test. The AAT Course was considered superior to other Training Regimes in terms of man-hours expended. Training supervisors also expressed a preference for the AAT technique.

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SUMMARY

Problem

The influx of New Mental Standards (NMS) airmen into the Air Force as part of the Project 100,000 effort created new training demands. Air Force technical training is dependent, primarily, on reading skills; NMS airmen as a group, are largely unable to meet this standard. The goals were not only to train these individuals to be successful servicemen, but to prepare them to assume responsible positions upon their return to the civilian community.

Approach

A training environment which de-emphasized dependence on the written word and a self-paced approach to assimilate slower learning rates was incorporated within the Automated Apprenticeship Training (AAT) method. AAT is a systematized audio-visual approach to a self-paced, job-training situation. The AAT format was specifically designed to be behaviorally oriented. The trainee is shown what to do, told how to do it, and then provided with time for task performance. AAT requires an easily operated, portable and reliable teaching device compatible with on-job learning requirements. Two specialties within the Security Police career field were converted to AAT, based on a behavioral task analysis conducted by site visits to 13 bases within 5 Air Force commands. AAT students were compared with students in a comparable Airman Basic Resident Course and with a Career Development Course group. Evaluation was by a job-specific performance test, an Apprentice Knowledge Test and supervisory ratings. Groups were further split between high and low aptitude trainees.

Results

AAT successfully reduced the dependence on reading skills. The self-paced features and the audio-visual mode proved effective for low aptitude trainees without penalizing high or average trainees. AAT produced both high and low aptitude trainees who met all criteria for successful job performance. Of the three methods, AAT proved lowest in trainee manhour requirements with a 30 per cent reduction in training time. Supervisory manhour requirements were reduced 70 per cent. Instructors were able to integrate AAT courses into existing programs with few difficulties.

Conclusions

The AAT approach holds potential for technical training, particularly on-job training. On-job performance is not hampered by excessive literacy requirements and administration time is significantly reduced. Both results promise benefit to an all-volunteer force. Job performance of both high and low aptitude trainees is demonstrably higher than that of other training methods.

PREFACE

This report represents a portion of the exploratory development program of the Technical Training Division, Air Force Human Resources Laboratory. This effort is documented under Project No. 0079, Experimental Study of Alternative Classroom, OJT, and Automated Training Methodologies for Project 100,000, Task 0108, Automated Apprenticeship for New Mental Standards Airmen, and was completed during the period 15 March 1970 through 15 August 1972. Initial impetus and financial support for this study were provided by the Office of Assistant Secretary of Defense, Manpower and Reserve Affairs, Project 100,000 Office. Particular appreciation is expressed to Dr. Ralph Canter, Military Manpower Research Coordinator, for his sustained interest and support. The services of Applied Science Associates, Inc., Valencia, Pennsylvania, were obtained through Contract No. F33615-70-C-1286 for which Mr. Thomas Elliott was Principle Investigator. Dr. Edgar A. Smith was the Air Force Technical Monitor.

The authors gratefully acknowledge the invaluable assistance provided by Air Force personnel, without which this study could not have been accomplished. Dr. Marty R. Rockway, Technical Training Division, provided technical guidance, and Mr. Ronald Filinger of the same organization assisted in the preparation of this report. Technical Sergeant James N. Seguin, Personnel Assignments Division, Randolph Air Force Base, Texas, coordinated the selection and assignments of all subjects used in the study. Technical Sergeant Minor P. Johnson, Technical Training Division, helped in developing photographic techniques used in preparing the training materials. The instructors and administrative staff of the Air Force Security Police Technical Training School, Lackland Air Force Base, Texas, provided information, including reference materials and demonstrations, on task performance during data collection for the job description. The training supervisors listed below conducted the Automated Apprenticeship Training Course at their respective bases:

Brooks AFB, Texas: TSgt Jean K. Bertrand, TSgt Robert S. Escalante, SSgt Rayford L. Johnson; Cannon AFB, New Mexico: TSgt Samuel Calhoun, SSgt Adam J. Flores; Ellsworth AFB, South Dakota: MSgt Guy E. Mullinex, TSgt Melvin B. Raemer, SSgt Jimmy N. Williams; Lackland AFB, Texas: TSgt Samuel H. Charlton, TSgt Gary H. White; Warrent AFB, Wyoming: MSgt William F. Whites, TSgt Donald R. Kirk, SSgt Carl A. Simpson, Jr.

Other reports prepared under this contract include: AFHRL-TR-72-44 Automated Apprenticeship Training (AAT): Summary, and AFHRL-TR-72-45, Preparation of Audiscan Training Materials.

This report has been reviewed and is approved.

Harold E. Fischer, Colonel, USAF
Commander

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SECTION I

INTRODUCTION

Background

The Department of Defense inaugurated Project One-Hundred Thousand in October of 1966. This project was designed to accept approximately 100,000 men yearly into the military services who would previously not have qualified. The goals of the project, broadly stated, were to train these men to be fully satisfactory servicemen and through their training and service experience prepare them for more productive lives when they return to the civilian community.

This study was aimed at one group of the Project 100,000 population--the New Mental Standards airmen. These men were characterized by an Armed Forces Qualification Test (AFQT) score of between 10 and 20 percentile. Although the AFQT score requirements were lowered, all NMS men who were not high school graduates were required to pass supplementary aptitude tests. Once in the service the NMS men had to meet the same criteria as other men for training course graduation, for rank or job skill advancement, and for retention or re-enlistment in the services. The characteristics and performance of new standards men is reported in a recent publication (Office Secretary of Defense, 1969).

One of the problems associated with NMS servicemen is their training. Conventional service training courses are organized along the lines of college short courses and civilian vocational training schools. Most of the NMS men have been unsuccessful in the formal educational environment; most have not completed high school. In addition, service schools use training materials which are verbally oriented, emphasizing reading and writing skills. As evidenced by their low scores on the Armed Forces Qualification Test (a test requiring reading and writing skills) and their difficulties in the public school systems, NMS men do not relate well to materials which emphasize reading and writing skills.

The Air Force has two types of training regimes for first-term airmen who have completed basic training and have been assigned to a career field. The first type consists of Airman Basic Resident (ABR) courses conducted at technical training centers such as Lackland Air Force Base, Texas. The second type consists of Career Development Courses (CDC) for on-job training. The CDC are correspondence courses administered to the trainee at his first assignment by a training supervisor. Both the ABR course and CDC use materials emphasizing reading and writing skills. Some of the materials used are study guides, workbooks, Air Force manuals, Air Force regulations, and technical orders.

In an attempt to determine the adequacy of the conventional training courses for training NMS men, the Air Force has conducted graduate evaluation surveys and on-job training course surveys for NMS Airmen (Air Training Command, 1968, 1969). In most cases the surveys found that the NMS Airmen had difficulties in two areas. First, although the NMS Airmen successfully completed the courses, they required special attention and assistance from their instructor or supervisor. Second, almost all NMS Airmen had difficulty learning the information necessary to pass the Apprentice Knowledge Test (AKT). The AKT is a paper and pencil test used to measure the CDC trainee's job knowledge and qualification for the next higher skill level.

Although the problem of the NMS Airmen requiring additional assistance in order to successfully complete their training courses is applicable to both the ABR course and the CDC, the problem appears to be more serious for the CDC trainee. While an instructor in the technical training school usually plans time for remedial training or tutoring sessions, the supervisor for the on-job training course has field duties to perform and usually does not have the additional time to spend with the trainees having difficulty. As a result, either the tutoring sessions are not conducted, forcing the trainee to master the material on his own, or additional man-power is required to accomplish the supervisor's duties while he tutors the trainees.

The problem of learning job knowledges for the AKT through the use of the verbally oriented training materials is applicable only to the CDC. Both the training materials and the AKT itself constitute a problem for the NMS Airman because of the emphasis on reading and writing skills. To be maximally effective for the NMS Airmen, the information about the job must be presented in a format which minimizes the requirement for verbal skills.

Problem

The problem for this study was to develop and evaluate a training course and job test suitable for NMS Airmen. The training program was to utilize materials which minimized reading and writing requirements and the job test was to minimize reliance on verbalized job knowledges. In addition, both the course and the test had to be usable in an on-job training environment.

This problem is a special case of a more general training problem. the military services have continuously sought innovations in training techniques which would enhance job learning for men of medium and low aptitude. A recent study involving Learner Centered Instruction (LCI) (Pieper, Swezey, and Valverde, 1970) taught medium aptitude airmen to be technicians for a complex weapons control system, a job previously taught to only high aptitude airmen. The LCI course was job specific, emphasizing job performance, and incorporating an equipment specific simulator, multi-media training materials, and a format of self-paced instruction. Although the LCI course was designed to be conducted in an Air Force technical school, many of the techniques utilized successfully in this and other efforts can be extrapolated to an on-job training environment. The goals of improving job performance, reducing man-hours for completion and administration of training are relevant to both technical school courses and on-job training courses.

Teaching a job with emphasis on job performance instead of job knowledges has been historically characterized by apprenticeship type training. Apprenticeship training involves demonstrations of the task to be performed, guidance during initial performance of the task, subsequent structured practice of task performance, and adequate review. This step-by-step approach to job performance training was thought to be particularly appropriate to the NMS Airmen.

The presentation format selected for the job performance oriented course was to simultaneously satisfy the requirements for providing task performance demonstrations, and for minimizing reliance on reading and writing skills. In addition, the format selected was not to place any additional demands on the on-job training supervisors' time and, if anything, should reduce the demands on his time. The format, therefore, was to be a self-study format capable of presenting task performance demonstrations without emphasizing reading and writing skills. The presentation format which seemed to best satisfy these criteria was an audio-visual programmed instruction format.

To obtain optimal results of the Project 100,000 program, it was felt that the course or courses selected should have a high student flow and be applicable across all military services. A major consideration was the transfer potential to the civilian job market and civilian economy. A last, and highly important consideration, was the course compatibility (subject matter) to an automated apprenticeship approach.

Two specialties of the Air Force Security Police career field were selected by the Air Force for this effort. These specialties were (a) Law Enforcement Specialist, Air Force Speciality Code (AFSC) 81230, and (b) Security Specialist AFSC 81130. The problem then was to develop and evaluate Automated Apprenticeship Training (AAT) courses for the two Security Police specialties.

Approach

The design and development of an audio-visual, programmed course employing apprenticeship training techniques requires a planned approach. The Air Force has developed a set of guidelines for instructional systems development (Air Force Manual 50-2) and a set of guidelines for programmed learning development (Air Force Manual 50-1). The guidelines contained in these two manuals served as the general approach to the development of the Automated Apprenticeship Training (AAT) courses. In general, the approach embodied the following five phases:

1. Analyze System Requirements
2. Define Training Requirements
3. Develop Objectives and Tests
4. Plan and Develop Instruction
5. Conduct and Evaluate Instruction

The analysis of system requirements and definition of training requirements was accomplished through a task analysis of the job of the two Security Police specialties. The learning objectives and a job performance test were developed on the basis of the details in the Behavioral Job Description (BJD) resulting from the task analysis. Planning and development of AAT course instruction was based on the heirarchical organization of learning objectives and on the requirements of the presentation format and media. AAT course administration was performed using Air Force trainees and training supervisors at a representative sample of Air Force bases. Finally, AAT course evaluation was conducted by comparing AAT course graduates to graduates of the conventional Airman Basic Resident (ABR) technical school course and on-job training Career Development Course (CDC). The details of the approach to course and test development are presented in Section II.

SECTION II

APPROACH

The development, administration, and evaluation of the Automated Apprenticeship Training (AAT) courses for Air Force Security Police was performed in five phases as shown in Figure 1.

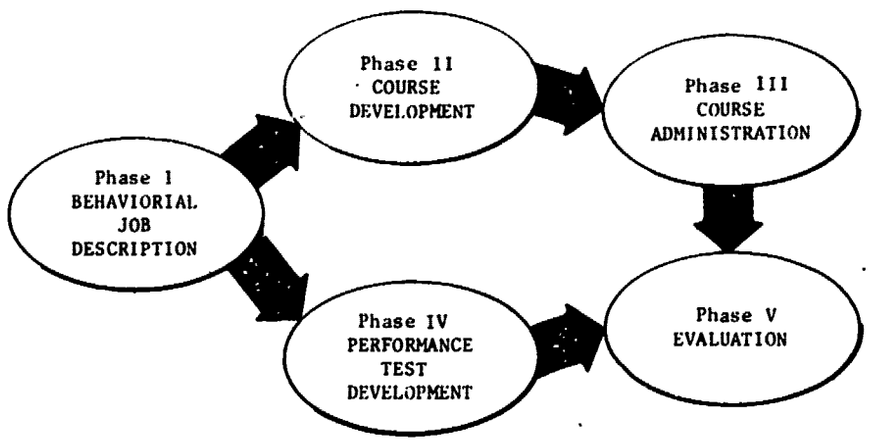

Figure 1. Sequence of Major Phases of Study

The five phases with the exception of Phase II - Course Development, and Phase IV - Performance Test Development, were performed with very little overlap. Phases II and IV were performed simultaneously at various geographic locations by different individuals.

Phase I - Behavioral Job Description

In concept, the approach followed was to develop a preliminary description of the duties performed by the Security Police through a review of all manuals, regulations and other formal documents relevant to the Security Policeman's job. All study guides, workbooks, and reference materials used in the present CDC and ABR courses were also

reviewed. After completion of the preliminary job description, visits were made to 12 bases representing seven Air Force commands to observe Security Police job performance and to interview job performers, supervisors, and instructors in order to refine the task list and clarify any areas of uncertainty. Each task was analyzed to determine the behavioral requirements in terms of required task activities. Finally, the behavioral details relevant to each of the activities were described in terms of Normal Repertoire Behaviors (NRB) and Special Behaviors (SB). Normal Repertoire Behaviors are those which can be performed by persons in the subject population with nothing more than an instruction to do so. Special Behaviors are those which cannot be performed without special training. The resulting list of tasks, each described in terms of task activities and behavioral details, constituted the behavioral job description. The detailed description of data collection, data analysis, and verification of the Security Police Behavioral Job Description are presented in Section III of this report.

Phase II - Course Development

Media Selection

The presentation media for the apprenticeship course was selected early in the development cycle to facilitate the production of materials tailored to the requirements of the media and the course content. Selection was based on the need for visual demonstration and description of task performance during initial learning and on the need for subsequent guided practice. Requirements for high equipment reliability and ease of operation and maintenance by untrained personnel were considered in addition to the cost of materials production and packaging for shipping and handling. Final selection of the media and the specific device was made after a tryout and evaluation of available equipment.

Course Sequence

The tasks common to both specialties and the prerequisite tasks (i.e., those whose performance is required in order to accomplish a higher order task) were placed first in the teaching sequence of both the Law Enforcement and Security Specialist's course. Sequence of later segments in each of the courses was based on the simplicity of the tasks (i.e., easiest tasks were placed first), on the commonality of task elements (i.e., tasks with elements common to more than one task were placed first), and on the criticality of the task (i.e., tasks which were of greatest importance were placed first). In addition, consideration was given to principles such as primacy and recency of learning prerequisite tasks and tasks critical to job performance.

Content Specification

Lesson content was based on behavioral details descriptions in the Behavioral Job Description. In most cases, one lesson was developed for each task listed in the description and the lesson objective(s) was the performance of the task activity as specified in the behavioral details descriptions. The procedure to be followed, the decision to be made, or the monitoring to be done, was taught in the context of on-job performance using the equipment, forms, and performance aids found on the job. Since the apprenticeship courses were essentially correspondence courses, each lesson was self-contained employing systematized instruction which provided initial descriptions and demonstrations, subsequent guided practice, and reviews of learned materials. A workbook requiring sixth grade reading and writing skills was developed for each lesson to provide for written student responses and to provide material for review by the student after completing the lesson.

Materials Preparation

Materials were prepared in tape-slide format for review and tryout. Revisions were made to eliminate inconsistencies and errors in demonstrations and descriptions and to reduce learning difficulties caused by excessive verbal requirements. Slides were changed where photographic quality was less than desirable and tape narration was revised to eliminate passages which were too slow, too fast, or not sufficiently articulated. After all revisions were accomplished, final master tapes containing both narration and machine control signals were prepared, slides were converted to 16mm filmstrips and all master workbook pages were completed. A detailed description of the development of the Security Police Automated Apprenticeship Training courses is presented in Section IV of this report.

Phase III - Course Administration

The Security Police Automated Apprenticeship Training (AAT) course was presented at bases selected to represent as many major commands as practical and selected to be typical of bases where the primary police responsibility was either law enforcement or security. It was initially planned that two groups of airmen, New Mental Standards (NMS) and Regular Standard (RS) would complete the course. During this study, however,

NMS Airmen were eliminated from the Security Police career field. The low aptitude group was therefore expanded to include all Category IV airmen.[1]

The AAT course was administered at five Air Force bases as a self-study correspondence course. At each base an orientation session was conducted with the assigned training supervisor before any trainees were started in the course. The training supervisors were instructed in the operation of the equipment, the content and planned conduct of the course, and the performance of the required training supervisor reviews. The AAT courses were administered to 60 trainees from April through November of 1971. Each trainee had approximately 30 days or one month in which to complete the 80-hour course. A detailed description of the course administration is presented in Section V of this report.

Phase IV - Performance Test Development

Two forms of the job performance test were developed, one for the Law Enforcement Specialist and one for the Security Specialist. For each form, preliminary items were developed for tasks common to both specialties and tasks unique to the speciality represented by that form of the test. Preliminary item content and the number of items developed for a group of tasks was based on the frequency with which the tasks were performed on the job and the importance of task performance to the job of the Security Policeman. All items developed were performance oriented (i.e., required the person taking the test to recognize correct task performance or to identify elements of task performance which were performed incorrectly). The test items were developed for audio-visual presentation employing scenes of actual task performance or scenes depicting the results of task performance. Each preliminary form was administered to both apprentice and experienced Security Policemen in the appropriate speciality. A standard psychometric validation was performed on each form and final test forms were constructed, based on the results of this analysis. The description of the Security Police Performance Test development is presented in Section VI of this report.

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[1]Category IV airmen are defined on the basis of Armed Forces Qualification Test (AFQT) percentile score and consist of persons whose aptitude profiles fall in the 10 to 30 percentile range.

Phase V - Evaluation

The AAT course was evaluated by comparing the performance of low (Category IV) and high (Categories I through III) graduates from this course with the performance of an equal number of graduates from the conventional ABR and CDC courses. The evaluation design utilized 30 subjects in each of six groups for a total of 180 subjects as shown below in Figure 2.

Aptitude Group	Training Regime		
	ABR	CDC	AAT
High	N=30	N=30	N=30
Low	N=30	N=30	N=30.

Figure 2. Evaluation Design [2]

In an attempt to make the criteria on which the graduates were compared a multidimensional criteria adequately representing the job, the graduates were compared for job performance ability on three different measures:

1. Job Performance Test
2. Apprentice Knowledge Test
3. Supervisor's Ratings

In addition to job performance comparisons, data were gathered on the number of trainee hours required to complete the three courses and the number of hours the supervisors of the CDC and AAT courses typically spent in reviews or other training. Evaluation of the trainee man-hours required for course completion and the supervisor man-hours required for course administration consisted of non-statistical comparisons between the man-hours required for the 60 trainees in each of the three courses.

The man-hour and other data concerning administration practices and subject matter reviews were collected for the AAT course to provide a background for recommendations regarding the feasibility of utilizing the AAT approach in the Air Force. Evaluation of the AAT approach is presented in Section VII of this report.

[2]See Page 67, Table XIV, for mean AFQT percentile scores for each of the six subject groups.

SECTION III

BEHAVIORAL JOB DESCRIPTION

The Security Police Behavioral Job Description was developed in the steps shown in Figure 3.

Information on police duties was obtained from the manuals and regulations, and from personnel concerned with the field operation, the training, and the equipment used by Security Police. The duties on which information was obtained were: those common to both law enforcement and security personnel, those unique to law enforcement personnel, and those unique to security personnel. As part of the behavioral analysis, the police duties were analyzed using a modification of the Task Analysis Method (Chenzoff and Folley, 1965). This analysis was performed to identify tasks, to determine task "activities," and to describe behavioral details. The completed job description was checked for accuracy and comprehensiveness by three sources: (a) all Security Police Manuals and Regulations, (b) an Air Force "Job Speciality Survey", and (c) training and job supervisors on duty where this study was conducted.

Data Collection

Review Formal Descriptions

The duties of Air Force Security Police are described in three primary manuals:

1. AFM 125-3, Security Police Handbook
2. AFM 207-1, Doctrine and Requirements for Security of Air Force Weapons Systems
3. AFM 207-2, Handbook for Security Forces

In addition, descriptions of specific tasks or duties are presented in a second related group of manuals and regulations. This second group is here called reference manuals and regulations. A list of the reference manuals is presented in Table I and a list of the reference regulations is presented in Table II.

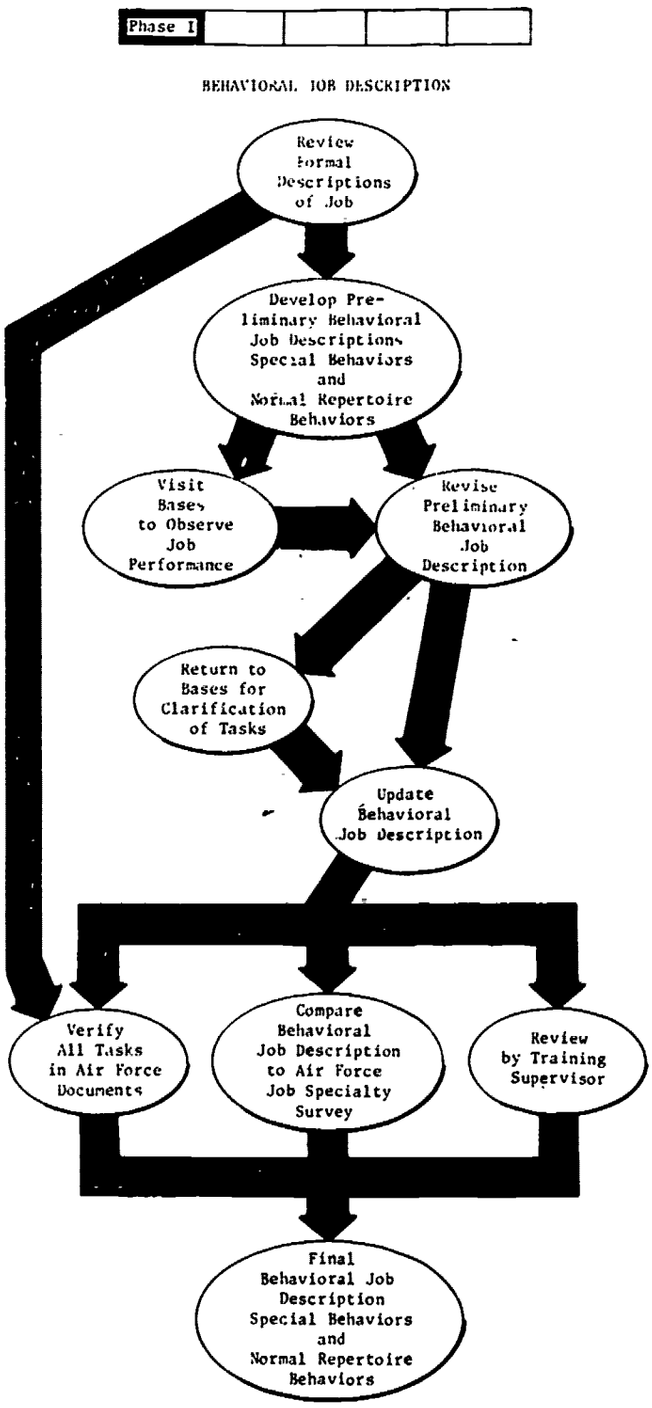

Figure 3. Sequence of Behavioral Job Description Activities

Table I
Reference Manuals

Manuals	Title
AFM 35-10	Service and Dress Uniform for Air Personnel
AFM 39-1	Airman Classification Manual
AFM 50-14	Drill and Ceremonies
AFM 50-15	General Military Training
AFM 125-4	Civil Disturbance and Riot Control Training
AFM 125-5	USAF Sentry Dog Program
AFM 125-7	Motor Vehicle Traffic Supervision
AFM 206-1	Local Ground Defense of US Air Force Bases
AFM 206-23	System Security Standard - Presidential and Specifically Designated Special Air Mission (SDSAM) Aircraft
AFM 900-2	Use and Display of AF Flags, Guidons, Streamers, and Automobile and Aircraft Plates

The primary manuals and all reference manuals and regulations were examined to obtain a preliminary list of Security Police duties before observing on-job performance. Review of the manuals and regulations and observations of job performance emphasized tasks performed by apprentice or 3-level personnel in both speciality areas. The investigators collected information of all police duties, then determined which of these were usually performed by apprentice personnel. Procedures, decisions, equipment used, etc., which were not covered clearly in the manuals, or about which questions existed, were noted as topics to be discussed with the job encumbent and supervisor personnel during job performance observations.

Table II
Reference Regulations

Regulations	Title
AFR 122-4	The Two-Man Concept
AFR 124-1	Mission, Organization, Responsibilities and Functions of the Office of Special Investigations
AFR 125-1	Functions and Organization of the USAF Security Police Activities
AFR 125-2	Security Police Functional Activities
AFR 125-3	Loss or Theft of Government Firearms, RCS. AF-X3
AFR 125-12	Security Police Reports and Forms
AFR 125-14	Motor Vehicle Traffic Supervision
AFR 125-18	Protection of Funds
AFR 125-19	Organizing and Operating Off-Base Patrols
AFR 125-20	Provost Marshall Activities
AFR 125-21	Security Police Investigation
AFR 125-22	Authorization and Use of Weapons
AFR 125-25	Prisoners of War
AFR 125-26	Use of Force by Personnel Engaged in Law Enforcement and Security Duties
AFR 125-35	Correctional Custody
AFR 125-37	Protection of USAF Resources
AFR 125-42	Military Police, Shore Patrol and Air Police on Public Carriers and in Transportation Terminals
AFR 125-47	Security Police Badge
AFR 127-7	Motor Vehicle Accident Prevention Program
AFR 205-1	Safeguarding Classified Information
AFR 205-6	Personnel Investigations, Security Clearances and Access Authorizations

Observe Job Performance

Observations of job performance were made at the following Air Force Bases (AFB):

1. Andrews AFB, Maryland - HQ Security Services
2. Brooks AFB, Texas - Air Force Systems Command
3. Cannon AFB, New Mexico - Tactical Air Command
4. Ellsworth AFB, South Dakota - Strategic Air Command
5. Goodfellow AFB, Texas - USAF Security Services
6. Kelly AFB, Texas - Air Force Logistics Command
7. Kirtland AFB, New Mexico - Air Force Systems Command
8. Lackland AFB, Texas - Air Training Command
9. Laughlin AFB, Texas - Air Training Command
10. Lowry AFB, Colorado - Air Training Command
11. Randolph AFB, Texas - Air Training Command
12. Warren AFB, Wyoming - Strategic Air Command
13. Webb AFB, Texas - Air Training Command.

In selecting the bases to be visited, an attempt was made to include bases representative of as many major commands as possible to obtain an accurate cross-section of Security Police duties. Much of the information on duties and tasks was obtained from the instructors in the Security Police Technical Training School at Lackland AFB, Texas. These instructors had a broad background of experience in various Air Force commands and a background in both security and law enforcement duties and tasks. Additional information on security tasks was obtained at Warren AFB, Wyoming, and Ellsworth AFB, South Dakota. Additional information on law enforcement tasks was obtained at Lowry AFB, Colorado.

Two forms were developed for identifying duties performed by apprentice policemen. One form was developed for Security Specialists and the other was developed for Law Enforcement Specialists. The forms included position titles so that the positions normally filled by apprentice personnel could be recorded. Figure 4 shows a portion of the security data collection form. Before any trips were made, the forms were completed using information from the manuals and regulations. Whenever verified additional information, either contradictory or supplementary, was obtained, it was substituted for, or added to, the information previously recorded on the form. The following information was recorded on the forms:

Source: The origin of the information was recorded to facilitate rechecking any inconsistencies between two sources. The sources included manuals, regulations, and people.

Observer: The initials of the task analyst obtaining the information from the source were entered here.

Site: The site name or geographic location of the source was listed as the site.

Performed by (AFSC): The Air Force Specialty Code (AFSC) of the person normally performing the duty or task was listed in this column.

Tasks of 3-level: If the AFSC recorded indicated that a 3-level Security Policeman performed this duty, then the tasks performed by him were recorded in this column.

Cue events: The events which signal the beginning and ending of the tasks were recorded in this column (e.g., a verbal order, a radio communication, reaching the end of a search pattern, completing the last entry on a form, etc.)

Critical aspects: The characteristics of the equipment, forms, and conditions under which the task was performed, which affected required job behaviors were listed here. For example, entry procedures require that the Entry Controllers check each item of information on the restricted area badges. Behaviors different from those normally

1286 Source _____ Date _____

Data Collection Observer _____ Site _____

Position/Task	Performed by (AFSC)	Tasks of 3-Level	Cue Events	Critical Aspects
Security Flight				
Flight Chief				
Communicator/Plotter				
Site Security Supervisor				
Aircraft/Missile Area Sup.				
Security Alert Team				
Entry Controller				
Alarm Monitor				
Close-In Sentry				
Boundry Sentry				
Area Patrol Sentry				
Distant Support Sentry				
Preventive Perimeter Sentry				
Entry Controller				
Types of Entry				
Entry Procedures				

Figure 4. Data Collection Form

required are needed when the badge shows evidence of alteration; however, alterations are difficult to detect if done well. Therefore, "erasures, smudges, information consistency, etc." were listed as critical aspects of entry procedures. Also some forms, (e.g., Motor Vehicle Accident Investigation Report) are complex, requiring a large number of highly accurate entries. Since incomplete or incorrect information can have serious consequences in assignment of fault, accuracy and completeness were listed as critical aspects of vehicle accident investigations.

On site, informants were briefed regarding the type of information required and were asked to work through duties not adequately described by other sources of information. When their explanations were not clear, they were asked specifically how a duty was performed and, if possible, to demonstrate the tasks using any equipment or forms normally involved. Because of the intermittent nature of events which require Security Police emergency procedures, it was not practical to continuously monitor routine actions waiting for an event to occur. However, some real time demonstrations of emergency procedures were provided which might otherwise not have occurred during data collection. Figure 5 shows a scene from a demonstration of unarmed defense procedures.

Figure 5. Demonstration of Unarmed Defense

Development of Final Task List

Data collection was concluded when all known sources of information were exhausted and all demonstrations or direct observation of Security Police duties had been made. At this point, all information was pooled and a final list of Security Police duties was prepared. During the preparation of the final list, it became obvious that the tasks performed by Law Enforcement Specialists were best organized by function (e.g., On-base Patrol, Off-base Patrol, Traffic, etc.) and that the tasks performed by Security Specialists were best organized by position title (e.g., Entry Controller, Close-in Sentry, Alarm Monitor, etc.). Each of the functions performed by a Law Enforcement Specialist defined a set of unique tasks. Likewise, each of the positions filled by a Security Specialist defined a unique set of tasks. This final task list and the information contained on the data collection forms were used as the starting point of the behavioral job analysis. The duties of the Law Enforcement Specialists and those of the positions performed by the Security Specialists were analyzed to determine tasks, activities, and behavioral details.

Behavioral Analysis

The analysis was performed in the following sequence:

Step 1 - Identify tasks

Step 2 - Determine task activities

Step 3 - Describe behavioral details

Before these steps are described in detail, some basic definitions of the terms and concepts of the Task Analysis Method (TAM) (Chenzoff and Folley, 1965) are presented for the orientation of the reader.

Basic Definitions

1. A task is composed of one or more activities that are: (a) bounded by two events, (b) directed toward achieving a single objective or goal, and (c) describable so that the resulting description conveys enough information about the task to permit performance testing and training decisions to be made. An event is a discrete, identifiable act or occurrence (e.g., (a) personal search completed, (b) ticket issued).

2. Activities are classes of behaviors of which a task may be composed. The five classes used in the Task Analysis Method are defined below. The profile of activities in a task has relevance to job performance testing and training.

3. Behavioral details are the basic behaviors required in performing each activity. This information fills in details to supplement information recorded in the previous stages. The information obtained in this stage was used in determining aspects of the task to be measured by the job performance test and aspects to be included in the training course.

The word "activities" has a special meaning in the Task Analysis Method. It refers to one of the following five types of behavior:

1. Procedure Following

2. Continuous Perceptual-Motor Activity (Tracking)

3. Monitoring

4. Communicating

5. Decision-Making and Problem-Solving

Brief descriptions and examples of the behaviors in each activity are given below.

Procedure Following. Performing a sequence of discrete steps, each of which has an identifiable beginning and ending point. The procedure may be either fixed or branched. A branched procedure is one in which the step to be performed at one or more points is governed by the result of a perception or discrimination in a previous step or steps.

Examples of steps:

a. Grasping the police club

b. Assuming the ready position

c. Observing the offender's action and reacting with the club

Examples of procedure following:

a. Filling out a traffic ticket

b. Admitting an authorized person to a restricted area

Continuous Perceptual-Motor Activity. Observing displays and operating controls continuously to maintain a specified relationship between an object under the operator's control and other objects.

An example of continuous perceptual-motor activity:

Following a speeding car to determine the extent of the speed violation.

Monitoring. Observing a display, or a portion of the environment, either continuously or by scanning, in order to detect a specified kind of change. The concept of monitoring involves a prolonged or periodic watchfulness to detect a specific class of cues or environmental change. The moment of occurrence of the change is often not predictable.

Examples of monitoring:

a. Watching traffic flow through an intersection to detect violations

b. Watching an alarm panel board to detect intruders

Communicating. Receiving and/or sending information either in written or spoken words, symbols, gestures, etc.

Examples of communicating:

a. Giving verbal instructions to a sentry

b. Requesting emergency aid

c. Questioning offenders

Decision-Making and Problem-Solving. Decision making consists of choosing a course of action on the basis of facts, opinions, and other relevant information. Problem solving is a broad category of purposeful or goal-directed thinking which includes decision making. Generally, decision making involves evaluation of several alternative courses of action in order to choose the one which best serves the

the purpose of the decision maker. However, decision making also includes those cases in which only one course of action is considered, when the action is selected on the basis of past experience, or a rule-of-thumb, as long as doing something else or doing nothing could have been chosen. The above situation is not the same as following a branched procedure, in which case there is a rule specifying the next action to be taken based on the outcome of the present action.

Examples of decision making or problem solving:

a. Determining whether to issue a traffic ticket or warning

b. Determining whether or not to challenge a person in a restricted area

Behavioral detail descriptions clarify the specific behaviors performed under each activity. There are two classes of behaviors, only one of which was of major interest and concern. Normal Repertoire Behaviors (NRB) are those which require no special skills or knowledges to perform. A person who can follow directions can perform these behaviors. Therefore, they were of little concern in this analysis. This is not to say that Normal Repertoire Behaviors are not required for adequate job performance, but only that these behaviors do not discriminate between policemen and non-policemen. Special Behaviors (SB) are those which only the well-trained, proficient policeman using his special skills and knowledges can perform. Those behaviors peculiar to each task are recorded (e.g., ambiguous discriminations, particularly rapid responses, knowledge of unfamiliar terms, and operation of special equipment).

Analysis Procedures

Step 1. Identify tasks. The first step in identifying the tasks was to examine the final list of security police duties to determine a logical breakdown of required behaviors. The first set of tasks identified were those dealing with the duties common to both specialities (i.e., uniforms, ceremonies, first aid, communication, and weapons). The next set identified were those unique to Law Enforcement Specialists (i.e., jurisdiction, traffic, on-base patrolling, off-base patrolling, apprehending, confining, and administration). The last set of tasks identified were those performed by Security Specialists (i.e., controlling entry, performing sentry duty, providing armed response, alarm monitoring, coordinating security forces, and responding to civil disturbances). Re-examination of the behaviors in these categories showed that a further and more useful breakdown of tasks within each category was possible. Therefore, these first categories were designated task blocks. Nineteen task blocks were identified.

The next step in this initial stage of the analysis was to examine each block to identify events which terminated or initiated a group of actions aimed at accomplishing a single objective. An initiating event could be, for example, a communication that an unknown person was in a restricted area. There would then be a group of actions performed to determine the identity of the person. The terminating event could be a communication that the person was identified and was authorized to be in the area. The last communication could also serve as the initiating event for a different group of actions aimed at a new objective. The collection of behaviors occurring between these initiating and terminating events were designated as tasks.

Step 2. Determine task activities. After all tasks in each of the task blocks were identified, each task was examined to determine which class or classes of behavior were required to perform the task. The specific behaviors required of the policemen were matched against the definition of each activity. The activities identified were then listed under the task.

Some tasks contained only one activity, while others contained several. A few tasks contained behaviors which did not clearly fall into one of the five basic activities described earlier. In these cases, the activity listed was the basic activity containing behaviors most nearly like those performed.

The activities performed in each task are listed with the tasks in Appendix A of this report.

Step 3. Describe behavioral details. After all task activities were determined, the form shown in Figure 6 was used as a guide for developing the behavioral details descriptions. The following is a brief description of the information used to describe the behavioral details for each activity:

> Procedure Following: Two kinds of procedures were identified: fixed and branched. A fixed procedure always contained the same steps performed in the same sequence. A branched procedure, on the other hand, could contain a different number of steps, different steps, or a different step sequence each time it was performed. When dealing with a branched procedure, the maximum possible number of steps in the procedure and steps which were Special Behaviors were recorded. One step in this analysis involved filling in one blank in a report, or checking one item on a restricted area badge in contrast to some analyses which consider admitting a visitor to a restricted area, a step. The Special Behavior steps were described by a statement or short sentence.

BEHAVIORAL DETAILS DESCRIPTION FORM Block No._____ Task No. _____

Procedure Following

Number of steps in procedure _____ Number of steps which are SB: _____

Kind procedure: ___Fixed ___Branched Describe kinds of SB steps below:

Continuous Perceptual-Motor Activity

Type

___Guiding a vehicle ___Operating remote manipulators ___Keeping cursor on target ___Other_____

Displays

___Direct or window view ___Scope or instruments ___Optical System ___Other_____

Controls

___Steering wheel ___Tracking handle ___Handwheels ___Other_____

Control-Display Relationship

___Position control ___Velocity control ___Acceleration control ___Lag ___Backlash ___Other_____

Error tolerance or accuracy required:_____

Monitoring

Object or signal to be monitored_____

Display

___Scope ___Window view ___Instruments ___Optical system ___Sounds ___Other_____

Relevant Attribute

___Movement of object or signal ___Appearance of object or signal ___Change in object or signal

___Other_____

Other Data

Estimated frequency of events _____

Search area _____

Are events easy to detect?_____

If "no," how should detection be made?_____

Communicating

___Radio or telephone ___Direct verbal ___Direct observation ___Written or printed English

Media

___Video ___Electro-mechanical displays ___Other_____

Special Knowledge Requirements

___Code ___Format ___Keyboard operation ___Operation of special equipment (Specify)

Decision-Making and Problem-Solving

___The chosen solution or alternative is one which has proven successful in the past or one dictated by standard procedure

___Reasonable alternatives are generated, considered, and rejected, until an acceptable one is found.

___Most possible alternatives are known by the decision maker or problem-solver, and all reasonable ones are evaluated.

Items or kinds of information used in reaching decision or solution (describe):

Figure 6. Behavioral Details Description Form

Continuous Perceptual-Motor Activity: The information recorded for this activity, with only two exceptions, is self-explanatory. Lag and backlash are factors which introduce a delay between the instant the control is activated and the instant the display starts to react. No significant occurrences of these two factors was found.

Monitoring: The information recorded for this activity is self-explanatory.

Communicating: The information recorded under this activity is self-explanatory.

Decision Making and Problem Solving: Three general classes of decision making or problem solving were considered. In the first of these, only one of several available courses of action is considered, (e.g., when the decision-maker uses a rule-of-thumb, special knowledge or experience, or memory of what action proved successful in the past). In the second, criteria for an adequate solution are known and alternatives are evaluated until one is found which satisfies the criteria. In the third, most possible alternatives are known, and the one that is followed is the one which best fits the criteria. In this analysis, the type of decision to be made was determined first. Then a description of the decision process was written, stating the problem, the alternatives available or possible, and the information considered in reaching a decision.

Describing the behavioral details completed the analysis of each task. Table III shows the task blocks and number of tasks in each block.

Verification

Because of the importance of the Behavioral Job Description to development of the performance test and training course, three checks of completeness and accuracy were employed. These three checks were:

1. Comparison to a task list derived from manuals, regulations, and technical school documents.

2. Comparison to a task list obtained from a recently completed Job Inventory.

3. Evaluation by training and operations supervisors at selected study sites.

Table III
Security Policeman Task Blocks

	Task Blocks	Tasks Per Block
Common		
I	Uniform	3
II	Ceremonies	9
III	First Aid	8
IV	Communications	9
V	Weapons	43
Law Enforcement		
L-VI	Jurisdiction	3
L-VII	Traffic	5
L-VIII	On-Base Patrol	26
L-IX	Off-Base Patrol	9
L-X	Apprehension	21
L-XI	Confinement	2
L-XII	Administration	3
L-XIII	Civil Disturbance and Riot Control	25
Security		
S-VI	Entry Controller	10
S-VII	Sentry	6
S-VIII	Security Alert Team	10
S-IX	Alarm Monitor	6
S-X	Central Security Control	9
S-XI	Civil Disturbance and Riot Control	25

The list of tasks initially derived from the manuals, regulations, and technical school documents was compared against the final Behavioral Job Description (BJD) task list to ensure that none of the initially identified tasks had been omitted. A simple checklist approach was utilized in which the block and task number for each initial task subsequently included in the BJD was listed. In some cases, an initial task was subsequently described as two or more tasks; however, none were omitted.

The second check was a comparison of the BJD task list to the tasks listed in the Air Force Security Police Job Inventory published in 1970 by the Personnel Research Division, Air Force Human Resources Laboratory. Several breakdowns of tasks were provided in the Security Police job inventory and those used for comparison to the BJD task list were as follows:

1. All airmen in the Security Police Career Field
2. All Apprentice Security Policemen
3. Security Policemen involved in Base Patrol
4. Security Policemen involved in Weapons System Security
5. Security Policemen involved in Law Enforcement
6. Security Policemen involved in Pass and Registration
7. Security Policemen involved in Confinement

Task statements in the Security Police job inventory did not correspond directly to those in the BJD and in most cases there were several BJD tasks for each job inventory task. Although the comparison possible was a gross one, the tasks in the BJD appeared to be exhaustive of those listed in the job inventory. Also the descriptions of the BJD tasks were more specific and contained more detail concerning performance of job tasks.

Finally, after the two checks listed above were completed, the Behavioral Job Description was given to Security Police training supervisors at Ellsworth AFB, South Dakota; Lowry AFB, Colorado; and the Security Police Technical Training School, Lackland AFB, Texas. At each location, the BJD was reviewed with the supervisors to determine whether any tasks had been omitted, inappropriately placed in a task block, or included when it should have been eliminated. In addition, behavioral details were reviewed to ensure that activities were accurately specified (e.g., the task involved a branched procedure

and not decision making). In many cases, tasks which were specific to one base or one air command were identified as having been omitted; however, because this BJD was to be representative of only tasks common to Security Police throughout the Air Force, base or air command specific tasks could not be included. Also identified as having been excluded were task performance variations responsive to conditions existing at a single base. The general procedure for task performance as presented in the manuals and regulations were presented in the BJD, exclusive of local variations unless the variations were listed in the manual. Aside from these two types of omissions, the supervisors agreed with the descriptions of the Common, law enforcement and security tasks as presented in the Behavioral Job Description.

The final revised Behavioral Job Description is presented in Appendix A of this report.

SECTION IV

COURSE DEVELOPMENT

Development of the Law Enforcement and Security Specialist versions of the Security Police Automated Apprenticeship Training (AAT) course was based on the Behavioral Job Description, trainee characteristics, teaching and learning concepts, and presentation media requirements. The techniques used in developing the courses were essentially the same for both the Law Enforcement and Security Specialists; therefore the development efforts are not discussed separately unless the specific techniques differed. Course development was performed as shown in Figure 7.

Selection of Teaching Media and Device

Selection of the media for course presentation was partially determined by the decision to develop an automated apprenticeship course. Since this type of course requires the trainee be shown what to do, told why he is doing what he is doing, and provided an opportunity to practice the task, the media had to be one employing both audio and visual materials. The presentation media considered were movies, tape-slide, and tape-filmstrip. The desirability of movies was evaluated by determining the relative amount of instruction to be presented in which the motion involved in task performance was the critical task aspect to be learned. Although many tasks involved motion, in almost all cases, the critical aspects to be learned were the starting points and ending points. The motion required to transition from the start to end point was usually predetermined or it could not be learned without stop-motion or slow-motion techniques. Equipment capable of projecting movies in regular and stop-motion format was researched and subsequently rejected for two basic reasons. First, the cost of the equipment is high and it is difficult for untrained persons to operate it. Second, when the film is stopped, audio is not available unless provided by a second device. The choice of media was therefore limited to tape-slide or tape-filmstrip. The decision about which of these two formats was best was not made until specific equipment devices were examined.

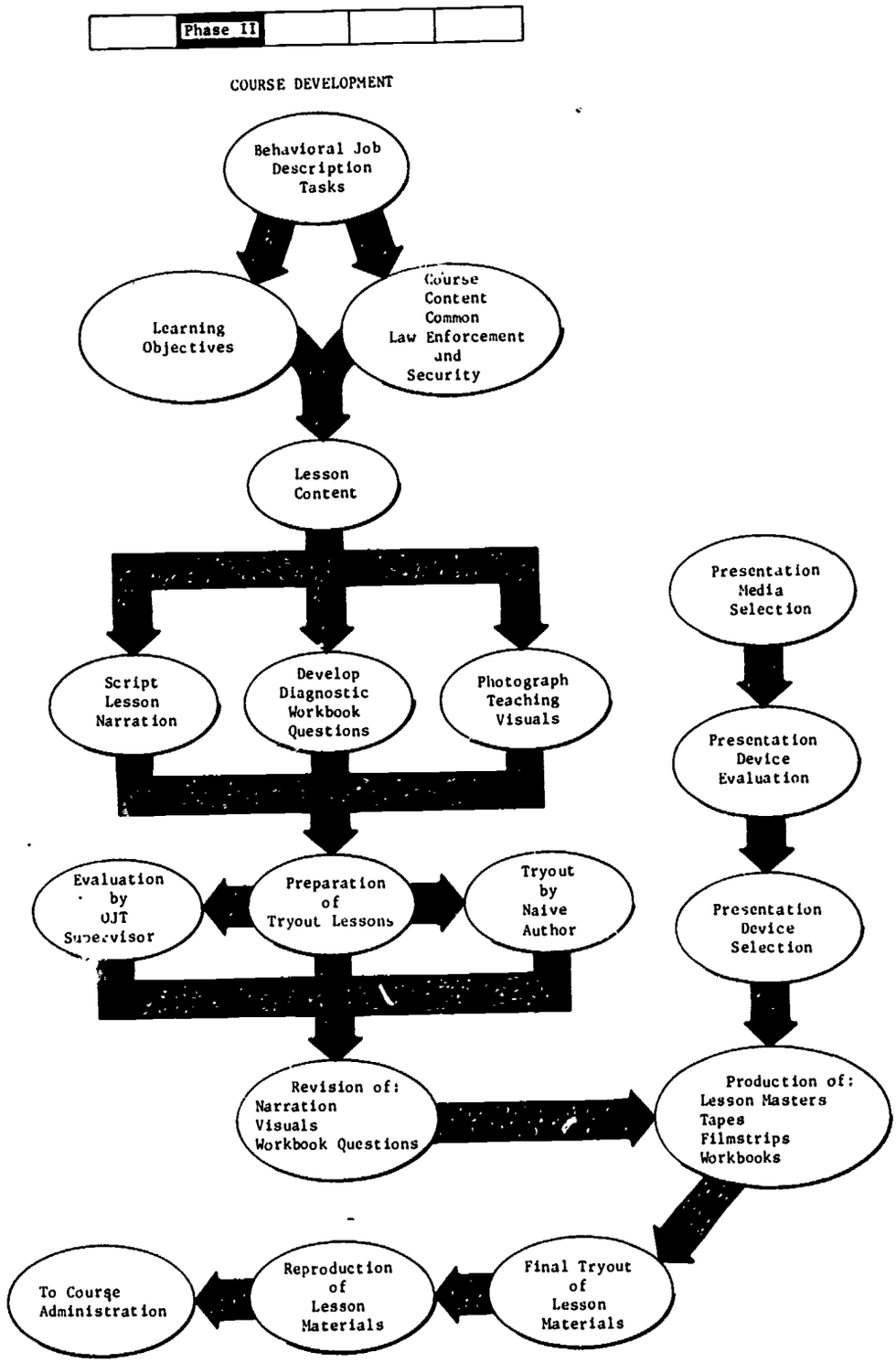

Figure 7. Sequence of Course Development Activities

The teaching device was selected to satisfy a number of criteria. Primary consideration was given to device reliability, ease of operation, and materials packaging. Since the device would be used in a distant location, where maintenance personnel were not readily available, it had to be capable of continuous operation without frequent failures. In addition, the failures had to be easily repaired by unsophisticated technicians or by training supervisors. The device had to be easy to operate with very little training on the part of the operator. It also had to be capable of completely controlling the audio-visual presentations without making extensive demands on the time of the trainees. Finally, the materials for use in the device had to be packaged conveniently, being easy to install and remove from the device. It was also desirable that the package be sufficiently strong to withstand normal abuse by trainees.

Devices using slides were rejected early in the evaluation because of the bulkiness of slide trays and the ease with which the slides could be lost or moved into the wrong sequence. Five devices were considered which incorporated filmstrips and magnetic tape. The device finally selected was the Audiscan I Model A teaching device. This device used 16mm filmstrips and one-quarter inch magnetic tape. Both materials were packaged in a single cartridge which could be inserted and removed from the machine in about five seconds. In addition, three-foot drop tests proved the cartridge to be relatively indestructable. Reported machine reliability was extremely high, the primary problem being failure of the projection lamps. The controls operated by the trainees were an on-off switch, a volume control, picture focus control, and a button to restart the presentation when stopped. Visuals were presented on a five-inch by seven-inch screen.

Determination of Course Content

Given the Behavioral Job Description (BJD), two problems remained to be solved prior to content specification. The first problem was to determine which blocks and tasks in the BJD were to be included or omitted from the course and for those included what level of detail was appropriate based on the importance (frequency of performance) of each task to the Apprentice Security Policemen. The second problem was determining which BJD segments (blocks or tasks) should be taught in the AAT course and which should be taught by field personnel.

All segments of the BJD were reviewed with the training supervisors at each of the potential sites for conduct of the Automated Apprenticeship Training (AAT) course. With one exception, the Weapons block, all

blocks and tasks were identified to be taught in the AAT course. All training supervisors indicated a strong preference for providing weapons training at the base range, whether or not it was received in the AAT course. Since a duplication of training effort was undesirable and since the AAT course could provide only premarksmanship training (firing could be done only at a range), weapons training materials were not prepared for the AAT course. However, weapons training was required for the AAT trainees and was provided by base range personnel.

During review of the BJD, each training supervisor provided information on tasks he believed should be added to the course (e.g., tasks required of camper teams for safeguarding missiles). The tasks suggested for addition were reviewed at all sites and none were found to be required at more than one or at the most, two sites. None of the tasks suggested at this time by the supervisors were included since none were sufficiently generalized in their application (i.e., were required at all locations where either law enforcement or security duties were performed).

The training supervisors were asked to rank order the blocks and if possible the tasks within blocks according to the likelihood of performance by Apprentice Security Policemen. Initial rankings were highly variable from site to site since the tasks performed by apprentice policemen depend to a great extent on the level of Security Police manning at each site. The various sites had different levels of manning and hence the apprentice policemen at the sites performed different sets of tasks. Subsequent reviews of the task rankings with each supervisor assuming the same level of manning produced consistent ordering of the task blocks and to some extent the tasks within blocks. The supervisor' rankings did not result in the further elimination of any tasks or blocks from the AAT course.

Development of Learning Objectives

Performance standards in the form of learning objectives were developed for each of the job tasks. These objectives were stated in the following form: "The trainee will be able to perform the task (behavioral description) with specified accuracy (number and type of errors permitted, if any)". Two items of information for the objectives, condition under which the performance occurred and performance time, were not available. In general, no standard set of conditions under which each task was performed could be agreed upon by the personnel at each of the bases. Therefore, it was not possible to include a statement about the conditions under which task performance occurred in the learning objectives. In addition, standardized and accepted

task times for apprentice job performers were unavailable and other generally agreed upon time estimates were conditional on highly variable situational characteristics. Therefore, performance standards (learning objectives) were stated only in terms of the behavioral description of the task and the accuracy with which the task should be performed. In addition to the behavioral description of the task, all equipment, forms, and performance aids utilized during task performance were also listed in the learning objective.

Determination of Teaching Sequence

Teaching sequence was determined in two major stages. First, the sequence of the common blocks and the speciality unique blocks was determined. Second, the sequence of blocks within the common and speciality unique segments was determined.

After completing the development of the learning objectives it became obvious that the task blocks common to both Security Police specialties consisted primarily of prerequisites for a number of speciality specific tasks. This was particularly true of communications and weapons tasks. Three other common task blocks, Uniform, Ceremonies, and First Aid, were prerequisite to being a Security Policeman regardless of the speciality. The remaining common task block, Riot Control, contained objectives essentially unrelated to any other common or speciality unique tasks. Based on the prerequisite nature of the Communications, Weapons, Uniform, Ceremonies, and First Aid tasks these were placed in sequence at the beginning of both the Law Enforcement and Security Specialist courses.

Determination of the sequence of presentation for the blocks in the common course segment was relatively easy. The blocks generally prerequisite to the Security Police career field (i.e., Uniforms, Ceremonies, and First Aid) were placed first in this course segment. The Communications and Weapons blocks were placed at the end of this common segment because they were prerequisite to specific tasks in the speciality unique course segments. The Weapons block was placed last in sequence because it had previously been decided that this material would be taught by base personnel instead of in the AAT course. It was felt this change in training environment would be most practicable at the end of the common segment and before the beginning of the speciality unique segments for two reasons. First, the time devoted to weapons training was relatively large, approximately one week. Second, placing this training within the speciality unique segment would be too long an interruption, and placing this training earlier in the common segment would separate it from application situations

more than was desirable. An additional, but minor consideration was that this novel change in instructional environment was best placed in the middle of the course between the common and speciality unique course segments.

Determination of teaching sequence in the speciality unique course segments was made primarily on the basis of task simplicity, and on transfer of skills to the job environment. In addition, consideration was given to equipment, forms, and performance aids covered in each block. Blocks whose objectives involved simple tasks which were necessary to perform more complex tasks were placed in sequence ahead of the complex task blocks. Blocks whose objectives were otherwise unrelated were frequently placed in sequence on the basis of an item of equipment or a form that was required in a later task block. Task blocks identified as important to apprentice job performers were placed as near the end of the sequence as practicable, depending on their complexity, the number of prerequisites they contained, etc. Table IV shows the sequence of task blocks for both speciality unique course segments.

Table IV
Sequence of Speciality Unique Course Blocks

Law Enforcement	Security
Traffic	Entry Controller
On-Base Patrol	Sentry
Off-Base Patrol	Security Alert Team
Apprehension	Central Security Control
Confinement	Alarm Monitor
Administration	Riot Control
Riot Control	

In addition to determining the instructional sequence of the task blocks, the preliminary sequence of instruction on tasks within blocks was determined during this stage. The determination of the instructional sequence was designed to begin on familiar ground, to teach simple tasks before complex tasks, and to teach whole task performance last. The instructional sequence was not finalized until the content of the lessons had been determined.

Determination of Lesson Content

Detailed lesson specifications include statements of the lesson objectives, the training approach, the trainee activity, the learning aids, the supervisor support, and the teaching aids. At this time during course development, several decisions about course format had been made which specified many of these parameters for all of the lessons. These decisions were:

1. To utilize a programmed audio-visual presentation for all lessons. Therefore, the trainee activity, working through the programmed instruction at the trainee's own pace, was the same for all lessons.

2. To have the training supervisor perform as a monitor/tutor and provide assistance when requested by the trainee. Therefore, the training supervisor's activity was the same for all lessons.

3. To use the instructional program and the audio-visual teaching device as the teaching aids. Therefore the teaching aids were the same for all lessons.

Since each task was assumed to be a lesson and because the equipment, forms, performance aids, and training objectives required for each task were already recorded; the lesson objectives and learning aids were known for each lesson. The one remaining item to be determined for the lesson specifications was the training approach. Rather than interrupt the development of the training courses to determine the approach to training separately, this was done during the determination of the lesson content and materials development stages.

When the overall instructional sequence of task blocks and a preliminary instructional sequence for tasks within blocks had been determined, a preliminary course outline was prepared. Using this outline, the statements of lesson objectives and the task descriptions in the BJD, the training approach was developed for each lesson. The statement of the training approach specified, in operational terms, the interaction between the trainee, the teaching aids, and the learning aids designed to provide the trainee practice in the behavior described by the lesson objective. In addition, the statement of the training approach included a specification of the sequence in which the lesson material was to be presented. In some instances, more than one task was combined into a single lesson; however, it was not necessary to develop any single task into more than one lesson. The final outline for all course blocks and lessons is presented in Appendix B.

Development of Lesson Materials

Typical automated apprenticeship lessons involved showing the trainee what to do, telling him why it is done, and providing him guided practice in doing the task. Demonstrations of what to do were provided through visuals of actual task performance. Descriptions of why each aspect of the task was performed were developed from the manuals and regulations and were stated in terms of accomplishing the task. Finally, practice in performing the tasks was provided by including as learning aids the forms and equipment used on the job.

Materials for each lesson were developed in the following steps:

1. Develop Audio-Visual Script
2. Develop Student Workbook
3. Photograph Visuals
4. Narrate Tape
5. Prepare Tryout Lesson
6. Prepare Final Lesson

Develop Audio-Visual Script

The script for each lesson was prepared in two stages: First, the visuals and narration were outlined, and second, the actual narration was written. The script outline was prepared according to the guidelines provided by the description of the training approach and the tasks described in the behavioral details description in the BJD. Preparing the script in outline form provided a list of required visuals and an opportunity to verify the apprenticeship oriented step-by-step presentation before any extensive writing was accomplished.

The complete narration was written after the outline was verified for inclusion of all steps and visuals required for initial task demonstrations and later guided practice and review. In writing the narration the author referred not only to the Behavioral Job Description, but also to the manuals, regulations, or initial task data collection forms which contained the complete task descriptions. Scripts were usually written on one continuous sheet of paper with word descriptions or sketches of the visuals on the left side of the sheet and the associated narration, questions, and answer feedback on the right side as shown in Figure 8.

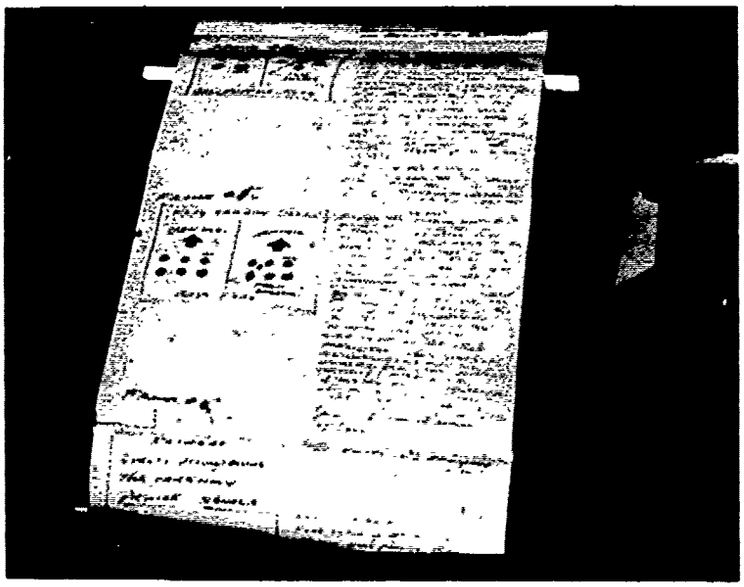

Figure 8. Sample Lesson Script

The continuous sheet of paper was used to prevent the possibility of misplaced pages and to facilitate reviewing what was written and shown previously in the presentation. Both the visuals and narration were presented on the same physical script so there would be little opportunity for confusion regarding which visual accompanied each section of narration. The scripts also noted the locations at which the presentation should be stopped to allow trainee practice or completion of workbook questions. Finally, the point at which visuals were to be changed was noted in the script.

After each script was written, it was typed on a typewriter wired to count the number of letters per word, the number of words per sentence, and the number of sentences per paragraph. These counts were used to determine the Automated Readability Index of the material (i.e., the skills required to comprehend the written material).[3] Passages which required greater than sixth grade reading skills were revised.[4]

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[3] Huff, K. H., and Smith, E. A., Reliability, Baseline Data, and Instructions for the Automated Readability Index, AFHRL-TR-70-14, October 1970.

[4] Sixth grade skills are defined as: 4.50 to 4.55 letters/word, 11.65 to 11.75 words/sentence, and an Automated Readability Index of 52.45 to 52.55. (Smith and Senter, 1967)

The readability index of the material was obtained because it was felt that material which could be comprehended in written form by persons with sixth grade reading abilities could be comprehended more easily when spoken. Although no research evidence was found which substantiated the position, the authors felt that people are generally capable of comprehending spoken material at a higher level than written material.

Prepare Trainee Workbooks

All questions to be presented in the trainee workbook for each lesson were written in the script. The workbook pages were prepared in a standard format and the questions were typed directly from the script. The readability index of the workbook questions was obtained with that for the script. All questions were fill-in, multiple choice, or sentence completion type questions. The majority of questions were the fill-in type. All master workbook pages were typed on bond paper suitable for making offset masters for reproduction purposes.

Photograph Visuals

The list of required visuals obtained from script outline was used to determine photographic requirements. The types of visuals required for the course presentations ranged from groups of individuals performing tasks through one word title slides. Visuals were obtained from three sources; (a) slides taken during task analysis data collection trips, (b) slides taken of staged task performance, and (c) slides made of printed material and line drawings. All visuals were prepared in a single format, 2 X 2, 35mm slides.

Prepare Tryout Lesson

Master tapes for the audio presentations were narrated directly from the typed scripts. In addition to narrating the audio portions of the script, all teaching device control signals were recorded on the tape. Master tapes were prepared at 3.75 ips using one-quarter track stereo format. Voice narration was recorded on one track during a first recording session and synchronized teaching device control signals were recorded on the second track while monitoring the taped narration during a second recording session. All narrated presentations were limited to a maximum of 30 minutes of continuous narration. All lessons which required more than 30 minutes were divided into two or more parts.

The materials assembled for the tryout lessons included the audio tapes, the 2 X 2 slides, the student workbooks, and any learning aids available. In some cases, the tryout of materials was conducted using Air Force subjects with characteristics similar to the planned trainee groups. However, tryout of most of the materials was conducted using one of the course authors who had not prepared the material being tried. All lessons were checked for synchronization of audio and visuals, for quality of visuals, for clarity of audio narration, and for accuracy of questions and feedback information.

Problems identified in the material with regard to quality were corrected. Visuals of unacceptable quality were rephotographed. Unsatisfactory narration was retaped and inappropriately synchronized control signals were rerecorded.

Preparation of Course Materials

All materials were converted from the format used in the tryouts to the format required for presentation on the Audiscan. The 35mm slides were converted to 16mm color filmstrips. All master tapes were reproduced at 3.75 ips, one-half track stereo format, on double lubricated tape for use in endless-loop cartridges. Workbook master pages were reproduced for use in standard three-ring binders.

When completed, the Security Police AAT Law Enforcement and Security Specialists courses consisted of 63 and 52 Audiscan cartridges, respectively, as shown in Table V. Each cartridge contained an average of 30 visuals and 25 minutes of audio narration. Approximately 2,400 visuals were incorporated in both courses. In addition, the materials for each course included two student workbook volumes, one for the common segment and one for the speciality unique segment. The workbooks contained approximately seven pages per lesson. Twelve copies of the Security Specialist course materials and six copies of the Law Enforcement Specialist course materials were produced for the AAT courses.

Table V
Number of Audiscan Cartridges in the AAT Courses

Course Segment	Block	Lessons	Cartridges
Common	I	4	3
	II	3	1
	III	11	7
	IV	7	5
	V	7	11
Law Enforcement	L-VIII	5	5
	L-IX	11	19
	L-X	4	2
	L-XI	5	4
	L-XII	1	1
	L-XIII	2	1
	L-XIV	5	4
Security	S-VII	5	5
	S-VIII	6	7
	S-IX	4	4
	S-X	4	3
	S-XI	3	2
	S-XII	5	4

SECTION V

COURSE ADMINISTRATION

The AAT course was administered as shown in Figure 9. Five bases were selected for administration of the AAT course from the original 13 bases visited during data collection for the Behavioral Job Description. These bases were selected to: (a) be representative of several major air commands, (b) include bases with both security and law enforcement duty requirements, (c) provide sufficient manpower requirements for the purposes of the study, and (d) facilitate data collection through desirable geographic location.

Trainees

Basic Airmen entering the Security Police career field are either sent to the Airman Basic Resident (ABR) Security Police School at Lackland AFB, Texas, or they are designated Directed Duty Assignment (DDA) airmen and assigned to an operational Security Police unit for on-job training (OJT). The 60 Directed Duty Assignment airmen assigned to the experimental training course, Automated Apprenticeship Training (AAT), had recently completed basic training at Lackland AFB, Texas. All trainees were male, first-term enlisted personnel. The DDA trainees were randomly selected within two aptitude groups based on the percentile score achieved on the Armed Forces Qualification Test (AFQT). The two trainee aptitude groups were low (AFQT 10-30) and high (AFQT 31-95); no additional personal characteristics were specified.

Training Locations

The AAT course was conducted simultaneously at five different Air Force bases located throughout the Western and Southwestern United States during the period of April through November 1971. As shown in Table VI, the training locations included Air Force bases in the Strategic Air Command (SAC), Tactical Air Command (TAC), Air Training Command (ATC), and Systems Command (SC).

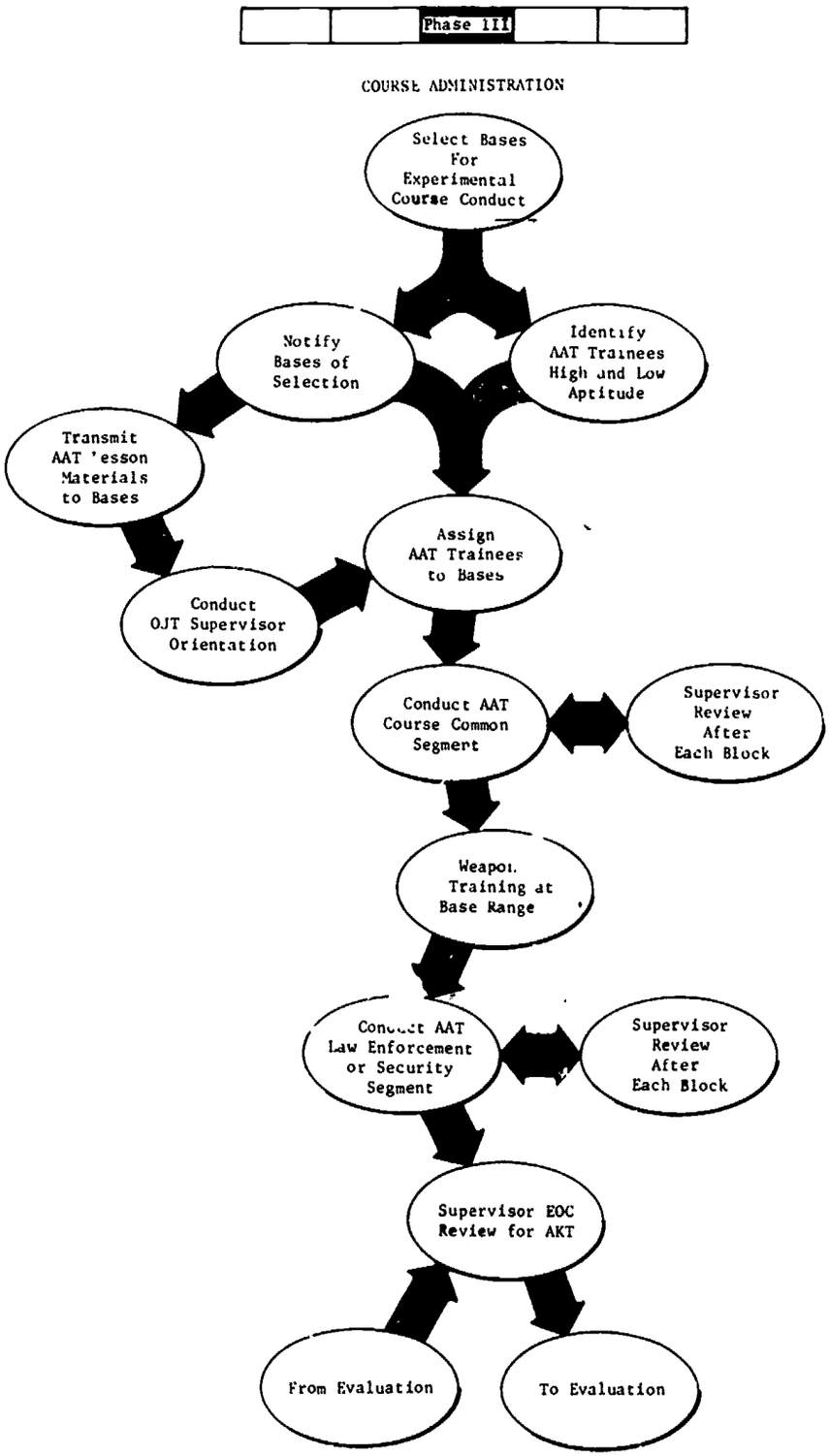


Figure 9. Sequence for Course Administration Activities

Table VI
Training Locations for AAT Trainees

Training Site	Name and Location of Air Force Base	USAF Command	Primary Security Police Mission
A	Warren AFB, Wyo.	SAC	Security
B	Ellsworth AFB, S.D.	SAC	Security
C	Cannon AFB, N.M.	TAC	Security
D	Lackland AFB, Tex.	ATC	Law Enforcement
	Brooks AFB, Tex.	SC	Law Enforcement

The large number of bases was necessary as training sites for two reasons: one, because of the small number of DDA personnel in this career field normally assigned to one base at any one time; and two, because few bases had DDA personnel requirements for both the law enforcement and security functions. The two Air Force bases in the vicinity of San Antonio, Texas, listed above as Site D, satisfied the requirements for DDA personnel assigned to law enforcement duty.

Table VII shows the scheduled assignment of the AAT trainees to the various training sites during the conduct of the course.

Table VII
Assignment of AAT Trainees to Training Sites

Training Site	Number of Subjects Arriving Per Month - 1971							
	Apr	May	Jun	Jul	Aug	Sept	Oct	Total
A	3	3	0	3	0	4	3	16
B	3	3	0	3	0	4	4	17
C	3	0	3	0	3	3	3	15
D	0	0	0	5	5	2	0	12
Total	9	6	3	11	8	13	10	60

The initial identification and subsequent assignment of trainees to the prescribed training locations was performed by the Assignments Branch, Directorate of Personnel, Air Training Command. Each trainee was identified by name to the receiving Security Police Squadron approximately 30 days in advance of his scheduled date of arrival. However, the trainees were not given advance notification concerning their assignment to an experimental course. Generally, an equal number of high aptitude and low aptitude trainees were assigned to each training location. The distribution of high and low aptitude trainees varied slightly each month but was approximately equal at each location at the conclusion of the course.

Supervisor Orientation

A preliminary survey of the various training locations revealed large differences, both in the training schedules and training environment. The duration of OJT courses ranged from three weeks to three months. Training methods varied from classroom lecture/demonstration to exclusive use of the CDC texts and workbooks. The observed lack of uniformity in the training environments indicated the need for a thorough supervisor orientation to AAT course administration.

Each training location was visited prior to the beginning of the AAT course to deliver the teaching devices and instructional materials. At this time, a one-day briefing and demonstration was conducted with the OJT supervisors to completely familiarize them with planned administration practices and procedures. The briefings covered the following aspects of the experimental course:

1. Overview of AAT program
2. Teaching devices
3. Lesson sequence and content
4. Trainee workbooks
5. Learning aids
6. Supervisor's role
7. Trainee reviews
8. Trainee progress and records
9. Treatment of trainees
10. Scheduling

During these initial briefings, supervisors were provided with a course outline, showing blocks and lessons, to be used in monitoring and recording trainee progress during administration of the course. In addition, each supervisor was given a list of the learning aids required by trainees in each of the lessons.

The training supervisors were instructed to provide each subject with an individual teaching device, a headset, and a complete set of instructional materials, lesson cartridges and workbooks. The trainees were to work through each lesson in sequence, with the supervisor checking on their progress at least once each day. During the training sessions, the trainees were to complete workbook entries, to perform task practice, and to work with the learning aids as required. Frequent progress checks were specified so that the supervisors could successfully anticipate the trainee's needs for learning aids and have the necessary forms and equipment available when needed. At the end of each block of instruction the supervisors were instructed to conduct end-of-block reviews covering both job knowledge and performance. Trainee remedial instruction was to be provided by: (a) working through the AAT lesson again, (b) participating in a supervisor lecture/discussion of the problematic material, and/or (c) reading a segment of a Security Police manual or regulation assigned by the supervisor.

During the supervisor briefings, all aspects of equipment operation and materials handling were demonstrated. Trainee workbook utilization was reviewed, and a sample of representative course segments was practiced by the supervisors. The planned role of the supervisor, that of monitor/tutor, was explained in the context of supervisor/trainee interactions with regard to questions from the trainees and supervisor end-of-block reviews. To enhance their understanding of the course, each supervisor was requested to work through the entire course before any trainees were entered at his location.

It was emphasized to the supervisors that AAT trainees should participate in all activities normally assigned to other DDA trainees, such as weapons qualification, driver's school, etc. No fixed training schedule was recommended for AAT trainees, other than to require each trainee to work sequentially through the programmed instruction on an individual basis, each at his own pace. However, it was requested that all instructional materials be completed by the trainees within 30 days after beginning the AAT course. This stipulation was primarily intended to ensure two things: one, the expedient completion of the course materials within a reasonable time period; and two, the availability of the training devices for incoming trainees in the following cycle of training.

Conduct of Course

First, the trainees were given a brief orientation by the training supervisor to familiarize them with the course, including an explanation of the use of the teaching device, lesson cartridges, and workbooks. Then, beginning with Block I the trainees worked through Block L-XIV for the Law Enforcement Specialist course, or Block S-XII for the Security Specialist course, each at his own pace. All content in Blocks I through V and Blocks L-VII through L-XIV or Blocks S-VII through S-XII was presented on the teaching device. Figure 10 depicts a trainee working with the teaching device.

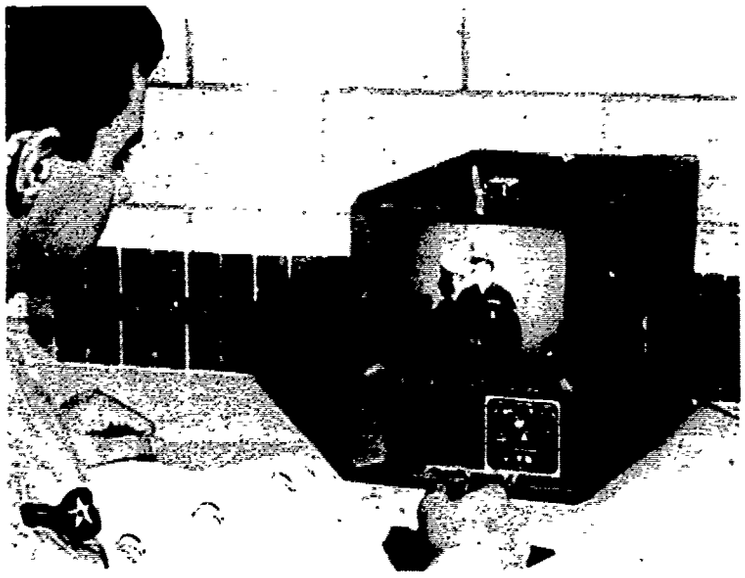


Figure 10. Trainee Working With Teaching Device.

The content of Block VI, which covered weapons training, was presented by the personnel of the weapons range at each base. Although not presented on the teaching device, weapons training was a required part of the AAT course. As shown in Figure 11, the trainees completed Workbook I during Blocks I through V, completed Workbook L-II during Blocks L-VII through L-XIV, and completed Workbook S-II during Blocks S-VII through S-XII. At the end of each block of instruction, the supervisors conducted reviews of the content of that block.

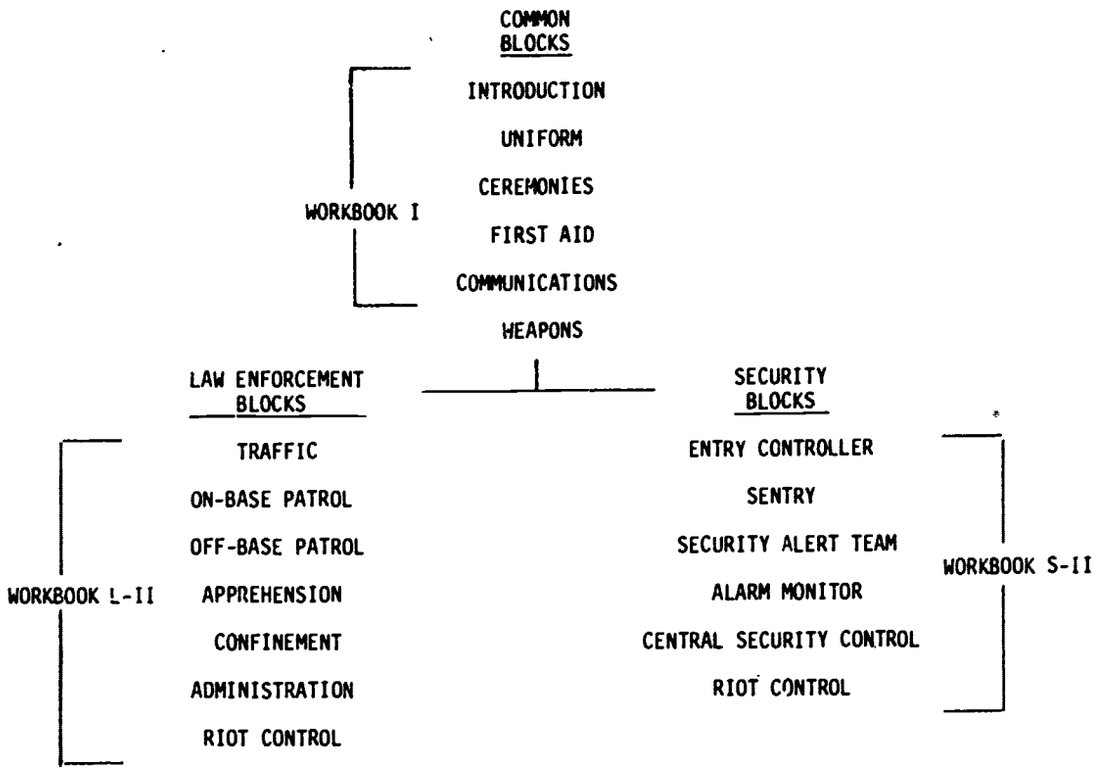


Figure 11. Workbooks Completed During Course Segments

AAT training was occasionally interrupted for the trainees to complete training requirements applicable to all DDA trainees. Apart from interruptions for medical, dental, and other administrative appointments, all DDA trainees had one additional training requirement, a driver safety course. The extent of the interruption depended on the number of segments of the driver course taken by the trainee. However, no AAT trainees were delayed sufficiently to prevent them from completing their Security Police training on time.

All trainees entering the AAT course completed the course in the allotted 30 days and there were no academic washouts. With only a few exceptions, trainees completed all lessons in the appropriate sequence. The exceptions happened early in the administration of the course and were caused by a faulty splice in the cartridge film or tape, which subsequently failed, making that cartridge inoperable. These problems were resolved either by the trainee using another trainee's cartridge for that lesson or by two trainees working through the lesson simultaneously on a single device. The faulty splice was repaired before the inoperable cartridge was required by another trainee.

The duration of individual training sessions on the teaching device was highly variable -- primarily due to other scheduled training activities and random interruptions such as medical and dental appointments. The training sessions ranged from two hours per day to a full six-hour day. At certain locations the training sessions were scheduled on alternate days. The total number of hours required for an individual trainee to work through all instructional materials varied, depending on such things as trainee's aptitude, study habits, availability of learning aids, etc. The average total time for course completion, including end-of-block reviews, was approximately 60 hours or three-eighths of the available training time in the allotted 30 days. The supervisors required approximately 20 additional hours for the end-of-course review to prepare trainees for the Apprentice Knowledge Test.

Periodic visits were made to the training locations to monitor the progress of trainees and the uniformity of the training conditions in the experimental course. The monitoring visits were made in conjunction with scheduled monthly trips to collect job performance test data at each of the bases. Discussions were held with training supervisors regarding problems encountered in course administration, trainee difficulties, and relevance of instructional materials to actual job requirements. When applicable, appropriate recommendations were offered for possible solutions to recognized problems.

Problems

Two types of course administration problems were most evident: supervisor participation, and supervisor adherence to guidelines. There was a notable lack of problems with trainee participation and teaching devices.

Supervisor Participation

The problems pertaining to supervisor participation were two-fold. First, the supervisors occasionally failed to conduct required end-of-block reviews of course content; and second, the supervisors often failed to provide the trainees with required learning aids. Investigation of these problems revealed that the materials provided to the supervisors (i.e., the course lesson outline and learning aids list) were frequently not used as requested. The outline was not used as a form for recording student progress to alert the supervisors that end-of-block reviews and learning aids, forms or equipment, were required by the various trainees. Although the trainees were told at the beginning of each lesson which learning aids were required, the supervisors frequently could not provide them if the aids had not been acquired in advance. The supervisor participation problem might have been diminished by the availability of a more detailed checklist of course administration for each student.

The problem of supervisor participation was further complicated by the frequent reassignment of training supervisors. At two of the five locations the supervisors were not reassigned during AAT course administration. At the other three, there was a single occurrence of supervisor replacement at one, there were two occurrences of replacement at another, and there were three occurrences of replacement at the last location. When this happened, the course was administered, for at least one-half a month, by a replacement supervisor who had not been thoroughly briefed in his responsibilities.

Some of the problems of supervisor participation seemed to be related to the unique and experimental nature of the AAT course. The AAT course was more performance-oriented than the CDC. The supervisors were not accustomed to providing forms and equipment to the trainees as learning aids since the CDC required only text material and workbooks. The supervisors were also not accustomed to conducting performance and knowledge reviews at the end of each block of instruction, since the CDC requires only knowledge reviews and these are usually in the form of written answers to workbook questions. In addition, conflicts between AAT and CDC supervisory activities were usually resolved in favor of the CDC. The supervisors were aware that the AAT course was an experimental training effort and would be completed in a short period of time and that the CDC would continue after the experiment was concluded.

Finally, the transition from a traditional classroom instructor to that of a monitor/tutor was a difficult one for some of the supervisors. At some bases, manpower requirements for Security Policemen

had dictated the need for acceleration of CDC training. Consequently, some supervisors had been required to give formal classroom lectures to OJT trainees such as provided in the ABR courses. These supervisors frequently found it difficult to assume the new training role of monitor/tutor instead of performing the duties of primary presenter of course information.

Supervisor Adherence to Guidelines

The difficulties here were characterized by exceptions to recommended course administration practices. For example, two and sometimes three trainees were observed to simultaneously use a single teaching device. This practice was contrary to the recommended guideline of one trainee per teaching device. However, in most cases, the multiple usage of a single teaching device had no apparent detrimental effect on progress of training. In fact, some facilitation was noted in weak trainees who appeared to benefit from the team effort; however, this was not tested or evaluated empirically.

Teaching Device Reliability

A total of 16 teaching devices was used in the conduct of the course. Eleven of these units each accumulated over 300 hours of operation. The aggregate number of operating hours for all 16 devices was over 4,000 hours.

No major problems were experienced with the operation and maintenance of teaching devices and lesson cartridges during the course. Maintenance records reflected a total of three field malfunctions: Two failures involved the tape transport mechanism, and one failure involved the audio printed circuit card. The problem with two devices resulted from faulty manufacture of the tape transport mechanism. No other instances of this problem were encountered and once corrected it did not recur. Failure of the audio card was apparently a random failure with no known cause. These failures did not cause more than a one-day delay in training schedules and all three problems were corrected by replacing the failed components. A minor problem involving debonding of the cartridge mirrors was detected after return shipment of the course materials. This problem had no effect on training and has since been rectified by improved manufacturer quality control.

SECTION VI

SECURITY POLICE PERFORMANCE TEST

Introduction

The development of an adequate performance criterion against which to evaluate the effectiveness of a job training program possesses a number of challenging problems. In addition to the typical problems of reliability and validity, there is the problem of proficiency test fidelity. In a discussion of proficiency testing for training evaluation, Frederikson (1962) proposed seven categories which conceptually constitute a hierarchial model of evaluation fidelity. In increasing order of fidelity these categories are:

1. Solicit opinions
2. Administer attitude scales
3. Measure job knowledge
4. Elicit related behavior
5. Elicit "What I would do" behavior
6. Elicit lifelike behavior
7. Observe real life behavior

At first glance it might seem that observing real life behavior would be the optimum method for assessing performance proficiency; however, this method has historically involved the use of subjective rating techniques. In a systematic review of rating scales, Ronan and Prien (1966) indicated that a sound basis exists for seriously questioning the reliability of human judgments of the performance of others. This suggests that a method which has less than the highest order of fidelity may be desirable in order to increase the objectivity of the criterion. Presumably an increase in criterion validity could result from a gain in objectivity which more than adequately compensated for the corresponding loss in fidelity.

Another important consideration in job performance assessment has been described by Folley (1967). A distinction is made between predictive and achievement (or performance) testing. In predictive testing, the standard is relative; test results attempt to show how any single individual compares with all other individuals who have taken the test. In performance testing, the standard is absolute; test results attempt to show the extent to which the individual has learned a specified set of behaviors. Discrimination among individuals who have learned the requisite behaviors is of secondary importance.

An additional consideration is criterion dimensionality. Since job performance is not unidimensional, the criterion measure for assessing the effectiveness of a job training course must be multidimensional. All aspects of the job must be represented in the criterion (e.g., job knowledge, task performance, performance time, etc.). One recent study which successfully incorporated multidimensional criteria in the assessment of job training effectiveness involved a Learner Centered Instruction approach to the training of F-111A Weapon Control Systems Technician (Pieper, Swezey, and Valverde, 1970). The criteria for this study included a job performance test, a substitute job knowledge test, and supervisor ratings. The job performance test included six subtests which elicited lifelike behavior using equipment simulators. The effective evaluation of job training requires an approach which emphasizes performance measures and multidimensional criteria.

Problem

The Security Police Performance Test (SPPT) was developed to evaluate proficiency of Apprentice Security Policemen. Individual Security Policemen on a given base were assigned to either a law enforcement or security function. Job performance in either of the specialties involved people and/or equipment which could not practically be present in the testing situation. In addition, job performance in real time was prohibitive for a testing situation. The practical considerations of performance testing for this job indicated that a level of fidelity below that of real life behaviors be considered. Testing at the level of lifelike behaviors also involved most of the same people, equipment, and time problems associated with the real life behaviors.

Since the trainees whose proficiency was to be evaluated were located at various bases throughout the Western and Southwestern United States, the test had to utilize a format which could be replicated at any base. In addition, the test materials had to be capable

of being easily transported, not requiring elaborate set-ups at the various bases. The test developed to meet these requirements had the following characteristics:

1. Evaluated the proficiency of Apprentice Security Policemen

2. Evaluated the proficiency of Law Enforcement and Security Specialists

3. Utilized the highest level of fidelity practicable

4. Utilized a format capable of uniform replication

5. Utilized materials which were transportable

The development of the Security Police Performance Test was performed as shown in Figure 12.

Test Item Development

Test item development for the SPPT was initiated via the task analysis of Law Enforcement and Security Specialists jobs as described earlier in this report. During the task analysis phase, several hundred 35mm photographs were taken of Security Policemen performing various job tasks. Item content was developed on the basis of task behavioral detail's descriptions and the photographs taken during task analysis. The task performance visuals were used as stimulus materials and the questions required "What I would do" responses or identification of correct vs. incorrect task performance. Items were developed for all tasks which required special behaviors (i.e., behaviors which cannot be performed without training). The criterion for correct performance was the performance specified or depicted in the relevant Air Force manuals or regulations, or the performance taught at the Security Police Technical School, Lackland AFB, Texas. Elements of some tasks were performed differently at different locations and no items were developed for task performance subject to local variations.

The performance test was developed in two forms because of the lack of overlap between the two specialties. Each preliminary form consisted of items developed for common tasks and items for either law enforcement or security tasks. The number of items allotted to a particular task block was determined as a function of the relative importance of that block to the overall law enforcement or security job. The determination of relative importance of the task blocks was made on the basis of interviews and on-site visits during the

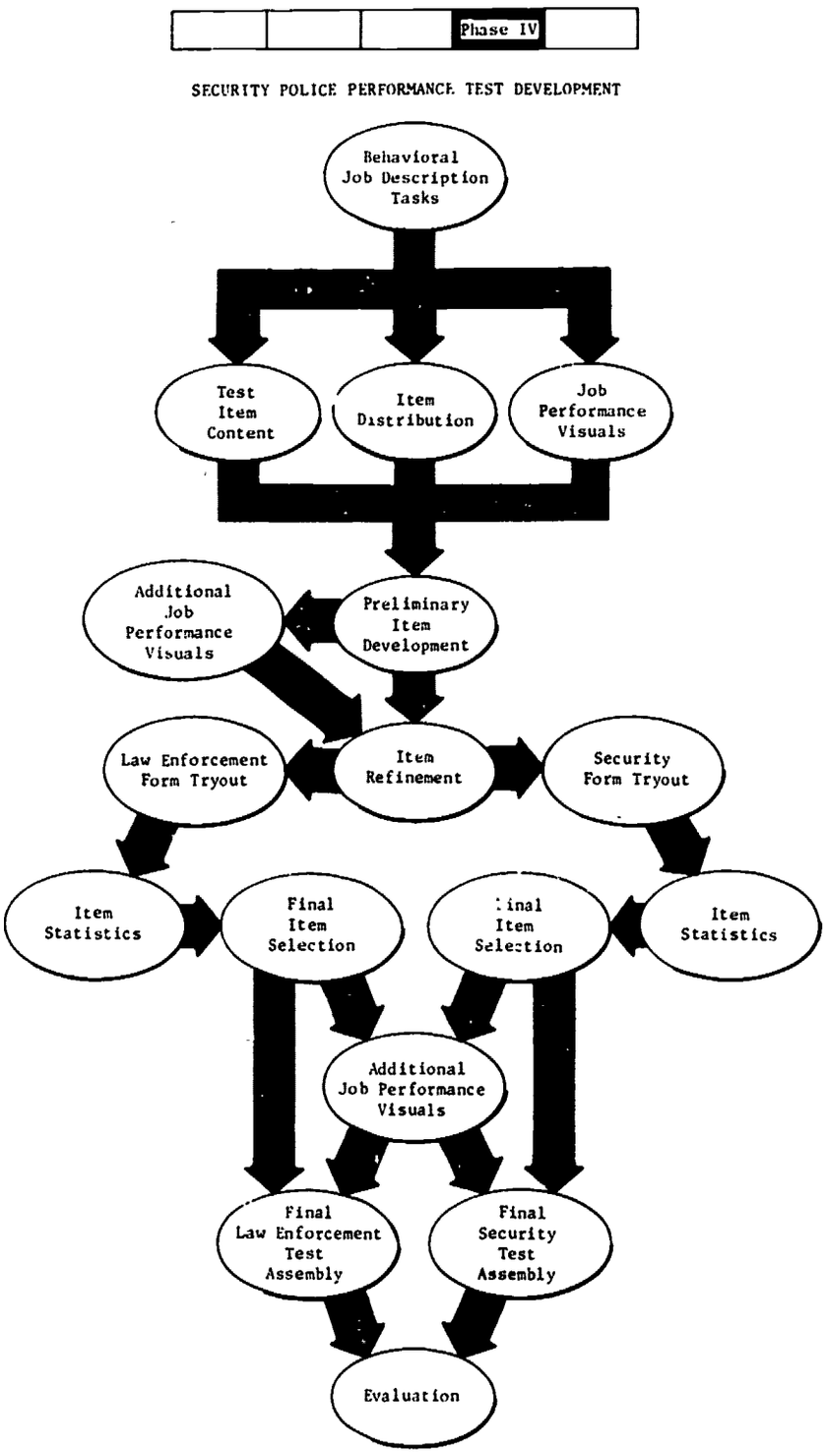


Figure 12. Sequence of Performance Test Development Activities

task analysis. The breakdown of number of common and specialty unique items incorporated in the preliminary Law Enforcement and Security forms is given in Table VIII.

As can be seen from Table VIII, neither form of the performance test contained any items relating to Task Block I (Uniform). This decision was based on the determination that proper uniform care and wearing is a responsibility of all Air Force personnel and is not specific to Security Policemen. Thus, Task Block I was not specifically job related.

Task Block VIII (On-Base Patrol), while primarily a duty of law enforcement personnel had, in addition, several activities which were performed by both Law Enforcement and Security Specialists (e.g., common items). In developing items for this block, seven items which addressed common topics were included in the preliminary Security form of the SPPT.

Additionally, five miscellaneous law enforcement and seven miscellaneous security items which could not be readily classified into the existing task blocks were included in the preliminary forms of the SPPT. Appendix B shows the breakdown, by original item number, of items for individual tasks within a task block for the preliminary forms of the SPPT.

All items were developed for audio-visual presentation. This testing format was selected because it provided a media for presenting visual stimuli representative of situations encountered on the job. In addition, it was felt that simultaneous presentation of the aural and visual elements of a question would facilitate the subject's identifying with the situation. Finally, the audio-visual presentation was constant and testing conditions could be more easily replicated at the various testing locations.

Preliminary Test Format

Each form of the SPPT consisted of an audio-visual tape slide presentation, a test booklet, and an answer sheet. The test items were multiple choice and true/false. Item format consisted of either an audio-visual or audio only presentation. The preliminary Security form contained 175 items, 91 of which incorporated visuals. The preliminary Law Enforcement form contained 150 items, 74 of which incorporated visuals.

Table VIII
Number of Items Per Task Block
in Preliminary SPPT Forms

Task Block		Job Activity Designation	Test Form	
			Security	Law Enforcement
I	Uniform	Common	0	0
II	Ceremonies	Common	14	14
III	First Aid	Common	20	20
IV	Communications	Common	15	15
V	Weapons	Common	19	19
L-VI	Jurisdiction	Law Enforcement	0	7
L-VII	Traffic	Law Enforcement	0	9
L-VIII	On-Base Patrol	Law Enforcement	0	17
		Common	4	4
L-IX	Off Base Patrol	Law Enforcement	0	7
L-X	Apprehension	Common	4	4
L-XI	Confinement	Law Enforcement	0	2
L-XII	Administration	Law Enforcement	0	4
L-XIII	Civil Disturbance and Riot Control	Common	0	20
S-VI	Entry Control	Security	14	0
S-VII	Sentry	Security	16	0
S-VIII	Security Alert Team	Security	13	0
S-IX	Alarm Monitor	Security	10	0
S-X	Central Security Control	Security	16	0
S-XI	Civil Disturbance and Riot Control	Common	20	0
	Miscellaneous	Law Enforcement	0	5
		Security	7	0
			Total = 175	Total = 150

The format of individual items was determined by the number and type of visuals incorporated in the question (i.e., single visuals, multiple visuals, cr no visuals). The presentation format for an item incorporating a single visual was as follows:

1. Question number narrated on the tape

2. Visual projected on the screen

3. Question and answer choices narrated on the tape

For an item containing a single visual, the visual was generally one which depicted an element of task performance which had to be identified. In some cases the visual was a completed Security Police form which had to be identified as completed properly or improperly in accordance with a question/situation narrated on the tape.

For questions incorporating multiple visuals, one of two formats of presentation was utilized. The first of these was as follows:

1. Blank screen

2. Question number narrated on the tape

3. Question narrated on the tape

4. Visual projected on the screen as answer alternatives

In this type of question, each visual showed a different method of performing a task element. The question required that the correct method of performing the task be identified.

The second presentation format for questions incorporating multiple visuals was as follows:

1. Question number narrated on the tape

2. A description of the situation narrated on the tape

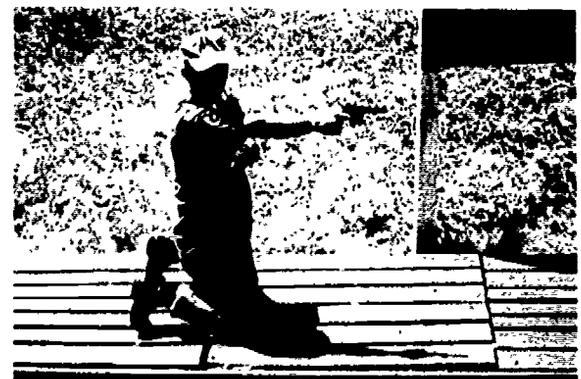
3. The visuals shown in sequence

4. Answer choices narrated on the tape

For this type of question the visuals depicted a sequence of actions performed in response to the situation described. The question required that the sequence depicted be identified as correct or incorrect. Figure 13 provides an example of this type of question.

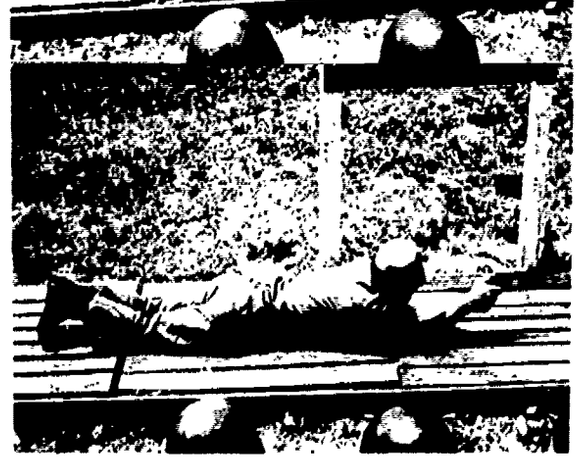
NARRATION: Question 160: You are armed with a .38 Caliber revolver and wish to assume the prone firing position. Does this sequence show the proper method of assuming the prone position?

1
On Time - 3 sec.



2
On Time - 3 sec.

3
On Time - 3 sec.



NARRATION: Choice A - The method shown was correct.
Choice B - The method shown was wrong.

Figure 13. Sample Question Incorporating Multiple Visuals

The final presentation format was that used when no visual was incorporated in the question. This format was as follows:

1. Blank screen

2. Question number narrated on the tape

3. Question and answer choices narrated

Questions of this type were used out of necessity. In some cases, visuals were not available for the task being tested or the visuals relevant to the task provided an obvious answer to the question.

The presentation formats listed above were strictly adhered to throughout the test. This was done so that presentation format was consistent across items of the same type. All questions and response narrations were reviewed by naive persons to ensure that correct answers were not identified by changes in tonal qualities or emphasis in the narration.

Preliminary Test Tryout

A pilot tryout was conducted for both the Law Enforcement and Security forms of the SPPT. Tryout of the Law Enforcement form was conducted at Lackland AFB, Texas, using experienced Security Policemen from the 3700th Security Police Squadron and recent graduates from the Security Police Technical School. Tryout of the Security form was conducted at Warren AFB, Wyoming, using experienced and recently graduated Security Policemen from the 809th Security Police Squadron.

Each form of the test was tried out on an experienced and an inexperienced (recently graduated) subject group. The inexperienced group was composed of Apprentice Security Policemen who had just completed training, having been on the job less than three months. The experienced group was composed of Security Policemen who had been on the job between six and twelve months. Table IX below shows the number of apprentice and experienced Security Policemen used in the tryout groups for both the Law Enforcement and Security forms of the SPPT.

Table IX
Number of Subjects in Tryout Groups

Test Form	Tryout Groups		
	Apprentice	Experienced	Total
Law Enforcement	25	25	50
Security	22	20	42

For each form of the test, the apprentice and experienced groups were tested separately. The procedure followed for the tryout was the same for all four groups. After the subjects were assembled in the testing room, each subject was given a test booklet containing the questions and answer choices, a standard multiple choice answer sheet, and a pencil. The test administrator read a set of instructions which required the subjects to fill in biographical items of information on the answer sheet. A sample question was presented next via the tape/slide presentation. After answering the subjects' questions, the administrator started the tape recorder which presented the first test question. The recorder was stopped after each question was presented and was not restarted until all subjects had completed that question. Presentation of each of the preliminary forms of the test required approximately two hours. The answer sheets were scored using a punched key and items were marked either correct or incorrect.

Test Item Analysis

Since the tryout groups were not large, sophisticated analysis techniques were not feasible. Two item analysis statistics were developed for each item and the items incorporated in the final forms of the SPPT were selected on the basis of these two statistics. The first statistic calculated was a phi-coefficient. This coefficient contrasted the number of Apprentice Security Policemen who answered an item correctly and the number of experienced Security Policemen who answered the item correctly. The coefficient was positive if more experienced than apprentice policemen answered the item correctly. The second item statistic involved only the Apprentice Security Policemen. The number of subjects out of the highest scoring six who answered an item correctly was contrasted against the number of subjects in the lowest scoring six who answered the item correctly. Each item which more high-scoring policemen than low-scoring policemen answered correctly was given a plus (+).

Final Test Item Selection

Items were selected for inclusion in the final forms of the tests on two bases. First, the item statistics calculated were used as selection criteria to ensure that only questions which experienced policemen and high scoring apprentice policemen answered correctly were used on the test. This criterion was employed since an outside criterion measure of the tryout subjects performance ability was not available. Second, the items were selected to ensure coverage of each task in accordance with the importance of the task to performance of the job.

Three groups of items were selected for inclusion in the final test on the basis of the item statistics. The first group of items selected were those which the experienced and high-scoring apprentice policemen answered correctly but the low-scoring apprentice policemen did not. The second group of items selected were those which the experienced policemen answered correctly but the apprentice policemen answered incorrectly. The third group of items selected were those which both the experienced and apprentice policemen answered equally correctly, but the high-scoring apprentice policemen answered correctly while the low-scoring apprentice policemen did not.

Since the final test forms would be administered to airmen already on the job, it was felt that a test length of approximately one hour was desirable. Experience during the tryout indicated that a test of approximately 100 items would take approximately one hour to administer. It was necessary, therefore, to select from the 150 original Law Enforcement test items and the 175 original Security test items, 100 items for each form of the test.

For each test form, item selection was performed in four steps. The first three steps consisted of identifying the items in the three groups listed above. At this point, the number of items available for inclusion in final test forms was greater than 100 for both the Law Enforcement and Security forms. The fourth step consisted of reducing the number of items to 100 on the basis of the number of tasks tested in each task block and the relative importance of the task blocks to the job. The items eliminated were group two and group three items in task blocks which had more items than the task importance indicated was necessary. In the final forms of the test, no items were included which apprentice policemen answered correctly and experienced policemen did not (a negative phi-coefficient) or low-scoring apprentice policemen answered correctly and high-scoring apprentice policemen did not.

Test Reliability

After the 100 items were identified for each of the test forms, the tests were rescored and an estimate of test reliability was obtained. Since the test was not a speeded test (i.e., each subject took as much time with each question as he required) the estimate of reliability was obtained using the half-split technique. First, the items were renumbered, on the basis of 100 items, using a table of random numbers. Then each of the test forms was divided in half according to the odd and even numbered items. The reliability based on the half-split was calculated using a product-moment correlation coefficient.

The reliability estimate for the total test was determined using the Spearman-Brown prophecy formula (Edwards, 1954). The reliability of the two forms of the test are shown in Table X below.

Table X
Reliability of the Test Forms

Test Form	Reliability	
	Half-Split	Total Test
Law Enforcement	.54	.70
Security	.80	.89

Test Coverage

The breakdown on the number of items (common and specialty unique) incorporated in the final test forms is shown in Table XI. The final forms of the SPPT are presented in Appendix C of this report.

Table XI
Number of Test Items Per Task Block
in Final SPPT Forms

Task Block		Job Activity Designation	Test Form	
			Security	Law Enforcement
I	Uniform	Common	0	0
II	Ceremonies	Common	4	10
III	First Aid	Common	9	17
IV	Communications	Common	10	9
V	Weapons	Common	15	8
L-VI	Jurisdiction	Law Enforcement	0	4
L-VII	Traffic	Law Enforcement	0	4
L-VIII	On-Base Patrol	Law Enforcement	0	8
		Common	5	3
L-IX	Off-Base Patrol	Law Enforcement	0	7
L-X	Apprehension	Common	0	1
L-XI	Confinement	Law Enforcement	0	1
L-XII	Administration	Law Enforcement	0	4
L-XIII	Civil Disturbance and Riot Control	Common	0	19
S-VI	Entry Control	Security	7	0
S-VII	Sentry	Security	10	0
S-VIII	Security Alert Team	Security	10	0
S-IX	Alarm Monitor	Security	7	0
S-X	Central Security Control	Security	10	0
S-XI	Civil Disturbance and Riot Control	Common	7	0
	Miscellaneous	Law Enforcement	0	5
		Security	6	0
			Total = 100	Total = 100

SECTION VII

EVALUATION METHOD

An experimental Automated Apprenticeship Training (AAT) course for training both high and low aptitude trainees to be Air Force Security Policemen was developed and administered in the steps listed below.

1. Perform a task analysis and develop a Behavioral Job Description to identify training requirements (i.e., learning objectives).

2. Design an instructional systems, job-specific course employing audio-visual, self-paced training materials for use by both low aptitude (AFQT 10-30) and high aptitude (AFQT 31-95) trainees.

3. Administer the job-specific course as an on-job training course at a representative sample of Air Force bases using Air Force training supervisors and trainees.

4. Develop a job performance test to measure the trainees' ability to perform Security Police tasks identified in the Behavioral Job Description.

For evaluation, the AAT graduates were compared with graduates of two conventional courses for the same Security Police job. One of the comparison groups consisted of 60 graduates, 30 high and 30 low aptitude, from the Security Police Technical School at Lackland AFB, Texas. The other comparison group consisted of 30 high and 30 low aptitude graduates from the conventional on-job training course conducted at the bases utilized for AAT course administration.

In order for the course evaluation to provide information useful as a basis for administrative decisions, it focused on three major areas: (a) job performance ability of course graduates, (b) trainee and training supervisor man-hour requirements for course administration, and (c) administrative problems in utilizing the AAT course in the Air Force on-job training program.

Job performance ability was assessed through the use of multiple criterion measures since performance ability is a multi-dimensional problem. The first measure utilized was a job performance test designed to measure all necessary job behaviors. The second measure was a job knowledge test and the third was a job supervisor's rating of field job performance. Descriptions of the performance measures are presented later in this section of the report.

The number of trainee man-hours and training supervisor man-hours required for course administration were collected for all three courses. Man-hour data included both classroom time and review time for all materials.

Information on administrative problems was obtained through discussions with supervisors during AAT course administration and also through a structured interview at the completion of the course.

The questions of major interest for this study were:

1. Is there any difference in the job performance ability of the graduates from the three training courses?

2. Is there any difference in the level of trainee and training supervisor man-hours required for administration of the three training courses?

3. Is it feasible to utilize AAT courses in the current Air Force on-job training program considering the problems encountered during course administration?

The evaluation conducted to answer these questions was performed as outlined in Figure 14.

Subjects

The subjects consisted of 180 male, first-term enlisted personnel assigned to the Air Force Security Police career field. The subjects ranged in age from 18 to 22 years. All subjects were classified according to their Armed Forces Qualification Test (AFQT) score and were designated either high or low aptitude subjects, as shown in Table XII.

The original plan for the study prescribed that the subjects in the low aptitude group be composed exclusively of New Mental Standards (NMS) airmen. The NMS airmen were low-scoring Category IV men who

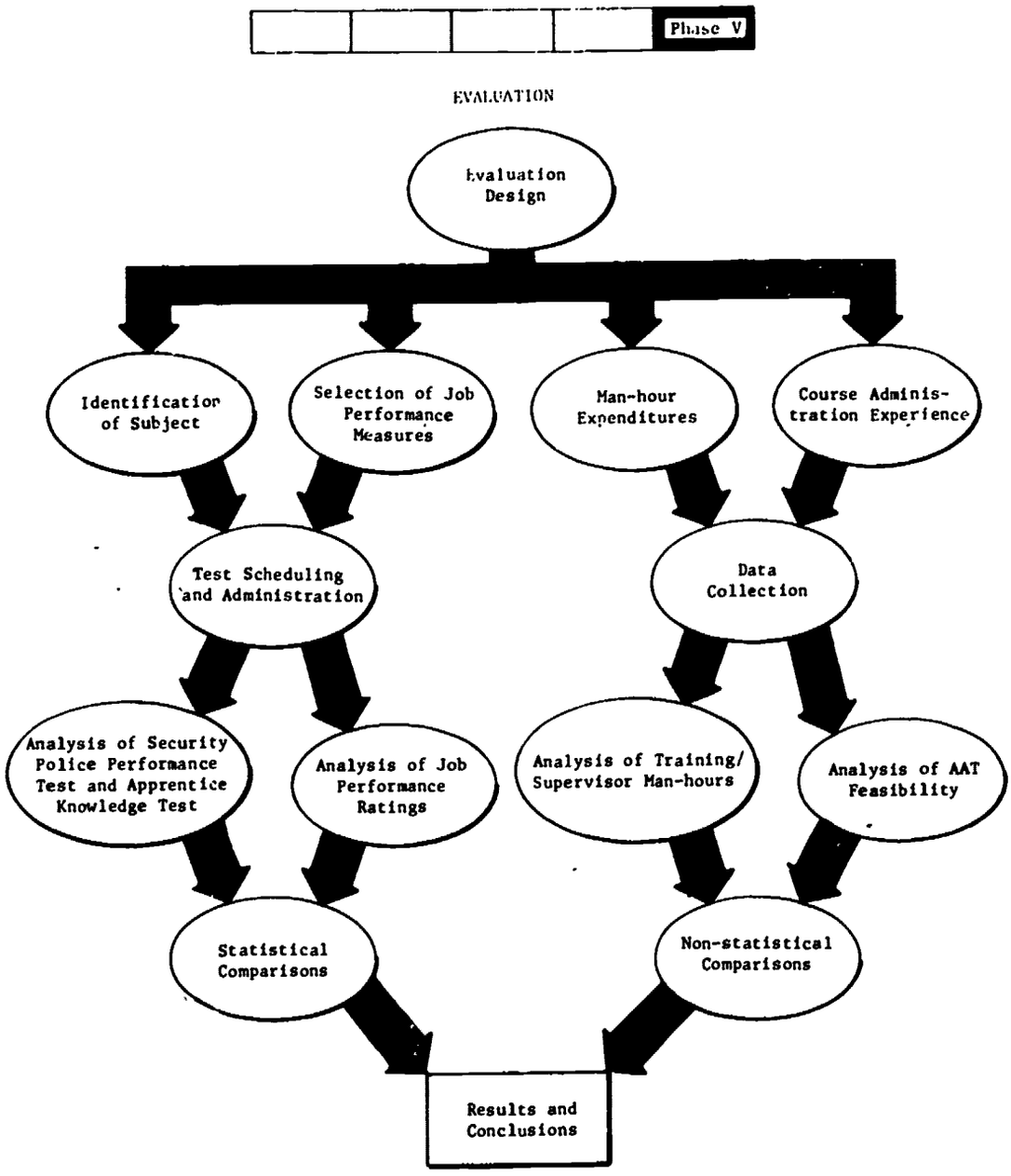


Figure 14. Sequence of Evaluation Activities

received an AFQT percentile score of 10-20. However, the minimum required AFQT score for Basic Airmen entering the Security Police career field was revised upward from AFQT 10 to AFQT 20. Therefore, the subjects were divided into two aptitude groups, low (AFQT 10-30) and high (AFQT 31-98), as shown.

Table XII
Grouping of Airmen by AFQT Score

Aptitude Group	Mental Category	AFQT Percentile Score
High	I II III	93-98 65-92 31-64
Low	IV	*10-30

*Men obtaining an AFQT score of less than 10 percentile are inelegible for military service.

Subject Assignments

The initial identification and subsequent assignment of subjects was performed by the Assignments Branch, Directorate of Personnel, Air Training Command. Of the 180 subjects, one-third (60) were a random sample within each aptitude group of recent graduates of the Security Police Courses 3ABR81130 (Security Specialist) and 3ABR81230 (Law Enforcement Specialist), conducted at Lackland AFB, Texas. The remaining two-thirds (120) of the subjects were random samples within each aptitude group of Security Police Directed Duty Assignment personnel and were assigned to either the CDC or AAT course. Table XIII shows the number of subjects in the two aptitude groups assigned to each of the three training regimes.

Table XIII
Number of Subjects Assigned to Training Regimes by Aptitude

Aptitude Group	ABR	CDC	AAT
High	30	30	30
Low	30	30	30

The mean AFQT percentile scores for each of the six subject groups is shown in Table XIV.

Table XIV
Mean Aptitude of Subjects

Aptitude Group	Training Regime		
	ABR	CDC	AAT
High	69.6	59.2	61.7
Low	20.4	21.2	24.5

Each of the subjects was assigned to one of the six test site locations listed in Table XV.

Table XV
Location of Test Sites

Test Site	Name and Location of Air Force Base	USAF Command
A	Warren AFB, Wyoming	Strategic Air Command
B	Ellsworth AFB, South Dakota	Strategic Air Command
C	Cannon AFB, New Mexico	Tactical Air Command
D	Brooks AFB, Texas	Systems Command
	Lackland AFB, Texas	Air Training Command
	Randolph AFB, Texas*	Air Training Command

*This base received only ABR subjects. It was not included in conduct of the AAT course.

Generally an equal number of low aptitude and high aptitude subjects were assigned to each test site. The distribution of high and low aptitude subjects varied slightly each month but averaged out to be approximately equal at each location at the conclusion of the study.

Four of the 128 Directed Duty Assignment subjects originally assigned to test site locations failed to complete the OJT requirements as the result of unsuitability, unfitness, misconduct, or hardship. Personnel attrition was primarily confined to the low

aptitude group. An additional four DDA subjects and two of the 62 ABR subjects originally assigned either failed to report to their assigned location or were inadvertently assigned to other Air Force installations. All attrition was compensated by excessive personnel assignments to each of the testing sites. The total number of subjects available at the end of the study was 180.

Table XVI shows the total number of subjects in each training regime and aptitude group that remained at each of the test sites.

Table XVI
Distribution of Subjects at Test Sites

Site	ABR		CDC		AAT		Total
	Low	High	Low	High	Low	High	
A	9	10	13	12	8	8	60
B	7	7	7	9	8	9	47
C	5	5	5	3	8	7	33
D	9	8	5	6	6	6	40
Total	30	30	30	30	30	30	180

Measures of Performance

The measures used to assess the performance ability of the subjects were:

1. Security Police Performance Test
2. Apprentice Knowledge Test
3. Supervisor Job Performance Ratings

The performance test and job knowledge test were both incorporated into the evaluation because each measures a different aspect of job performance. The performance test measured ability to work with the "tools" required on the job while the knowledge test measured awareness of the rationale for those "tools" and their utilization. In addition, the knowledge test was one of the criteria for skill level upgrading and being upgraded was as much a part of the job as day-to-day task

performance. Supervisors' ratings were incorporated to supplement the data obtained from the performance test. While the performance test was designed using the highest level of fidelity practicable, it was still an approximation of the job. It was felt that supervisors' ratings of actual job performance might provide some additional useful information. This multiple criterion approach was utilized in order to include as many different aspects of job performance as possible in the evaluation.

Security Police Performance Test

The Law Enforcement and Security forms of the ASA-developed Security Police Performance Test (SPPT) consisted of 100 multiple choice and true-false items. The test questions in the SPPT were performance-analog (i.e., most required responses synonymous with actual conditions and situations encountered on the job). A detailed description of the development of the SPPT is provided in Section VI and sample test booklets are located in Appendix C.

Both the Law Enforcement and Security versions of the SPPT consisted of an audio-visual presentation, a test booklet, and an answer sheet. The SPPT was presented on a sound-filmstrip projector which was identical to the training device employed in the AAT course. Each form of the sound-synchronized test presentation was consolidated into two projector cartridges. Each test booklet contained the exact questions and associated answer choices as narrated on the sound-track of the test presentation. A standard Air Force answer sheet (ATC Form 26A) was used by each subject for recording his responses.

Test Procedure. Each subject was seated in front of an individual sound-filmstrip projector and provided with the test materials. The test administrator read a set of pretest instructions which described the purpose of the test and the location and operation of machine controls. If the subject had no questions, the test administrator inserted the first of the two test cartridges into the projector and instructed the subject to begin the test. Each test item was accompanied by one or more visuals on the projector screen. The projector was programmed to stop automatically after presenting each test item to permit the subject to mark his answer choice on the answer sheet. The subject was given the next item only after depressing the restart button on the control panel of the projector. At the conclusion of the first-half of the test, the subject was instructed by tape narration to notify the test administrator to place the cartridge containing the second-half of the test into the projector. At the conclusion of the second-half of the test, the subject returned his test booklet and answer sheet to the test administrator. Test completion times averaged

one hour, ranging from a minimum of 45 minutes to a maximum of one-hour and 15 minutes. The data obtained were the number of items correct out of 100.

Apprentice Knowledge Test

The Apprentice Knowledge Test (AKT) is an Air Force test used to establish the eligibility of Basic Airmen for advancement to the Apprentice or semi-skilled proficiency level. This test is a paper and pencil test composed entirely of written questions. Test performance depends not only on job knowledge, but on ability to read. Since the test is timed, emphasis is placed not only on reading ability but on the ability to read and comprehend written material quickly. The AKT, like the SPPT, was available in two versions, one for Security Specialist (AFSC 81130) and the other for Law Enforcement Specialist (AFSC 81230). Each version of the AKT contained 65 multiple choice questions covering job knowledge of either security or law enforcement duties. Both forms of the test had a one-hour time limit.

Test Procedure. The AKT was administered to both CDC and AAT subjects by the Consolidated Base Personnel Office (CBPO) at each of the test sites. The subject read each test question and indicated on a standard answer sheet which of the answer alternatives best answered the question.

The data obtained from the AKT were percentile scores based on the published norms for those who had previously taken the test. A percentile score of 30 was required for qualification for award of the Apprentice proficiency level for both Security Specialist and Law Enforcement Specialist. A score of 30 percentile for the Security Specialist was equivalent to 39 correct answers out of 65 questions or 60 percent of the total number of test questions. Likewise, a score of 30 percentile for the Law Enforcement Specialist was equivalent to 27 correct answers or 42 percent of the total questions. An additional five percentile points were added to the percentile score of either specialist for each additional correct answer over 39 or 27, respectively. However, there was no increase in percentile score for any additional correct answers in excess of 52 for the security test or 40 for the law enforcement test. In terms of test score, the actual difference between an airman who achieved the maximum AKT score (95 percentile) and one who failed the AKT (25 percentile) was 14 test items or 22 percent of the total number of test questions. The scoring systems for the AKT are presented in Appendix D.

Job Supervisor Performance Ratings

A simple, six-point rating scale was designed for use by the job supervisors in rating the subjects. A six-point scale was selected in order to reduce the error of central tendency historically evident in job supervisor's ratings. The form was designed to provide an overall rating of the subject's ability to perform specific duties after a period of job experience. A sample form is presented in Appendix E. A more detailed form requiring direct observation of the subjects performing duties was not utilized because of the nature of Security Police operations. Policemen usually work independently or in pairs and pairs are usually separated geographically. Since a job supervisor must monitor and interact with as many as four or five pairs, it was not feasible for him to remain with a single pair to observe and rate performance.

The job performance rating was performed once for each subject, approximately two months after he began full-time field duty. Job supervisors were sent an envelope containing forms for all the subjects on whom ratings were due. The job supervisors were instructed to complete one form at a time and return that form to the envelope before doing the next form. Rating was accomplished by filling in the description of the job(s) performed by the subject during the time he worked for the job supervisor and then awarding a rating of 1 through 6 for each job listed. A space for recording the length of time the subject worked for this job supervisor was also included on the form. When all forms in the envelope were completed, they were mailed directly back to the contractor's office.

Typically, subjects were rated on two or more jobs, therefore the ratings were summed and divided by the number of jobs rated. The data obtained from this measure were mean ratings for each subject based on the number of jobs performed.

Trainee and Training Supervisor Man-hours

Estimates of trainee and training supervisor man-hours required for course administration were obtained by records examination and training supervisor interviews for the AAT and CDC courses. The estimates of trainee and instructor man-hours required for administration of the ABR course were obtained from the published times in the most recent Plan of Instruction (POI) for the 3ABR81130 course.

Trainees in the AAT course at each site were requested to note the number of minutes required to complete each of the lessons in their workbooks. Workbooks were examined during each data collection visit to record trainees' times. Although the trainees did not

faithfully note working time for all lessons, there was sufficient information to permit calculation of average course completion time. However, there was not sufficient information to obtain an average for the high and low aptitude trainees independently. For each lesson, noted completion times were averaged and then these averaged times were summed to obtain average course completion time. However, this average completion time included only time to work through the material presented on the teaching device; times for end-of-block reviews and weapons training were not included.

AAT end-of-block review times were obtained by interviewing training supervisors. The supervisors were asked to estimate the number of hours spent reviewing each block of instruction. It was determined that the amount of time spent reviewing each block was primarily dependent upon the content covered and not the number of subjects reviewed. The estimated average time spent reviewing a typical block was obtained because the training supervisors could not specifically recall and had not recorded the exact times spent on each block.

Time for weapons training was obtained by asking the training supervisors for the number of days and hours the trainees spent at the weapons range for training. This time was very similar from base to base. All trainees completed weapons training and obtained qualifying marksmanship scores in the time allotted. Weapons training time was the same for both the CDC and AAT trainees.

Records of course or lesson completion times for CDC trainees were not available as they were for the AAT trainees. Estimates of CDC completion times were therefore obtained from training supervisor interviews. The training supervisors were asked to estimate the length of time the average trainee spent in completing the CDC materials. Time for CDC end-of-block reviews and weapons training was obtained in the same way as for the AAT trainees.

The times specified for ABR course conduct were divided into two categories. First, the time spent teaching the content was identified and was used as the course completion time data. Second, the time spent in evaluation at the end of each block was identified as review time. This was done because the end-of-block evaluations conducted in the ABR course were used for the same purpose as end-of-block reviews conducted in the AAT course. These reviews were used to identify trainee weaknesses for purposes of assigning remedial instruction. Review times were averaged across ABR course blocks to obtain times comparable to the times for the AAT and CDC courses. The weapons training time for the ABR course was stated in the course Plan of Instruction.

AAT Feasibility

Training supervisors' impressions of CDC and AAT course advantages and shortcomings were used to assess the feasibility of conducting AAT courses in the Air Force. In addition to the monthly discussions with training supervisors, end-of-course structured interviews were also conducted. During the structured interviews, the supervisors were asked the following questions:

1. What is the average total number of hours you spend with a typical group of DDA trainees who use the CDC materials?

2. How many hours do you spend with CDC trainees in end-of-course review and preparation for the Apprentice Knowledge Test?

3. What is the average amount of time you spend with a typical group of AAT trainees in workbook review after each block of instruction?

4. How many hours do you spend with AAT trainees in end-of-course review and preparation for the Apprentice Knowledge Test?

5. What are the advantages of the AAT course?

6. What are the shortcomings of the AAT course?

7. What would you recommend to improve the AAT course?

8. What are the advantages of the CDC course?

9. What are the shortcomings of the CDC course?

10. What would you recommend to improve the CDC course?

The type of questions posed to the training supervisors required them to re-examine their experience and time utilization during administration of the two courses. Although the discussions were informal in nature, the training supervisors were asked to be as specific as possible. When necessary, the interviewer redirected the discussion or pressed for details to clarify responses to the questions. Brief notes of key information were recorded during the interviews and summarized after the interviews were concluded. Information obtained

during course administration was combined with the end-of-course interview information to provide the maximum possible sample of training supervisor comments and problems.

Testing Schedule

The ASA-developed SPPT was scheduled to be administered to all subjects approximately two months after arrival on-site. The two-month time period was sufficient for both CDC and AAT subjects to complete their respective training and to acquire practical on-job experience in Security Police duties. For the ABR subjects, the two-month time period afforded them the opportunity to acquire proficiency in job performance. The job experience period was limited to two months because it was felt that a longer period might mask any differences in job performance attributable to differences in the training regimes.

Individual subjects were scheduled for testing several weeks in advance to ensure compatibility with military duty requirements and personal time off. However, nonscheduled activities such as security alerts, operational readiness inspections, and emergency leaves of absence did necessitate rescheduling some individuals. The schedule for SPPT administration is shown in Table XVII.

Table XVII
SPPT Testing Schedule

Test Site	Number of Subjects Tested Per Month-1971										1972	Total
	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	
A	5	9	4	5	5	5	4	8	9		2	61
B	3	5	4	4	4	5	5	7	5	5	.	47
C	.	6	2	4	1	2	5	6	4	2	1	33
D	.	4	3	7	1	5	3	11	4		.	39
Total	8	24	13	20	11	17	17	32	22	13	3	180

With the exception of Site A, it was not economically feasible for the test administrator to travel to the test sites more frequently than once each month. As a result, those subjects who failed to

keep an appointment for testing were rescheduled for testing in the following month. During the course of the study, there were a total of 26 occurrences of missed appointments by subjects, only four of which involved two successive missed appointments. The missed appointments were approximately equally distributed among the training regimes and aptitude groups. No more than five subjects were affected in any one group.

Statistical Evaluation Designs

Performance and Knowledge Test Evaluation

The primary design employed to evaluate the results of the SPPT and the AKT was a Training Regime by Aptitude Group two-way analysis of variance (ANOVA), as shown in Figure 15. A two-way ANOVA was used instead of a groups within treatments design in order to identify separately the variance attributable to aptitude groups and the interaction between aptitude groups and training regimes.

Aptitude Group	Training Regime		
	ABR	CDC	AAT
High			
Low			

Figure 15. Model of Two-way ANOVA

Statistical analyses were performed for comparison of differences between the three training regimes including effects of aptitude level. Figure 16 provides a summary of the method used for calculating the ANOVAs.

Where significant training regime effects were demonstrated using the ANOVA, the Scheffé test of multiple comparisons based on sums (Edwards, 1960, pp. 154-156) was employed as a method of assessing two-way contrasts between training regimes. The two-way contrasts evaluated were:

1. ABR vs. CDC
2. ABR vs. AAT
3. CDC vs. AAT

The questions to be answered by each of these comparisons were as follows:

ABR vs. CDC: Is there a significant difference between the ABR and the CDC groups regardless of aptitude?

ABR vs. AAT: Is there a significant difference between the ABR and the AAT groups regardless of aptitude?

CDC vs. AAT: Is there a significant difference between the CDC and the AAT groups regardless of aptitude?

Source	df	Computation
Training Regime (TR)	2	SS columns
Aptitude Group (AG)	1	SS rows
TR X AG	2	SS cells - SS columns - SS rows
Within Cells	174	SS subjects within cells
Total	179	SS Total

Figure 16. Two-way ANOVA Summary Table

Job Performance Rating Evaluation

The design used to evaluate the job supervisor's ratings of job performance ability was the Kruskal-Wallis one-way analysis of variance by ranks (Siegel, 1956, pp. 184-193). Figure 17 illustrates the models for comparison of differences between training regimes, including aptitude groups within training regime.

The Kruskal-Wallis one-way ANOVA by ranks is an extremely useful test for deciding whether the subjects within training regimes are from different populations. This test was used because it assumes that the variable under investigation has an underlying continuous

distribution, but it requires only ordinal data for measurement of that variable. Compared with the most powerful parametric test, the F test, the Kruskal-Wallis test has a power efficiency of $\frac{3}{\pi}$ or 95.5 percent.

Training Regimes (Aptitude Groups Combined)

ABR	CDC	AAT
Rank	Rank	Rank

Aptitude Groups Within Training Regime

ABR		CDC		AAT	
Low	High	Low	High	Low	High
Rank	Rank	Rank	Rank	Rank	Rank

Figure 17. Models of Kruskal-Wallis One-way ANOVA

Man-hour Evaluation Design

No statistical evaluation was performed in evaluating the man-hour expenditures for administration of the courses. These evaluations consisted of direct comparisons of trainee and training supervisor man-hours. Trainee man-hours for course completion were based on the amount of time expended by a single trainee. Training supervisor man-hours for course administration were based on the amount of time expended for a group of approximately 15 trainees. No distinction was made between the man-hours required for high and low aptitude trainees because the average man-hour expenditures were approximately equal for all three courses.

AAT Feasibility Evaluation Design

Training supervisor comments regarding the two approaches to OJT were qualitative in nature, therefore no numerical analyses were attempted.

The training supervisors' comments were summarized by areas of concern to avoid repetition and to facilitate their evaluation. Many of the comments expressed by the training supervisors pertained to the same course materials, instructional techniques, administration practices, and course content. Although some of the comments in each area differed in details, there was substantial agreement.

Comments and problems in each of the areas were dichotomized by generality of concern (i.e., the particular course versus the concept of that course). It was felt that comments and problems regarding the course concepts would require more difficult solutions than those regarding the specific course presented. For example, problems concerned with the AAT approach to training would be more difficult to solve than problems concerned with course materials for a specific lesson. Comments and problems were classed as course-specific if they were concerned with errors in the materials, pace of the presentation, equipment troubles, etc. Comments and problems were classed as general to the approach if they were concerned with concepts of the approach (e.g., teaching task performance instead of job knowledge or using audio-visual presentations instead of textbook presentations). The result was a condensed summary of the comments in list form.

SECTION VIII

EVALUATION RESULTS

Job Performance Measures

Security Police Performance Test

SPPT mean scores achieved by high and low aptitude groups in each of the training regimes are presented in Table XVIII.

Table XVIII
SPPT Mean Scores

Aptitude Group	Training Regime		
	ABR	CDC	AAT
High	75.03	69.97	75.23
Low	68.70	62.73	69.03

Hartley's F max procedure was applied to test these data for homogeneity of variance. Since heterogeneity of variance was not demonstrated, a Training Regime by Aptitude Group ANOVA was conducted. The results of the ANOVA for this performance measure are shown in Table XIX.

Table XIX.
Summary Table for SPPT Analysis of Variance

Source	df	Sum of Squares	Mean Squares	F	p
Training Regime (TR)	2	1,279.02	639.51	11.91	< .001
Aptitude Group (AG)	1	1,953.60	1,953.60	36.39	<.001
TR X AG	2	9.48	4.74	.3	NS
Within Cells	174	9,340.45	53.68		
Total	179	12,582.55			

Significant main effects occurred for both training regime and subject aptitude; however, there was no significant ($p > .05$) interaction between training regimes and aptitude groups. High aptitude subjects did consistently better than low aptitude subjects regardless of the training regime.

Omega squared (ω^2) (Hays, 1963) was calculated for each significant main effect. The index ω^2 provides an estimate of the proportion of total variance which can be attributed to any individual effect. These calculations showed that the proportions of variance which could be attributed to training and aptitude effects on SPPT performance were .093 and .146, respectively. Thus the total proportion of variance which could be attributed to main effects was .239.

Since there was no significant training regime by aptitude group interaction, the simple effects due to the training regimes were investigated via the Scheffé test for multiple comparisons. Table XX shows the grand mean for each training regime and the significance of the two-way contrasts between regimes.

Table XX
SPPT Training Regime Comparisons

Training Regime Means			Significance of Two-Way Contrasts (Scheffe Test)		
ABR	CDC	AAT	ABR vs. CDC	ABR vs. AAT	CDC vs. AAT
71.86	66.35	72.13	$P < .05$	NS	$P < .05$

No significant difference occurred between subjects in the ABR and AAT regimes. However, the subjects in both the ABR and AAT regimes had significantly higher SPPT scores than did subjects in the CDC regime.

Apprentice Knowledge Test

Table XXI presents the AKT mean scores achieved by the high and low aptitude groups in two training regimes. The AKT was not administered to the ABR subjects.

Table XXI
AKT Mean Scores

Aptitude Group	Training Regime	
	CDC	AAT
High	82.17	79.33
Low	72.93	76.23

Again, Hartley's F max procedure indicated no variance heterogeneity and a two-way ANOVA was calculated; the results are shown in Table XXII.

Table XXII
Summary Table for AKT Analysis of Variance

Source	df	Sum of Squares	Mean Squares	F	p
Training Regime (TR)	1	1.63	1.63	.	NS
Aptitude Group (AG)	1	1,140.83	1,140.83	3.58	NS
TR X AG	1	282.13	282.13	.	NS
Within Cells	116	36,928.08	318.34		
Total	119	38,352.67	.		

No significant differences were found between CDC and AAT training regimes, or between the aptitude groups. The interaction between training regimes and aptitude groups was also not significant. Since no significant effects were obtained, ω^2 statistics were not calculated.

Job Supervisor's Ratings

Table XXIII shows the number of subjects rated and the average rating of job performance ability for each aptitude group in each training regime.

Table XXIII
Job Performance Ratings

Subjects	Training Regime					
	ABR		CDC		AAT	
	Low	High	Low	High	Low	High
No. Rated	16	16	16	24	20	20
Avg. Rating	4.5	4.5	4.2	4.4	4.0	4.7

Of the 180 subjects in the study, only 125 remained at their original duty assignment at the time ratings were required. Of the 125 subjects available, ratings were actually received on 112 subjects as shown in Table XXIII. The average rating for subjects in each of the aptitude groups in the three training regimes was based on a maximum possible rating of 6.0.

The results of comparisons between the three training regimes and the two aptitude groups within each training regime were obtained using the Kruskal-Wallis ANOVA by ranks (Siegel, 1953). None of the differences in job performance ratings were significant.

Trainee and Training Supervisor Man-hours

Trainee Man-hours

Table XXIV shows the average number of trainee man-hours required to complete each of the three training regime courses.

On the average, AAT trainees required approximately one-third less time to complete this course than did ABR and CDC trainees. The time spent in content reviews was approximately the same for the CDC and AAT trainees and about one-third less for the ABR trainees.

Although there was not sufficient data for independent comparisons between the high and low aptitude groups within each course, where data were available, the differences were small. Typically the differences were on the order of 10 minutes for a one hour lesson. No comparison of times for aptitude groups across courses was possible because of the differences in course units. For each course, the times were related to different content, different material sequence, different levels of difficulty, different levels of required reading ability, etc.

Table XXIV
Trainee Man-hours for Course Completion

Time Categories	Training Regime		
	ABR[1]	CDC	AAT
Classroom Time[1]	88[2]	80	56
Review Time	8	12	12
Total Course	96	92	68

1. ABR completion times were adjusted for class s of approximately 15 trainees to be comparable to the CDC and AAT estimates.

2. Classroom time includes time spent on the weapons range.

Table XXV
Trainee Man-hours for AKT Review

Training Regime	
CDC	AAT
22	23

Training Supervisor Man-hours

The average number of training supervisor man-hours for administration of the three training regime courses are shown in Table XXVI.

Table XXVI
Training Supervisor Man-hours for Course Administration

Training Site	Training Regime		
	ABR	CDC[1]	AAT[1]
A		115	36
B		60	40
C		120	44
D		108	35
Technical School	96[2]		
$\overline{X}$	96	100	38

1. CDC and AAT supervisor time includes the number of hours spent in review for the AKT.

2. The ABR course was conducted only at the Security Police Technical School at Lackland AFB, Texas.

With the exception of Site B, training supervisors spent almost three times as many man-hours administering the CDC course than for the AAT course. The administration times shown were based on a ratio of approximately 15 trainees per training supervisor.

AAT Feasibility

The training supervisors' comments regarding the AAT and CDC approaches covered the following areas:

1. Use of audio-visual presentations
2. Use of apprenticeship techniques
3. Teaching job performance vs. job knowledges
4. Use of Air Force manuals

The training supervisors unanimously felt that using audio-visual presentations and apprenticeship techniques (i.e., describe task, show step-by-step procedure, provide "hands-on" guided practice) was superior to the conventional CDC approach for teaching job performance to DDA airmen. A typical supervisor's comment was: "Trainees were able to accurately complete a vehicle accident report during their first investigation of an on-base accident." From the standpoint of trainee preparation for the AKT, the training supervisors felt that teaching job knowledges, as in the CDC approach, was superior to teaching job performance. All training supervisors indicated that they preferred the job performance approach (AAT); however, they did not feel this approach was consistent with the job knowledge criterion for proficiency advancement (AKT): "Does a good job of preparing him to do the job but does not prepare trainee for three-level AKT."

The training supervisors felt that teaching job performance and using audio-visual techniques was superior to using a textbook presentation for the low aptitude trainees who had reading difficulties; "Trainees better able to grasp materials because of visuals." At each training site, fewer cases of difficulty in grasping task concepts were reported for trainees in the AAT course than for trainees in the CDC course. The low aptitude AAT trainees were reportedly better able to perform tasks based on complex concepts (e.g., entry control concepts) than some of the high aptitude CDC trainees.

From the standpoint of review capability, the training supervisors felt that using Air Force manuals as textbooks was superior to using machine presentations; "You have the manual right there -- you can go back and review". The necessity to go through an entire lesson cartridge in order to review a small learning segment was felt to be undesirable. Although assigning review material in Air Force manuals was permissible for the AAT trainees, training supervisors did not tend to do this. The training supervisors also felt that a review of completed questions in the AAT workbooks did not provide sufficiently detailed review information.

With one exception, no action was taken on the basis of training supervisor comments during AAT course administration. The single exception occurred when it was discovered that training supervisors were not using the Air Force manuals as reference materials for remedial assignments. The training supervisors were reminded that the three alternatives for trainee remedial or review activities were:

1. Work through a lesson cartridge a second time
2. Participate in a supervisor lecture/discussion of specific material
3. Study specific segments of Air Force manuals or regulations

The training supervisors were instructed to use the activity they judged appropriate to the trainee's problem.

The training supervisors' comments with regard to the Security Police AAT course covered the following areas:

1. Coverage of tasks
2. Rate of presentation
3. Type of teaching device

The training supervisors at various locations felt that the course was not sufficiently exhaustive of local Security Police tasks. This was particularly true of security tasks at bases which had missiles to be safeguarded. No action was taken to resolve this problem because the course was designed to be applicable to Security Police tasks performed at all bases. Neither time nor funds were available to include tasks specific to a small number of bases.

Many training supervisors felt that the rate of presentation throughout the course was too slow; "Voice narration is too slow and language level is fifth and sixth grade". They reported that some of the high aptitude trainees had complained and indicated a desire to have the rate increased. However, there were no instances of a low aptitude trainee having this same complaint.

The training supervisors at all but one of the training sites indicated a desire for a teaching device capable of projecting the visuals to a group instead of one or two individuals. Since this course was specifically designed for presentation on an individual basis, the teaching devices originally selected were appropriate. Questions regarding effectiveness of the AAT approach for group presentations should be explored in a future study.

SECTION IX

DISCUSSION AND CONCLUSIONS

Job Performance

In terms of job performance as measured by the performance test, the AAT trainees performed as well as the ABR trainees and both of these groups were superior to the CDC group. These results are somewhat suprising considering the differences in the number of trainee and supervisor man-hours required for administration of the three training regime courses. Figure 18 illustrates the relationship.

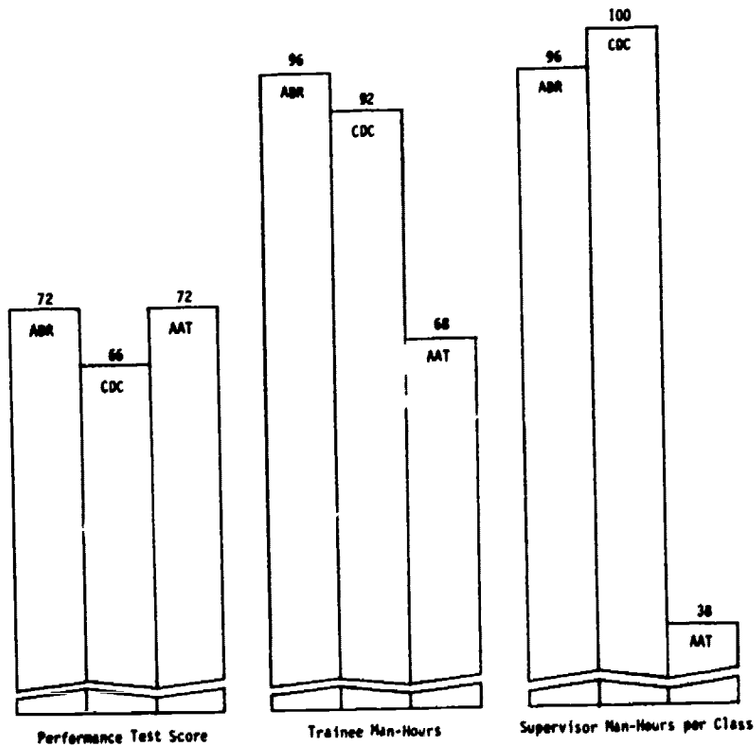


Figure 18. Relationship of Performance Ability and Course Man-Hour Requirements.

These differences do not appear to be attributable to differences in length of experience since all trainees had been in the Air Force approximately the same length of time and all had spent approximately the same length of time on the job.

In addition, the differences revealed by the performance test do not appear to have resulted from the test content or format favoring one group over the others. If this were the case, the AAT group should have performed better than both of the other groups, instead of just the CDC group. It is reasonable to conclude, therefore, that the performance test was more sensitive to actual differences in ability to perform the job than the other performance measures utilized. This is not a suprising finding since it was the only instrument specifically designed to measure performance. The Security Police Performance Test was based on job tasks, and was prepared at a high level of simulation fidelity.

No differences were found between the three training regimes with regard to job supervisor's ratings. Keeping in mind the performance rating problems of halo effect, lienency, and central tendency, these results are not suprising. In addition, it has been noted (Ronan and Prien, 1966) that a sound basis exists for seriously questioning the reliability of human judgments of the performance of others. Job supervisor's ratings of performance ability either were not sufficiently reliable or sufficiently sensitive to detect actual performance differences or, after two months on the job, there were no discernable differences between the three groups. It was not possible to tell which of these causes was responsible for the results obtained.

There were no differences between the AAT and CDC trainees with regard to AKT scores. This was somewhat unexpected since the AAT course was developed to teach the trainees to perform the job and placed little or no emphasis on teaching the job knowledges required for upgrading. The CDC course, on the other hand, emphasized verbal job knowledges as presented in the manuals and regulations pertinent to the career field. The fact that nearly the same amount of training supervisor's time was spent reviewing the AAT and CDC trainees for the AKT and there were no differences in AKT performance would seem to indicate that first learning to perform job tasks simplifies learning to verbalize the job knowledges for those tasks. These results do not necessarily conflict with the results of the performance test since the level of abstraction of the two measures is markedly different. In the case of the performance test the subject is required to identify what he would do, while in the case of the knowledge test he is required to identify the rationale for his actions. Trainees could easily have the same level of awareness of job knowledges and have a very different level of awareness of job performance.

Three CDC and twelve AAT trainees failed to pass the AKT on the first administration. Since twelve failures seemed unreasonably high for the AAT group these instances were investigated further. It was discovered that eleven of the twelve AAT trainees were not given the end-of-course review by their training supervisors. Although the review time for the AAT trainees was no greater than that for the CDC trainees, this review appears to be necessary to provide practice in verbalizing job knowledges. All fifteen trainees passed the AKT on the second administration.

Differences due to aptitude were found only on the performance test. Under each of the training regimes the high aptitude trainees were superior to the low aptitude trainees in terms of job performance ability. Although there was no significant interaction between training regime and aptitude group, it is interesting to note that the low aptitude subjects under both the ABR and AAT regimes scored as high, on the average, as the high aptitude trainees under the CDC regime as shown in Figure 19.

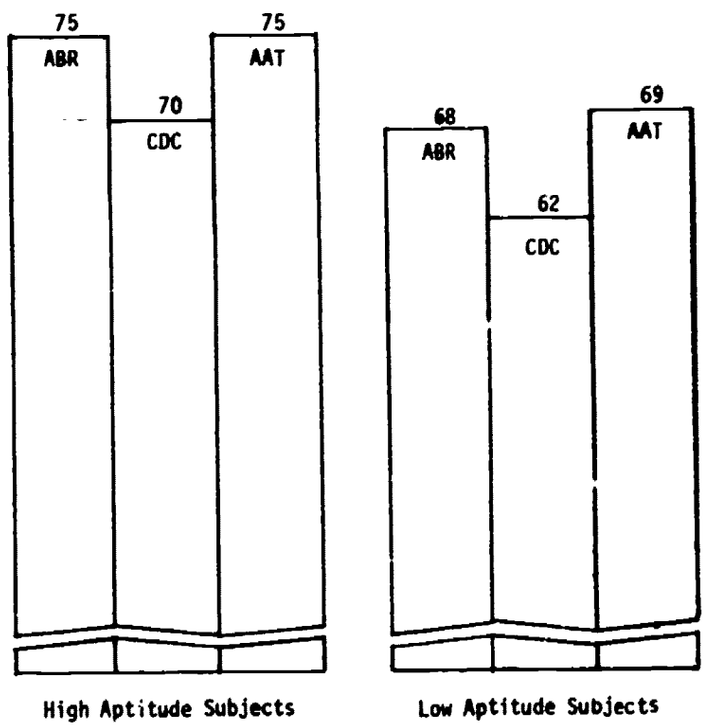


Figure 19. Mean Performance Test Scores for Low and High Aptitude Subjects

This result would seem to indicate that the AAT approach to training Directed Duty Assignment airmen can produce both high and low aptitude trainees with performance abilities equal to those of technical school trainees and that the low aptitude AAT trainee is comparable in job performance ability to the high aptitude CDC trainee. Differences due to trainee aptitude were not found on either the AKT or job supervisor's ratings.

Man-hour Expenditures

The job performance ability of the three groups was attained with substantially different expenditures of both trainee and training supervisor man-hours. The trainee time required to complete the AAT course was approximately 30 percent less than that for either the ABR or CDC training courses. The training supervisor time required for the AAT course was about 60 percent less than that for either the ABR or CDC training courses. These reductions in required man-hour expenditures for the AAT course did not result in any decrements in ability to perform the job. In addition, the training supervisors spent no more time reviewing the AAT trainees in preparation for the AKT than they spent reviewing the CDC trainees.

AAT Feasibility

The lack of problems with either the low or high aptitude AAT trainees in terms of completing the course, learning necessary job behaviors, and acquiring job knowledges indicates that it is feasible to utilize AAT type courses in the current Air Force on-job training program. Although most of the training supervisors preferred the performance oriented, audio-visual AAT course which the trainees worked through at their own pace, some problems were evident. Problems dealing with the content and materials of this specific course would be easily corrected; however, those dealing with concepts of the AAT approach would require more intricate solutions. It appears that one change in the AAT approach, incorporating job knowledge content relevant to the AKT would be required to increase training supervisor acceptance of AAT courses. Even though no more time was required for end-of-course reviews for the AAT and CDC trainees, almost all training supervisors felt that the AAT course did not contain sufficient AKT relevant information. Solution of the other problems involving the AAT approach will require a different approach to supervisor orientation. Observations of training supervisors during course administration and supervisors' comments indicated the need for more experience in performing the role of a monitor/tutor for courses involving self-instructional materials.

Implications

Several advantages would be realized by the Air Force if it were to implement courses using the AAT approach to on-job training. Job performance ability of both the high and low aptitude AAT graduates would be more like that of high and low aptitude technical school graduates. This job performance improvement would be realized while simultaneously saving trainee and training supervisor man-hours for administration of the training.

In addition, it would be possible to train high and low aptitude airmen in procedural job tasks with fewer learning difficulties during training than are experienced with present CDC courses. This result would also be achieved with substantially lower levels of both training supervisor and trainee man-hour expenditures. AAT courses would allow an increase in the ratio of trainees to supervisors or provide more time for other supervisor tasks, while simultaneously reducing trainee manpower costs and advancing airmen to productive performance levels earlier in their service.

These implications for manpower savings appear to be particularly relevant as the condition of zero military draft and an all volunteer force is approached. It seems plausible that even greater manpower savings would accrue if the AAT approach to training could be integrated into the technical school framework. This suggests that a reasonable next step might be a study of the effectiveness of AAT techniques for both small and large group instruction.

SECTION X

SUMMARY

Synopsis of Study

An Automated Apprenticeship Training (AAT) course for teaching job performance of Air Force Security Police duties to high and low aptitude airmen was developed, administered, and evaluated in the following manner:

1. Performed a task analysis and developed a behavioral job description to identify training requirements and learning objectives.

2. Designed and developed a job performance test to measure the policemen's ability to perform necessary tasks identified in the behavioral job description.

3. Designed a systematized, job-specific course for both the Law Enforcement and Security Specialist and prepared audio-visual training materials for use by both high and low aptitude trainees.

4. Administered the training courses in an on-job training environment at a representative sample of Air Force bases using Air Force trainees and training supervisors.

5. Compared graduates of the AAT course with graduates of the conventional technical school and on-job training courses including a comparison of man-hour requirements.

The task analysis method identified the aspects of the job having implications for decisions on how training for the job should be conducted. This method focused on tasks, behavioral activities, and behavioral details of job performance. Normal repertoire behaviors (i.e., those which can be performed given only an instruction) and special behaviors (i.e., those which can be performed only after appropriate training) are identified and described.

The behavioral job description of the Law Enforcement Specialist (AFSC 81230) and Security Specialist (AFSC 81130) included 19 task blocks covering 196 tasks and served as the basis for course learning objectives and the job performance test.

Each of the two forms (Law Enforcement and Security) of the job specific test contained 100 items which sampled behaviors required of the respective specialists. Tasks from all task blocks were sampled by the tests. The distribution of tasks sampled was based on the relative importance of the various task blocks to complete job performance and on the frequence of task performance on the job. Particular emphasis was placed upon special behaviors (i.e., those learned only through experience or appropriate training).

The content of the two speciality unique courses was designed to develop the required job behavior patterns and task performance in both the high and low aptitude trainees and closely matched the behavioral job description. Materials common to both specialties were placed first in sequence in both courses and were followed by the speciality unique materials. Lesson content was based primarily on learning objectives developed from the behavioral details descriptions. The sequence of lessons within major divisions of the courses was determined by placing prerequisites first and higher order tasks nearer the end. Learning aids such as equipment items and forms were an integral part of the courses. With the exception of weapons training, all course materials were systematized audio-visual materials which the trainees worked through at their own pace. Audio-visual materials were used to reduce the reading requirements for the benefit of the low aptitude trainees. The materials for each lesson consisted of an audio-visual program, a workbook, and any required learning aids. The apprenticeship format of the instruction was designed to show the trainee what to do, explain how to do it, and provide practice in doing the task. An example of an instructional session is shown in Figure 20.

The AAT courses for Law Enforcement and Security Specialist were conducted at five Air Force bases as on-job training courses. The courses were conducted simultaneously from April 1971 through November 1971. At each base, the course was administered by the regular Security Police on-job training supervisor. The trainees were 60 first-term airmen assigned to bases after completing basic training. Thirty of the trainees were regular standards airmen who had high (31 to 98 percentile) Armed Forces Qualification Test (AFQT) scores and 30 were like New Mental Standards and had low (10 to 30 percentile) AFQT scores. Both the high and low aptitude trainees completed the course in the allotted month and none were washed out.

Trainees from the conventional on-job training Career Development course (CDC) and Airman Basic Resident (ABR) technical school course for the same AFSC were selected for purposes of comparison with the AAT trainees. Sixty trainees were selected from each of the conventional courses. Thirty of the trainees from both the CDC and ABR

course were regular standards airmen who had high AFQT scores and 30 of the CDC and ABR trainees were like new mental standards airmen and had low AFQT scores. In general, all three courses covered the same topics of instruction; however, the specific content was markedly different.

Figure 20. Typical Instructional Session

Evaluation of the AAT course involved comparisons of (a) job performance ability of the trainees, and (b) man-hours for course completion and administration. In addition, the feasibility of utilizing AAT courses in Air Force on-job training programs was evaluated.

Job performance ability was measured using a special job performance test, the Air Force job knowledge test, and supervisor's ratings of job performance. The job performance test was administered to all trainees from all three courses approximately two months after they arrived at their assigned base. The job knowledge test was administered to only the AAT and CDC trainees immediately after completion of their respective courses. Supervisors rated job performance of trainees from all three courses after a minimum of two months experience on the job.

Man-hour requirements were evaluated in terms of trainee man-hours for course completion and supervisor man-hours for course administration. Man-hour requirements for the AAT and CDC courses were obtained from the training supervisors while man-hour requirements for the ABR course were obtained from the most recent Plan of Instruction for this course.

The feasibility of utilizing courses for both high and low aptitude trainees was evaluated by [illegible] the problems encountered by training supervisors during administration of the course and the supervisors' comments about the course during an end-of-course structured interview. Data on administrative problems were obtained through monthly conferences with the supervisors throughout course administration.

Results

Job Performance Measures

All group comparisons were performed by statistical analyses. A group whose performance is indicated as superior to that of another scored higher on the measure at least at the five percent level of statistical significance. The specific statistics employed are described in the body of this report.

Job Performance Test. The results of the job performance test revealed that the high and low aptitude AAT trainees performed as well as the high and low aptitude ABR (technical school) graduates respectively and these groups were superior to the high and low aptitude CDC (conventional on-job training) trainees. This finding is somewhat suprising since this performance measure was administered after the ABR graduates had two months of job experience and both the AAT and CDC trainees had approximately one month experience. This would seem to indicate that the AAT course can produce high and low aptitude graduates who, after one month of job experience will perform as well as high and low aptitude technical school graduates with two months experience. This was not true for the graduates of the conventional on-job training course.

The results of the job performance test are plotted with the man-hour requirements for course completion and course administration in Figure 21.

Job Knowledge Test. There were no differences between the AAT and CDC graduates with regard to job knowledge test results. Considering the content of these two on-job training courses, this is an unexpected finding. The CDC course emphasized job knowledges exclusively while the AAT course taught job performance with almost no

attention to job knowledges. Trainees in both courses were provided a review in preparation for the job knowledge test, but both groups spent approximately the same length of time reviewing. Average review time for each AAT trainee, regardless of aptitude, was 23 hours while average review time for each CDC trainee, regardless of aptitude, was 22 hours. The lack of any difference in AKT results, considering the required review times, would seem to indicate that first learning to perform job tasks facilitates learning to verbalize job knowledges.

Job Performance Ratings. There were no differences between the high and low aptitude subjects in the ABR, CDC, and AAT groups with regard to supervisors' ratings of job performance. This finding appeared to be related to historic problems such as central tendency and lienency which are attendant to this type of measure. Either the ratings were not sufficiently sensitive or reliable to detect an existing difference or there was actually no difference between the graduates of the various courses after all had acquired two months of job experience.

Man-hour Requirements

The trainee man-hour requirements for course completion indicated substantial savings in favor of the AAT course. As shown in Figure 21, trainee time to complete the AAT course was 68 hours as compared with 92 and 96 hours for the CDC and ABR courses, respectively.

The supervisor man-hour expenditures for course administration also reflected similar savings. Supervisor time for administration of the AAT course averaged 38 hours per group of 15 trainees as compared to 100 and 96 hours for supervisor administration of the CDC and ABR courses per group of 15 trainees.

AAT course completion time and administration time were respectively 26 percent and 62 percent less than that for the CDC course. However, both the high and low aptitude AAT graduates performed job tasks after approximately one month field experience at a higher level of proficiency than the respective high and low aptitude CDC graduates with the same length of experience.

Feasibility of AAT Courses

Training supervisors were able to integrate the AAT course into their existing on-job training programs with very few difficulties.

There were two major problems experienced by the supervisors (a) providing learning aids when required by the trainees, and (b) performing the role of monitor/tutor for trainees using self-instructional materials. Both of these problems could be resolved by providing a more extensive supervisor orientation to AAT courses and providing practice in performing their new role.

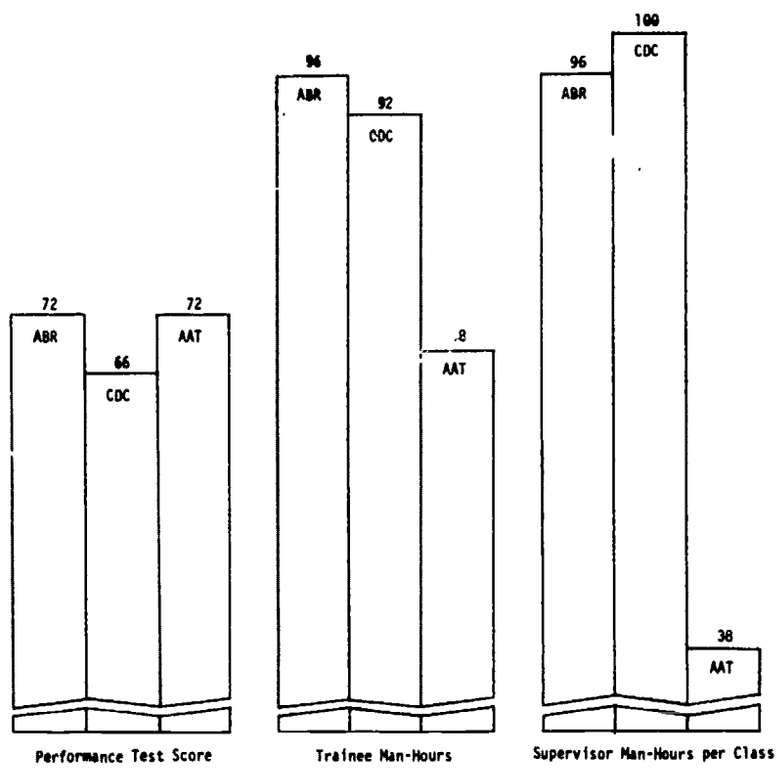


Figure 21. Relationship of Performance Ability and Course Man-Hour Requirements.

Implications

Several advantages would be realized by the Air Force if it were to implement courses using the AAT approach to on-job training. These advantages have particular relevance to the conditions of an all volunteer force and zero military draft. Job performance ability of AAT graduates would be more like that of technical school graduates. This job performance improvement would be realized while simultaneously saving considerable trainee man-hours for course completion and training supervisor man-hours for course administration.

Low aptitude new mental standards like airmen would be effectively trained for job performance with fewer learning difficulties than experienced with the conventional, verbally oriented materials. These positive results could be obtained within the present on-job training framework without major revisions.

Automated Apprenticeship Training courses, which pictorially demonstrate the task, explain through audio narration how to perform the task, and utilize job tools and aids during guided practice of task performance, can be utilized in the present Air Force on-job training program. In addition, these courses can be successfully administered by the present job training supervisors to airmen of both high and low aptitude. The low aptitude trainees will be aided in learning necessary job skills through a reduction in the amount of printed material typically used in the present Career Development Courses. Job performance ability of both the high and low aptitude airmen trained through AAT courses will be higher than that of airmen trained through conventional CDC. Verbalization of job knowledges can be taught after job performance training with about the same level of effort for the AAT trainee as is currently required for the CDC trainee. As compared to present Career Development Courses, Automated Apprenticeship Training courses enhance the job performance ability of low aptitude graduates without penalizing high aptitude trainees while simultaneously reducing the required amount of trainee man-hours for course completion and supervisor man-hours for course administration.

APPENDIX A

Behavioral Job Description

for

Security Policeman

AFSC 81130 and AFSC 81230

COMMON TASK BLOCKS

I Uniform
II Ceremonies
III First Aid
IV Communications
V Weapons

LAW ENFORCEMENT TASK BLOCKS

L-VI Jurisdiction
L-VII Traffic
L-VIII On Base Patrol
L-IX Off Base Patrol
L-X Apprehension
L-XI Confinement
L-XII Administration
L-XIII Civil Disturbance and Riot Control

SECURITY TASK BLOCKS

S-VI Entry Controller
S-VII Sentry
S-VIII Security Alert Team
S-IX Alarm Monitor
S-X Central Security Control
S-XI Civil Disturbance and Riot Control

COMMON BLOCK TASKS

Block I Tasks (Uniform)

1. Select proper uniform
2. Select accessories
3. Display air police shield

Block II Tasks (Ceremonies)

1. Display the flag
2. Perform as a guard in color guard
3. Perform reveille
4. Perform retreat
5. Fold the flag
6. Stand guard mount

7. Perform in firing party
8. Perform revolver manual of arms
9. Perform rifle manual of arms

Block III Tasks (First Aid)

1. Apply direct pressure to control bleeding
2. Elevate limb to control bleeding
3. Apply pressure to vessel to control bleeding
4. Apply tourniquet to control bleeding
5. Treat for shock
6. Give mouth to mouth resuscitation
7. Protect wounds
8. Determine first aid actions to be taken

Block IV tasks (Communications)

1. Operate base telephone
2. Operate field phone
3. Operate handi talkie
4. Operate man pack (AN-PRC-10)
5. Use procedure words
6. Use 10-series code
7. Use phonetic alphabet
8. Use phonetic numbers
9. Use duress codes

Block V Tasks (Weapons)

1. Receive weapon with ammunition from the armorer
2. Clear the M-16 rifle
3. Clean the M-16 rifle
4. Load M-16 rifle
5. Check functioning of M-16 rifle
6. Assume standing firing position (M-16)
7. Assume kneeling firing position (M-16)
8. Assume sitting firing position (M-16)
9. Assume prone firing position (M-16)
10. Align sights on target
11. Position aligned sights on target
12. Control breath for minimum weapon movement
13. Control trigger to avoid weapon movement
14. Adjust windage of M-16 sights
15. Adjust elevation of M-16 sights
16. Adjust rear peep for long or short range target
17. Clear stoppages of M-16 rifle
18. Return weapon to armorer

19. Clear .38 cal. revolver
20. Clean .38 cal. revolver
21. Load the .38 cal. revolver
22. Grasp revolver for one hand single-action firing
23. Grasp revolver for one hand double-action firing
24. Grasp revolver for two hand firing
25. Assume prone firing position (.38 revolver)
26. Assume sitting firing position (.38 revolver)
27. Assume kneeling firing position (.38 revolver)
28. Assume standing crouch firing position (.38 revolver)
29. Assume shoulder point firing position (.38 revolver)
30. Adjust elevation of .38 revolver sights
31. Adjust windage of .38 revolver sights
32. Align sights of .38 revolver
33. Position aligned sights on target
34. Control breath for minimum weapon movement
35. Control trigger for minimum weapon movement
36. Clear stoppages of .38 revolver
37. Clear M-12 shotgun
38. Clean M-12 shotgun
39. Load M-12 shotgun
40. Unload M-12 shotgun
41. Assume standing firing position (M-12)
42. Properly align sights of M-12
43. Position aligned sights on target

LAW ENFORCEMENT BLOCK TASKS

Block L-VI Tasks (Jurisdiction)

1. Identify persons subject to UCMJ
2. Determine if behavior of military personnel is in violation of UCMJ
3. Determine agency responsible for investigation

Block L-VII Tasks (Traffic)

1. Admit visitors and vehicles to base
2. Admit military personnel vehicles to base
3. Direct traffic at intersections
4. Select control point in intersection
5. Escort conveys

Block L-VIII Tasks (On Base Patrol)

1. Patrol routes, varying timing and sequence
2. Supervise traffic and pedestrian movement

3. Pursue moving traffic violators
4. Identify violator
5. Issue traffic warning
6. Issue traffic citation
7. Issue parking citation
8. Supervise personal conduct and dress
9. Report conduct and dress violations
10. Escort public funds
11. Respond to duress alarm
12. Search building
13. Preserve real evidence
14. Search persons
15. Respond to accident report
16. Prevent an accident from getting worse
17. Record scene of accident
18. Interview principals and witnesses
19. Report accident investigation
20. Respond to a complaint
21. Interview complaintant
22. Prepare to interview witness or suspect
23. Interview witnesses and suspects
24. Receive statements
25. Report results of an investigation

Block L-IX Tasks (Off Base Patrol)

1. Patrol area, varying route and timing
2. Give directions to military personnel
3. Apprehend offenders
4. Prepare incident report
5. Search offender
6. Dispose of offenders
7. Issue provisional pass
8. Supervise personal conduct and dress
9. Report conduct and dress violations

Block L-X Tasks (Apprehension)

1. Verify offender as a military person
2. Apprehend offender
3. Apply sleeve guide
4. Apply police arm bar
5. Apply front wrist lock
6. Apply rear arm lock
7. Apply neck drag
8. Apply hip throw
9. Apply shoulder throw
10. Apply front wrist takedown
11. Apply elbow takedown

12. Use wedge defense
13. Use windmill defense
14. Use groin attack to break front body holds
15. Use groin attack to break rear body holds
16. Apply handcuffs
17. Use club backhand blow to shin
18. Use club forehand blow to chin
19. Use club defense against knife attack to chest
20. Use club defense against knife slash attack
21. Use club defense against knife attack to groin

Block L-XI Tasks (Confinement)

1. Escort prisoners
2. Check correctional custody personnel

Block L-XII Tasks (Administration)

1. Register vehicles
2. Register firearms
3. Register pets

Block L-XIII Tasks (Civil Disturbance and Riot Control)

1. Assume safe port position
2. Assume short guard position
3. Use an upward blow (M-16 or M-12)
4. Use a downward blow (M-16 or M-12)
5. Use the prod (M-16 or M-12)
6. Fix bayonet (M-16 or M-12)
7. Use the short thrust (M-16 or M-12)
8. Use the long thrust (M-16 or M-12)
9. Roll to change position
10. Rush the objective
11. Advance using the high crawl
12. Advance using the low crawl
13. Prepare for gas
14. Assume squad wedge position
15. Assume squad diamond position
16. Assume squad line position
17. Assume position in squad right echelon
18. Assume position in squad left echelon
19. Assume position in squad rear guard formation
20. Assume position in flight wedge
21. Assume position in flight diamond
22. Assume position in flight line
23. Assume position in flight echelon right or left

24. Assume position in lateral support formations
25. Assume position in rear guard formation

SECURITY BLOCK TASKS

Block S-VI Tasks (Entry Controller)

1. Admit authorized person with exchange badges
2. Admit authorized persons without exchange
3. Verify identity of badge holder
4. Reveal duress situations
5. Admit authorized visitors
6. Maintain visitors log
7. Inspect vehicles
8. Detain suspected intruders
9. Request SAT assistance
10. Brief relief

Block S-VII Tasks (Sentry)

1. Patrol area of responsibility
2. Detect hostile acts
3. Control entry into area of responsibility
4. Sound alarm
5. Notify CSC of incident
6. Request assistance

Block S-VIII Tasks (Security Alert Team)

1. Receive alarm
2. Respond to alarm
3. Deploy to seal off area
4. Deploy to open fire lines
5. Get into position
6. Indicate discovery of object or person
7. Search area or building
8. Search persons
9. Report SAT action to CSC
10. Report incident

Block S-IX Tasks (Alarm Monitor)

1. Monitor alarm panel
2. Test alarm system
3. Identify persons requesting entry to alarmed area
4. Admit person to alarmed area
5. Notify CSC or SAT of alarm condition
6. Brief relief monitor

Block S-X Tasks (Central Security Control)

1. Receive alarms
2. Dispatch primary SAT
3. Dispatch reserve SAT
4. Report to senior command
5. Alter report to senicr command post
6. Implement actions specified in security checklists
7. Brief alternate CSC and relief communicator/plotter
8. Report incidents
9. Log activities performed

Block S-XI Tasks (Civil Disturbance and Riot Control)

1. Assume safe port position
2. Assume short guard position
3. Use an upward blow (M-16 or M-12)
4. Use a downward blow (M-16 or M-12)
5. Use the prod (M-16 or M-12)
6. Fix bayonet (M-16 or M-12)
7. Use the short thrust (M-16 or M-12)
8. Use the long thrust (M-16 or M-12)
9. Roll to change position
10. Rush the objective
11. Advance using the high crawl
12. Advance using the low crawl
13. Prepare for gas
14. Assume squad wedge position
15. Assume squad diamond position
16. Assume squad line position
17. Assume position in squad right echelon
18. Assume position in squad left echelon
19. Assume position in squad rear guard formation
20. Assume position in flight wedge
21. Assume position in flight diamond
22. Assume position in flight line
23. Assume position in flight echelon right or left
24. Assume position in lateral support formations
25. Assume position in rear guard formation

COMMON TASK BLOCKS

Block I: Uniform

Task: Select proper uniform

Activities: Problem Solving

Behavioral Details: SP airman selects either service uniform or summer uniform depending on uniform of the day for normal duty. He selects the field uniform if his days duty would subject the normal uniform to excessive abuse or if authorized by installation commander.

Task: Select accessories

Activities: Problem Solving

Behavioral Details: Black leather equipment belt is selected when armed and wearing service or summer uniforms. Web belt is selected when armed and wearing field uniform. Combat boots are selected when wearing service or field uniform but are not normally worn with summer uniform. Shield and whistle are selected for use with all uniforms.

Task: Display air police shield

Activities: Procedure Following

Behavioral Details: 6-step fixed procedure, no SB steps

The shield should be attached to the outer garmet before guard mount and removed from the outer garmet at the end of the duty day. If the normal outer garmet is covered with inclement weather garmets the shield should be transferred to the new outer garmet.

Block II: Ceremonies

Task: Display the flag

Activities: Procedure Following

Behavioral Details: Possible 8-step branched procedure, 1 SB step

The SB step requires the air policeman to properly orient the flag for the display situation. The number of steps involved in hanging the flag for display depends on the specific situation.

Task: Perform as a guard in color guard

Activities: Procedure Following

Behavioral Details: Possible number of steps unknown, 4 SB steps

The SB steps require the airmen to perform half right about, half left about, right about and left about when in one rank at close intervals.

NOTE: Color guard performs 10 steps consisting of the four SB steps and parade rest, attention, present arms, forward march, eyes right, and halt, these movements may be combined in any sequence.

Task: Perform reveille

Activities: Procedure Following

Behavioral Details: Possible 12-step branched procedure, 1 SB step

The SB step requires the airmen to determine which side of the flagstaff is downwind.

NOTE: Reveille is usually accomplished in 10 steps; however, 12 steps are required if the flag is flown at half-staff.

Task: Perform retreat

Activities: Procedure Following

Behavioral Details: Possible 16-step branched procedure, 1 SB step

The SB step requires the airmen to determine which side of the flagstaff is downwind.

Task: Fold the flag

Activities: Procedure Following

Behavioral Details: 6-step fixed procedure, no SB steps

NOTE: The flag requires approximately 16 folds but most of these are repetitous.

Task: Stand guard mount

Activities: Procedure Following

Behavioral Details: Possible 17-step branched procedure, no SB steps

Task: Perform in-firing party

Activities: Procedure Following

Behavioral Details: 20-step fixed procedure, 1 SB step

The SB step requires the airman to fire his rifle simultaneously with the other six members of the firing party.

Task: Perform revolver manual of arms

Activities: Procedure Following

Behavioral Details: Possible 19-step branched procedure, no SB steps

Task: Perform rifle manual of arms

Activities: Procedure Following

Behavioral Details: Possible 49-step branched procedure, no SB steps

Block III: First Aid

Task: Apply direct pressure to control bleeding

Activities: Decision Making, Procedure Following

Behavioral Details:

Decision Making - Airman must determine that bleeding is not from artery. If blood is oozing from wound or in steady flow and is <u>not</u> spurting or gushing, bleeding is not from artery.

Procedure Following - Possible 4-step branched procedure, no SB steps

Task: Elevate limb to control bleeding

Activities: Decision Making, Procedure Following

Behavioral Details:

Decision Making - Airmen must observe blood flow after applying direct pressure and if flow is not reduced, use elevation technique.

Procedure Following - 2-step fixed procedure, no SB steps

Task: Apply pressure to vessel to control bleeding

Activities: Decision Making, Procedure Following

Behavioral Details:

Decision Making - Airmen must observe blood flow after applying direct pressure and if flow is not reduced, use elevation technique.

Procedure Following - 3-step fixed procedure, 2 SB steps

First SB step requires airmen to determine which of 12 pressure points should be used. Selection of point is based on location of wound. Second SB step requires airmen to use appropriate portion of hand to apply pressure, position used depends on pressure point to be used.

Task: Apply tourniquet to control bleeding

Activities: Decision Making, Procedure Following

Behavioral Details:

Decision Making - Airmen must observe that blood is spurting or gushing from wound or that blood flow was not controlled by all other methods, if either condition is true, he applies a tourniquet.

Procedure Following - 6-step fixed procedure, 1 SB step. The SB step requires the airmen to select the appropriate point for applying the tourniquet. Selection is made by rule of thumb regarding proximity of tourniquet to wound and placement between wound and heart.

Task: Treat for shock

Activities: Decision Making, Procedure Following

Behavioral Details:

Decision Making - Airmen must determine if there are visible injuries or if victim shows any of 11 symptoms of shock. The victim is treated for shock if there is any injury or symptom of shock.

Procedure Following - Possible 14-step branched procedure, 3 SB steps

The three SB steps listed below require the airmen to determine the conditions of the victim and to follow the procedure appropriate to that condition.

1. Erratic breathing - clear air passage before proceeding. (Arrested breathing should be detected earlier).

2. Broken bones - do not move affected part.

3. Unconscious - place victim on stomach with head to one side. (Do not give liquids).

Task: Give mouth to mouth resuscitation

Activities: Decision Making, Procedure Following

Behavioral Details:

Decision Making - Airmen must determine if victim has stopped breathing. Breathing is determined by listening for breathing sounds or signs, if breath is not detected artificial respiration in begun.

Procedure Following - Possible 32-step branched procedure, 6 SB steps. The SB steps require the airmen to do the following:

1. Determine if jaw of victim locked

2. Hold jaw outward while blowing air into victim

3. Close nose while blowing air into victim

4. Determine if chest of victim rises

5. Adjust force of exhaled air for adults and children

6. Time breathing 12/20 times a minute

Task: Protect wounds

Activities: Procedure Following

Behavioral Details: 3-step fixed procedure, no SB steps

Task: Determine first aid actions to be taken

Activities: Decision Making

Behavioral Details: Airmen must observe scene and make a mental list of injuries observed, noting severity of each. He must recognize which of the injuries can be treated with first aid and which ones cannot. He must see that help is summoned and begin treating the observed injuries which pose the greatest threat to life. The specific first aid given is determined by rule of thumb. In general, the list below shows order in which injuries are treated, top on list is treated first.

1. Arrested breathing
2. Arterial bleeding
3. Other severe bleeding
4. Shock
5. Wound

Block IV: Communications

Task: Operate base telephone

Activities: Procedure Following

Behavioral Details: Possible 10-step branched procedure, no SB steps

Task: Operate field phone

Activities: Procedure Following

Behavioral Details: 5-step fixed procedure, no SB steps

Task: Operate handi talkie

Activities: Procedure Following

Behavioral Details: 14-step fixed procedure, no SB steps

Task: Operate man pack (AN-PRC-10)

Activities: Procedure Following

Behavioral Details: Possible 32-step fixed procedure, no SB steps

Task: Use procedure words

Activities: Communicating

Behavioral Details: These words are used in radio and telephone communications to shorten transmissions and to reduce ambiguity. There are 37 common pro-words which are used in place of sentences.

Task: Use 10-series code

Activities: Communicating

Behavioral Details: There are a series of numbers (commonly 10-1 to 10-20) each of which has a specific meaning or message. The numbers are used to shorten radio transmissions.

Task: Use phonetic alphabet

Activities: Communicating

Behavioral Details: These are 26 words, each of which represents one letter of the alphabet. The words are used instead of letters when spelling out words or abbreviations which are difficult to understand in radio, telephone and direct verbal communications.

Task: Use phonetic numbers

Activities: Communicating

Behavioral Details: These are special pronunciations of the numbers 0 through 9. The pronunciations are used to avoid misinterpretation of numbers in radio, telephone, and direct verbal communications.

Task: Use duress codes

Activities: Communicating

Behavioral Details: These are special words or numbers used in radio, telephone, and direct verbal communications to indicate an emergency or distress situation. These words or codes serve to notify authorized persons of the condition without alerting unauthorized persons.

Block V: Weapons

Task: Receive weapon with ammunition form the armorer

Activities: Procedure Following

Behavioral Details: Possible 12-step branched procedure, no SB steps

Task: Clear the M-16 rifle

Activities: Procedure Following

Behavioral Details: 30-step fixed procedure, 1 SB step

The assembly procedure is the reverse of the disassembly procedure. The SB step requires the airmen to remember to pull the bolt forward in the bolt carrier before inserting it into the receiver.

Task: Clean the M-16 rifle

Activities: Procedure Following

Behavioral Details: 37-step fixed procedure, no SB steps

Task: Load M-16 rifle

Activities: Procedure Following

Behavioral Details: Possible 13-step branched procedure, no SB steps

Task: Check functioning of M-16 rifle

Activities: Procedure Following

Behavioral Details: Possible 31-step branched procedure, no SB steps

Task: Assume standing firing position (M-16)

Activities: Procedure Following

Behavioral Details: 9-step fixed procedure, no SB steps

Task: Assume kneeling firing position (M-16)

Activities: Procedure Following

Behavioral Details: 11-step fixed procedure, no SB steps

Task: Assume sitting firing position (M-16)

Activities: Procedure Following

Behavioral Details: Possible 13-step branched procedure, no SB steps

Task: Assume prone firing position (M-16)

Activities: Procedure Following

Behavioral Details: 9-step fixed procedure, no SB steps

Task: Align sights of M-16 rifle

Activities: Procedure Following

Behavioral Details: 3-step fixed procedure, 2 SB steps

The SB steps require the shooter to perceive when the front post is centered in the rear peep sight both vertically and horizontally.

Task: Position aligned sights on target

Activities: Procedure Following

Behavioral Details: 3-step fixed procedure, 2 SB steps

The SB steps require the shooter to determine when the sights are centered left to right on the target and when they are aimed chest high.

Task: Clear .38 cal. revolver

Activities: Procedure Following

Behavioral Details: 12-step fixed procedure, no SB steps

Task: Clean .38 cal. revolver

Activities: Procedure Following

Behavioral Details: 13-step fixed procedure, no SB steps

NOTE: The 13 steps are repeated for cleaning the bore and each of the chambers in the cylinder.

Task: Load the .38 cal. revolver

Activities: Procedure Following

Behavioral Details: Possible 18-step branched procedure, no SB steps

Task: Grasp revolver for one hand single-action firing

Activities: Procedure Following

Behavioral Details: Possible 6-step branched procedure, no SB steps

Task: Grasp revolver for one hand double-action firing

Activities: Procedure Following

Behavioral Details: 5-step fixed procedure, no SB steps

Task: Grasp revolver for two hand firing

Activities: Procedure Following

Behavioral Details: 8-step fixed procedure, no SB steps

Task: Control breath for minimum weapon movement

Activities: Procedure Following

Behavioral Details: 5-step fixed procedure, no SB steps

Task: Control trigger to avoid weapon movement

Activities: Procedure Following

Behavioral Details: 3-step fixed procedure, no SB steps

Task: Adjust windage of M-16 sights

Activities: Procedure Following

Behavioral Details: 4-step fixed procedure, no SB steps

Task: Adjust elevation of M-16 sights

Activities: Procedure Following

Behavioral Details: 4-step fixed procedure, no SB steps

Task: Adjust rear peep for long or short range target

Activities: Procedure Following

Behavioral Details: 2-step fixed procedure, no SB steps

Task: Clear stoppages of M-16 rifle

Activities: Procedure Following

Behavioral Details: 6-step fixed procedure, no SB steps

Task: Return weapon to armorer

Activities: Procedure Following

Behavioral Details: 12-step fixed procedure, no SB steps

Task: Assume prone firing position (.38 revolver)

Activities: Procedure Following

Behavioral Details: 16-step fixed procedure, no SB steps

Task: Assume sitting firing position (.38 revolver)

Activities: Procedure Following

Behavioral Details: 14-step fixed procedure, no SB steps

Task: Assume kneeling firing position (.38 revolver)

Activities: Procedure Following

Behavioral Details: 11-step fixed procedure, no SB steps

Task: Assume standing crouch firing position (.38 revolver)

Activities: Procedure Following

Behavioral Details: 10-step fixed procedure, no SB steps

Task: Assume shoulder point firing position (.38 revolver)

Activities: Procedure Following

Behavioral Details: 8-step fixed procedure, no SB steps

Task: Adjust elevation of .38 revolver sights

Activities: Procedure Following

Behavioral Details: Possible 3-step branched procedure, no SB steps

Task: Adjust windage of .38 revolver sights

Activities: Procedure Following

Behavioral Details: Possible 3-step branched procedure, no SB steps

Task: Align sights of .38 revolver

Activities: Procedure Following

Behavioral Details: 4-step fixed procedure, no SB steps

Task: Position aligned sights on target

Activities: Procedure Following

Behavioral Details: Same as for M-16 rifle

Task: Control breath for minimum weapon movement

Activities: Procedure Following

Behavioral Details: Same as for M-16 rifle

Task: Control trigger for minimum weapon movement

Activities: Procedure Following

Behavioral Details: Same as for M-16 rifle

Task: Clear stoppages of .38 revolver

Activities: Procedure Following

Behavioral Details: 4-step fixed procedure, no SB steps

Task: Clear M-12 shotgun

Activities: Procedure Following

Behavioral Details: 4-step fixed procedure, no SB steps

Task: Clean M-12 shotgun

Activities: Procedure Following

Behavioral Details: 12-step fixed procedure, no SB steps

Task: Load M-12 shotgun

Activities: Procedure Following

Behavioral Details: Possible 28-step branched procedure, no SB steps

Task: Unload M-12 shotgun

Activities: Procedure Following

Behavioral Details: Possible 11-step branched procedure, no SB steps

Task: Assume standing firing position (M-12)

Activities: Procedure Following

Behavioral Details: 11-step fixed procedure, no SB steps

Task: Properly align sights of M-12

Activities: Procedure Following

Behavioral Details: 2-step fixed procedure, no SB steps

Task: Position aligned sights on target

Activities: Procedure Following

Behavioral Details: Same as for M-16 rifle

LAW ENFORCEMENT TASK BLOCKS

Block L-VI: Jurisdiction

Task: Identify persons subject to UCMJ

Activities: Procedure Following, Communicating

Behavioral Details: Possible 5-step branched procedure, 1 SB step

Procedure Following - The SB step requires that the airmen recognize military ID cards.

Communicating - Direct verbal communication with person being identified.

Task: Determine if behavior of military personnel is in violation of UCMJ

Activities: Decision Making

Behavioral Details: Observe situation and generate all reasonable behavior alternatives for the situation, if observed behavior does not correspond to one alternative then person is in violation.

Task: Determine agency responsible for investigation

Activities: Decision Making

Behavioral Details: Security Policemen must determine if offense should be investigated by Security Police or Office of Special Investigations (OSI). Security Police can investigate only vehicle accidents, incidents, and minor offenses (ex. security violations, destruction of government property, etc.) are investigated by OSI.

Block L-VII: Traffic

Task: Admit visitors and vehicles to base

Activities: Procedure Following

Behavioral Details: Possible 9-step branched procedure, no SB steps

Task: Admit military personnel vehicles to base

Activities: Procedure Following

Behavioral Details: Possible 3-step branched procedure, no SB steps

Task: Direct traffic at intersections

Activities: Procedure Following, Decision Making

Behavioral Details:

Procedure Following - Possible 12-step branched procedure, 4 possible SB steps. Each of the SB steps requires the airmen to use the appropriate arm signal for either stop, straight through, right turn, or left turn vehicle maneuver at the intersection.

Decision Making - Generate reasonable alternatives regarding which lanes to hold and for how long and select one which prevents unnecessary hold ups. This is repeated whenever traffic situations change.

Task: Select control point in intersection

Activities: Decision Making

Behavioral Details: First time at intersection, point is selected by evaluating all reasonable alternatives and selecting the best one. After first time, point is selected on memory of what was successful in past.

Task: Escort conveys

Activities: Procedure Following

Behavioral Details: Possible 18-step branched procedure, 1 possible SB step

The step requires a driver to know the numbers of the men he is to pick up after the convey passes each controlled intersection.

Block L-VIII: On base patrol

Task: Patrol routes, varying timing and sequence

Activities: Decision Making

Behavioral Details: Criteria is to drive all routes assigned in a nonpredictable sequence. Patrol must select which route to drive next, given routes driven and sequence in which driven. All possible route alternatives are evaluated and the one which seems least like part of a pattern is driven next.

Task: Supervise traffic and pedestrian movement

Activities: Monitoring, Decision Making

Behavioral Details:

Monitoring - Patrolmen have window view of objects. The relevant attribute of object is its movement or change in movement. Search area includes the visual field of the patrolmen and events are usually easy to detect.

Decision Making - If unlawful or unsafe event detected patrolmen must decide to do nothing, give a warning, or give a traffic citation. Decision is based on local regulations and degree of tolerance regarding observed movement of object.

Task: Pursue moving traffic violators

Activities: Procedure Following

Behavioral Details: Possible 9-step branched procedure, 1 SB step

The SB step requires the patrolmen to determine a point ahead at which both cars can pull off and be out of the traffic flow.

Task: Identify violator

Activities: Procedure Following, Communicating

Behavioral Details:

Procedure Following - 8-step fixed procedure, no SB steps

Communicating - Direct verbal, the patrolmen must speak in a manner which is both courteous and impersonal.

Task: Issue traffic warning

Activities: Decision Making, Communicating, Procedure Following

Behavioral Details:

Decision Making - Issue of warning is usually selected if act was unsafe but not unlawful, or marginal behavior not obviously in violation.

Communicating - Warning is usually written on Form 1408. Patrolmen must have knowledge of information and forma requirements of this form.

Procedure Following - Possible 39-step branched procedure, no SB steps

Task: Issue traffic citation

Activities: Decision Making, Communicating, Procedure Following

Behavioral Details:

Decision Making - A citation is given if the violation was beyond reasonable tolerance. Reasonable tolerance limits are provided in base directives.

(cont.)

Communicating - Written on DD Form 1408, patrolmen must know the information and format requirements of a citation.

Procedure Following - Possible 40-step branched procedure, no SB steps

Task: Issue Parking citation

Activities: Procedure Following, Communicating

Behavioral Details:

Procedure Following - Possible 13-step branched procedure, no SB steps

Communicating - Written on DD Form 1408

Task: Apprehend violator

Activities: Decision Making, Procedure Following

Behavioral Details:

Decision Making - Normally, violator is not apprehended unless the situation is one in which the violator:

1. Committed some other offense
2. Cannot drive because of his condition
3. Cannot identify himself
4. Will not report as directed
5. Interferes with the patrol
6. Would normally have his license revoked

Procedure Following - (see Block L-X)

Task: Supervise personal conduct and dress

Activities: Monitoring, Decision Making

(cont.)

Behavioral Details:

Monitoring - Direct view of conduct of persons in field of vision. The events are easy to detect.

Decision Making - Patrolmen must decide whether to do nothing, bring event to offenders attention, require immediate correction, or fill out incident report. Usually event is brought to offenders attention and no further action is taken, unless offense is repeated or is obviously a malicious violation.

Task: Report conduct and dress violations

Activities: Communicating

Behavioral Details: Direct verbal when informing offender of violation. Written when filling out incident report DD Form 1569. Requires knowledge of DD Form 1569 format and information requirements.

Task: Escort public funds

Activities: Procedure Following

Behavioral Details: Possible 21-step branched procedure, no SB steps

Task: Respond to duress alarm

Activities: Communicating, Procedure Following

Behavioral Details:

Communicating - Radio or telephone communication requiring knowledge of 10-series or duress codes.

Procedure Following - 6-step fixed procedure, no SB steps

Task: Search building

Activities: Procedure Following

Behavioral Details: Possible 12-step branched procedure, 1 SB step

(cont.)

The SB step requires the searcher to determine which locations should be searched based on the size of the item sought.

Task: Preserve real evidence

Activities: Procedure Following, Communicating

Behavioral Details:

Procedure Following - Maximum 8-step branched procedure, no SB steps

Communicating - Written communication requiring knowledge of the information and format for recording it on AF Form 52.

Task: Search persons

Activities: Decision Making, Procedure Following

Behavioral Details:

Decision Making - Searcher must determine whether to conduct simple frisk, wall search, or complete search. A simple frisk is usually made of anyone apprehended for a minor offense; however, a wall search is made if the person is likely to attempt an assault or was apprehended for a serious offense. A complete search is conducted if the person is confined, is a security violator, or is a narcotics violator.

Procedure Following - Possible 22-step branched procedure, no SB steps

Task: Respond to accident report

Activities: Communicating, Decision Making

Behavioral Details:

Communicating - Radio communication of these incidents requires knowledge of 10-series code and pro-words.

Decision Making - Patrolmen must determine where to park his vehicle. Criteria of correct location are known, all possible spots are

(cont.)

considered and best one selected. When parked, the vehicle should:

1. Be close enough to use radio equipment
2. Act as a warning to approaching traffic
3. Not interfere with traffic flow
4. Not interfere with the investigation

Task: Prevent an accident from getting worse

Activities: Decision Making, Communicating

Behavioral Details:

Decision Making - The patrolmen must determine what actions to take after arriving at the scene. The first things considered are:

1. Preventing other vehicles from becoming involved
2. Administering first aid to injured and summoning medical aid
3. Protecting property at scene

Those aspects which pose the greatest threat to increasing the severity of the accident are handled first.

Communicating - Radio and direct verbal communication, require knowledge of what aid to request for various problems.

Task: Record scene of accident

Activities: Decision Making

Behavioral Details: Patrolmen must decide the amount of detail and the specific items to be shown in the drawing of the accident. Anything which could indicate the behavior of the drivers is recorded (ex. direction of travel, skid marks, point of impact, final position of vehicles, etc.).

Task: Interview principals and witnesses

Activities: Communicating

Behavioral Details: Direct verbal communication requiring the patrolman to be sensitive to the difference between statements of events and interpretations of events. The patrolman must get as factual a statement as possible.

Task: Report accident investigation

Activities: Procedure Following

Behavioral Details: Possible 90-step branched procedure, no SB steps

Branch depends on number of items of AF Form 1315 which are not applicable.

Task: Respond to a complaint

Activities: Communicating

Behavioral Details: Radio or telephone communication, no special knowledge requirements.

Task: Interview complainant

Activities: Communicating

Behavioral Details: Direct verbal and written communication requiring the patrolman to be sensitive to factual statements asking for clarification of opinions.

Task: Prepare to interview witness or suspect

Activities: Procedure Following, Decision Making

Behavioral Details:

Procedure Following-Possible 6-step branched procedure, 1 SB step The SB step requires the patrolman to recognize missing or incosistent information in the investigation to date.

(cont.)

Decision Making - Patrolmen must decide whether to use a direct or indirect technique when interviewing the person. The direct or question technique is used with an impartial witness and the indirect or conversational technique is used with a suspect or involved witness.

Task: Interview witnesses and suspects

Activities: Communicating

Behavioral Details: Direct verbal and written communication requiring the patrolman to be sensitive to statements of fact and opinion, requiring clarification of opinions.

Task: Receive statements

Activities: Communicating

Behavioral Details: Written communication requiring knowledge of the format and use of AF Form 1168, AF Form 1169, and AF Form 1170. The information recorded is the statement of the suspect or witness.

Task: Report results of an investigation

Activities: Communicating

Behavioral Details: Written communication requiring knowledge of format style, and other report writing guidelines in AFR 125-21.

Task: Testifying in court

Activities: Communication

Behavioral Details: Direct verbal communication requiring only knowledge gained in investigation, search, apprehension, etc. made by person testifying.

Block L-IX: Off base patrol

Task: Patrol area, varying route and timing

Activities: Decision Making

(cont.)

Behavioral Details: Criteria is to drive or walk all routes assigned in an no predictable sequence. Patrol must select which route to patrol next, given sequence in past. All possible routes are considered and one which seems least a part of a pattern is patrolled next.

Task: Give directions to military personnel

Activities: Communicating

Behavioral Details: Direct verbal communication, no special knowledge requirements.

Task: Apprehend offenders

Activities: (see Block L-X)

Task: Prepare incident report

Activities: Communicating

Behavioral Details: Written communication requiring knowledge of information to be reported and format of DD Form 1569.

Task: Search offender

Activities: Decision Making, Procedure Following

Behavioral Details: The task of searching persons is described in Block L-VIII.

Task: Dispose of offenders

Activities: Decision Making

Behavioral Details: Patrolmen must decide whether to detain or release offenders. If offense is not serious, offender is released after booking at off-base headquarters.

Task: Issue Provisional Pass

Activities: Communicating

Behavioral Details: Written communication requiring knowledge of information and format requirements of DD Form 460.

Task: Supervise personal conduct and dress

Activities: This task was described in Block L-VIII

Task: Report conduct and dress violations

Activities: This task was described in Block L-VIII

Block L-X: Apprehension

Task: Verify offender as a military person

Activities: Procedure Following

Behavioral Details: Possible 4-step branched procedure, no SB s

Task: Apprehend offender

Activities: Decision Making, Communicating

Behavioral Details:

Decision Making - Security Police must determine if apprehension is required. Apprehension is made if ordered by higher authority, or when other than a minor violation such as: auto accident, traffic violation, dress violation, etc.

Communicating - Direct verbal, no special knowledge requirements.

Task: Apply sleeve guide

Activities: Procedure Following

Behavioral Details: 3-step fixed procedure, no SB steps

Task: Apply police arm bar

Activities: Procedure Following

Behavioral Details: 9-step fixed procedure, no SB steps

Task: Apply front wrist lock

Activities: Procedure Following

Behavioral Details: 13-step fixed procedure, no SB steps

Task: Apply rear arm lock

Activities: Procedure Following

Behavioral Details: 12-step fixed procedure, no SB steps

Task: Apply neck drag

Activities: Procedure Following

Behavioral Details: 10-step fixed procedure, no SB steps

Task: Apply hip throw

Activities: Procedure Following

Behavioral Details: 7-step fixed procedure, no SB steps

Task: Apply shoulder throw

Activities: Procedure Following

Behavioral Details: 7-step fixed procedure, no SB steps

Task: Apply front wrist takedown

Activities: Procedure Following

Behavioral Details: 9-step fixed procedure, no SB steps

Task: Apply elbow takedown

Activities: Procedure Following

Behavioral Details: 12-step fixed procedure, no SB steps

Task: Use wedge defense

Activities: Procedure Following

Behavioral Details: 5-step fixed procedure, no SB steps

Task: Use windmill defense

Activities: Procedure Following

Behavioral Details: 5-step fixed procedure, no SB steps

Task: Use groin attack to break front body holds

Activities: Procedure Following

Behavioral Details: 10-step fixed procedure, no SB steps

Task: Use groin attack to break rear body holds

Activities: Procedure Following

Behavioral Details: Possible 15-step branched procedure, no SB steps

Task: Apply handcuffs

Activities: Procedure Following

Behavioral Details: Possible 8-step branched procedure, no SB steps

Task: Use club backhand blow to shin

Activities: Procedure Following

Behavioral Details: 8-step fixed procedure, no SB steps

Task: Use club forehand blow to chin

Activities: Procedure Following

Behavioral Details: 8-step fixed procedure, no SB steps

Task: Use club defense against knife attack to chest

Activities: Procedure Following

Behavioral Details: 13-step fixed procedure, 1 SB step

The SB step requires policeman to judge point at which knife is aimed.

Task: Use club defense against knife slash attack

Activities: Procedure Following

Behavioral Details: 14-step fixed procedure, 1 SB step

(SB step, see above)

Task: Use club defense against knife attack to groin

Activities: Procedure Following

Behavioral Details: 12-step fixed procedure, no SB steps

Block L-XI: Confinement

Task: Escort prisoners

Activities: Procedure Following

Behavioral Details: 3-step fixed procedure, no SB steps

Task: Check correctional custody personnel

Activities: Procedure Following

Behavioral Details: 4-step fixed procedure, no SB steps

Block L-XII: Administration

Task: Register vehicles

Activities: Procedure Following

Behavioral Details: 4-step fixed procedure, 4 SB steps

SB steps require police to verify applicant has the following:

1. Evidence of ownership
2. Valid driver's license
3. Minimum insurance
4. Vehicle inspection

Task: Register firearms

Activities: Procedure Following

Behavioral Details: 9-step fixed procedure, no SB steps

Task: Register pets

Activities: Procedure Following

Behavioral Details: 10-step fixed procedure, 1 SB step

Police must insure a current rabies certificate is on file with registration.

SECURITY TASK BLOCKS

Block S-VI: Entry controller

Task: Admit authorized person with exchange badges

Activities: Procedure Following

Behavioral Details: Possible 6-step branched procedure, 1 SB step

The SB step requires the entry controller to determine if individuals characteristics match those on badge.

Task: Admit authorized persons without exchange badges

Activities: Procedure Following, Communicating

Behavioral Details:

Procedure Following - Possible 5-step branched procedure, 1 SB step same as for exchange badge.

Communicating - Written or verbal and radio communication. The written or verbal communication requires knowledge of method for verifying identity of individual seeking entry. The radio communication is the same as that for exchange badges.

Task: Verify identity of badge holder

Activities: Procedure Following

Behavioral Details: Possible 6-step branched procedure, 1 SB step

The SB step requires the entry controller to recognize the correct countersign or code word.

Task: Reveal duress situations

Activities: Communicating

Behavioral Details: Radio, telephone, or direct verbal requiring knowledge of format and words of duress signals.

Task: Admit authorized visitors

Activities: Procedure Following, Communicating

Behavioral Details:

Procedure Following - Possible 8-step branched procedure, no SB steps

Communicating - Radio or telephone communication requiring knowledge of means for verifying escort officials authority to grant entry.

Task: Maintain visitor's log

Activities: Procedure Following

Behavioral Details: 6-step fixed procedure, no SB steps

Task: Inspect vehicles

Activities: Procedure Following

Behavioral Details: Possible 7-step branched procedure, no SB steps

Task: Detain suspected intruders

Activities: Procedure Following

Behavioral Details: 6-step fixed procedure, no SB steps

Task: Request SAT assistance

Activities: Communicating

Behavioral Details: Radio or telephone communication requiring knowledge of format of message and information passed in summoning SAT.

Task: Brief relief

Activities: Communicating

Behavioral Details: Direct verbal communication, no special knowledge requirements.

Block S-VII: Sentry

Task: Patrol area of responsibility

Activities: Decision Making

Behavioral Details: Sentry must vary his behavior, so that he does not patrol in a predictable pattern. Sentry must consider what he has done, and how he changed his behavior last to select what to do next.

Task: Detect hostile acts

Activities: Monitoring

Behavioral Details: Sentry has a direct view of the area. Generally, targets are easy to detect and detection is made using the senses of sight, sound, and smell. Targets are hard to detect at night, so special night scanning techniques should be used.

Task: Control entry into area of responsibility

Activities: Procedure Following

Behavioral Details: Possible 5-step branched procedure, no SB steps

Task: Sound alarm

Activities: Communicating

Behavioral Details: Direct verbal or radio communication requiring knowledge of format and information contained in alarm statement.

Task: Notify CSC of incident

Activities: Communicating

Behavioral Details: Radio or telephone communication requiring knowledge of the format and amount of information transmitted.

Task: Request assistance

Activities: Communicating

Behavioral Details: Radio or telephone communication requiring knowledge of 10-series code and format of message.

Block S-VIII: Security Alert Team

Task: Receive alarm

Activities: Communicating

Behavioral Details: Radio communication requiring knowledge of 10-series code and phonetic alphabet.

Task: Respond to alarm

Activities: Decision Making, Continuous Perceptual Motor Activity

Behavioral Details:

Decision Making - Team must determine route to take in traveling to scene. This decision is made on the basis of which route is most direct.

Continuous Perceptual Motor Activity - Driving a vehicle in aircraft traffic areas.

Task: Deploy to seal off area

Activities: Decision Making

Behavioral Details: Position of team members is determined by characteristics of the site, the team leader generates possible alternatives until an exceptable one is found.

Task: Deploy to open fire lines

Activities: Decision Making

Behavioral Details: Team members are positioned so that their lines of fire overlap and do not endanger each other or nearby resources.

Task: Get into position

Activities: Decision Making, Procedure Following

Behavioral Details:

Decision Making - SAT members must determine which of 5 procedures for advancing is the correct one for the present situation. Decision is based on characteristics of intruder behavior and of site.

Procedure Following - Possible 5-step branched procedure, no SB steps

Task: Indicate discovery of object or person

Activities: Communicating

(cont.)

Behavioral Details: Communication is verbal, radio, visual, etc. requiring special knowledge of locally developed signals for use in SAT operations.

Task: Search area or building

Activities: Procedure Following

Behavioral Details: 5-step fixed procedure, 2 SB steps

The first SB step requires the searcher to identify all locations which are large enough to conceal the item sought. The second requires the searcher to identify the point where he or another searcher started.

Task: Search persons

Activities: Procedure Following

Behavioral Details: Possible 22-step branched procedure, no SB steps

Task: Report SAT action to CSC

Activities: Communicating

Behavioral Details: Radio communication requiring knowledge of 10-series code and phonetic alphabet.

Task: Report incident

Activities: Communicating

Behavioral Details: Written communication requiring knowledge of format and information requirements of DD Form 1569.

Block S-IX: Alarm Monitor

Task: Monitor alarm panel

Activities: Monitoring

(cont.)

Behavioral Details: Observe alarm panel for change in status lights or flags. Detection is easily made because signals are both visual and aural.

Task: Test alarm system

Activities: Procedure Following

Behavioral Details: Branched procedure, possible number of steps depends on particular system used at each installation, generally, there are 4 possible SB steps.

The first SB step requires the monitor to determine that the proper indicator configuration is present in the safe situation. The second step requires the monitor to determine that the correct combination of signals occurs when there is a power failure. The third SB step requires the monitor to determine that the correct combination of signals occurs when the detection zones are broken. The fourth SB step requires the monitor to determine that the correct combination of signals occurs when there is authorized entry.

Task: Identify persons requesting entry to alarmed area

Activities: Communicating

Behavioral Details: Telephone, radio, or direct verbal communication requiring knowledge of codes used for varification purposes.

Task: Admit person to alarmed area

Activities: Procedure Following

Behavioral Details: Branched procedure, possible number of steps depends on system at each installation, 3 SB steps.

The first SB step requires the monitor to determine that the amount of travel time required to reach the entry point was as expected. The second SB step requires the monitor to determine that the appropriate codes were used. The third SB step requires the monitor to determine that the proper alarm signal combinations occurred.

Task: Notify CSC or SAT of alarm condition

Activities: Communicating

Behavioral Details: Radio or telephone communication requiring knowledge of format and amount of information transmitted.

Task: Brief relief monitor

Activities: Communicating

Behavioral Details: Direct verbal communication, no special knowledge requirements.

Block S-X: Central Security Control

Task: Receive alarms

Activities: Communicating

Behavioral Details: Radio or telephone communication requiring knowledge of 10-series codes, duress codes, and phonetic alaphabet.

Task: Dispatch primary SAT

Activities: Communicating

Behavioral Details: Radio or telephone communication requiring knowledge of format and amount of information transmitted.

Task: Dispatch reserve SAT

Activities: (same as for primary SAT)

Task: Report to senior command post

Activities: Communicating

Behavioral Details: Radio or telephone communication requiring knowledge of format and amount of information transmitted. This communication also requires knowledge of code words for identifying the type of incident.

Task: Alter report to senior command post

Activities: Communicating

Behavioral Details: Radio or telephone communications requiring knowledge of code words used to cancel or upgrade original incident report.

Task: Implement actions specified in security checklists

Activities: Procedure Following

Behavioral Details: Fixed procedure, number of steps depends on procedure used at each installation, no SB steps.

Each step and step sequence is contained in a checklist performance aid.

Task: Brief alternate CSC and relief communicator/plotter

Activities: Communicating

Behavioral Details: Direct verbal communication, no special knowledge requirements.

Task: Report incidents

Activities: Communicating

Behavioral Details: Written communication requiring knowledge of format and information requirements of DD Form 1569.

Task: Log activities performed

Activities: Communicating

Behavioral Details: Written communication requiring knowledge of format and information requirements of AF Form 53

Block S-XI: Civil Disturbance and Riot Control

Task: Assume safe port position

Activities: Procedure Following

(cont.)

Behavioral Details: Possible 4-step fixed procedure, no SB steps

Task: Assume short guard position

Activities: Procedure Following

Behavioral Details: 1-step fixed procedure, no SB steps

Task: Use an upward blow (M-16 or M-12)

Activities: Decision Making, Procedure Following

Behavioral Details:

Decision Making - Decision to inflict a blow is made by rule of thumb, use only if rushed by mob or attacked by individual.

Task: Use a downward blow (M-16 or M-12)

Activities: Decision Making, Procedure Following

Behavioral Details:

Decision Making - Same as for upward blow

Procedure Following - 3-step fixed procedure, no SB steps

Task: Use the prod (M-16 or M-12)

Activities: Decision Making, Procedure Following

Behavioral Details:

Decision Making - prod is used only if bayonet is not affixed and only on rioters reluctant to move.

Procedure Following - 3-step fixed procedure, no SB steps

Task: Fix bayonet (M-16 or M-12)

Activities: Procedure Following

Behavioral Details: 4-step fixed procedure, no SB steps

Task: Use the short thrust (M-16 or M-12)

Activities: Decision Making, Procedure Following

Behavioral Details:

Decision Making - Thrusts are used only when commanded to do so or when they are the only way to perserve life.

Procedure Following - 3-step fixed procedure, no SB steps

Task: Use the long thrust (M-16 or M-12)

Activities: Decision Making, Procedure Following

Behavioral Details:

Decision Making - Same as for short thrust.

Procedure Following - 4-step fixed procedure, no SB steps

Task: Roll to change position

Activities: Decision Making, Procedure Following

Behavioral Details:

Decision Making - Rolling is used when it is desirable to move a short distance to the side of the present position and also remain as close to the ground as possible.

Procedure Following - 5-step fixed procedure, no SB steps

Task: Rush the objective

Activities: Same as rushing, Block S-VIII

Task: Advance using the high crawl

Activities: Same as in Block S-VIII

Task: Advance using the low crawl

Activities: Same as in Block S-VIII

Task: Prepare for gas

Activities: Procedure Following

Behavioral Details: 7-step fixed procedure, 1 SB step

SB step requires airmen to recognize appropriate verbal command.

Task: Assume squad wedge position

Activities: Procedure Following

Behavioral Details: 4-step fixed procedure, 2 SB steps

The first SB step requires the airmen to recognize the appropriate verbal and visual signals. This SB step applies to all squad and flight formations. The second SB step requires the first man of fire team B to locate and position himself near the first man of fire team A.

Task: Assume squad diamond position

Activities: Procedure Following

Behavioral Details: 4-step fixed procedure, 1 SB step

The SB step requires the airmen to recognize the appropriate verbal and visual signals.

Task: Assume squad line position

Activities: Procedure Following

Behavioral Details: 4-step fixed procedure, 1 SB step

The SB step requires the airmen to recognize the appropriate verbal and visual signals.

Task: Assume position in squad right echelon

Activities: Procedure Following

Behavioral Details: 4-step fixed procedure, 1 SB step

The SB step requires the airmen to recognize the appropriate verbal and visual signals.

Task: Assume position in squad left echelon

Activities: Procedure Following

Behavioral Details: 4-step fixed procedure, 1 SB step

The SB step requires the airmen to recognize the appropriate verbal and visual signals.

Task: Assume position in squad rear guard formation

Activities: Procedure Following

Behavioral Details: 6-step fixed procedure, 1 SB step

The SB step requires the airmen to recognize the appropriate verbal and visual signals.

Task: Assume position in flight wedge

Activities: Procedure Following

Behavioral Details: 4-step fixed procedure, 1 SB step

The SB step requires the airmen to recognize the appropriate verbal and visual signals.

Task: Assume position in flight diamond

Activities: Procedure Following

Behavioral Details: 4-step fixed procedure, 1 SB step

The SB step requires the airmen to recognize the appropriate verbal and visual signals.

Task: Assume position in flight line

Activities: Procedure Following

Behavioral Details: 4-step fixed procedure, 1 SB step

The SB step requires the airmen to recognize the appropriate verbal and visual signals.

Task: Assume position in flight echelon right or left

Activities: Procedure Following

Behavioral Details: 4-step fixed procedure, 1 SB step

The SB step requires the airmen to recognize the appropriate verbal and visual signals.

Task: Assume position in lateral support formations

Activities: Procedure Following

Behavioral Details: 5-step fixed procedure, 1 SB step

The SB step requires the airmen to recognize the appropriate verbal and visual signals.

Task: Assume position in rear guard formation

Activities: Procedure Following

Behavioral Details: 5-step fixed procedure, 1 SB step

The SB step requires the airmen to recognize the appropriate verbal and visual signals.

APPENDIX B

Course Outline

SECURITY POLICE AUTOMATED APPRENTICESHIP TRAINING

Course Outline and Lesson Description

Block I Introduction

Lesson 1 - Equipment Operation
Operation of the Audiscan teaching machine

Lesson 2 - Automated Apprenticeship Training
Description of this type of training

Lesson 3 - Security Police Career Field
Chart of progression in the career field

Lesson 4 - Squadron Organization
Organization chart of typical Security Police squadron

Block II Uniform

Lesson 1 - Introduction
Overview of Block II and Security Police badge

Lesson 2 - Service and Field Uniform
Wearing of the service and field uniforms

Lesson 3 - Practice Exercises
Review questions about wearing of uniforms and accessories

Block III Ceremonies

Lesson 1 - Introduction
Overview of Block III

Lesson 2 - Display and Use of Flags
Types of flags and how and when each is used

Lesson 3 - Reveille
What Security Policeman does in Reveille ceremony

Lesson 4 - Retreat
What Security Policeman does in Retreat ceremony

Lesson 5 - Color Guard
What Security Policeman does in Color Guard.

Lesson 6 - Practice Exercises
Review questions about ceremonies using flags

Lesson 7 - Military Funeral
What Security Policeman does in firing party

Lesson 8 - Revolver Manual of Arms
How to perform revolver manual of arms

Lesson 9 - M-16 Rifle Manual of Arms
How to perform M-16 rifle manual of arms

Lesson 10 - Guard Mount
What Security Policeman does at Guard Mount ceremony

Lesson 11 - Practice Exercises
Review questions about ceremonies not using flags

Block IV First Aid

Lesson 1 - Introduction
Overview of Block IV

Lesson 2 - Types of Bleeding
Recognizing symptoms of types of bleeding

Lesson 3 - Control of Bleeding
Methods for stopping bleeding

Lesson 4 - Symptoms and Treatment of Shock
How to recognize and treat for shock

Lesson 5 - Protect the Wound
How to protect wounds

Lesson 6 - Artificial Respiration
How to perform mouth-to-mouth artificial respiration

Lesson 7 - Practice Exercises
Review questions about all aspects of first aid

Block V Communications

Lesson 1 - Introduction
Overview of Block V

Lesson 2 - Communications Equipment
Operation and characteristics of communication equipment

Lesson 3 - Prowords
Prowords and their meaning

Lesson 4 - 10-series Code
Code numbers and their meaning

Lesson 5 - Phonetic Alphabet
Pronunciation and use of phonetic alphabet

Lesson 6 - Phonetic Numerals
Pronunciation and use of phonetic numerals

Lesson 7 - Practice Exercises
Practice in composing messages using communications words and codes

Block VI Weapons

Unit 1 M-16 Rifle

Lesson 1 - Introduction to M-16 Rifle
Name and location of rifle parts

Lesson 2 - Draw and Return M-16 Rifle
How to obtain and return weapon to gun and equipment room

Lesson 3 - Clear M-16 Rifle
How to perform rifle clearing procedure

Lesson 4 - Disassemble and Assemble M-16 Rifle
How to disassemble and assemble M-16 rifle

Lesson 5 - Clean M-16 Rifle
How to use cleaning equipment on M-16 rifle

Lesson 6 - M-16 Rifle Function Check
How to perform function check on M-16 rifle

Lesson 7 - M-16 Rifle Firing Positions
How to assume each rifle position for annual qualification

Lesson 8 - M-16 Rifle Sight Alignment and Positioning
How to obtain proper rifle sight picture

Lesson 9 - Breath and Trigger Control
How to control breath and fire M-16 rifle

Lesson 10 - M-16 Rifle Sight Adjustment
How to adjust sights on M-16 rifle

Lesson 11 - Clear M-16 Rifle Stoppages
What to do if M-16 rifle stops operating

Unit 2 .38 Caliber Revolver

Lesson 1 - Introduction to .38 Caliber Revolver
Name and location of revolver parts

Lesson 2 - Clean Revolver
How to use equipment for cleaning revolver

Lesson 3 - Load Revolver
How to load and unload revolver

Lesson 4 - Grasping Revolver
Hand positions for single and double-action firing

Lesson 5 - Revolver Firing Positions
How to assume each revolver position for annual qualification

Lesson 6 - Revolver Sight Alignment and Positioning
How to obtain proper revolver sight picture

Lesson 7 - Revolver Sight Adjustment
How to adjust revolver sights

Lesson 8 - Clear Revolver Stoppages
What to do if revolver fails to operate

Unit 3 M-12 Shotgun

Lesson 1 - Introduction to M-12 Shotgun
Name and location of shotgun parts

Lesson 2 - Clean Shotgun
How to use equipment for cleaning shotgun

Lesson 3 - Load and Unload Shotgun
How to load and unload shotgun

Lesson 4 - Shotgun Firing Position and Sighting
How to assume position and fire shotgun

Lesson 5 - Clear Shotgun Stoppages
What to do if shotgun fails to operate

Block S-VII Entry Controller

Lesson 1 - Introduction
Overview of Block S-VII

Lesson 2 - Exchange Badge Procedure
How to use exchange badges

Lesson 3 - Single Badge Procedure
How to grant entry with single badge

Lesson 4 - Admitting Visitors
How to admit visitors and maintain log

Lesson 5 - Other Tasks
How to search vehicles

Block S-VIII Sentry

Lesson 1 - Introduction
Overview of Block S-VIII

Lesson 2 - Patrol Post
How to perform duties as close-in and boundary sentry, distant support sentry, area patrols and preventive perimeter sentry

Lesson 3 - Detect Hostile Events
How to use the human senses to detect events

Lesson 4 - Sound Alarm
How to notify Central Security Control of possible hostile events

Lesson 5 - Neutralize Threat
How to challenge and apprehend a possible intruder

Lesson 6 - Review and Other Tasks
Review of sentry duties

Block S-IX Security Alert Team (SAT)

Lesson 1 - Receive Alarm
How to communicate with CSC and drive vehicle to scene of event

Lesson 2 - Deploy Team
How to position members to seal-off area and open fire lines

Lesson 3 - Searching
How to conduct a wall search and review of vehicle search

Lesson 4 - Reporting
What actions to report to CSC

Block S-X Central Security Control (CSC)

Lesson 1 - Introduction
How to use CSC equipment and procedures

Lesson 2 - Dispatch SAT
How to dispatch and call primary and reserve SAT

Lesson 3 - Reporting
How to transmit up-channel reports

Lesson 4 - Log Activities
How to complete DD Form 1569 and AF Form 53

Block S-XI Alarm Monitor

Lesson 1 - Introduction
How to interpret alarm board signals

Lesson 2 - Entry
How to grant entry to alarmed areas

Lesson 3 - Log Activities
Review of DD Form 1569 and AF Form 53

Block S-XII and L-XIV Riot Control

Lesson 1 - Squad Formations
How to assume squad line, echelon right and left, squad wedge, and squad diamond formations

Lesson 2 - Flight Formations
How to assume flight line, echelon right and left, flight wedge, and flight diamond formations

Lesson 3 - Lateral Support Formations
How to assume the line, echelon right and left, and wedge formations with lateral support

Lesson 4 - Rifle Positions
How to assume safe port, short guard, and on-guard positions

Lesson 5 - Weapon Usage
How to prod, deliver upward and downward blows, and parry rioter attacks

Block L-VIII Traffic

Lesson 1 - Base Gate Guard
How to direct traffic flow at main gate including visitor control

Lesson 2 - Traffic Control
How to execute hand and arm signals for: stop, go, and turn

Lesson 3 - Control Points
How to select the correct position to stand in intersection

Lesson 4 - Convoy Escort
How to perform convoy escort using the four most common methods

Lesson 5 - Practice Exercises
Review questions about each lesson

Block L-IX On-base Patrol

Lesson 1 - Patrolling
How to change the timing and route of patrols and to detect traffic violators

Lesson 2 - Pursue Traffic Violator
How to pace violator, select stopping place, overtake violator, and signal driver to stop

Lesson 3 - Identify Traffic Violator
How to approach violator and establish identity, including apprehension of violator for minor offense

Lesson 4 - Issue Traffic Ticket
How to record circumstances of traffic violation on DD Form 1408

Lesson 5 - Monitor Personal Conduct and Uniform
How to enforce standards of personal conduct and uniform regulations, including preparation of DD Form 1569

Lesson 6 - Respond to Report of Incident
How to conduct personal, vehicle, and building searches at the scene, including the handling of evidence and preparation of AF Form 52

Lesson 7 - Respond to Report of Traffic Accident
How to protect life and property when dispatched to the scene of a traffic accident

Lesson 8 - Investigate Traffic Accident
How to record the accident details on AF Form 1315

Lesson 9 - Investigate Incident or Offense
How to identify and interview principals and witnesses at the scene, including the taking of statements on AF Forms 1168, 1169, and 1170

Lesson 10 - Safeguard Public Funds
How to perform the duties of guard or driver when escorting the custodian of public funds

Lesson 11 - Practice Exercises
Review questions about each lesson

Block L-X Off-base Patrol

Lesson 1 - Patrolling
Review of timing and route of patrols

Lesson 2 - Jurisdiction
Limitations of off-base authority

Lesson 3 - Apprehend Offenders
Review of identification and apprehension of offender

Lesson 4 - Reports and Passes
How to prepare DD Form 460 and review of AF Form 53, DD Form 1569

Block L-XI Apprehension

Lesson 1 - Jurisdiction
Authority for apprehensions

Lesson 2 - Comealongs
How to apply the sleeve guide, police arm bar, front wrist lock, rear arm lock, and neck drag

Lesson 3 - Takedowns
How to apply the front wrist takedown and elbow takedown

Lesson 4 - Defenses
How to apply the windmill and groin defenses

Lesson 5 - Police Club
How to apply club for defense, front and backhand blows

Block L-XII Confinement

Authority for confinement and preparation of DD Form 497 and 367

Block L-XIII Administration

Lesson .. - Register Vehicle
Review of registration requirements and preparation of AF Form 1312

Lesson 2 - Register Firearms and Pets
Preparation of DD Form 793 and AF Form 1314

SECURITY POLICE AUTOMATED APPRENTICESHIP TRAINING
Requirements for Training Equipment used with Lessons

BLOCK	LESSON	DESCRIPTION OF TRAINING EQUIPMENT
III - Ceremonies	7 - Military Funeral	M-1 Rifle with sling
	8 - Revolver Manual of Arms	.38 Caliber Revolver with holster and belt
	9 - Rifle Manual of Arms	M-16 Rifle with sling and empty magazine
IV - First Aid	3 - Control of Bleeding	Cloth pad (handkerchief) and police club
V - Communications	2 - Communications Equipment	Handi-talkie radio
S-VII Sentry	2 - Exchange Badge Procedure	AF Form 1199
	4 - Admitting Visitors	AF Form 1109
S-X Central Security Control	4 - Reporting	DD Form 1569, AF Form 53
S-XI Alarm Monitor	3 - Log Activities	DD Form 1569, AF Form 53

BLOCK	LESSON	DESCRIPTION OF TRAINING EQUIPMENT
L-IX On-base Patrol	4 - Issue Traffic Ticket	DD Form 1408
	5 - Monitor Personal Conduct and Uniform	DD Form 1569
L-IX On-base	6 - Respond to Report of Incident	AF Form 52
	8 - Investigate Traffic Accident	AF Form 1315
	9 - Investigate Incident or Offense	AF Form 1168, AF Form 1169, AF Form 1170
L-X Off-base Patrol	4 - Reports and Passes	DD Form 460, DD Form 1569, AF Form 53
L-XI Apprehension	5 - Police Club	Police Club
L-XII Confinement	1 - Confinement	DD Form 367, DD Form 497
L-XIII Administration	1 - Register Vehicle	AF Form 1312
	2 - Register Firearms and Pets	DD Form 793, AF Form 1314

APPENDIX C

Security Police Performance Test

Forms L and S

SECURITY SPECIALIST PERFORMANCE TEST

FORM L

INTRODUCTION

This is the Law Enforcement Specialist Performance Test. The format of this test is somewhat different from other tests you may have taken. Each item is contained in the test booklet. Each item is accompanied by a picture or pictures which will be projected on the screen in front of you. The items may not be entirely clear in meaning without the associated picture. Be sure that you look at each picture carefully. All items will be presented verbally just as these instructions are being presented now.

INSTRUCTIONS

In order to take this test, you will need the following items of equipment:

(a) a pencil or pen

(b) an answer sheet

(c) a test booklet

Be sure that you have all of these items of equipment before starting the test.

Look now at the answer sheet. Find the section labeled "Course Number" in the top right corner of the answer sheet. Write your Social Security number in this space.

Print your name in the space provided.

Look at the space labeled "Class and Section" to the right of your name. Print one of the following:

(1) If you were a Directed Duty Airman and took the Automated Apprenticeship Training Course, print AAT.

(2) If you went to the Security Police Technical school at Lackland Air Force Base, print ABR.

(3) If you were a Directed Duty Airman and used the CDC books, print CDC.

Now write todays date in the space provided.

Find the section labeled "Exam Form Number" directly below your name. Since this is Form L, write an L in the blank.

Finally in the space called "Exam Booklet Number" print the name of this Air Force Base.

The questions for this test will be presented in the following manner:

(a) You will be told the question number

(b) Then the question will be read

(c) Next, each of the choices will be read and the letter you mark for each will be given

Let's listen to a practice item. (Do not mark on you answer sheet) (Example)

A. The shirt for the summer uniform has:

(a) no sleeves

(b) long sleeves

(c) short sleeves

You would have marked out the letter (c) for item A on your answer sheet.

After each item, and the answer choices are read, the machine will stop. When you have finished that item, push the black button on the control panel and you will be given the next item.

Please answer each item. Mark the answer you believe to be correct.

If you have any questions, please ask the administrator after the machine stops. When you start the machine again the test will begin. If you have no questions just push the button and we will begin.

1. Which of these formations would be the best manner for a riot control flight to change from a lateral support formation into a line formation:

   (a) the diagram at the top

   (b) the center diagram

   (c) the diagram at the bottom

   (d) all are equally good methods

2. Which of the following flag positions is demonstrated in this scene?

   (a) Flag at the salute

   (b) Flag at the order

   (c) Flag at the carry

   (d) Flag at parade rest

3. Which of the following should <u>not</u> be performed in administering first aid for shock?

   (a) keep the victim warm

   (b) loosen clothing

   (c) raise legs and lower head

   (d) raise head and lower legs

4. In a severe blood loss situation where the bleeding is in the upper cheek, which pressure point should be utilized?

   (a) on jaw

   (b) in neck

   (c) in front of ear

   (d) behind collar bone

5. In a radio message to another Security Policeman, which proword would you use to indicate that you must pause for a few seconds?

   (a) Wait

   (b) Wait Out

   (c) Silence

   (d) Break

6. In the leap frog method of convoy escort, once the column has passed the control point to which you are assigned, you should:

   (a) follow the convoy

   (b) leave your point, overtake the column, and move ahead to the first control point beyond the foremost member of the escort detail

   (c) none of the above

7. The signal in this drawing indicates the riot control formation:

   (a) Wedge

   (b) Flight Line

   (c) As Scirmishers

   (d) Spread Formation

8. Which of these scenes correctly depicts the "Port Arms" position?

   (a) the left most scene

   (b) the right most scene

9. Under which of the following conditions should a tourniquet be used?

   (a) to stop bleeding from a limb when blood is spurting from an artery and direct pressure has failed

   (b) to stop any serious bleeding

   (c) none of the above

10. Listen now to the following description of an incident. At approximately 2100 hours on 1 June 1964, a call was received from Sergeant Smith who stated that an airman was attempting to pick a fight with another airman. Sergeant Moore and Airman Brown were dispatched by radio. Upon their arrival, Sergeant Smith stated that Airman Jones had repeatedly tried to start a fight with another airman. He further stated that he had asked Airman Jones several times to leave the club and each time Airman Jones refused. When notified by Sergeant Moore that he was under apprehension, Airman Jones stated, "If you want me, come and get me." Sergeant Moore and Airman Brown subdued Jones and applied handcuffs using necessary force to do so. Sergeant Smith then pointed out the airman with whom Airman Jones had attempted to pick a fight. He was identified as Airman First-Class Ronald A. Hirsch, AF 17334554 of the 446th fighter interceptor squadron at Nutron Air Force Base, Arizona. Airman Hirsch willingly accompanied the Security Police to Security Police operations where, after being advised of his rights under Article 31 of the UCMJ, he stated that Airman Jones had for no apparent reason, tried to get him to go outside the airman's club and fight. Airman Hirsch made a written statement which is on file at Security Police operations. At Security Police operations, Airman Jones made threatening remarks to the desk Sergeant, Airman First-Class Joseph C. Hill. Airman Jones was advised of his rights under Article 31 UCMJ and asked if he wanted to consent to a blood alcohol test. He refused. He appeared intoxicated. His eyes were blood shot, his speech slurred, he was unsteady on his feet and his breath smelled strongly of alcohol. At 2235, Airman Jones' commander, Major Hardy, was notified by phone and came to Security Police operations to sign a confinement order, signing it at 2305. Airman Jones was confined to base confinement facility at 2320 on 1 June 1964.

    Is this form substantially correct for the incident described?

    (a) Yes

    (b) No

11. Look at this diagram. If you are the number five man in the second squad of a flight and the command "Flight Wedge, Move" is given, you would move to which of the positions:

(a)

(b)

(c)

(d)

12. Here is a view of DD Form 579, the temporary receipt for property. Be advised that Airman Smith had in his possession the following items when he was detained by the Security Police:

(1) $10.42 in cash

(2) one key ring

(3) one comb

(4) one Massachusetts drivers license

(5) one DD Form 2AF

(6) one wallet

(7) one lighter

(8) a wrist watch

(9) a ring

Look at the form and see if it has been filled out appropriately:

(a) the form has been filled out appropriately

(b) the form has <u>not</u> been filled out appropriately

13. Here is a view of the .38 cal. revolver. The component numbered five is the:

(a) hammer

(b) thumb piece

(c) cylinder

(d) stock

14. Look at this diagram. If you are the number five man in the second squad of a flight and the command "Flight, Echelon Left, Move" is given, you would move to which of the positions:

(a)

(b)

(c)

(d)

15. When interviewing a civilian witness, which of the following must the Security Police interviewer read to him?

(a) Article 31 of the UCMJ

(b) the Fifth Amendment of the Constitution

(c) the Bill of Rights

(d) AFR 125-21

16. Which of the following positions is <u>not</u> permissable for hand-cuffing an offender:

(a) hands cuffed in front of body

(b) hands cuffed behind body

(c) hands cuffed under knees

(d) hands cuffed to a car door

17. In a radio message to another Security Policeman, which proword would you use to indicate that you have received the message, understood it and will comply with it?

(a) I Verify

(b) That Is Correct

(c) Verify

(d) Wilco

18. What is t' : effective range for a typical portable Man-Pack radi(.

(a) one mile

(b) three miles

(c) four miles

(d) six miles

19. Who is authorized to place an officer under arrest?

(a) the Chief of Security Police

(b) the OSI unit

(c) the officer's commander

(d) an officer of a higher rank

20. If you find it necessary to make an apprehension, which of the following would <u>not</u> normally come under your jurisdiction?

(a) a civilian who is speeding on a military installation

(b) military personnel who are fighting in an off-base bar

(c) civilians who are fighting in an off-base bar

(d) a civilian who is disorderly on a military installation

21. Which of the following are symptoms of shock?

(a) dialated pupils, wet skin, rapid pulse, pale color

(b) dry skin, contracted pupils, rapid and strong pulse

(c) flushed face, strong pulse, contracted pupils

(d) trembling, flushed face, dry skin

22. Which of these views shows the appropriate grip for single action firing of the .38 cal. revolver?

(a) the left most view

(b) the bottom view on the right

(c) the top view on the right

(d) none of these

23. Now assume you have taken as evidence from Airman Henry Roger Miller, one .38 cal. revolver. The revolver is a Smith & Wesson with a two-inch barrel. It has a blue finish, walnut grip and has the name Hank carved in the left grip. The serial number of the revolver is 475890. Look now at these views of the appropriate Air Force form. Is the form filled out correctly for the situation described?

(a) Yes

(b) No

24. Here is a view of part of page three of AF Form 1315. From the information presented on this page, which vehicle was parked at the time of the accident?

(a) vehicle No. 1

(b) vehicle No. 2

(c) both vehicles were parked

(d) both vehicles were moving at the time of the accident

25. From left to right, this rifle movement scene depicts:

(a) Right Shoulder Arms from Order Arms

(b) Order Arms from Present Arms

(c) Port Arms from Sling Arms

(d) Sling Arms from Parade Rest

26. Which of the following flag positions is demonstrated in this scene?

(a) Flag at the carry

(b) Flag at the order

(c) Flag at the salute

(d) Flag at parade rest

27. The position shown in this drawing is:

(a) Safe Port

(b) Low Port

(c) Port Arms

(d) Present Arms

28. If a person in civilian clothing is suspected of being AWOL and is off-base, the Security Policeman:

(a) must stop and check his identification

(b) must request that a civilian Policeman stop and check his identification

(c) must apprehend him

(d) none of the above

29. Personnel at the front of this riot control formation are demonstrating which rifle position:

(a) Safe Port

(b) Low Thrust

(c) On Guard

(d) Short Guard

30. If a state of qualified marshal law is declared and you are required to participate in maintaining order, which of the following situations would come under your jurisdiction?

(a) a civilian who is committing an off-base felony

(b) a civilian who is committing an on-base felony

(c) a military person who is committing an off-base felony

(d) all of the above come under a Security Policeman's jurisdiction in a state of qualified marshal law

31. This symbol, displayed in riot control diagrams, indicates:

(a) Squad leader

(b) Flight leader

32. If a witness makes a written statement, he must sign it in order for the statement to be introduced as evidence.

(a) True

(b) False

33. Air Force Form 52, the Evidential or Acquired Property record, specifies that the "person relinquishing property" be named. Who is this person?

(a) the one who takes the evidence from the suspect

(b) the one whose property is taken as evidence

(c) the one who witnesses the transfer of this property

(d) none of the above

34. Upon hearing the command, "Squad Wedge Move", you as the number two man in the squad, would assume which of the indicated positions?

(a)

(b)

(c)

(d)

35. Here is a view of part of page two of AF Form 1315. From the information shown on this page, which of the vehicle drivers was intoxicated at the time of the accident?

(a) the driver of vehicle No. 1

(b) the driver of vehicle No. 2

(c) both drivers were intoxicated

(d) neither driver was intoxicated

36. Here is a picture showing the prone position used with the .38 cal. revolver on the firing line. Look at the individual closest to you. Is his position correct?

(a) Yes

(b) No

37. Here is a firing line view showing the depressed pistol position used on the .38 cal. revolver. When should this position be assumed?

(a) immediately prior to firing

(b) immediately after firing

(c) both of the above

(d) none of the above

38. Let us assume that you are a Corrections Supervisor at Jet Air Force Base in Texas. Your name is James Bennett. You have recently confined an Airman John Doe. Look now at this view of a completed Confinement Order. Has the form been completed correctly for the situation described?

(a) Yes

(b) No

39. Which of these positions correctly illustrate the "Present Arms" position?

(a) the left most position

(b) the second position from the left

(c) the third position from the left

(d) the right most position

40. What immediate first aid action would you administer to a person who is pale and unconscious, but breathing?

(a) first protect the wound

(b) first stop the bleeding

(c) first begin artificial respiration

(d) first treat for shock and examine for injury

41. Here is a Security Policeman at "Sling Arms". Is his position correct?

(a) No

(b) Yes

42. At what location should a complete personal search be conducted?

(a) at the scene

(b) in the patrol car

(c) at Security Police operations

(d) none of the above

43. In a situation where it is necessary to bring two lanes of traffic together to form a single outgoing lane, which of the following is a better method?

(a) alternate the flow by stopping one lane for awhile and then stopping the other

(b) alternate each car

44. Here is a view of an Incident Complaint report. What is the correct number for this form?

(a) DD Form 1408

(b) DD Form 367

(c) AF Form 52

(d) DD Form 1569

45. Having received the signal for "Echelon Left", you as the number seven man in the squad, would assume which of the following positions:

(a)

(b)

(c)

(d) none of these

46. In a radio communication you hear the following code: 10-5. You understand this to mean:

(a) Stand By

(b) In Service (with exact location)

(c) Security Alert

(d) Repeat

47. Before administering mouth-to-mouth artificial respiration, you should:

(a) remove all water from the victim's stomach

(b) insure that the air passage way of the victim is open

(c) keep the victim warm

(d) none of these answers are correct

48. Here are two views of the sight picture on the .38 caliber revolver. Which view shows the target correctly centered?

(a) the left most view

(b) the right most view

49. In the case of an unconscious victim, which of the following actions must <u>not</u> be taken?

(a) artificial respiration

(b) administration of liquid

(c) treatment for shock

(d) laying the victim down

50. Here is a view of AF Form 1313, driver record for Tech. Sergeant Grady A. Humphreys. What was the date of Sergeant Humphreys' first accident?

(a) 27 January 1923

(b) 1 April 1965

(c) 24 March 1966

(d) none of the above

51. If you were the number four man in a squad wedge and the command "Rear Guard Move" is given, you would:

(a) turn about

(b) turn half about

(c) remain facing front

(d) step out of position and back two steps

52. Which is the safest and most effective method for stopping severe bleeding?

(a) application of a tourniquet

(b) direct pressure on the wound

(c) direct pressure above the wound

(d) applying pressure to a pressure point

53. Off limits establishments:

(a) may be visited during a patrol tour to check for military personnel

(b) may be visited only by off duty Security Policemen

(c) may never be visited by a Security Policeman on a patrol tour

54. When should the pressure point in front on the ear be used?

(a) in the case of a profusely bleeding nose

(b) in the case of a profusely bleeding chin wound

(c) in the case of a profusely bleeding arm wound

(d) in the case of a profusely bleeding scalp wound

55. From left to right, this rifle movement scene depicts:

(a) Port Arms from Sling Arms

(b) Order Arms from Present Arms

(c) Right Shoulder Arms from Order Arms

(d) Sling Arms from Parade Rest

56. This view of the M-16 rifle shows the operator:

(a) removing the firing pin's retaining pin

(b) retracting the bolt carrier group

(c) removing the bolt carrier group

(d) both (b) and (c) are correct

57. Which of these mouth-to-mouth artificial respiration positions is preferred under normal circumstances?

(a) the left position

(b) the right position

58. During an off-base patrol, you apprehend a traveling airman for disorderly conduct in a bus station while he is waiting for his bus. Your appropriate action would be:

(a) book him and place him in custody

(b) simply warn him

(c) book him and release after the booking

(d) any of the above may be correct depending on the circumstances

59. The rifle position being demonstrated by these riot control troops is:

(a) Safe Port

(b) Low Port

(c) Port Arms

(d) Present Arms

60. Here is a view of a Security Policeman performing traffic duty at an intersection. He is correctly demonstrating the signal for:

(a) stop

(b) proceed with caution

(c) go

(d) turn

61. A Provisional Pass (DD Form 460) is issued when:

(a) a member of the armed forces is apprehended for a minor violation which may result in a failure to report to his assigned station within the time limits specified by his orders or pass

(b) his pass has expired but he has evidence that he is actually enroute to his destination

(c) he has missed his transportation through no fault of his own

(d) all of the above

62. Here is a view of a portion of AF Form 53, the Security Police desk blotter. From the information presented in this picture, indicate at what time Tech. Sergeant Brown left the office:

(a) 0845

(b) 0900

(c) 0220

(d) 1400

63. The position shown in this drawing is:

(a) Low Thrust

(b) Long Thrust

(c) On Guard

(d) Short Guard

64. Here is a view of part of page four of AF Form 1315. From the information presented on this page, what is the name of the individual who is at fault in the accident?

(a) Sergeant Green

(b) Mr. Dodd

(c) Airman Dunnit

(d) Sergeant Meaney

65. As you can see, this view illustrates both the direct pressure and elevation methods of controlling bleeding. In a situation where severe bleeding has occurred and both of these methods have failed, what is the next action you should take?

(a) apply a tourniquet

(b) use a pressure point

(c) tie off an artery

(d) none of these actions are correct

66. If a civilian witness refuses to be questioned, the investigator should:

(a) make a specific attempt to force him to be questioned

(b) confine him

(c) make a written notation of the fact and cease questioning

(d) none of the above

67. If the direct pressure method of stopping blood flow has failed, the next thing you would do is:

(a) apply a tourniquet

(b) apply pressure to a pressure point

(c) elevate the limb

(d) tie off an artery

68. The signal in this drawing indicates the riot control formation of:

(a) Line

(b) Slant

(c) Echelon

(d) Diamond

69. This symbol displayed in riot control diagrams indicates:

(a) second flight

(b) number two man

70. This riot control formation signal indicates:

(a) Line Right

(b) Diamond Left

(c) Echelon Right

(d) Echelon Left

71. This riot control formation signal indicates:

(a) Spear

(b) Wedge

(c) Arrow

(d) Diamond

72. A Security Policeman on an off-base patrol may not:

(a) accompany civilian Police to apprehend military offenders

(b) assist civilian Police at special functions attended by military personnel

(c) ride with civilian Police in civilian patrol cars on regular routes

(d) a Security Policeman may do any of the above

73. For what length of time should a visitor's automobile permit be issued?

(a) up to two weeks

(b) up to one week

(c) up to one month

(d) up to twenty-four hours

74. During mouth-to-mouth artificial respiration, you could avoid direct contact with a victim who has a lacerated lip by:

(a) placing your hand over the victim's mouth and blowing between your thumb and forefinger

(b) placing a handkerchief over the victim's mouth

(c) using another method of artificial respiration

(d) all of the above

75. How many times per minute should one repeat lung inflation when performing mouth-to-mouth artificial respiration?

(a) ten to fourteen times per minute

(b) eight to twelve times per minute

(c) twelve to twenty times per minute

(d) thirty-one to fifty times per minute

76. Here is a view of part of page one of AF Form 1315, the Motor Vehicle Accident Investigation report. From the information presented on this page of the form, which of the following best describes the damaged vehicle?

(a) a two-door Plymouth

(b) a one-half ton Chevrolet truck

77. A complete vehicle search is normally handled by:

(a) the OSI

(b) the Security Police

(c) the Security Police Chief

(d) all of the above

78. Which of the following is an appropriate and the correct use for the U.S. flag in the Air Force?

(a) using the flag to cover a statue

(b) using the flag to cover a ceiling

(c) carrying the flag flat or horizontally

(d) none of the above are correct uses of the U.S. flag

79. In riot control diagrams, this symbol represents:

(a) Squad leader

(b) Flight leader

(c) Assistant Squad leader

80. In a radio communication you hear the code: 10-2. You understand this to mean:

(a) Acknowledge, Will Comply

(b) Stop Transmitting

(c) Receiving Poorly

(d) Receiving Well

81. Under what conditions may personnel be permitted to bring privately owned firearms onto an Air Force installation?

(a) when authorized by the installation commander

(b) when authorized by the individual's unit commander

(c) to participate in firing parties

(d) all of the above

82. In a radio message to another Security Policeman, which proword would you use to indicate that the answer is yes?

(a) I Verify

(b) Affirmative

(c) I Say Again

(d) Wilco

83. Which of the following most effectively increases the speed of traffic flow?

(a) requiring all traffic to turn left

(b) eliminating all turns

(c) allowing both left turns and through traffic

(d) allowing both right turns and through traffic

84. Could this pressure point be utilized to control bleeding in the lower abdomen directly above the groin?

(a) Yes

(b) No

85. In a radio communication you hear the code: 10-20. You would:

(a) Go To Your Security Alert

(b) Provide The Needed Aid

(c) Repeat Your Last Transmission

(d) Phone The Office

86. What is the effective range for a typical Handie-Talkie radio?

(a) one mile

(b) three miles

(c) four miles

(d) six miles

87. In conducting a complete personal search, which of the following areas of the body should <u>not</u> be checked:

(a) the ear

(b) the rectum

(c) the hair

(d) all of the above areas should be checked

88. Here is a view illustrating the use of a tourniquet on the leg. Under what conditions should a tourniquet such as this be applied?

(a) only after other methods of blood flow control have failed

(b) for any severely bleeding arm injury

(c) neither of the above alternatives are correct

(d) both of the above alternatives are correct

89. In general, which .38 cal. revolver firing position results in the most accuracy?

(a) the standing position

(b) the kneeling position

(c) the crouching position

(d) the prone position

90. Which of the following requirements apply in order for a permanent vehicle registration to be issued?

(a) evidence of ownership

(b) possession of a valid state operators license

(c) possession of evidence of motor vehicle liability insurance

(d) all of the above

91. This weapon position is:

(a) High Port

(b) Low Port

(c) On Guard

(d) Short Guard

92. Here is a view of a field stripped M-16 rifle. Notice the component labeled "charging handle". This component fits in:

(a) the lower receiver group

(b) the magazine

(c) the bolt carrier group

(d) none of these

93. In a radio communication you hear the code: 10-12. You would:

(a) Start Transmitting

(b) Return To Station

(c) Phone The Office

(d) Proceed At Emergency Speed

94. If a victim is bleeding severely from the upper right arm and pressure point application is utilized in order to control the bleeding, which of the following pressure points should be used?

(a) inner side of upper arm

(b) in neck

(c) behind collar bone

(d) on jaw

95. Here is a view of two Security Policemen questioning a suspect. Notice the Security Policeman who is behind the suspect. Is his position correct?

(a) Yes

(b) No

96. This riot control formation signal indicates:

(a) Line Right

(b) Diamond Left

(c) Echelon Right

(d) Echelon Left

97. Here are two scenes of Security Policemen. Which scene correctly depicts the "Right Shoulder Arms" position?

(a) the left most scene

(b) the right most scene

(c) neither scene

98. Who is the proper authority to terminate an arrest status?

(a) the squadron commander

(b) the officer who imposed the arrest

(c) the officer in charge of the person

(d) the officer in charge of confinement

99. Here is a view of a firearms registration form. From the information provided in this form, how may firearms can be registered to one owner at a single time?

(a) one

(b) two

(c) five

(d) the appropriate information is not given

100. Which of the following flag positions is demonstrated in this scene?

(a) Flag at parade rest

(b) Flag at the salute

(c) Flag at the order

(d) Flag at the carry

SECURITY SPECIALIST PERFORMANCE TEST

FORM S

INTRODUCTION

This is the Security Specialist Performance Test. The format of this test is somewhat different from other tests you may have taken. Each item is contained in the test booklet. Each item is accompanied by a picture or pictures which will be projected on the screen in front of you. The items may not be entirely clear in meaning without the associated picture. Be sure that you look at each picture carefully. All items will be presented verbally just as these instructions are being presented now.

INSTRUCTIONS

In order to take this test, you will need the following items of equipment:

(1) pencil or pen

(2) an answer sheet

(3) a test booklet

Be sure that you have all of these items of equipment before star the test.

Look now at the answer sheet. Find the section labeled "Course Number" in the top right corner of the answer sheet. Write your Social Security number in this space.

Print your name in the space provided.

Look at the space labeled "Class and Section" to the right of your name. Print one of the following:

(1) If you were a Directed Duty Airman and took the Automated Apprenticeship Training Course, print AAT.

(2) If you went to the Security Police Technical school at Lackland Air Force Base, print ABR.

(3) If you were a Directed Duty Airman and used the CDC books, print CDC.

Now write todays date in the space provided.

Now find the section labeled "Exam Form Number" directly below your name. Since this is Form S, write an S in the blank.

Finally in the space called "Exam Booklet Number" print the name of this Air Force Base.

The questions for this test will be presented in the following manner:

(1) You will be told the question number

(2) Then the question will be read

(3) Next, each of the choices will be read and the letter you mark for each will be given

Let's listen to a practice item. (Do not mark on your answer sheet). (Example)

A. The shirt for the summer uniform has:

(a) no sleeves

(b) long sleeves

(c) short sleeves

You would have marked out the letter (c) for item A on your answer sheet.

After each item, and the answer choices are read, the machine will stop. When you have finished that item, push the black button on the control panel and you will be given the next item.

Please answer each item. Mark the answer you believe to be correct.

If you have any questions, please ask the administrator after the machine stops. When you start the machine again the test will begin. If you have no questions just push the button and we will begin.

1. An up channel report of a peace time nuclear accident is termed:

   (a) Fallen Tree

   (b) Dull Sword

   (c) Safe Wind

   (d) Broken Arrow

2. This M-16 component is the:

   (a) firing pin

   (b) bolt carrier group

   (c) lower receiver group

   (d) charging handle

3. If an unscheduled alarm occurs on the annunciator panel board, which of the following must the Alarm Monitor do first?

   (a) note the alarmed zone and cause the SAT team to be dispatched

   (b) call the base headquarters

   (c) call CSC

   (d) verify the alarm by visually inspecting the area

4. If you, as a Close-In sentry recognize a duress signal from a member of an aircraft crew, what immediate action should you take?

   (a) notify the base commander

   (b) report to CSC

   (c) notify the Security Alert Team

   (d) notify Security Police operations

5. Under which of the following conditions should a tourniquet be used?

   (a) to stop bleeding from a limb when blood is spurting from an artery and direct pressure has failed

   (b) to stop bleeding from a limb when blood is spurting from a vein and direct pressure has failed

   (c) to stop any serious bleeding

   (d) none of the above

6. Here are two views of a Security Policeman conducting a simple frisk on a suspect. Which of the two positions should come first in the frisking procedure?

   (a) the left position

   (b) the right position

7. As a SAT team member you are usually armed with a M-16 rifle, how many rounds of ammunition should you have?

   (a) ten

   (b) twenty

   (c) thirty

   (d) sixty

8. In a severe blood loss situation where the bleeding is in the upper cheek, which pressure point should be utilized?

   (a) on jaw

   (b) in neck

   (c) in front of ear

   (d) behind collar bone

9. Here are two views of a Security Policeman conducting a wall search. Which of these views show the correct method?

   (a) the left most view

   (b) the right most view

   (c) both methods are equally correct

10. What device is usually included on the restricted area badge of an escort official?

   (a) the words "Escort Official" in red

   (b) the words "Escort Official" in black

   (c) the letter E

   (d) the letters EO

11. This is a slide of a simulated Priority A area. Which number indicates the position of the Distant Support sentry?

   (a) thirteen (13)

   (b) seven (7)

   (c) twenty-seven (27)

   (d) none of these

12. During mouth-to-mouth artificial respiration, you could avoid direct contact with a victim who has a lacerated lip by:

   (a) placing your hand over the victim's mouth and blowing between your thumb and forefinger

   (b) placing a handkerchief over the victim's mouth

   (c) using another method of artificial respiration

   (d) all of the above

13. Is it necessary under normal conditions, for an Alarm Monitor to make a log of events for his duty tour?

(a) No

(b) Yes

14. A Helping Hand report is:

(a) a down channel report

(b) an up channel report

(c) a cross channel report

(d) none of the above

15. In this diagram, which component indicates the cylinder?

(a) two

(b) five

(c) ten

(d) eleven

16. This view of the M-16 rifle shows the operator:

(a) removing the firing pin's retaining pin

(b) retracting the bolt carrier group

(c) removing the bolt carrier group

(d) both (b) and (c) are correct

17. Which of the following positions is <u>not</u> permissable for hand-cuffing an offender?

(a) hands cuffed in front of body

(b) hands cuffed behind body

(c) hands cuffed under knees

(d) hands cuffed to a car door

18. What is the effective range for a typical Hand-Talkie radio:

(a) one mile

(b) three miles

(c) four miles

(d) six miles

19. In a radio communication, you hear the code: 10-2. You understand this to mean:

(a) Acknowledge, Will Comply

(b) Stop Transmitting

(c) Receiving Poorly

(d) Receiving Well

20. In general, which .38 cal. revolver firing position results in the most accuracy?

(a) the standing position

(b) the kneeling position

(c) the crouching position

(d) the prone position

21. What is the normal time in which a SAT team must be capable of responding to an alarm?

(a) one minute

(b) two minutes

(c) five minutes

(d) ten minutes

22. The exchange badge procedure usually utilizes:

(a) different size badges

(b) differently shaped badges

(c) differently colored badges

(d) all of the above

23. What is the effective range for a typical portable Man-Pack radio:

(a) one mile

(b) three miles

(c) four miles

(d) six miles

24. If you are a SAT team member responding to an alarm on a Priority B resource and you receive an alarm for a Priority A resource, you must:

(a) continue the Priority B investigation, then radio CSC for instruction

(b) continue the Priority B investigation, then respond to the Priority A alarm

(c) immediately withdraw from the Priority A investigation and respond to the Priority B investigation

(d) immediately withdraw from the Priority B investigation and respond to the Priority A investigation

25. In this view of the M-16 rifle, the selector lever is on which of the following positions:

(a) automatic

(b) semi-automatic

(c) safe

(d) none of these

26. If you are serving as a communicator plotter and receive an alarm from a crew associated with Priority A resource, your appropriate action would be:

(a) ddecide upon the authenticity of the alarm

(b) dispatch a SAT team

(c) relay the report to senior command post

(d) all of the above

27. In a communication, you hear the code: 10-12. You would:

(a) Start Transmitting

(b) Return To Station

(c) Phone The Office

(d) Proceed At Emergency Speed

28. In this diagram of a Priority A area, the position labeled E is:

(a) the area supervisor

(b) the taxi way

(c) the Entry Controller

(d) the alert crew facility

29. How is the boundary around the no lone zone of a parked Priority A aircraft marked?

(a) the boundary fence

(b) the runway area

(c) the red-orange line

(d) all of the above

30. In searching a subject or his property on a military installation, prior authority is <u>not</u> required if the search is:

(a) incident to an apprehension

(b) a situation requiring immediate action such as the removal of stolen goods

(c) consented to in writing by the person being searched

(d) all of the above

31. Here is a view of a Close-In sentry who has left his post and is talking on a field telephone. Since he is in a Priority A area, to whom is he most probably talking?

(a) the SAT team

(b) the Chief of Security Police

(c) CSC

(d) the Entry Controller

32. The signal illustrated in this picture indicates the riot control troops should form:

(a) a Wedge

(b) a Flight Line

(c) As Scirmishers

(d) a Spread Formation

33. The next three views show a SAT team response to an alarm in a Priority A area. Which component of this SAT team response is incorrect?

(a) the SAT truck approaches from the front

(b) one member of the SAT team has remained with the vehicle and has not aided in apprehending the intruder

(c) one SAT team member was running while holding the firearm

(d) the intruder has been allowed to relax from the spread eagled position

34. The position depicted in this picture is:

(a) Low Thrust

(b) Long Thrust

(c) On Guard

(d) Short Guard

35. When authorized entry is allowed into an alarmed area, the Alarm Monitor must uphold the:

(a) authorized dual response compatibility procedure

(b) single man entry control concept

(c) two man concept

(d) unaware alien espionage procedure

36. In a radio communication, you hear the code: 10-20. You would:

(a) Go To Your Security Alert

(b) Provide The Needed Aid

(c) Repeat Your Last Transmission

(d) Phone The Office

37. When use of the Security Police club becomes necessary, which of the following areas of the body should you strike?

(a) the head

(b) the solar plexus

(c) the leg

(d) the spine

38. Following are three scenes depicting positions to be used with the .38 cal. revolver. Look at the three scenes and decide which of the alternative positions is the correct one:

(a) this scene A

(b) this scene B

(c) this scene C

39. When carrying the M-16 rifle at "Sling Arms", what is the appropriate way to salute?

(a) come to "Present Arms"

(b) remove the right hand from the sling, grasp the sling with the left hand, and salute in the normal manner

(c) you should not salute when carrying the weapon

40. A Covered Wagon indicates that:

(a) an actual or probable hostile event will occur

(b) an actual or probable hostile event has taken place

(c) an actual or probable hostile event will not now occur

(d) an actual or probable hostile event may occur

41. In a radio message to another Security Policeman, which proword would you use to indicate that you wanted to know exactly what he received?

(a) Roger

(b) Go Ahead

(c) Read Back

(d) I Verify

42. Personnel at the front of this riot control formation are demonstrating which rifle position?

(a) Safe Port

(b) Low Thrust

(c) On Guard

(d) Short Guard

43. This signal indicates the riot control troops should move into which formation:

(a) Spear

(b) Wedge

(c) Arrow

(d) Diamond

44. In a typical SAT response:

(a) all team members should move away from the SAT vehicle since it may be sabatoged

(b) one member may stay with the SAT vehicle in order to communicate with CSC, if the conditions permit

(c) one member must stay with the SAT vehicle at all times

(d) all members should stay with the SAT vehicle

45. When an Alarm Monitor receives authorization to grant entry into an alarmed area via a telephone call, he should:

(a) immediately permit entry

(b) not allow entry under any circumstances

(c) verify the telephone message by returning the call or by use of a prearranged code word

(d) none of the above

46. Here is a diagram of a Priority A resource. Which letter indicates the position of the Distant Support sentry?

(a)

(b)

(c)

(d) none of these

47. You will see two views of a Close-In sentry at a simulated Priority A aircraft. Which view shows him doing something wrong?

(a) view A

(b) view B

48. Notice the fence which defines the limits of the Priority A area. The sentry patrolling his post in the picture is a:

(a) Distant Support sentry

(b) Boundary sentry

(c) Close-In sentry

(d) none of the above

49. Here are two views of the sight picture on the M-16 rifle. Which view shows the target correctly centered?

(a) the left most view

(b) the right most view

50. If you are operating a SAT vehicle on an active runway and receive a white visual signal from the control tower, you would:

(a) return to your original starting point

(b) stop and exercise extreme caution

(c) proceed with caution

(d) proceed as rapidly as possible

51. In this view of a simulated Priority A area, which number indicates the Close-In sentry?

(a) nine (9)

(b) twenty-five (25)

(c) twenty-six (26)

(d) thirteen (13)

52. Which of the following are symptoms of shock?

(a) thirst, dialated pupils, wet skin, rapid pulse

(b) dry skin, contracted pupils, rapid and strong pulse

(c) flushed face, strong pulse, contracted pupils

(d) trembling, flushed face, dry skin

53. "Come in Delta, this is Charlie Sierra Charlie, 10-9, repeat 10-9." If you were to receive this radio message, you would know that:

(a) CSC wanted to know your location

(b) CSC would stop transmitting

(c) Charlie was in trouble

(d) a hostile emergency had occurred at the flight line

54. A Broken Arrow is:

(a) an up channel report

(b) a down channel report

(c) a cross channel report

(d) none of the above

55. If an Alarm Monitor has reason to believe that an alarm indicated on the annunciator panel board is merely a nuisance alarm, he should:

(a) delay in responding to see if the system deactivates

(b) check the alarmed area visually to verify that it is an actual alarm

(c) not respond at all

(d) none of the above

56. Here is a communications console. Notice the plotting board above the typewriter. Which area of this board shows the location of a Priority A resource area?

(a) the white rectangular line running diagonally

(b) the white grid in the upper left hand corner

(c) the red square which encloses six circles in the upper right hand corner

(d) none of these

57. In this diagram, the dotted line from point B to point C indicates:

(a) the route of the SAT team vehicle

(b) the route of an individual SAT team member

(c) the supervisor's position

(d) the boundary control route

58. If an annunciator panel board uses drop flags, which of the following situations indicates a zone in alarm?

(a) the absence of a flag in a window

(b) the presence of a flag fully visible in a window

(c) the presence of a flag half way down in a window

(d) none of the above

59. If the Entry Controller is unable to verify that the person seeking admittance has the authorization to enter, he should

(a) radio the SAT team

(b) call or radio CSC

(c) call or radio the base commander

(d) all of the above

60. If severe bleeding occurs in the wrist, which pressure point should be utilized?

(a) the pressure point indicated in inset D

(b) the pressure point indicated in inset E

(c) either one is correct

(d) neither one is correct

61. What individual has the authority to authorize personnel to enter the close security area of an alert aircraft?

(a) the base commander

(b) the Chief of Security Police

(c) the aircraft commander or a specifically designated member of his alert crew

(d) all of the above

62. Here is a view of two Security Policemen questioning a suspect. Notice the Security Policeman who is behind the suspect. Is his position correct?

(a) Yes

(b) No

63. This view depicts the duties of:

(a) the Boundary sentry

(b) the Distant Support sentry

(c) the Close-In sentry

(d) the Preventive Perimeter sentry

64. Restricted areas containing nuclear weapons require what type of entry control procedure?

(a) personal recognition

(b) signature check

(c) single badge procedure

(d) exchange badge procedure

65. The exchange badge procedure requires the Entry Controller to:

(a) verify that the person seeking admittance has the authorization to enter

(b) compare the badge presented to the entry controller with the duplicate badge in the exchange badge rack

(c) compare physical characteristics of the person with those described on his badge

(d) all of the above

66. This picture is a view of an:

(a) annunciator panel board

(b) missile launch facility

(c) entry control point

(d) SAT team console

67. What immediate first aid action would you administer to a person who is pale and unconscious, but breathing?

(a) first protect the wound

(b) first stop the bleeding

(c) first begin artificial respiration

(d) first treat for shock and examine for injury

68. If a victim is bleeding severely from the upper right arm and pressure point application is utilized in order to control the bleeding, which of the following pressure points should be used?

(a) inner side of upper arm

(b) in neck

(c) behind collar bone

(d) on jaw

69. The next three views show a person seeking admittance to a Priority A area. Which of the following entry control techniques are being employed in these views?

(a) a signature check

(b) the use of an authorization list

(c) an exchange badge procedure

(d) none of the above

70. Which of the following should not be performed in administering first aid for shock?

(a) keep victim warm

(b) loosen clothing

(c) raise legs and lower head

(d) raise head and lower legs

71. Here is a firing line view showing the depressed pistol position used with the .38 cal. revolver. When should this position be assumed?

(a) immediately prior to firing

(b) immediately after firing

(c) both of the above

(d) none of the above

72. Should the communicator plotter show the location of nuclear weapons on the plotting board?

(a) Yes

(b) No

73. Having received the signal for "Echelon Left", you as the number seven man in the squad, would assume which of the following positions:

(a)

(b)

(c)

(d) none of these

74. In a radio communication, you hear the following code: 10-5. You understand this to mean:

(a) Stand By

(b) In Service (at location)

(c) Security Alert

(d) Repeat

75. In this view of a communications console, the component labeled two is:

(a) the base map

(b) the check list

(c) the radio

(d) the plotting board

76. The position demonstrated by this drawing is:

(a) High Port

(b) Low Port

(c) On Guard

(d) Short Guard

77. In this view the operator is:

(a) retracting the bolt carrier group

(b) positioning the bolt and pin

(c) removing the firing pin's retaining pin

(d) none of the above

78. Here is a view of the .38 cal. revolver. The component numbered five is the:

(a) hammer

(b) thumb piece

(c) cylinder

(d) stock

79. Is it necessary to preceed a Covered Wagon with a Helping Hand?

(a) Yes

(b) No

80. At what location should a complete personal search be conducted?

(a) at the scene

(b) in the patrol car

(c) at Security Police operations

(d) none of the above

81. In this diagram of a SAT response, how many SAT team members are shown?

(a) one

(b) two

(c) three

(d) four

82. The rifle position being demonstrated by these riot control troops is:

(a) Safe Port

(b) Low Port

(c) Port Arms

(d) Present Arms

83. In this diagram, which post is indicated by the letter F?

(a) the Entry Controller

(b) the Boundary sentry

(c) the alert crew facility

(d) the area supervisor

84. In this view of the .38 cal. revolver, the component numbered eight is:

(a) the trigger guard

(b) the stock screw

(c) the trigger

(d) the cylinder

85. In this diagram, who is the appropriate person to occupy the gatehouse?

(a) the Boundary sentry

(b) the area supervisor

(c) the Entry Controller

(d) the alert crew

86. Here is a view of a sentry patrolling a post outside of a restricted area fence. This individual is correctly performing the duties of:

(a) a Close-In sentry

(b) a Boundary sentry

(c) a Distant Support sentry

(d) none of the above

87. Which of the following positions should be taken by a Close-In sentry when questioning a suspected intruder in a Priority A area?

(a) this position A

(b) this position B

(c) this position C

88. A complete vehicle search is normally handled by:

(a) the OSI

(b) a Security Policeman

(c) the Security Police Chief

(d) all of the above

89. When should the pressure point in front of the ear be used?

(a) in the case of a profusely bleeding nose

(b) in the case of a profusely bleeding chin wound

(c) in the case of a profusely bleeding arm wound

(d) in the case of a profusely bleeding scalp wound

90. Here is a diagram of a Priority A resource. Which of the labeled positions indicates the Close-In sentry?

(a)

(b)

(c)

(d) none of these

91. After initiating a Helping Hand, the communicator plotter must either cancel it or up-grade it to a Covered Wagon within:

(a) five minutes

(b) fifteen minutes

(c) thirty minutes

(d) two hours

92. In this diagram, which post is indicated by the letter A?

(a) the Close-In sentry

(b) the Sentry Dog patrol

(c) the Distant Support sentry

(d) the Boundary sentry

93. Which of the following flag positions is demonstrated in this scene?

(a) Flag at parade rest

(b) Flag at the salute

(c) Flag at the order

(d) Flag at the carry

94. Which of the following flag positions is demonstrated in this scene?

(a) Flag at the carry

(b) Flag at the order

(c) Flag at the salute

(d) Flag at parade rest

95. In this diagram of an alert situation, where did the SAT team vehicle make its first stop?

(a) point E

(b) point C

(c) point B

(d) point D

96. In a radio message to another Security Policeman, which proword would you use to indicate that you are ending your transmission but expect a reply from the other person?

(a) Roger

(b) Over

(c) Say Again

(d) Go Ahead

97. Which of the following conditions would require a Boundary sentry to notify CSC?

(a) fence breakage

(b) loose wiring

(c) view obstruction

(d) all of the above

98. In a radio message to another Security Policeman, which proword would you use to indicate that the answer is yes?

(a) I Verify

(b) Affirmative

(c) I Say Again

(d) Wilco

99. In conducting a complete personal search, which of the following areas of the body should <u>not</u> be checked:

(a) the ear

(b) the rectum

(c) the hair

(d) all of the above areas should be checked

100. Here is a Security Police Color Guard unit. Notice that the American flag is to the right of the Air Force flag. Is this position correct?

(a) Yes

(b) No

APPENDIX D

Qualifying Scores

for the

Apprentice Knowledge Test

AKT Qualifying Scores for Law Enforcement Specialist

(AFSC 81230)

Raw Score	Percentile Score	Percent Correct
27	*30	42%
28	35	43%
29	40	45%
30	45	46%
31	50	48%
32	55	49%
33	60	50%
34	65	52%
35	70	54%
36	75	55%
37	80	57%
38	85	58%
39	90	60%
40	**95	62%
41		63%
42		65%
43		67%
44		68%
45		70%
46		71%
47		72%
48		74%
49		75%
50		77%
51		78%
52		80%
53		82%
54		83%
55		85%
56		87%
57		88%
58		90%
59		91%
60		92%
61		94%
62		95%
63		97%
64		98%
65	95	100%

* Minimum Qualifying Score

** Maximum Qualifying Score

AKT Qualifying Scores for Security Specialist

(AFSC 81130)

Raw Score	Percentile Score	Percent Correct
39	*30	60%
40	35	62%
41	40	63%
42	45	65%
43	50	67%
44	55	68%
45	60	70%
46	65	71%
47	70	72%
48	75	74%
49	80	75%
50	85	77%
51	90	78%
52	**95	80%
53		82%
54		83%
55		85%
56		87%
57		88%
58		90%
59		91%
60		92%
61		94%
62		95%
63		97%
64		98%
65	95	100%

* Minimum Qualifying Score
** Maximum Qualifying Score

APPENDIX E

Supervisor's Evaluation Form

EVALUATION OF AIRMAN PERFORMANCE

_____ Air Force Base

Airman's Name: _____ Serial No.: _____

Instructions for Supervisor

1. You are to list the job(s) the subject Airman performed under your supervision (such as Sentry, Entry Controller, Gate Guard, On-base Patrol, etc.) in the column below entitled "Job Description".

2. For each job listed, you should rate the Airman's ability to perform that job as compared to the ability of all other Airmen under your supervision.

3. When rating the Airman, you should be as objective as possible. For example, consider the amount of supervision required, and the ability of the Airman to perform all aspects of the job correctly. Try not to let your personal feelings toward the Airman influence your objective assessment of his performance ability.

4. To rate the Airman, enter a checkmark in one of the six boxes opposite each job description.

Job No.	Job Description	Low		Average		High	
		1	2	3	4	5	6
1							
2							
3							
4							
5							

5. Finally, you should enter the approximate length of time (months/days) this Airman has been assigned to your flight. _____.

_____
Signature of Supervisor

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