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A MANAGEMENT TRAINING GAME FOR POLICE COMMAND/CONTROL OFFICER TRAINING

1

BY

CHARLES R. CUSTER

A Thesis Presented in Partial Fulfillment of the Requirements for the Degree Master of Science

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FLORIDA TECHNOLOGICAL UNIVERSITY

August 1972

TO BECKY,

who need not always understand what I do in order to know why I do it

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CHAPTER 1

INTRODUCTION

1.1 The Role of Command and Control in Police Operations

Command and Control is typically a military terminology for the activities associated with planning, direction and control of operations. A Command/Control System in turn can be defined as "An organization of personnel and facilities to perform the functions of planning, situation intelligence force status monitoring, decision making and execution" (1). All operations management whether industrial, military or law enforcement require some type of Command/Control System to perform these functions.

In most police departments, the Command/Control System is physically located in the Communications Center which is the focal point of all public calls and other inputs to the system. The Center houses the personnel and equipment necessary to receive and integrate all information pertaining to routine or emergency situations and control and coordinate the men and equipment needed to respond to the situation. Personnel typically include complaint officers to receive the incident calls, dispatchers to assess the force status situation and assign the necessary response and radio operators to communicate with the field forces. The communications system consists of an integrated network of radio circuits and land lines linking the Center with the public, the department forces and other law enforcement agencies. Key components

in a manual system are phone lines, VHF/UHF radio and control console, teletype links to other agencies, a force status display board, and a computer information display terminal. A computer augmented system would include the capability of integrating all pertinent information on a complaint call with information as to which is the nearest available patrol vehicle and then automatically dispatching the unit via digital communication upon approval of the dispatch officer.

Figure 1 is a simplified functional block diagram of the Basic Command/Control Process. The diagram defines the relationship of the functions necessary to discharge a command responsibility and the importance of dynamic feedback from the field to control and respond effectively. The commander must know the dynamic environment in which the forces are operating as well as the plans, procedures and capabilities of his command. The threat is the forcing function on the system. Unfortunately it cannot be evaluated until after the complaint call is completed, and the information must then be integrated into the overall tactical situation for analysis and decision of the type of response. Once the decision has been made it is executed by dispatch of field forces. As the forces respond it is vital that the commander monitor the field operations and use this information to update his estimate of the current situation and respond accordingly.

. Feedback . .Situation Intelligence Threat Environment .Coordination .Operations .Analysis .Execution Monitoring .Decision .Force Status Monitoring Plans Capabilities Feedback . Figi

> Figure 1: Functional Block Diagram or Basic Command/Control Process Shows its Dependency on a Closed Loop Feedback System.

Any Command/Control operation must have the inherent capability of rapid and complete information assembly, decision making and of execution. In the police apprehension process, for example, studies (2) of the Los Angeles Command/Control System showed that the Communications Center delay accounted for 30 to 50% of the total response time on

emergency calls. Here response time is defined as the period from receipt of the call until the patrol vehicle arrived at the complaint site. It is apparent that speeding up the Command/Control process offers an effective method of improving the effectiveness of a police apprehension system. An effective Command/Control System is a vital part of both citizen and police safety.

1.2 Functional Analysis of OPD Command/Control Operations

The Orlando, Florida Police Department (OPD) was selected for detailed functional analysis of Command/Control Operations to determine the need and applicability of training. It was determined that in order to discharge its mission, the Command/Control Center must interface with the General Public, all police functions within the City of Orlando and other law enforcement and Public Safety Agencies. In addition there are a number of operational modes to be considered which add to the complexity of the system. Each interface may require a different response from the Center. For example, the actions may include giving watch personnel assignments, calling an ambulance, answering questions on laws, relaying information and dispatching police units. Each response may involve one or more components of the Command/Control System which must work in unison to perform the function. An operational flow chart of the OPD Command/Control section is provided for reference in Appendix A. Although procedures exist, they clearly cannot cover all situations and required actions. It is possible to categorize the response by type of operational mode required. Accordingly, four operational modes were defined and have been used to analyze the

Command/Control Operations. The result was a functional analysis which described the actions of components in the system, given a specific operational mode. The operational modes are listed in Table 1 together with their definitions.

TABLE 1

DEFINITIONS OF SELECTED OPERATIONAL MODES FOR THE COMMAND/CONTROL SYSTEM

Routine mode - normal nonemergency and/or general daily operation of Command/Control System which does not result in a case or file number.

<u>Incident mode</u> - those daily operations which would result in a case number being required, but which did not include any personal injury or require more than one regular patrol unit to answer call.

Emergency mode - those operations which arise from incidents requiring response by more than one regular patrol unit, personal injury and/or in progress crimes.

<u>Internal mode</u> - those periodic operations or functions which are unique to the several subsystem operations involved in the Command/Control System.

The first operational mode is termed Routine. This mode includes normal daily activities which do not result in a permanent case or file number being required. The Complaint Desk action include answering an information request on a call that requires a 602-09 form. The routine functions of the Teletype Operator would be a query to NCIC or FCIC and find a negative response to the questions. The Radio Operator's routine operational mode require monitoring the assigned channels and transmitting 602-09 assignments. Interactions between the Command/ Control Center and the Uniformed Field Units exists in the Routine Mode. The Incident Mode does not differ significantly from the Routine. The 602-03 form is completed by the Complaint Officer however, which creates a permanent Police file on the incident. In the Incident Mode a crime has been committed or a suspect arrested. The functional responsibility for clearing the case is with the Field Unit and the responsibility for dissemination information in aid of the unit is with the Command/Control Center.

Whenever an in-progress crime is reported, or a "unit-needsassistance" call is received or any personal injury is reported all sections of the Command/Control and Field Forces assume the Emergency Operational Mode. This mode may be initiated at the Command/Control Center or Field Unit may be on patrol and witness an armed robbery, a citizen may require an ambulance, or a routine identification check may result in hot pursuit when the on scene unit would require assistance. The Emergency Mode requires close interaction between the Command/ Control Center and the Field Force.

The final mode requires no interaction between the sections of the Command/Control System. The Internal Mode is comprised of operations or tasks which are unique to the subsystem involved.

1.3 The Complaint Desk Officer

The Complaint Desk Officer is the primary interface between the Police Department and the general public. His ability to obtain the required information quickly and tactfully contributes directly to the success of the Police Department in its primary mission.

The primary input which begins the Complaint Officer's functional

description is a telephone call. Telephone calls from the general public account for approximately half of all the calls answered by the Complaint Officer. The remaining calls are from other activities within the police department and other law enforcement agencies such as the Florida Highway Patrol and Orange County Sheriff's Department.

The general public calls the Police Department when it needs emergency aid, wishes to report a crime or suspicious activity, or many times simply desires information. In Orlando the Police Department emergency number is on the front inside cover of all telephone directories and on every marked patrol unit. Dialing this number will automatically place the caller in contact with a Complaint Officer at the Command/Control Center. Although the caller may never see this officer, his very life could depend on the officer's decisions and actions. To this citizen the Complaint Officer is the Police Department; how he conducts himself over the phone will be equated with the actions of all uniformed police.

Until it is determined otherwise, a call to the Complaint Officer's desk must be considered an emergency. The call must be answered, information obtained, all requisite forms completed and a patrol unit dispatched if required, within the shortest possible time. How the information is obtained is based on training and experience, but the same general information is required of every incoming call before any decisions may be made.

The Complaint Officer must determine:

- . Name and location and telephone number of the caller;
- Location of the incident;

- Nature of the call, that is, to report a crime or disturbance, to report an accident, or to request information;
- . Names of any involved persons;
- . Whether the call required immediate or emergency assistance, such as an ambulance.

With this information the Complaint Officer determines if the location of the need is within the Orlando Police Department jurisdiction, whether a patrol unit should be sent, an ambulance or other assistance should be dispatched, and if a case number for a permanent police record is required. These decisions may have to be made for all incoming calls, although the order in which they are made vary by Complaint Officer.

If a call comes into the Complaint Desk where the Orlando Police Department has no jurisdiction, the Complaint Officer may either record all the information and then relay it to the appropriate agency, or the Complaint Officer may interrupt and give the caller the telephone number of the appropriate agency if it is a non-emergency call.

If a call does require a police unit, the complaint officer will complete either a 602-09 or a 602-03 form. These forms summarize the information pertinent to the call and enable the complaint officer to indicate the patrol district and patrol unit to be assigned if available. The 602-09 form is completed when it is anticipated that a police record will not be required. The 602-03, however, has a sequenced record number in the top right corner and is completed when a police report file will be created on the incident. When either form is used, the time of day and date is electronically stamped on the card before it is deposited in a conveyer belt, which transports it to the Radio Operator.

Table 2 lists the Complaint Officer's responsibilities and shows that he has duties other than answering the telephone. All "messages" or "local-look-outs" must be approved by the Complaint Officer. This is done to minimize the broadcasting repetitive information on the field units. He is also responsible for informing owners of businesses where burglaries have been attempted, and notifying other law enforcement agencies of the incident which could effect communities outside of Orlando. He is the advisor as to which units to dispatch and the source of information to the field unit relative to pertinent information on the incident, such as the general mood of the caller. The Complaint Officer interfaces with all other functions within the Command/Control Center, the Orlando Police Department, other safety agencies and the general public. He is the focal point of force status and complaint information which is the head of the Command/Control operation. Figure 2 relates the Complaint Officer's functional process and also it depicts those functions covered by the training game.

TABLE 2

LIST OF FUNCTIONS PERFORMED BY COMPLAINT OFFICER IN DISCHARGING HIS RESPONSIBILITIES

- . Monitor and answer all phone extensions within a specific number of rings
- . Ascertain nature of call
- . Ascertain jurisdiction
- . Determine the nature of assistance required

TABLE 2 -- Continued

Complete 602-03 or 602-09

- . Locate district in which report pertained
- . Record time received and time given to radio operator
- . Complete 602-03 from field request
- Contact responsible persons of burglar alarms or reported B & E's at their place of business
- . Notify law enforcement agencies of serious crimes
- Complete "Local-Look-Out" form from T/T or phone information
- . Sign T/T "Message" forms for broadcast
- Contact local news media of information for broadcast to public to assist police

1.4 Need for Improved Training Methods

The current training technique of new Complaint Desk personnel, both civilian and officer, involves on-the-job training without defined training procedures. Over the past two year period a total of ten civilians have been hired as Complaint Desk Clerks. During this period five have terminated, two have transferred to other sections within the OPD, and three have remained at the same job. The employment period of the five which terminated ranged from three to five months.

Officers are assigned to the Complaint Desk on six month tours of duty. The average length of time for an officer to become proficient is three months, civilians four to six months. The difference can be attributed to the officer's field experience. The civilians tend to become frustrated after three to four months because of their lack of training which accounts for the high turn over. Some officers have

COMPLAINT DESK

OPERATIONAL FLOW CHART

The flow chart below depicts that portion of the Complaint Desk operation which the Game is simulating to evaluate the examinee effectiveness. The diamond shaped blocks represent important decision points for the examinee.



Figure 2: Flow Diagram of Complaint Officer's Function

experienced discontent with their assignment because of the sedentary characteristics of the job.

There is an apparent need for improved training methods. On-thejob training can be an effective method if it is supported by classroom instruction. A major draw-back, though, is that it requires the others in the Control Center to devote their time and attention away from their job which tends to decrease the overall effectiveness of the Center.

It is upon the dire need of more effective Command/Control training that this research is undertaken.

1.5 Scope of the Study

A training game model is defined which will provide effective training and testing for the Complaint Desk functions within Command/ Control Operations. Analysis is made of appropriate Complaint Desk functions to arrive at a qualification profile for future personnel selection. Grading criteria and performance standards are defined which support the game in achieving its objective. A physical facilities layout and equipment selection are described, which are needed in executing the game. Future applications of the game are researched.

1.6 Objective of the Study

The objective of the study is three-fold:

- To provide a training game model which will effectively train and test new personnel in Complaint Desk operations.
- To provide a training game model which will also upgrade the decision capabilities of existing

personnel.

 To provide the logic for computerizing the training for future applications.

CHAPTER 2

COMPLAINT OFFICER TRAINING GAME

2.1 Operating Game Model

The training model can best be described as a system where the Complaint Desk Officer (examinee) is a transform function who acts on a given input within a selected environment to produce a desired output. This concept is illustrated in Figure 3. The block diagram views the training model as a system and shows the sequence of interrelated activities combined to result in a performance effectiveness rating for the examinee. In this model a phone call to the examinee is the input which triggers the system into operational response. The phone call is made by the game instructor and/or his assistant(s) who are simulating a complaint in a typical situation. The complainant's phone call will be governed by the help of experienced Complaint Desk personnel. The typical situation scenario contains the following information: detailed scenario has been included in Appendix B for reference.

- Type of incident for which the phone call is being made, i.e. robbery, auto accident, etc.;
- Description of the caller and his characteristics, such as white female, intoxicated, voice is soft, raspy, speech is incoherent, with hostile attitude;
 Description of the incident, in detail, which the

caller has available to furnish the Complaint Officer if he is asked to do so;

- The procedural steps involved in the solution of that situational incident which should be followed by the examinee;
 - Copy of the correctly completed form(s) which the situation would require in the real-life environment. These would be used to grade the examinee form(s);
 - Performance standards and evaluation sheet for grading the examinee performance on that situation.

The examiner, or instructor, would be selected by the OPD Training Officer from the Command/Control personnel based on his expertise and competence. The instructor is responsible for maintaining a confidential examinee file and directing the execution of the game situation according to the instructions in the situation scenario. During the game he would be positioned at a point behind a two-way mirror in the game control room. The examinee file consists of the examinee qualification profile, a list of the previous training situations which he has taken along with the respective evaluation sheets. A chart showing the scores from previous game sessions would also be maintained to indicate the relative increase or decrease in game performance.

The instructor may be assisted by up to three personnel at any one examination session depending upon the complexity of the situations to be administered. These assistants need not be personnel experienced in Command/Control but would be selected on their ability to imitate, according to written instructions, various types of callers (complainants).

Execution of a game session will begin with the seating of the examinee in the Examination Room adjacent to the Control Room. The instructor would then provide him with a brief orientation on the equipment he will be using and the criteria on which he will be graded, such as speed, accuracy, decision making ability, and tactfulness. The instructor will not reveal any other information. The examinee will be provided with text describing the operational environment. The model Force Status Board will reflect the field situation of the time of the incident sequence. After the examinee has observed the situational information, the game will commence with a call from the instructor. The exercise will cease when the examinee has completed all forms and actions on the sequence of calls. Upon completion of the battery of situations, the examinee will remain in the area until their evaluation has been completed. A post game analysis will then be conducted by the instructor during which the examinee will be appraised of his mistakes and their corrections, and reenforced on his efficiencies. The logic flow is shown in Figure 4.



Figure 3: The Block Diagram of the Operation Training Model As a System Shows The Interrelated Activities of the Participants

2.2 Qualification Profile For The Complaint Officer

The Training Game addresses not only the efficiencies of the Complaint Desk Personnel but also the techniques of training to improve deficiencies. In order to accomplish these objectives a qualification profile for the Complaint Desk Office was established. The profile consists of three separate areas - physical, formal training and psychological. On this basis both the qualification and performance of the candidates can be determined and related. For example, only on the basis of knowledge of the input as well as output of the system can the

OPERATIONAL MODEL OF THE

TRAINING GAME

SITUATION SCENARIO



performance be evaluated correctly. It is also important in determining the training program which would be most effective in preparing a candidate for the position.

The basic motor abilities requisite for the Complaint Desk Officer include sight, hearing and writing ability, all performed in a sedentary capacity. He should have sufficient eye sight to read relatively small print (i.e., pica type) under normal office lighting. His hearing must be normal since no hearing aid is permitted. He also must be capable of writing legibly and needs only one arm since telephone headsets can be used. He must be capable of getting up and moving across the room rapidly although most of the work is in a sitting position. The long hours in a sitting position require both a physical and mental adaptation.

Through discussions with Command/Control administrative personnel and the Training Officer, it was determined that officers graduated from the academy will have had sufficient course work in preparation for the Complaint Desk function, but civilian candidates should be required to attend certain courses from the academy. These courses are outlined in Table 3 and described in Appendix C in more detail cover approximately 40 hours of classroom instruction.

Psychologically the profile of the Complaint Officer was determined in terms of how he would function in a general situation which included the environmental stimuli of the Complaint Desk position. This individual should exhibit the characteristics of extroversion, be a realist in sizing up the situation and rely heavily on logic in making his decisions. A final asset would be the ability to accept the events

as they unfold rather than trying to control the situation. This last characteristic differs from the typical uniformed officer who prefers to exert control over the events in a given situation.

In more personality oriented terms these characteristics in combination imply that the person is an adaptable realist, who goodnaturedly accepts and uses the facts around him, whatever they are. He notices and remembers more than others. He knows what goes on, who wants what, who does not, and generally why, and does not fight those facts. He possess a kind of effortless economy in the way he handles a situation.

The Extraverted Sensing person is also a perceptive type. He searches for the satisfying solution instead of defying others and imposing his own ideas, and people generally like him well enough to consider any compromise that he presents feasible. He is open-minded and generally tolerant, patient, and easygoing. He enjoys life and he does not allow himself to get emotionally "hung-up" on day-to-day problems. Therefore, he is capable of easing a tense situation and pulling conflicting factors together.

Due to this person's sensing ability, he has a capacity for handling exact fact, even when separate and unrelated, and the ability to absorb, remember and apply great numbers of them. Also, in a sensing type you find a continuous awareness, an ability to see the need of the moment and turn easily to meet it. Since he is in essence a realist, he retains more from first-hand experience than from books, is more effective on the job than on written tests.

Having a thinking characteristic implies the person has a better

grasp of underlying principles, and finds it easier to master the theoretical side of things.

There are a number of ways in which an individual's psychological profile can be determined. There are written examinations available one of which is the Myers-Briggs Type Indicator (3) which is designed to determine an individuals preferred mode of functioning in terms of types as defined by Carl Jung (4).

TABLE 3

POLICE ACADEMY COURSE REQUIREMENTS FOR COMPLAINT DESK PERSONNEL

- . Introduction to law enforcement
- . Ethics and professionalization
- . How to find the law
- . Public relations
- . Human relations
- . Police and minority groups
- . Social agency services
- . Domestic complaints
- . Prowler and disturbance calls
- . Constitutional law
- . Criminal law

2.3 Performance Evaluation Criteria

Performance measures are requisite for successful management of any system. They provide the means to measure system output so that it can be compared to set objectives and corrective action taken to ensure meeting these objectives. In the case of the Complaint Officer function this is a difficult task since it requires measurement of cognative action. These actions are typically associated with decision making capability and consequently cannot be measured directly. Indirect measures are required which will indicate the relative performance. In addition it must be recognized that each evaluation criteria selected must also be assigned a relative value which it contributes to the overall performance.

Accordingly, the general approach was to initially observe the operation and detect factors which might be measurable and provide a good indication of actual performance. This information was augmented by interview of the Complaint Officers and their supervisory personnel to determine what factors they considered were important to discharge the responsibility of the Complaint Officer function. The resulting factors were analyzed and four selected; these are listed in order of their relative importance in Table 4.

The objectives of the criteria are twofold. Initially they were designed to rate the relative effectiveness of Complaint Officer personnel performance. In addition, measurement based on these criteria was designed to promote training in individual or combined evaluation criteria. In this context the trainee is provided the opportunity of practicing the exercise sets which examine the area in which he feels deficient.

Information Accuracy is the most important category. If the information obtained from a complaint call is inaccurate or incomplete, the dispatched orders could result in creating a serious or emergency

Information extraction can become a complex process because situation. of the physiological state of the complainant during his telephone conversation with the Complaint Desk clerk; example states are intoxication, hysteria, ethnic dialects, and speech impediments. The degree of difficulty is frequently increased by verbal abuse exhibited by the complainant. The various elements of information which must be extracted include incident discription, name of complainant, and address of incident. A more detailed description of the necessary information will be discussed later. Form Completion Time is an important measurement of effectiveness. This is especially true since one of the primary objectives of the Command/Control system is to minimize response time for a complaint call. Therefore it is important for the examinee to develop a sense of timeliness in his information gathering.

The Decision Capability will evaluate the examinee's ability to determine the type of call he is handling, which affects the amount of information to be gathered, and his ability to apply the proper procedure for selecting the field unit(s) for response. There are four types of calls which the examinee must be capable of recognizing to ensure selection of the correct procedure for handling that particular type call. These are keyed to the Operational Modes of Routine, Incident, Emergency, and Internal. Upon identification of the type of call, the Complaint Officer must then make a decision on the procedure to be followed and the necessary unit assignments.

Although Tact is listed last, it is also very important. This is a subjectively evaluated criteria to measure the ability to successfully

handle difficult situations presented by the complainant.

Each of the four performance measures must also be weighted according to their relative importance in the overall function to the Complaint Desk Officer in order to derive an overall performance evaluation.

TABLE 4

LIST OF PERFORMANCE EVALUATION CRITERIA FOR COMPLAINT OFFICER POSITION

Criteria	Description
Form Completion Time	Quantitative measure of the total elapsed time between the time of the first tele- phone ring and the form (602-03, 09) is completed or unit dispatch is initiated; which ever comes first.
Information Accuracy	Measure based on the number of discrepan- cies between the information given by the complainant and the information listed by the examinee.
Decision Capability	This is a measurement of the examinee's ability to determine which type of call he is handling in order to extract the necessary information and also his ability to decide on the proper field unit assign- ment.
Tact	Measurement of the examinee's ability to tactfully handle difficult situations presented by the complainant. It will be scored by experience personnel listening to the conversation and evaluating sub- jectively the method by which the examinee elicts information from a hostile or con- fused complainant.

2.4 <u>Weighting of Performance Criteria</u>

The performance of a Complaint Officer has been defined as a function of a number of criteria the sum of whose individual ratings

determine the over-all performance rating. This performance value function must also recognize that each individual criteria typically contributes a different amount to the total performance. Mathematically this could be expressed,

$$V_{\text{performance}} = \sum_{1}^{n} f(x_i) X_i$$

where

is the total performance rating,

X identified the individual performance criteria,

 $f(x_i)$

n

V

i) is the weighing or relative value contributed by each criteria, so that, $\prod_{i=1}^{n} f(x_i) = 1.0$.

is the number of criteria

The validity of this approach hinges on identifying all criteria contributing significantly to the performance and defining them in such a way that they are independent. In addition some method of assigning the relative importance or weight to each must be devised.

Three methods of "weighting objectives" were examined prior to determining the appropriate weight distribution. The first technique is described by C. West Churchman (5). His procedure fundamentally consists of a systematic check on relative judgments by a process of successive comparisons (the application of Churchman's procedure has been included in Appendix D for reference). Operationally, this method involves the programmed questioning of an individual's personal weighting of the criteria involved. He is subjected to two tests, or sets of questioning. Initially the individual assigns tentative weighting quantities between 0.00 and 1.00 to the criteria. He is then presented with questions about his preferences involving combinations and/or exclusions of criteria. For example would he weight criteria A or the combination of B, C, and D, higher. A similar comparison is then conducted using B versus C and D, etc., until all pertinent combinations have been considered. The method includes the means for revising the individuals first biased weighting assignments. The results using the Churchman method with the Complaint Officer judgments are listed in Table 5.

The second method applied to the data was a technique devised by M. Eugene Nightengale (6) (application of the method is shown in Appendix E). This technique was developed by Nightengale to aid in making decisions under uncertainty. His purpose was to remove some of the uncertainty from the decision process by utilizing the opinions of experts. The method begins by asking each "expert" to subjectively rank each criteria in order of decreasing importance. According to Nightengale, the responses are assumed to form a normal distribution. The percentage of times criteria, X_i, is ranked more likely to occur than criteria, X_j, is transformed, with the use of the normal probability distribution, into standard measurements of separation. This is then used to generate a relative importance weighting for each criteria. The results of applying Nightengale's method are also listed in Table 5.

The third method explored was the arithmetic averaging of the relative weights assigned by experts.

Table 5 shows that all three methods assign very similar weight distributions. Although all methods produce comparable results

Nightengale's was selected on the basis that it was the most appropriate for this particular case.

The three sampled experts were shown the results and each expressed satisfaction with the final weightings. In general they felt that the values coincided with their own a priori opinion concerning the relative importance of the criteria.

TABLE 5

PERFORMANCE CRITERIA WEIGHTING VALUES, BY METHOD OF DEVIATION

Resulting Weight	Churchman	Nightengale	Averaged
Distribution	Method	Method	Sampres
Information Accuracy	.28	. 35	. 32
Form Completion Time	.25	. 30	.25
Decision Capability	.24	.20	.22
Tact	.23	.15	.22
· · · · · · · · · · · · · · · · · · ·			
Total	1.00	1.00	1.01

TABLE 6

ASSIGNED WEIGHTS FOR CRITERIA BY COMPLAINT DESK OFFICER

Assigned Weight	Expert 1	Expert 2	Expert 3	Average
Information Accuracy	. 30	. 35	. 30	.317
Form Completion Time	.20	. 30	.25	.250
Decision Capability	. 30	.20	.25	.217
Tact	.20	.15	.20	.217
Total	1.00	1.00	1.00	1.001

2.5 Establishing Performance Standards

Performance standards are an important part of any job description and subsequent testing procedure. In addition the standards must be specifically defined so that they can be measured and statistically reproduced under controlled conditions. It is not enough, for example, to state that a Complaint Officer must be an efficient data gatherer. How fast must he extract information to be efficient? What specific information is needed? Performance standards must be stated in explicit quantitative terms to effectively evaluate the level of performance of an examinee.

The maximum possible points that can be achieved on any given situation is 100. The weighting scale previously established was used to factor the points achieved to arrive at the possible points of each evaluation criteria. Table 6 shows the points assigned to each criteria on this basis and the scoring techniques to be used in grading the examinee. Each situation was devised in conjunction with a committee of proficient Complaint Desk personnel. This committee effort included design of several situation scenarios and their alternate performance standards. Performance standards may vary slightly with the degree of complexity of a game situation, but generally adhere to the guidelines discussed here.

Information Accuracy standards were established for each situation and all necessary data entries defined were determined jointly by the committee. The total number of necessary data entries plus one, for selection of the correct format, were assigned equal value points which total 35, the possible score for the criteria. If a data entry is

omitted or incorrect, the examinee receives zero points for that item.

The standards for Form Completion Time were determined by testing at least four proficient Complaint Desk personnel (excluding committee members) against a newly designed situation. The recorded times were then used to establish a standard by finding the statistical estimated population mean (μ) and standard deviation (σ). The grading scale was designed such that a recorded time of less one standard deviation above the mean time will give the examinee a maximum score of thirty points. For each additional standard deviation above the mean the examinee will be penalized ten points up to a maximum of three standard deviations.

The Decision Capability standards for each situation were established based on the necessary decisions the examinee should make in that real-life situation. These decisions are those which would affect the successful outcome of the dispatched unit, or units. Each decision was weighted according to its relative importance with the sum of the assigned weights equal to 20. The weighting to reflect the decision importance was performed by the committee using the Nightengale method previously referenced.

The standards for the Tactfulness criteria were established as a basic guide for the instructor to make his subjective evaluation of the examinee technique for handling adverse conditions. Complainants will be simulated which require the examinee to use tact in handling a delicate or stress situation.

The standards discussed here are described in more detail in Appendix B where they have been applied in sample situations.
	TABLE 7	
	EVALUATION CRITERIA AND SCORING TECHNIQUES FOR PERFORMANCE STANDARDS	
Evaluation Criteria	Scoring Techniques	Possible Score
Information	Let N = number of necessary data items for a given situation, P = 1 if the correct form was used, 0 otherwise, T = total items to be scored, V = point value for each item being scored, S = examinee's score Now: T = N + P V = T/35 T S = Σ V i = 1 ⁱ	35
Form	Let established mean time = μ , standard deviation = σ , and Examinee's time = x. <u>If:</u> Score: $x \leq (\mu + \sigma)$ 30 $(\mu + \sigma) x \leq (\mu + 2\sigma)$ 20 $(\mu + 2\sigma) x \leq (\mu + 3\sigma)$ 10 $x \geq (\mu + 3\sigma)$ 0	30
Decision Capability	Let E = Examinee's score, N = total number of necessary decisions, $f(x_i)$ = relative value of each decision, such that N E f(x_i) = 20, the to possib i = 1 Now: N E = $\sum f(x_i) x_i$ i = 1 Subjective Evaluation	tal le 20
Tactfulness	Subjective EvaluationScoreExcellent15Good10Fair5Poor0	15
	Total Possible Score	100

CHAPTER 3

GAME FACILITIES

Physical Layout and Equipment Selection for the Training Area

The training area for the game is located in the police wing of the Municipal Justice Building in downtown Orlando. Two adjoining rooms are used one for the instructor and the other by the examinee. The physical layout and the equipment used in the game are shown in Figure

The floor plan requirements for administering the training game were based on the functional requirements; privacy for the examinee, observation of the examinee by the instructor, and adequate sound proofing. Privacy for the examinee is needed to prohibit distractions and to provide him with an environment similar to the real situation. A provision for observing the examinee is necessary in order to time the information gathering phase of the situations submitted to the examinee for solution and to observe the examinee as he functions. Sound-proofing is required to keep the examinee from hearing the examiner and his assistants as they control and administer the situations, and to eliminate noises from surrounding offices.

According to a Naval Training and Device Center technical report one of the basic concerns in designing training systems is the extent to which the training situation must simulate the operational task. High fidelity training, when the cost is not prohibitive, will achieve a high level of effectiveness in the learning, retention, and transfer

abilities of the student. (7) The level of fidelity is the degree of realism in relation to the real-life operational task. A training system cannot provide perfect fidelity unless the operational system is itself the vehicle for training. In training by simulation, the ability of the student to transfer what he has learned to the operational task is dependent upon the fidelity of the simulation. According to Osgood's (1949) model (8), transfer of learning is directly dependent on the degree of fidelity.

The equipment needed for performing all aspects of the game was selected on the basis of its simulation fidelity and the ease with which it could be installed and revised. This latter requirement was necessary to permit the rooms to be used as a conference and interview room by the Youth Section of the C.I.B. Also, the equipment must be capable of ease of storage and/or use in other facilities if necessary.

The selected equipment for the control and observation room as shown in Figure 5 consists of three single line telephones, power supply for the room-to-room phone system, and a clip board with stop watch. Three phones are needed to subject the examinee to three calls simultaneously, which is the average maximum number he will face at any single moment as a Complaint Officer.

The examination room equipment consists of a large detailed street map (4' x 6'), telephone with three lines to the control room, map book, shift duty roster (for the simulated shift being administered), a supply of OPD forms #602-09 and #602-03, and scratch paper and pen or pencil. The large will map is divided into police districts to duplicate the wall map used in the Command/Control Center. The map book is



- 16 Police Wing
- 17 Municipal Justice Building Of Orlando

Figure 5:

Shown Above is the Physical Layout and the Equipment Used in the Command/Control Complaint Officer Training Game provided to locate specific areas on the large map for a more detailed inspection. The remaining materials are those utilized by the Complaint Officer in his daily activities.

CHAPTER 4

RESULTS OF INITIAL APPLICATION OF THE TRAINING GAME

Initial plans for testing the training game involved subjecting all Complaint Desk personnel to the three situations presented in Appendix B. At the time the testing phase of the research began there were eleven personnel, covering three work shifts, assigned to the Complaint Desk, but only five were subjected to the game. The reasons for the small sample were: two were involved with devising the' situations, one was in the hospital, and two were on the First Shift, 11:30 p.m. to 7:30 a.m., when the assistants to the instructor were unavailable. Even though all Complaint Desk personnel were not evaluated by the game, the results obtained from the five examinee's were of significant importance.

The first significant finding was that the ordering of the examinees with respect to their operational proficiencies determined by the game was identical to the ordering of the examinees by personal evaluation from the Supervisor of the Command/Control Center. The Supervisor did not have prior knowledge of the examinees game scores before being asked to render the subjective evaluation of each in the order of their proficiency. This preliminary result indicates that the game may provide a valid proficiency indicator after the remaining six personnel have been examined. Table 8 shows the scores from the initial application of the training against five Complaint Desk Officers.

Their individual situation evaluation sheets are included for reference in Appendix F.

The next important finding was that there is an evident lack of documented operating procedures for the Complaint Desk Officer's job covering the day-to-day tasks of the position. This conclusion is based on an analysis of the examinees errors and through discussions with the examinees in the post game analysis. One indicator of the procedural difficulty was that three out of five, or sixty percent of the sample, failed to enter their initials on the form #602-09 in Situation 1. Two of the three examinees indicated that they did not know they were supposed to initial the non-emergency, 602-09. Another indicator was that all five examinees, one-hundred percent of the sample, failed to detect that Situation 3 was an In-Progress robbery even though the complainant told each that the robbers had just left the store and were fleeing. The Command/Control Supervisor stated that there is no directive defining accurately an In-Progress crime even though the examinees stated in the post game analysis that this situation could be classified as one and just failed to recognize the fact. Still another indicator was that all five failed to question the complainant on any possible injuries resulting from the armed robbery.

TABLE 8

SCORES FROM THE INITIAL APPLICATION OF THE TRAINING GAME

			Situation		Examinee
		1	2	3	Average
	1	95	97.5	90.8	94.4
Framinee	2	95	87.0	72.8	84.9
Draminee	3	95	100	95.6	96.9
	4	95	89.5	78.4	87.6
	5	65	90 -	75.6	76.9
Situation Average		89	94.6	82.6	Average of all 88.1 Examinees

CHAPTER 5

FUTURE APPLICATIONS AND CONCLUSIONS

5.1 Computer Augmented Applications

There are numerous training devices in use today that utilize computers. These include training in tasks related to the operation of aircraft, spacecraft, air traffic control and others where it is important to dynamically control all aspects of a complex operation in a real time simulation. Computer Assisted Training (CAT) techniques and computer equipment can be applied to the Complaint Desk Officer Training Model.

The computer augmented version is directed toward the use of the instructional techniques of the manual game model under computer control to further meet the increasing training demands imposed by the dynamic nature of law enforcement and the growing need for more qualified personnel in Command/Control. The goals of the computerized version are summarized in Table 9.

The computer will increase standardization of grading the examinee performance. Timing of the examinee Information extraction and Decision Response phases can be recorded more accurately through programming the computer's internal clock for this purpose. This would eliminate the stopwatch timing technique required in the manual version. There are measurement criteria which still must be made subjectively by the instructor. His evaluations will still be required when the final

performance ratings are determined. The instructor must also review the results with the examinee.

Although CAT systems today are used primarily in military training applications, technological advancements have reduced computer costs such that commercial applications are becoming more numerous. One such system is the Computer Assisted Training Project (9) of the Los Angeles Police Department. This system is being designed for the LAPD to train and evaluate recruits in their police academy. The system will provide individualized programmed learning, situation simulation, trainee examination and evaluation and trainee record management. Simulation training provides a method to train effectively, safely and at less cost when compared to on-the-job training.

Training effectiveness is increased because the computer can accomplish more, with greater accuracy, in a fraction of the time it would take a human. The computer would not, though, take away the importance of the instructor's role in administering game situations, instead it would increase his effectiveness by allowing him more personalized instruction time with the trainee. It is important to note that in all cases the computer acts as an assistant to the instructor and does not take over his responsibility.

CAT also offers increased flexibility. If changes in the basic training game model becomes necessary, the computer system software can be easily altered to accommodate the change. Flexability is also enhansed by the ability of the computer to maintain on-line records of examinee past performances. Therefore the computer system can be both a training and information retrieval system.

The inherent reliability of computer systems over that of equivalent manual systems is markedly superior. It is true that in the recent past highly complex electronic equipment has significant failure rates, but through technological achievements, such as solid logic technology, failure rates have become insignificant when compared to production abilities.

In conclusion, the case for CAT applications has been appropriately stated in a Naval Training Device Center publication "...automated training techniques can be applied in any training situation that requires objective performance measurement, flexibility of eriteria for evaluation, and the capability to apply new techniques to an existing system." (10)

TABLE 9

GOALS OF COMPUTER AUGMENTED VERSION OF COMPLAINT OFFICER TRAINING MODEL

- . Make a good training model even more effective
- . Provide flexibility to sense and to rapidly respond to changing requirements
- . Maintain standardization of evaluation and examinee records
- . Eliminate as many of the manual segments of the original model as possible to reduce instructor workload and yield higher training fidelity.

5.2 Computer Augmented Game Model Logic

The computer augmented game model is a system of three distinct entities: instructor, examinee, and the computer interacting on a realtime basis. Figure 6 shows the game logic flow occurring between these





three entities. Interaction between the instructor and the computer, and between the examinee and the computer will be through keyboard data terminals over communication lines to the computer. Interaction between the instructor and examinee will be via telephone.

The computerized game logic flow begins with the manual selection, by the instructor, of a situation from a prepared list of situations stored in the computer's on-line files. Once the instructor makes his selection, he then procedes to key-in the appropriate instructions on his remote terminal. The instructors are immediately transmitted via communication lines to the computer. At this point the computer takes control and directs the execution of the game until the examinee's performance rating is calculated and transmitted to the instructor for the post-game analysis phase.

5.3 Conclusion

One must be careful not to conclude that the small sample size (five examinees out of a total group of eleven personnel in the section) will yield conclusive results. However, significant evidence has been provided by the game results to indicate that there is a need for an effective training program for Complaint Officer training. The training game which was designed herein could be the answer. Continued experimentation of all Complaint Desk personnel could validate the model's effectiveness.

To support this training model, well-documented and standardized Operating Procedures for Complaint Desk Officers are needed. The current method of verbal directives on handling various operational

situations is insufficient. The only documented procedure for Complaint Officers is OPD Memorandum #72-1 dated June 29, 1972 covering the handling of Emergency Complaints (10-33 Traffic). It was found in testing the five officers that each had his own interpretation of many of the verbally directed procedures.

Future research is needed on development of the computerized game model. This effort should only be pursued upon completion of the validation of the present model, and should await the inclusion of any refinements found to be necessary from this work.









APPENDIX B

SITUATION SERIES A

SCENARIOS

Series description:

This series consists of three hypothetical situations which all take place on a Friday evening beginning at 2244 hours during which the entire Orlando area is experiencing a thunderstorm with heavy rain and lightning.

Situation 1

Type: Personal call

Call Description:

Criminal Investigation Bureau wants Sgt. McNamara, Signal 10.

Handling procedure for examinee:

- Check the duty roster to determine unit number assigned to Sgt. McNamara, if he is on duty and proceed to next procedure. If he is not on duty, tell the CIB caller and then hang up.
- . Fill in form 602-09 with unit number, the Sgt.'s name, a check mark in the block labeled OTHER, SIGNAL 10 written in the remarks section, and examinee's initials.

. Time stamp the 602-09 on the back.

Send 602-09 to the Radio Operator.

Situation 2

Beginning time: 30 seconds after examinee answers the phone on Situation 1.

Type: Accident

Location: Curryford and Griffin Rd.

Reported by: Joe Jones, service station attendent, phone 424-2486.

Description of caller:

Incident description:

Mr. Jones is in mild shock and speaking in an erratic manner, but fairly coherent. His descriptive vocabulary is that of approximately a sixth grader.

A sedan was traveling west on Curryford Road at a high rate of speed, attempted to stop for the traffic signal, because of the rain-slick street the sedan slid through the intersection into a utility pole on the NW corner knocking it down. It then continued sliding, coming to rest against a gas pump at the service station, rupturing a gas line inside the pump. The driver is pinned inside the car, unconscious and bleeding. Gasoline is flowing openly from the pump and the utility lines are down in the street.

Handling procedure for examinee:

Caller states that a bad accident has occurred.

- . Examinee requests location from caller.
- . Examinee asks caller if there are injuries.
- . After finding out there are injuries, examinee tells the caller to stay on the line.
- Put caller on hold.
- . Call ambulance.

Via the intercom:

Advise the Radio-Operator that an accident has occured at Conway and Griffin, district 36, and an ambulance has been dispatched.

- . Stamp form 602-03 twice, once for the approximate time received and once for the in-route time for the ambulance and police unit.
- . Return to the caller who is holding.
- Advise caller that an ambulance and police care have been dispatched.
- . Request additional information from caller. NOTE: At this point the caller will volunteer the

remaining information about the accident as described in the section above on the incident description.

- Put caller on hold.
- Call the O.F.D. and advise them that a rescue unit is needed, giving the location, because a man is pinned in the car, and advise them that a gas leak was observed and utility lines are down.

. Via intercom advise Radio-Operator that the O.F.D. has dispatched fire and rescue units to the scene and advise Radio-Operator to dispatch additional police units for traffic and crowd control and to prohibit any smoking in the area.

NOTE: Since this is taking place at the time of shift change, the examiner (acting as Radio-Operator) may advise the examinee that there are insufficient units available placing an additional burden on the examinee to request assistance from the OCSO or FHP or both.

- Advise Orlando Utilities of the downed lines and the gas leak in addition to emphasizing the seriousness of the accident.
- Return to the caller who is holding
- Request identification of caller and his phone number.
- Complete the information needed on the 602-03
- Send 602-03 to the Radio-Operator.

Situation 3

1 minute, 30 seconds after examinee answers Beginning Time: phone on Situation 2.

Robbery (in progress) Type:

7-11 convenience store at Princeton and Dade. Location: District 22.

Reported by: John Smith, manager of the store, phone 849-2444. Mr. Smith speaks in a fast excited manner. Description of caller: One white man and one black man, both Incident description: armed with revolvers, hold Mr. Smith at

gun point while removing approximately \$200 in currency only, from the cash

register. The black man was about 6 feet tall, 185 pounds, wearing black trousers and a light blue shirt. The white man was short, about 5 feet 6 inches, 130 pounds, with shoulder length brown hair, wearing dirty and ragged blue jeans and a gray T-shirt. After leaving the store, the suspects entered a late model yellow sports car and headed west on Princeton. The only information about the car's tag was that Mr. Smith could see it was a Florida tag beginning with a 7.

Handling procedure for examinee:

Caller states that he has been robbed by two armed men.

- . Asks caller for location.
- . Asks caller is there any injuries
- . Turns on the emergency light to notify the Radio-Operator to pick up the receiver and listen to the caller.
- Examinee repeats (to caller for his verification and also for the benefit of the Radio-Operator) location, incident type, and district number.
- . Time stamp the 602-03.
- . Gets verification from the Radio-Operator that she has received the information.
- Advises caller that the dispatcher is listening and to slowly give a description of the subjects and any other information requested.
- . Upon completion of verification from the Radio-Operator, request identification of caller and his phone number.
- . Complete the necessary entries on the 602-03
- . Send 602-03 to Radio-Operator.

PERFORMANCE STANDARDS AND EXAMINEE EVALUATION SHEET Situation 1 Possible Examinee Score Score Α. Information Accuracy . Used correct form, 602-09 5 . Necessary data entries (0 points if entry was omitted or entry was incorrect): Unit number (435) 5 District number (88) 5 Officer's initials 5 Signal 10 in REMARKS 5 OTHER block checked 5 Time stamped on back of card 5 Total = 35 Β. Form Completion Time Grading Scale: $\mu = 13.3$ sec, σ = 1.9 sec If: Score Examinee's time < 15.2 sec 30 15.3 sec≤ Examinee's time ≤17.1 sec 20 17.2 sec≤Examinee's time ≤19.0 sec 10 Examinee's time ≥ 19.1 sec 0 Total 30 с. Decision Capability Necessary decisions: (None for this situation) Total 20 20 D. Tactfulness Scale: Subjective Rating Score Excellent 15 10 Good Fair 5 0 Poor 15 Total Examinee Total possible = 100 Total =

PERFORMANCE STANDARDS AND EXAMINEE EVALUATION SHEET

Sit	uation 2	Possible Examinee Score Score
Α.	Information Accuracy	
	Used correct form, 602-03	2.5
	Necessary data entries (0 points if entry	
12	was omitted or incorrect)	
1.14	ACCIDENT AUTO block checked	2.5
	Either AMBULANCE RUN block checked or	
	37 in space named OTHER	2.5
	EMERGENCY blocked checked	2.5
	Location of Event properly filled in	2.5
	District number	2.5
1. No.	Officer's initials	2.5
	Complainant's name	2.5
	Complainant's phone number	2.5
	Complainant's address	2 5
	TELEPHONE block checked	2'5
	Time received stamped	2.5
	Time of unit dispatch stamped	2.5
	Any additional information which may	2.5
	he portinent	2 5
	Total	2.5
	IOLAI	55
	Grading Scale: $\mu = .51 \text{ min.}, \sigma = .10 \text{ min}$ If:ScoreExaminee's time $\leq .61 \text{ min}$ 30.62 \leq Examinee's time $\leq .71 \text{ min}$ 20.72 \leq Examinee's time $\leq .81 \text{ min}$ 10Examinee's time $\geq .82 \text{ min.}$ 0Total	n
C.	Decision Canability	
	Necessary decisions:	
	Dispatch police unit immediately	3
1	Call ambulance	5
	Notify OFD	9
	Notify Orlando Utilities	3
	Total	20
D.	Tactfulness Scale:	
	Subjective Rating Score	
	Excellent 15	
	Good 10	
	Fair 5	*
	Poor 0	
	Total	15
	Total Possible	100 Exam.Tl=

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PERFORMANCE STANDARDS AND EXAMINEE EVALUAT	CION SHEET
Situation 3	Possible Examinee
A. Information Accuracy	Score Score
Used correct form, 602-03	1 4
Necessary data entries:	1.4
EMERGENCY block checked	2.4
IN PROGRESS block checked	2.4
ROBBERY block checked	2.4
Location of event	2.4
District number	2.4
Officer's initials	2.4
Complainant's name	2.4
Complainant's phone number	2.4
Complainant's address	2.4
TELEPHONE block checked	2.4
29-0 in OTHER space	2.4
Time received stamped	2:4
Time of dispatch stamped	2.4
Any additional data	2.4
Total	35
B. Form Completion Time Grading Scale: $\mu = .33 \text{ min.}, \sigma = .06$ <u>If:</u> Score Examinee's time $\leq .39 \text{ min} 30$.40 min \leq Examinee's time $\leq .45 \text{ min} 20$.46 min \leq Examinee's time $\leq .51 \text{ min} 10$ Examinee's time $\geq .52 \text{ min} 0$ Total	min.
C. Decision Capability Necessary decisions:	
Determine it's an Emergency	8.
To notify Radio operator by turning	1
on Emergency Light	10
To question complaint on possible	
injuries	2
Total	20
D. Tactfulness Scale: <u>Subjective Rating</u> Score Excellent 15 Good 10 Fair 5 Poor 0	
Total	15
Total Possible	100 Exam.T1=



1				UNIT NO.	OFFICER NO.	DIST.	DISPATCHER	N
	-		_	435	(optional)	88	FW	
	01	STOPPING VEH.	16 GARAGE		McNamara			
	02	STOPPING PERSON	17 FLAT TIRE	YEAR	STATE	TAG NUMBER		-06
	03	HOUSE CHECK 61	18 VEH. BROKE DOWN					602
	0.4	BUSINESS CHECK	19 RADIO REPAIR	10-6	10)-8		
	05	SERVING WRNT.	20 CITY COURT					
FLA	06	SERVING SUBP.	21 CRIM. COURT					ARD
.00	07	FOLLOW UP INV.	22 J.P. COURT					s cr
ZV	08	STATION ASGMT.	23 JUV. COURT		Sia 10			ATU
ORL	09	REPORT WRITING		REMARKS	<u>51g 10</u>			STI
		TRANSP. PRISONER						
	"	BOOKING PRISONER	26 LV. CITY LIMITS					-
	12	COFFEE BREAK	27 OTHER					
	13	MEALS	28 CHECK VEH. REG.					
	14	PERS. NECESSITY	29 CHECK FOR WANT					
	15	MEETING UNIT	30 10-7	1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 -				Odd
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SITUATION 2

				Fro	ont View						
DRIDA	TIME	RECEIL JUL	ABANDON AUTO ACCIDENT_AUTO ALARM AMBULANCE RUN ANIMAL CASE ASSAULT ED 25 10:33	JUVENILE CASE LARCENY MENTAL CASE MISSING PERSON OPEN-DOOR/WINDOW PROPERTY CASE 10-51 JUL 25	UNIT ASCD. CODE OF COMPLAINT CEMERGENCY SEMI-EMERGENC 10:33	OFFIC NON Y SERV	-EMERGENCY VICE		GRESS T D-8	CASE NUME 861	47A 69
ORLANDO, FLC	[] -	0	BAD CHECK BREAK & ENTER DEATH REPORT DISORDERLY DRUNK ESCORT FAMILY TRBL. FIGHT FIRE ALARM FIREARM VIO. HOUSE CHECK OTHER (OPTIO OFD, OUC 1	PROWLER ROBBERY SEE COMPL. SERVICE SEX OFFENSE STOLEN AUTO SUSPICIOUS TOW IN TRAFFIC VANDALISM WARDANT nal) : 37, in (0-51	LOCATION OF EVENT N/W Corne DATE OF EVENT REPORTED BY JOE JONES ADDRESS Station A gas station,	r Conw ttende lines	ay and G	riffin T T TELEPH TELETY	Rd. RECEIVED F. W	BY: Tilcoxso 424-24 PHONE NO. 424-24 PERSON RADIO	DISTRICT 36 Dn 486 □ MAIL □ OTHER

Back View

1. Ale in the second 1000 ALS ALSA 2. 1 X 1 3] Any additional pertinent information]] 1

SITUATION 3

			F	ront View							
A DI	TIME RECEIV	ABANDON AUTO ACCIDENT AUTO ALARM AMBULANCE RUN ANIMAL CASE ASSAULT ED	JUVENILE CASE LARCENY MENTAL CASE MISSING PERSON OPEN-DOOR/WINDOW PROPERTY CASE	UNIT ASGD.	OFFIC OFFIC NON CY SER 10-6	ER -EMERGENCY VICE		GRESS T D-8	CASE NUM	ABER	602-03
ORLANDO, FLOR	JUL C C C C C	25 10:46 BREAK & ENTER DEATH REPORT DISORDERLY DRUNK ESCORT FAMILY TRBL. FIGHT FIRE ALARM FIRE ALARM FIREARM VIO. HOUSE CHECK OTHER 29-0 blue shirt	JUL 25 10: PROWLER ROBBERY SEE COMPL. SERVICE SEX OFFENSE STOLEN AUTO SUSPICIOUS TOW IN TRAFFIC VANDALISM WARRANT (optional): B/ , Blk pants, 1	46 LOCATION OF EVENT 7-11 at Pr DATE OF EVENT ADDRESS Manager M 20's, 6' w/m 20's, 5'	ith . 180 1 5'6", 1	n and Day	de TELEPH TELETYI shoulde	RECEIVED FW ONE PE er len	BY: PHONE N 849-2 PERSO RADIO gth br	0. 2444 MAIL OTHER COWN (OVE	COPP INTUTE COMPLAINT

Back View

and the second 意志 414 1 . 12.2 1.1 hair, gray T-shirt, dirty and ragged \$5.75 blue jeans. Heading west on Princeton is late model yellow sport car, 7-unk. Sig. 0 with revolvers.]]] 1]



APPENDIX C

The courses listed below are considered necessary requisites in curriculum for civilian Complaint Desk personnel by the Orlando Police Department.

Introduction to Law Enforcement

Objectives:

- . Philosophical difference between natural law and human law.
- . Brief history of law enforcement from ancient to modern times, with an emphasis on law enforcement development in the U.S.
- A presentation of the legal limitations on a democratic society, and reflection upon some major enforcement problems.
- . Listing of the major and related agencies of law enforcement.
- Delineation of the basic processes of justice.
- . Evaluating the current position of law enforcement.

Ethics and Professionalization

Objectives:

- . To introduce the true meaning of Ethical Conduct as it applies to law enforcement
- . To point out the enforcement that accompanies the Law Enforcement Code of Ethics.
- To cover in detail the Law Enforcement Code of Ethics.

How to Find the Law

Objectives:

 To explain the various legal reference text and publications to enable the police personnel to locate laws and cases.

Human Relations

Objectives:

- To define and explain the role of human relations.
- . To relate human relations with the police profession.
- . To explain the attitudes and emotions that effect human relations.
- . To explain the moral aspects of law enforcement.
- To introduce the student to the various changes taking place in society.

Public Relations

Objectives:

- . To define and explain police public relations.
- To emphasize the importance of favorable public relations and the importance of maintaining a favorable image.
- To illustrate the results of both good and poor public relations.

Police and Minority Groups

Objectives:

- To isolate and identify specific groups, explaining. Their social background and customs.
- . To explain and justify the positions of minorities.
- . Minorities opinions toward police.
- To illustrate steps police must take to gain confidence of minorities.

Social Agencies Services

Objectives:

- To orient police personnel with the various state and local social agencies and their various services
- To relate these services to the role of the officer.

Domestic Complaints

Objectives:

- To orient police personnel to the need in answering domestic complaints; reference State Statutes 85.19 and 509.141
- To equip the officer with the proper procedure and/or recommendations to handle domestic complaints.

Prowler and Disturbance Calls

Objectives:

- To orient police personnel to the need and proper method of answering prowler calls.
- To introduce the various operational techniques to follow when answering the call.
- To explain the various search procedures involved with these type calls.

Constitutional Law

Objectives:

- To familiarize police personnel with the purposes of the state's Constitutional Law.
- . To briefly examine those cases whose results concern police personnel.
- . To establish a foundation for the study of Criminal Law.

Criminal Law

Objectives:

- . To familiarize police personnel with the origins, sources, development, and purposes of the Criminal Law.
- To cover Florida law relating to criminal acts with emphasis on elements of crimes, parties to crimes, and the specific statutory sections most used by police.
- To examine constitutional limitations and special problems encountered as a result of significant court decisions and case law.

To discuss some legal theory, as well as the practical applications of such theory to enable the student to better appreciate the laws he is sworn to enforce.

Command/Control Operations

Objectives:

- . To familiarize personnel with the role of Command/Control within the Orlando Police Department.
- To cover all job tasks within the Command/Control center
- . To cover all procedures related to each task.



APPENDIX D

- Application of Churchman's Procedure 1 for Weighting Objectives to the Quantification of Evaluation Criteria
- The Supervisor of the Command/Control Center was asked to rank the four evaluation criteria in order of importance. The Supervisor's ranking was:
 - 0 = Information Accuracy
 - 0_2 = Form Completion Time
 - 0₃ = Decision Capability
 - $0_4 = Tactfulness$
- 2. The tentative value of 1.00 was assigned to the most valued outcome 0_1 . The Supervisor was asked to assign values that initially seemed to reflect their relative values to the others. These tentative values v_i are considered as first estimates of the true value V_i . The value assignments made was:
 - $0_1 v_1 = 1.00$ $0_2 v_2 = .90$ $0_3 v_3 = .80$ $0_4 v_4 = .80$
- 3.

Now the evaluator was questioned on the following comparisons:

If you had a choice of using either criteria 0_1 or the combination of 0_2 , 0_3 , and 0_4 which would you select? i.e. $0_1 \underline{vs} 0_2$, 0_3 , 0_4 . Evaluator's response was "neither is preferred over the other." Therefore no value adjustments are necessary in the v_1 .

- 4. The evaluator was next asked to compare in the same manner $0_2 \text{ vs} 0_3 \text{ and } 0_4$. Evaluator's response was "neither is preferred Again, no adjustments in the v_i were necessary.
- 5. The evaluator was finally asked to compare $0_3 vs 0_4$. Evaluator's response was " 0_3 is preferred over 0_4 . Now v_3 must be adjusted to conform to the assumption $v_3 v_4$. Therefore v_3 is assigned the value .85.
- 6. The evaluations are now completed. The final values of v_i were normalized to obtain the weighting coefficients as follows:

		Normalized		
$v_1 = 1.00$		$V_1 = \frac{1.00}{3.55}$	=	.282
v ₂ = .90	1	$V_2 = \frac{.90}{3.55}$	=	.254
v ₃ = .85		$V_3 = \frac{.85}{3.55}$	=	.239
v ₄ = .80		$V_4 = \frac{.80}{3.55}$	=	.225
3.55			1	1.000

Thus, the final rankings were found to be

۰.

Item	Relative Importa	nce (weight)
01	.28	
02	.25	
03	.24	
04	$\frac{.23}{1.00}$	



APPENDIX E

Application of Nightengale's Method of Making Decisions under Uncertainty to the Quantification of Evaluation Criteria

The OPD has three people who are very proficient, or expert, in the field of Complaint Desk operations. These people were asked to subjectively rank the four effectiveness criteria in the order of their importance to performance evaluation. The results are shown in the table below.

- A = Form Completion Time
- B = Information Accuracy
- C = Tactfulness
- D = Decision Capability

CRITERIA

		A	В	С	D
	1	2	1	4	3
Expert	2	3	1	2	4
	3	2	1	4	3

'		and the second	MATRI	X A		
		A	В	j _C	D	Row Totals
	A	x	0	2	3	5
	В	3	x	3	3	9
i	С	1	0	x	1	2
	D	0	0	2	x	2

The cell entries in Matrix A represent the number of times criteria i was judged more important than criteria j.
		MAT	RIX P		
	A	В	j c	D	Row Totals
A	x	0	.67	1.00	1.67
В	1.00	x	1.00	1.00	3.00
С	.333	0	х	.333	.67
D	0	0	.67	X	.67

The cell entries in Matrix P represent the percentage of times criteria i was judged more important then criteria j.

MATRIX Z

i

Sample Calculation: G(Z) - .333, Z= -.43 from Normal Table

	A	В	С	D	Total	$Mean(\overline{Z})$
в	4.3	0	4.3	4.3	12.90	3.20
A	0	0	.44	4.3	4.74	1.18
с	43	0	0	43	86	22
D	0	0	.44	0	.44	.11

Matrix Z is used to convert Matrix P into standard measurements of separation in terms of the equal standard deviations of the discriminal dispersion scale. A normal distribution table is used to accomplish this task. In this matrix the rows are arranged in decending order of percentages.

ASSIGNMENT OF PROBABILITIES (WEIGHTS)

	7.	G(Z)
Z _B	3.20	.9993
ZA	1.18 ,	. 8800
z c	22	.4150
Z	.11	.5430
D		2.8373

В	<u>.9993</u> 2.8373	=	. 35
A	<u>.8800</u> 2.8373	=	. 30
D	<u>.5430</u> 2.8373	=	. 20
С	<u>.4150</u> 2.8373	=	$\frac{.15}{1.00}$

The order of importance and relative weights have been determined as follows:

Criteria	В	. 35
Criteria	А	. 30
Criteria	D	.20
Criteria	С	.15



	PERFORMANCE STANDARDS AND EXAMINEE EVALUA	TTON CUPPT				
	H A					
Sit	uation 1 EXAMINEE T	Possible	Examinee			
2		Score	Score			
A.	Information Accuracy					
	. Used correct form, 602-09	5 🗸				
	. Necessary data entries (O points if					
	entry was omitted or entry was incorrect):					
	Unit number (435)	5 V				
	District number (88)	5 V				
	Signal 10 in DEMADUS	5 X				
	OTHER block checked	5.				
	Time stamped on back of card	51				
	Total	= 35	70			
		- 55				
В.	Form Completion Time					
	Grading Scale: $\mu = 13.3$ sec, $\sigma = 1.9$ se	c				
	If: Score					
	Examinee's time ≤ 15.2 sec 30 V	-5				
	15.3 sec≤ Examinee's time	12	SEC .			
	$\sim 17.1 \text{ sec}$ 20					
	<19 0 sec 10					
	Examinee's time ≥ 19.1 sec 0					
		/				
	Total	30	30			
C.	Decision Capability					
	Necessary decisions:					
1.10	(None for this situation)	- 20	20			
	IOCAL	20	20			
D.	Tactfulness					
	Scale:					
	Subjective Rating Score					
	Excellent 15 V					
	Good 10		*			
	Fair 5					
	Poor					
No.	Total	15	15			
	iutai	15				
	Total possible	= 100	Examinee			
			Iotal =			
			95			
1						

Situation 2

DIC		Possible	Examinee
Α.	Information Accuracy	Score	Score
	Used correct form 602-03	251	
	Necessary data entries (0 points if entry	2.5	
	was omitted or incorrect)		
	ACCIDENT AUTO block checked	251	
	Fither AMBIT ANCE RIN block checked or	2.5	
	37 in space pamed OTHER	2 5.1	
	EMERCENCY blocked chocked	2.5	
	Location of Event preperly filled in	2.50	,
	District number	2.50	/
	Officer's initials	2.5	,
	Compleinentle neme	2.50	
1	Complainant's name	2.5 V	/
	Complainant's phone number	2.5 0	
	Complainant's address	2.5	X
	TELEPHONE block checked	2.5	
÷	Time received stamped	2.5 /	/
	Time of unit dispatch stamped	2.5 0	
	Any additional information which may		
	be pertinent	2.5	
	Total	35	32.5
	/		
В.	Form Completion Time		
	Grading Scale: $\mu = .51 \text{ min.}, \sigma = .10 \text{ min}$		
	If: Score		
	Examinee's time ≤ .61 min 30 V		42 MIN.
	.62≤ Examinee's time≤.71 min 20		
	.72≤ Examinee's time ≤ .81 min 10		
	Examinee's time ≥ .82 min. 0		
	Total	30	30
с.	Decision Capability		
	Necessary decisions:	./	
	Dispatch police unit immediately	3 /	
	Call ambulance	5%	
	Notify OFD	91	
	Notify Orlando Utilities	31	
	Total	20	20
D.	Tactfulness		
	Scale:		
	Subjective Rating Score		
	Excellent 15 V		
	Good 10		
	Fair 5		
	Poor 0		
	Total	15	13
	Total Possible	100 E	xam.T1 = 97.
-			

	PERFORMANCE STANDARDS AND EXAMINEE EVALUATI	ON SHEET
Sit	uation 3	Possible Examinee
A.	Information Accuracy	Score Score
	Used correct form, 602-03	1.4
C. C. I	Necessary data entries:	
	EMERGENCY block checked	2.4
	IN PROGRESS block checked	2.4 X
	ROBBERY block checked	2.4
	Location of event	2.4 1
	District number	2.4 1
	Officer's initials	2.4
-	Complainant's name	2.4
	Complainant's phone number	2.4
	Complainant's address	2.40
	TELEPHONE block checked	2.4
	29-0 in OTHER space	2.4 1
	Time received stamped	2.4
	Ann additional data	2.4 %
	Any additional data	2.4 A
	IOLAL	55 21.0
B.	Form Completion Time	
1.	Grading Scale: $\mu = .33 \text{ min}$. $\sigma = .06 \text{ m}$	in.
	If: Score	
	Examinee's time ≤ .39 min 30	and the second
	.40 min ≤Examinee's time	. ZI MINI
	≤.45 min 20	
	.46 min≤Examinee's time	
	≤.51 min 10	
	Examinee's time≥.52 min 0	
	Total	30 30
C.	Decision Capability	
	Necessary decisions:	or
	Determine it's an Emergency	0.
	To notify Radio operator by turning	10
B. Chi	on Emergency Light	10
	To question comptaint on possible	2 X
	Total	20 18
D.	Tactfulness.	
5.	Scale:	
	Subjective Rating Score	
	Excellent 15v	
	Good 10	
	Fair 5	
	Poor 0	
	Total	15 /5
	Total Possible	100 Exam. T1= 90+

	PERFORMANCE STANDARDS AND EXAMINEE EVALUAT	ION SHEET
Sit	EXAMINEE #2 Information Accuracy	Possible Examinee Score Score
	 Used correct form, 602-09 Necessary data entries (0 points if entry was omitted or entry was incorrect): 	5 1
	Unit number (435) District number (88) Officer's initials Signal 10 in REMARKS	5 V 5 V 5 X 5 V
	OTHER block checked Time stamped on back of card Total	5V 5V = 35 30
в.	Form Completion Time Grading Scale: $\mu = 13.3 \text{ sec}$, $\sigma = 1.9 \text{ sec}$ If: Score	
	Examinee's time ≤ 15.2 sec 30 ✓ 15.3 sec≤Examinee's time ≤17.1 sec 20 17.2 sec≤Examinee's time	14.1 SEC.
	<pre>\$19.0 sec 10 Examinee's time ≥ 19.1 sec 0</pre>	
	Total	30 .30
C.	Decision Capability Necessary decisions: (None for this situation)	
	Total	20 20
D.	Scale: Score Subjective Rating Score Excellent 15 v	
	Good 10 Fair 5 Poor 0	
	Total	15 15
	Total possible	= 100 Examinee Total = 9.

Sit	uation 2		Possible Score	Examinee Score
Α.	Information Accuracy			,
1	Used correct form, 602-03		2.5	
	Necessary data entries (0 points i	lf entry		
	was omitted or incorrect)			
	ACCIDENT AUTO block checked		2.5	
	Either AMBULANCE RUN block che	ecked or		
a	37 in space named OTHER		2.5	X
	EMERGENCY blocked checked		2.5	X
	Location of Event properly fil	lled in	2.5 1	
	District number		2.5 1	
	Officer's initials		2.5 2	
and the st	Complainant's name		2.5 /	
-	Complainant's phone number		2.51	
	Complainant's address	· · ·	2.5	X
1	TELEPHONE block checked		2:5/	
	Time received stamped		2:51	
	Time of unit dispatch stamped		2.51	
	Any additional information whi	ch may		
	he pertipent		2.5	×
	be pertinent	Total	35	25
		TOTAL	55	20
R	Form Completion Time			
ь.	Crading Scale: $\mu = 51$ min	$\sigma = 10.min$		
13.	Grading Scare. $\mu = .51$ min.,	Sooro	F	Z
	Examinantia time 6 61 min	30		, min.
	Examinee's time 2.01 min	20		
	.625 Examinee's time 2./1 min	20		
	./2 Examinee's time 4.81 min	10		
	Examinee's time ≥ .82 min.	0		
		Total	30	30
с.	Decision Capability			
	Necessary decisions:		/	
	Dispatch police unit immediate	ely	3 4	
	Call ambulance		5 %	-
	Notify OFD		9 1	·
1.2	Notify Orlando Utilities		3 2	*
		Total	20	17
D.	Tactfulness			
	Scale:			
	Subjective Rating Sco	ore		
	Excellent	15		
	Good	10		
	Fair	5		
	Poor	0		
	1001	Total	15	15
	Tot	al Possible	100 E:	xam.T1=87
	. 100			PI

	PERFORMANCE STANDARDS AND EXAMINEE EVALUA	ATION SHEET
Sit	uation 3	Possible Examinee
		Score Score
A.	Information Accuracy	
	Used correct form, 602-03	1.4 🗸
	Necessary data entries:	
	EMERGENCY block checked	2.4 X
	IN PROGRESS block checked	2.4 X
	ROBBERY block checked	2.4 X
	Location of event	2.4 1
	District number	2.4
	Officer's initials	2.41
	Complainant's name	2.41
	Complainant's phone number	2.41
	Complainant's address	241
	TELEPHONE block checked	241
3 30	29-0 in OTHER space	241
	Time received stamped	241
	Time of dispatch stamped	241
	Any additional data	2 41
	Any additional data	25 07.0
	Iotai	33 21.8
D	Roum Completion Time	
Б.	Form completion line	(min
	Grading Scale: $\mu = .55$ min., $\nu = .00$	5 min.
	The stand of 20 min Score	
	Examinee's time 2 .39 min 50 V	
	.40 min≤Examinee's time	.31 MIN
	2.45 min 20	
	.46 min S Examinee's time	
	≤.51 min 10	
	Examinee's time≥.52 min 0	
	Iotal	30 30
С.	Decision Capability	
	Necessary decisions:	• V
	Determine it's an Emergency	° ×
	To notify Radio operator by turning	10 V
	on Emergency Light	10 X
	To question complaint on possible	~ Y
1	injuries	<u>2 X</u>
2.15	Total	20 0
D.	Tactfulness	
	Scale:	
	Subjective Rating Score	
-	Excellent 15	
	Good 10	
	Fair 5	
	Poor 0	
-	Total	15 15
		100 m m1 F77 8

		The second second
PERFORMANCE STANDARDS AND EXAMINEE EVALUATI	ION SHEET	
Situation 1 EXAMINEE # 3	Possible Score	Examinee
 A. Information Accuracy Used correct form, 602-09 Necessary data entries (0 points if 	5 1	
entry was omitted or entry was incorrect): Unit number (435) District number (88) Officer's initials Signal 10 in REMARKS OTHER block checked Time stamped on back of card Total	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	30
B. Form Completion Time		
Grading Scale: $\mu = 13.3 \text{ sec}, \sigma = 1.9 \text{ sec}$ <u>If:</u> Examinee's time $\leq 15.2 \text{ sec}$ 15.3 sec \leq Examinee's time	15	SEC,
≤17.1 sec 20 17.2 sec≤Examinee's time		
≤19.0 sec 10 Examinee's time ≥ 19.1 sec 0		
Total	30	30
C. Decision Capability Necessary decisions: (None for this situation)		
Total	20	20
D. Tactfulness Scale: Subjective Rating Score		
Excellent 15 Good 10 Fair 5 Poor 0		
Total	15	15
Total possible =	= 100	Examinee Total =95

Situation 2 Possible Examinee Score Score Information Accuracy Α. Used correct form, 602-03 2.51 Necessary data entries (0 points if entry was omitted or incorrect) ACCIDENT AUTO block checked 2.5 V Either AMBULANCE RUN block checked or 37 in space named OTHER 2.51 EMERGENCY blocked checked 2.5V Location of Event properly filled in 2.5 District number 2.51 Officer's initials 2.50 Complainant's name 2.51 Complainant's phone number 2.5 4 Complainant's address 2.51 TELEPHONE block checked 5V Time received stamped 2.5 Time of unit dispatch stamped 2.5+ Any additional information which may 2.51 be pertinent Total 35 35 Β. Form Completion Time ơ = .10 min Grading Scale: A = .51 min., If: Score . 59 MIN. Examinee's time ≤ .61 min 30 1 .62≤ Examinee's time ≤ .71 min 20 .72≤ Examinee's time ≤ .81 min 10 Examinee's time ≥ .82 min. 0 Total 30 30 с. Decision Capability Necessary decisions: 3 1 Dispatch police unit immediately 5 Call ambulance Notify OFD Notify Orlando Utilities 3 20 Total 20 D. Tactfulness Scale: Subjective Rating Score 15 Excellent 10 Good 5 Fair 0 Poor 15 Total Exam. T1= /00 100

Total Possible

	PERFORMANCE STANDARDS AND EXAMINEE EVALUATION SHEET
Sit	nation 3 Possible Examinee
1	Score Score
A.	Information Accuracy
	Used correct form, 602-03
	Necessary data entries:
14	EMERGENCY block checked 2.41
	IN PROCEESS block checked 2.4.
	DOPPERTY hlash shalls 1
	ROBBERT DIOCK CHECKED 2.4
	Location of event 2.4V
	District number 2.4V
	Officer's initials 2.4V
	Complainant's name 2.4V,
1.1.1	Complainant's phone number 2.4V
	Complainant's address 2.4V
	TELEPHONE block checked 2.4
	29-0 in OTHER space 2.4V
	Time received stamped 2.4/
	Time of dispatch stamped 2.4
	Any additional data 2.4
	Total 35 72 6
	10tai 55 32.0
B.	Form Completion Time
1.	Grading Scale: $\mu = 33 \text{ min}$ $\sigma = 06 \text{ min}$
	tf.
	Examinanta time 5 20 min 30
	L'Amine S Line 2.55 min 50 V
1916	.40 min SExaminee's time
and "	2.45 min 20
	.46 min S Examinee's time
	≤.51 min 10
	Examinee's time≥.52 min 0
	Total 30 30
C.	Decision Capability
	Necessary decisions:
	Determine it's an Emergency 8 V
	To notify Radio operator by turning
	on Emergency Light 10 V
	To guestion complaint on possible
	injuries 2 X
	Total 20 18
D.	Tactfulness
1.	Scale:
3 -	Subjective Rating Score
	Excellent 15V
	David 10
	Good
	Fair
	Poor Total 15 15
	Total Possible 100 Exam. T1=95.
A COLORADO	IDLAL INSTITUE

	PERFORMANCE STANDARDS AND EXAMINEE EVALUATION SHEET			
Sit	Examine # 4	Possible	Examinee	
	Information	Score	Score	
A.	Used correct form 602-09	/		
	. Necessary data entries (0 points if	2 4		
	entry was omitted or entry was incorrect):			
	Unit number (435)	5 X		
	District number (88)	5 4		
	VIIIcer's initials Signal 10 in REMARKS	5 4		
2.5	OTHER block checked	5V		
	Time stamped on back of card	51		
	Total	= 35	30	
D	Rour Completing Mine			
D.	Grading Scale: $\mu = 13.3$ sec $\sigma = 1.9$ sec			
	If: Score	•		
	Examinee's time ≤ 15.2 sec 30 V			
- 33	15.3 sec≤ Examinee's time	12 3	REC	
	17 2 sec S Examinee's time			
	≤19.0 sec 10			
	Examinee's time ≥ 19.1 sec 0			
	Total	30	30	
	IULAI	50		
с.	Decision Capability			
	Necessary decisions:			
	(None for this situation)	20	20	
	IULAI	20	20	
D.	Tactfulness			
	Scale:			
	Subjective Rating Score			
	Good 10		:	
	Fair 5			
	Poor 0			
	Total	15	15	
	iotal		~	
	Total possible	= 100	Examinee	
	iotal possible	100	Total =95	

Sit	uation 2		Possible Examinee Score Score
Α.	Information Accuracy		
	Used correct form, 602-03		251
	Necessary data entries (0 poin	ts if entry	2.5
	was omitted or incorrect)	to it chery	
	ACCIDENT AUTO block checke	d	2 5./
-	Fither AMBIL ANCE RIN block	abacked or	2.50
	37 in space named OTHER	checked or	25.1
	EMERCENCY blocked shocked		2.50
	Leasting of Erect analysis	6:11 1 1	2.5 4
	Distant of Event property	filled in	2.50
	District number		2.57
1	Officer's initials		2.5 X
12	Complainant's name		2.5
	Complainant's phone number		2.5 /
	Complainant's address		2.5
	TELEPHONE block checked		2:5
	Time received stamped		2.5
	Time of unit dispatch stam	ped	2.5 X
1	Any additional information	which may	
	be pertinent		2.5 X
		Total	35 27.5
-			LIN
в.	Form Completion Time Grading Scale:	$m., \sigma = .10 min$ $\frac{Score}{30}$ $min 20$ $min 10$. 58 MIN.
	Examinee's time ≥ .82 min.	0	
		Total	30 30
с.	Decision Capability Necessary decisions:		,
	Dispatch police unit immed	iately	31
	Call ambulance		51
	Notify OFD		91
	Notify Orlando Utilities		3 X
		Total	20 17
D.	Tactfulness Scale:	•	
	Subjective Rating	Score	
	Excellent	15 V	
	Good	10	
	Fair	5	
	Poor	0	
		Total	15 15
-		Total Possible	100 Exam: T1=89.

	PERFORMANCE STANDARDS AND	EXAMINEE EVALUATI	ON SHEET
Site	uation 3		Possible Examinee Score Score
A.	Information Accuracy Used correct form, 602-03 Necessary data entries: EMERGENCY block checked IN PROGRESS block checked ROBBERY block checked Location of event District number Officer's initials Complainant's name Complainant's name Complainant's phone number Complainant's address TELEPHONE block checked 29-0 in OTHER space Time received stamped Time of dispatch stamped Any additional data	Total	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$
в.	<pre>Form Completion Time Grading Scale: µ = .33 min If: Examinee's time ≤ .39 min .40 min ≤ Examinee's time ≤.45 min .46 min ≤ Examinee's time ≤.51 min Examinee's time ≥.52 min</pre>	$c = .06 m$ $\frac{\text{Score}}{30}$ $20 / .4$ 10 0 $Total$	in. 2 min <u>30</u> 20
С. D.	Decision Capability Necessary decisions: Determine it's an Emergency To notify Radio operator by on Emergency Light To question complaint on po injuries Tactfulness Scale: <u>Subjective Rating</u> Excellent	y turning ossible Total <u>Score</u> 15 10	8 // 10 // 2 X 20 / 8
	Good Fair Poor	5 0 Total	15 /5 100 Exam.T1= 78

PERFORMANCE STANDARDS AND EXAMINEE EVALUATION SHEET			
Situ	EXAMINEE #5	Possible	Examinee
Α.	Information Accuracy . Used correct form, 602-09	Score 5√	Score
	 Necessary data entries (0 points if entry was omitted or entry was incorrect): Unit number (435) 	5 X	
	District number (88) Officer's initials	5 V 5 V	
	OTHER block checked Time stamped on back of card	5 V 5 V	
	Total	= 35	30
В.	Form Completion Time Grading Scale: $\mu = 13.3 \text{ sec}, \sigma = 1.9 \text{ sec}$ If: Score	•	
	Examinee's time $\leq 15.2 \text{ sec}$ 30 15.3 sec \leq Examinee's time $\leq 17.1 \text{ sec}$ 20		
	17.2 sec ≤ Examinee's time ≤19.0 sec 10		24 sec
	Examinee's time < 19.1 sec 0 V Total	30	0
с.	Decision Capability Necessary decisions:		
	(None for this situation) Total	20	20
D.	Tactfulness Scale:		
	Subjective RatingScoreExcellent15Good10Fair5Poor0		-
	Total	15	15
	Total possible =	= 100	Examinee Total =65

Sit	uation 2	Possible Examinee
A.	Information Accuracy	beore beore
	Used correct form, 602-03	251
	Necessary data entries (0 points if entry	2.5
	was omitted or incorrect)	
	ACCIDENT AUTO block shocked	2.51
	Fither AMPIL ANCE DINK block checked	2.50
	27 in appear nevel OTUED	0.5.1
	57 III Space named OTHER	2.50
	EMERGENCI DIOCKEd checked	2.50
	Location of Event properly filled in	2.51
	District number	2.5
	Officer's initials	2.51
	Complainant's name	2.5
	Complainant's phone number	2.5
	Complainant's address	2,5
	TELEPHONE block checked	2.51
	Time received stamped	2.51
	Time of unit dispatch stamped	2.51
1	Any additional information which may	
1210	he pertipent	2.51
	Total	35 25
	Iotai	55 25
	Form Completion Time	
в.	Grading Scale: $\mu = .51 \text{ min.}$ $\sigma = .10$	min
	If: Score	
	Examinee's time < .61 min 30	
	62 < Framinee's time < 71 min 20	.62 MIN
	725 Examinee's time (81 min 10	
1-1762	Examined Stime 2.01 min 10	
	Examinee S time 2.02 min. U	30 20
1.	Iotal	50 20
1		
C.	Decision Capability	
	Necessary decisions:	~/
	Dispatch police unit immediately	34
	Call ambulance	50
	Notify OFD	94
	Notify Orlando Utilities	31
in C	Total	20 20
D.	Tactfulness	
	Scale:	
	Subjective Rating Score	
	Excellent 15	
	Cood 10	
	Red m 5	
	Fair	
	roor	15 15
1		0 100 Exam T1=00
	Total Possibl	e 100 Exam. 11 70

-			
PERFORMANCE STANDARDS AND EXAMINEE EVALUATION SHEET			
Sit	uation 3	Possible Examinee	
Α.	Information Accuracy	<u>Decre</u>	
	Used correct form, 602-03	1.4	
	Necessary data entries:	1.4	
	EMERGENCY block checked	241	
	IN PROGRESS block checked	2.4 X	
	ROBBERY block checked	2.4	
	Location of event	2.4	
	District number	2.4	
	Officer's initials	2.4	
	Complainant's name	2.4	
	Complainant's phone number	2.4	
1.18	Complainant's address	2.40	
1.15	TELEDUONE block checked	2.4	
the second	20 0 in OTHER analog	2.40	
	Z9-0 IN OTHER Space	2.4	
	Time received stamped	2,44	
	Time of dispatch stamped	2.47	
30	Any additional data	2.40	
	Tot	al 35 32-6	
в.	Form Completion Time		
	Grading Scale: μ = .33 min.,	τ = .06 min.	
	If: Score		
	Examinee's time ≤ .39 min 30		
	.40 min ≤Examinee's time		
1.0	≤.45 min 20		
	.46 min≤Examinee's time	.51 mon	
	≤.51 min 10 ¥		
1.1.5	Examinee's time≥.52 min 0		
	Tot	tal 30 /0	
		,-	
C	Decision Canability		
0.	Necessary decisions:	,	
11-11-11-11-11-11-11-11-11-11-11-11-11-	Determine it's an Emergency	8 1	
a seco	To potify Radio operator by turning		
12	on Emergency Light	10 /	
	To question complaint on possible		
	injuries	2 X	
1.4	Tot	al 20 19	
		. 10	
D.	Tactfulness		
	Subjective Peting Score		
	Subjective Rating Score		
191-5-5-	Excellent		
	Good		
	Fair		
	Poor	15 15	
	Total Pos	sible 100 Exam. T1= 754	



SELECTED REFERENCES

- Institute for Defense Analysis, Task Force Report: <u>Science</u> and <u>Technology</u> (Washington, D.C.: President's Commission on Law Enforcement and Administration of Justice, 1967), p. 21.
- 2. Ibid.
- Isabel Briggs Meyers, <u>Introduction to Type</u> (Swarthmore, Pennsylvania: I.B. Meyers, 1970).
- Frieda Fordham, <u>An Introduction to Jung's Psychology</u> (Baltimore, Maryland: Penguin Books, 1953).
- C. West Churchman, Russell L. Ackoff, E. Leonard Arnoff, <u>Introduction to Operations Research</u>, New York: John Wiley & Sons, Inc., 1957, p. 136.
- M. E. Nightengale, "An Approach to Decisions Under Uncertainty," Arizona State University, Industrial <u>Engineering Research, Bulletin 1, Tempe, Arizona,</u> April 1965, pp. 19-26.
- B. R. Bernstein and B. K. Gonzalez, "Learning, Retention and Transfer," Technical Report <u>NAVTRADEVCEN</u> <u>68-C-0215-1</u>, Vol. 1 (Orlando, Florida: Naval Training Device Center) February 1971, pp. 19-20.
- C. E. Osgood, "The Similarity Paradox in Human Learning: A Resolution," <u>Psychological Review</u>, (1949), pp. 132-143.
- Los Angeles Police Department, Los Angeles Police Department and Computers (Los Angeles, California: Advanced Systems Development Section, Advance Planning Division. 1972), pp. 20-23.

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D. E. Trundle, "Computer-Assisted Instruction", <u>Technical</u> <u>Report NAVTRADEVCEN IH-206</u>, (Orlando, Florida: Naval Training Device Center) February 1972, p. 186.