



FBI

November 1989

Law Enforcement Bulletin



The FBI's 10mm Pistol



Features



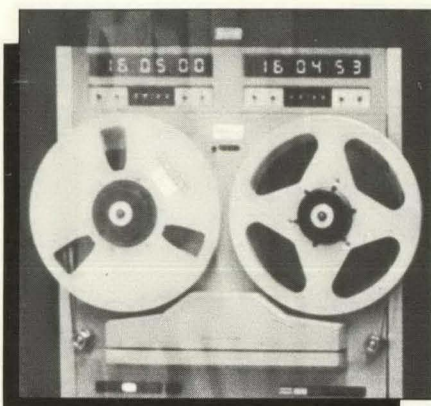
Page 9

2 The FBI's 10mm Pistol
By John C. Hall

9 Job Task Analysis
By Thomas J. Jurkanin

**16 Ammunition Selection:
Research and Measurement Issues**
By N.J. Scheers and Stephen R. Band

**24 The Judicial Sealing Requirement in
Electronic Surveillance:
A Matter of Immediacy**
By Robert A. Fiatal



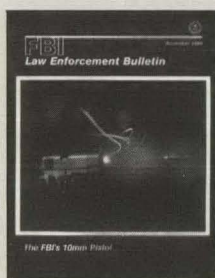
Page 24

Departments

1 Director's Message **23 Book Review**

14 The Bulletin Reports **30 Police Practices**

22 Unusual Weapon **31 VICAP Alert**



The Cover: The 10mm semiautomatic pistol has been selected as the standard issue firearm for all FBI Agents. See article on page 2. All weapon photos in this issue are courtesy of Larry Wallery and Dennis Keener.

United States Department of Justice
Federal Bureau of Investigation
Washington, DC 20535

William S. Sessions, Director

The Attorney General has determined that the publication of this periodical is necessary in the transaction of the public business required by law of the Department of Justice. Use of funds for printing this periodical has been approved by the Director of the Office of Management and Budget.

Published by the Office of Public Affairs,
Milt Ahlerich, Assistant Director

Editor—Stephen D. Gladis
Managing Editor—Kathryn E. Sulewski
Art Director—John E. Ott
Assistant Editor—Alice S. Cole
Production Manager—Andrew DiRosa

The FBI Law Enforcement Bulletin (ISSN-0014-5688) is published monthly by the Federal Bureau of Investigation, 10th and Pennsylvania Ave., N.W., Washington, DC 20535. Second-Class postage paid at Washington, DC. Postmaster: Send address changes to Federal Bureau of Investigation, *FBI Law Enforcement Bulletin*, Washington, DC 20535.

Director's Message

Violence resulting from the use of firearms is a commonplace occurrence in this country. Daily media accounts report on the barbarity that besieges cities across the United States as confrontations involving law enforcement and heavily armed criminals become more prevalent. With this in mind, the Firearms Training Unit at the FBI Academy in Quantico, VA, set out to develop detailed specifications for a general issue FBI firearm. Although the revolver had served the FBI well for several decades, it became quite evident that major changes were critical to the well-being of our Agents and American citizens.

The FBI began an extensive evaluation of available firearms in 1987. From this evaluation, it was determined that no existing pistol had all of the features considered necessary for a general issue FBI handgun. It also became clear that the issue of caliber was absolutely critical and needed to be resolved as well.

A Wound Ballistics Workshop, attended by scientific and medical experts from throughout the Nation, convened at the FBI Academy to formulate criteria for ammunition performance to meet the specific needs of law enforcement. Then, relying on the best information that could be acquired regarding wound ballistics, the Firearms Training Unit designed a series of tests to analyze ammunition performance with regard to penetration and wound size, the two factors that govern handgun wounding effectiveness.

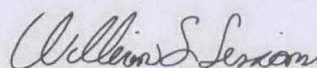
Eight different tests were conducted using 10% ballistic gelatin, since this substance most nearly duplicates soft human muscle tissue. By firing ammunition in gelatin blocks, FBI firearms experts were able to approximate the resistance of muscle to the passage of a bullet. Using various materials,

such as clothing, car metal, windshield glass, wood, and plaster board, as obstacles through which projectiles would have to pass before reaching a target, each shot was carefully measured to determine the depth of penetration and the volume of tissue displaced.

The ammunition tested included the 9mm and .45 caliber, the two most commonly used pistol rounds in law enforcement. In addition, the 10mm round was developed to perform within the same velocity ranges as the 9mm and .45 rounds, and that round was subjected to the same test standards.

Based on the results of these tests, the FBI is undertaking a major change in its firearms program. I have authorized the transition from the .38 Special/.357 magnum revolver to a 10mm semiautomatic pistol as the standard issue firearm for all FBI Agents. Sufficient quantities of the new weapon and ammunition will be procured as soon as possible to rearm the entire Agent population.

The FBI's extensive testing and evaluation program of the 10mm pistol reaffirms the constant need for continued research into equipment design to increase law enforcement efficiency. We cannot afford to become complacent with current technology. We must continue to devote our personnel and resources to assure that each officer is equipped with the most effective equipment available. The lives of our fellow officers and the citizens of the United States depend on it.



William S. Sessions
Director



The FBI's 10mm Pistol

By

JOHN C. HALL

Special Agent
Firearms Training Unit
FBI Academy
Quantico, VA

For several decades, FBI Agents carried the .38 caliber revolver as a standard firearm. Now, after extensive testing and evaluation, the FBI is converting to a new semiautomatic pistol. The new pistol, built to FBI specifications and chambered for a new cartridge—the 10mm, will be issued to all FBI Agents to replace existing revolvers. This article describes the process that led to this decision.

BACKGROUND

The authority for FBI Agents to carry firearms was first granted in 1934. Although pistols were sometimes issued or permitted on a limited basis, the revolver predominated as the FBI sidearm. The first significant shift occurred in 1981, when Special Weapons and Tactics (SWAT) teams were equipped with large capacity 9mm pistols. Since then, 9mm pistols have also become the issue weapons for the FBI's Hostage Rescue Team (HRT) and special surveillance teams.

For the general Agent population, however, revolvers remained the issue weapon, though the increasing use of pistols reflected a growing recognition that the modern pistol provides certain advantages over the revolver. Primarily, pistols are generally more compact and portable and provide a larger ammunition capacity. They are also quicker and easier to reload. Moreover, experience has shown that pistols are generally

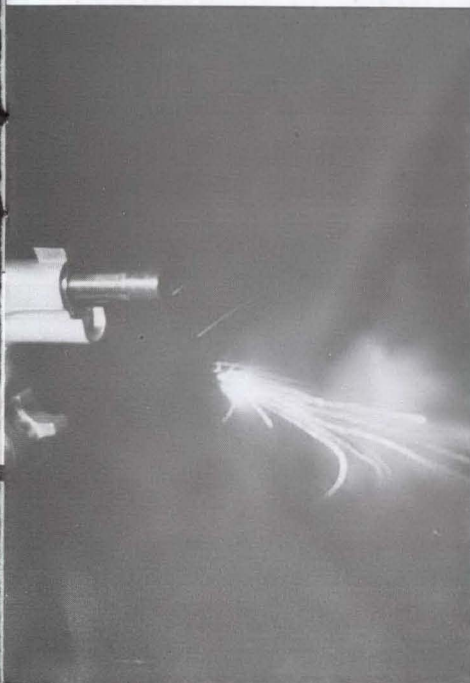
easier to shoot quickly and accurately due to the self-cocking operation of the slide following each shot and the more efficient transmission of recoil. What is most important, however, is that pistols have proven to be durable and reliable.

Undoubtedly, interest in pistols intensified when innovative designs of the weapon began to appear on the market during the early 1980s. Whereas the basic revolver design remains much as it was at the turn of the century, the pistol has been virtually refashioned in recent years, providing a wide range of such innovative features as double-stacked large capacity magazines, double-action triggers, ambidextrous controls, multiple safety devices, and endless varieties of shapes and sizes.

Meanwhile, other events entered into the picture. Instances where law enforcement officers were confronting more violent, heavily armed subjects appeared to be on the rise. The increasing use of semiautomatic and even fully automatic weapons by certain segments of the criminal element began to raise concerns about the adequacy of law enforcement armament.

SELECTION OF A NEW HANDGUN

In 1987, new impetus was given to the FBI's ongoing evaluation of firearms and ammunition. The Firearms Training Unit, located at the FBI Academy in





Special Agent Hall

“The best performing round within the parameters of the FBI’s test protocol was the 10mm.”

Quantico, VA, set out to identify the best possible handgun for FBI Agents. Firearms training experts undertook a major testing project to evaluate a variety of 9mm and .45 caliber pistols then on the market. While several of the pistols tested were effective, none possessed all of the features desired in a general issue FBI weapon. The challenge was to develop a pistol that met the needs of the FBI.

In the meantime, as a response to a growing perception within Agent ranks that a pistol was preferable to the revolver, the Director of the FBI authorized Agents to use personally owned pistols, either 9mm or .45 caliber, as long as the weapons were of approved manufacture and design and the training and qualification standards were met.

A Question of Caliber

The most critical, and controversial, issue relating to the selection of a new FBI handgun was that of caliber. Questions have been raised not only about the ade-

quacy of some weapons but also about the wounding effectiveness of some ammunition. Case accounts of shootings document the fact that subjects receiving fatal, but not incapacitating, wounds have been able to return fire and inflict further damage.

Wound Ballistics

As a means of resolving the problem, the FBI convened a Wound Ballistics Seminar at the FBI Academy in September 1987. The participants included noted individuals from the scientific and medical communities from throughout the Nation who possessed relevant expertise in the field of wound ballistics. One of the primary purposes of the seminar was to identify the performance criteria of a bullet most likely to inflict an incapacitating wound on a human target.

A second purpose of the seminar was to determine, if possible, which of the two calibers, the 9mm or the .45, was likely to be most effective in accomplishing

that goal. And, although the seminar was unsuccessful in conclusively resolving the caliber question, it did identify the desirable performance criteria of an effective bullet.

Incapacitation, in the law enforcement context, may be simply described as bringing about the immediate cessation of hostile or threatening activities. Incapacitation may result from psychological or physiological factors. Psychologically, some individuals are predisposed to fall down at the sound of gunfire, while others may continue to fight even though they are seriously—even fatally—wounded. Because a particular person’s psychological response to a gunshot wound cannot be predicted, ammunition performance must be viewed from the perspective of physiological incapacitation.

The seminar participants unanimously concluded that physiological incapacitation can be accomplished in one of two ways—damage to the central nervous system (the brain or upper spinal column) or significant loss of blood. Because the placement of a shot in the relatively small, highly mobile target area of the brain cannot be counted upon in an armed confrontation, a bullet must therefore be capable of penetrating the body sufficiently to pass through major arteries and blood-bearing organs to ensure timely physiological incapacitation. Without adequate penetration, physiological incapacitation cannot be attained. Given adequate penetration, the only reliable way to increase the effectiveness of the wound is to increase its size, thus

increasing the amount of tissue damage and the rate of hemorrhage. Thus, the FBI's test program was designed to evaluate bullet penetration and wound size.

Ammunition Test Design

With the performance criteria acquired from the Wound Ballistics Seminar, the next step was to design and construct a series of ammunition tests to measure the performance of different rounds against those standards. For that purpose, the Firearms Training Unit established a working group which included personnel from the Special Operations and Research Unit, the Hostage Rescue Team, and the Institutional Research and Development Unit.

The tests were designed to simulate factors realistically. Therefore, if the effects of bullets upon human tissue were to be realistically measured, a substance that would duplicate human tissue was needed. Based upon the research of Dr. Martin Fackler,

Director of the Army's Wound Ballistics Laboratory, at the Letterman Institute in San Francisco, 10% ballistic gelatin was selected to simulate soft human muscle tissue. Eight separate penetration tests were conducted by firing bullets into this substance.

“
... the FBI's test program was designed to evaluate bullet penetration and wound size.
”

Also, since experience demonstrated that bare tissue is seldom visible on a target in a violent confrontation, seven of the eight tests included covering the gelatin with typical clothing material (cotton T-shirt material, flannel shirt material, 10 oz. down in a nylon carrier, and denim). To assure

validity and standardization, clothing manufacturers were consulted to determine the average thread count in typical under-clothing, shirts, and jackets.

Other factors were then considered. Because FBI Agents frequently confront subjects in vehicles, behind doors or walls, and at various distances, clothed gelatin was placed behind windshield glass, car door metal, plaster board and plywood. Again, manufacturers in the construction and automobile industries were consulted to assure that the materials used replicated substances that bullets would have to pass through in real-life situations. While most of the test shots were fired from a distance of 10 feet, some of the tests were conducted at 20 yards to assess the effects of distance and velocity loss on penetration potential.

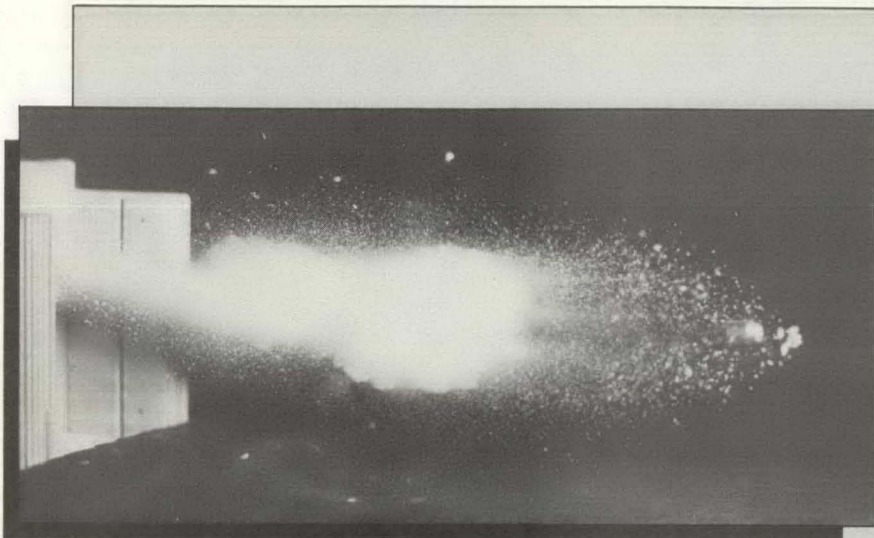
Five shots were fired in each of the 8 penetration tests, providing a total of 40 shots for each caliber or bullet type tested.

FBI BULLET PERFORMANCE CRITERIA

1. Penetration
 - a. Minimum Acceptable—12"
 - b. Maximum Desirable—18"
2. Size of the Wound (Volume)
 - a. Frontal Area of Bullet
 - b. Depth of Penetration

FBI STANDARDIZED AMMUNITION TESTS

- Test 1** — Bare Gelatin @ 10 feet
Test 2 — Heavy Clothing @ 10 feet
Test 3 — 20 gauge Steel @ 10 feet
Test 4 — Wallboard @ 10 feet
Test 5 — Plywood @ 10 feet
Test 6 — Auto Windshield Glass @ 10 feet
Test 7 — Light Clothing @ 20 yards
Test 8 — Auto Glass @ 20 yards



An ammunition test shot being fired into wallboard.



An ammunition test shot being fired into plywood.



An ammunition test shot being fired into auto windshield glass.

The Competing Calibers

Once the tests were designed, a decision had to be made regarding the calibers to be tested. In pistol cartridges, the two most obvious contenders were the 9mm and .45 caliber. The 9mm round tested was the 147 grain subsonic hollow point round produced by Winchester; the .45 round selected for the test was the Remington 185 grain hollow point. The selection of these particular cartridges for testing was based, in large part, on the consensus of the Wound Ballistic Workshop participants that these bullets should provide superior penetration over other hollow point bullets in their respective calibers.

In the meantime, a separate research and development project had been undertaken with the 10mm cartridge to assess its application to law enforcement work. Although the 10mm (.40 caliber) is a relatively new cartridge, with few weapons presently chambered for it, its unique size, halfway between the 9mm (.35 caliber) and the .45, appeared to offer the possibility of a third viable law enforcement pistol cartridge. In addition, unlike its competitors, the potential of the new cartridge was virtually untapped.

Samples of commercially available 10mm ammunition were acquired and preliminarily evaluated as to suitability for law enforcement use. The high chamber pressures generated by the commercial loadings, with the resultant heavy recoil and muzzle blast, tended to offset the otherwise excellent performance of the

round. Therefore, the FBI Firearms Training Unit decided to create a new loading for the 10mm, one with velocities comparable to those of the competing 9mm and .45 cartridges. A 180 grain hollow point bullet was acquired and handloaded to a velocity of 950 feet per second. This loading not only matched the velocities of the other two cartridges, but it also dramatically reduced recoil and muzzle blast.

In the absence of factory ammunition built to the desired specifications, the 10mm rounds initially subjected to the test protocol were those handloaded by the Firearms Training Unit staff. Subsequently, factory-loaded 10mm ammunition was acquired and built to the desired specifications, which actually met or surpassed the performance of the handloaded test ammunition.

The Test Procedures

Because the objective was to test ammunition and not weapons, the initial tests were conducted with industry standard test barrels. These barrels are built to standards established by the Sporting Arms and Ammunition Manufacturing Institute (SAAMI) and are tailored to optimize the ballistic efficiency of each caliber. Test barrel length is determined by the internal ballistics of the caliber. Consequently, the barrel lengths vary with each caliber. For example, the optimal test barrel for the 9mm is 4" in length, while those of the 10mm and .45 are 6".

The immediate concern was the possibility that the longer test barrels for the 10mm and .45 would

provide an advantage by increasing their velocities. In reality, it was discovered that increased velocity actually diminishes the penetration performance of hollow point bullets in gelatin by increasing the rate and degree of expansion. It was noted, for example, that both the 10mm and .45 achieved lower velocities, but greater penetration, when fired

“

Although penetration and wound size govern handgun wounding effectiveness, penetration is the more critical element.

”

from shorter pistol barrels than when fired from the longer test barrels with somewhat higher velocities. Thus, the longer test barrels used with the 10mm and .45 worked as a handicap for those two calibers by lessening the degree of penetration. That handicap would have been eliminated by using test barrels of equal lengths, and the disparity between the penetration performance of the 9mm and the two other calibers would have been even greater than that actually attained. Since the longer test barrels were not giving any advantage to the 10mm and the .45 caliber (quite the contrary), the tests were continued with existing equipment.

After initial tests to measure velocity and accuracy, 40 rounds of each caliber were fired by FBI firearms personnel to measure penetration and wound volume. Following each shot, red dye was injected into the wound channel

created by the passage of the bullet into the gelatin, and a photograph was taken. Then a separate team from the Institutional Research and Development Unit conducted the measurements to ascertain penetration (measured in inches), bullet expansion, and retained bullet weight. Finally, the volume of tissue displaced (wound size) by the passage of the bullet

was computed in cubic inches and recorded.

The Results

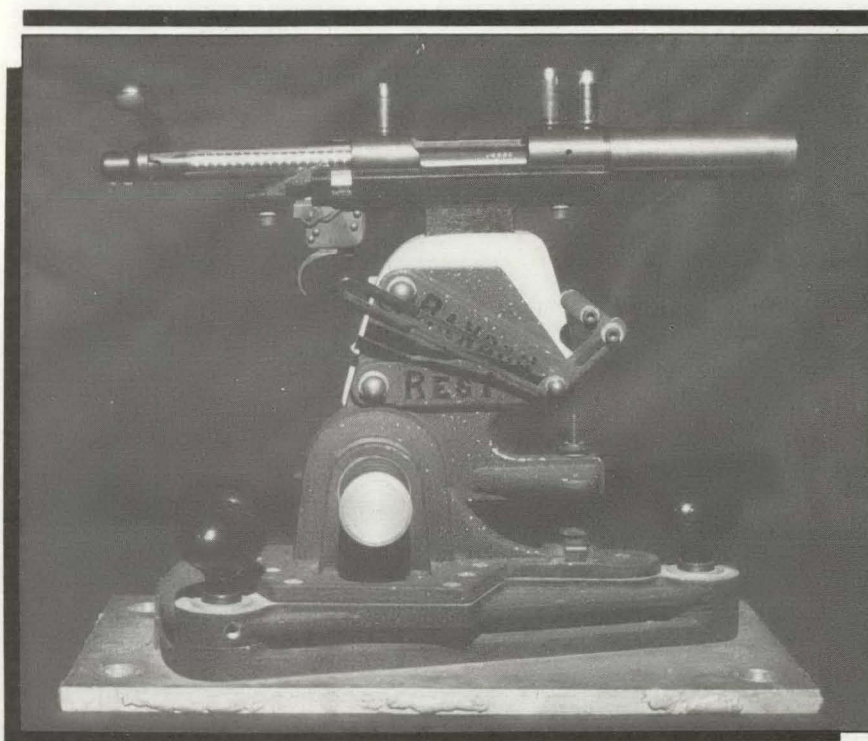
Although penetration and wound size govern handgun wounding effectiveness, penetration is the more critical element. Therefore, a minimum standard of 12" of penetration in the gelatin was established. The following penetration results indicate the number and percentage of rounds in each caliber that met or exceeded the 12" minimum:

10mm-39 shots out of 40 (97.5%)

.45-37 shots out of 40 (92.5%)

9mm-27 shots out of 40 (67.5%)

As a point of reference, the standard issue .38 Special, 158 grain lead hollow point round was fired through the battery of tests. Although the .38 was not a "test" round, and therefore not fired



Initial ammunition tests were conducted with industry standard test barrels.

under the same strict test controls, the penetration performance was similar to that of the 9mm, producing acceptable penetration 67.5% of the time.

It should be noted that no maximum penetration standard was established. This reflects the judgment that underpenetration of a handgun bullet presents a far greater risk to the law enforcement officer than overpenetration does to an innocent bystander. Considering that approximately 80% of the rounds fired by law enforcement officers engaged in violent encounters do not strike the intended targets, it was deemed somewhat unrealistic to attach too much significance to the potential risks of overpenetration on the part of those that do. Nevertheless, in assessing the potential volume of

wounds created by the test bullets, greater attention was given to the potential tissue displaced up to a depth of 18". For practical purposes, penetration beyond that range would most likely carry the bullet outside the body.

“Once the tests were designed, a decision had to be made regarding the calibers to be tested.”

Averaging the volumetric results over all eight test events, the 10mm and .45 displaced similar volumes of tissue within the desirable penetration range of 18"—4.11 and 4.22 cubic inches

respectively—well beyond that displaced by the 9mm and .38—which respectively measured 2.82 and 2.16 cubic inches.

As an additional consideration, the 10mm was by far the most accurate round tested, consistently providing one hole 10-shot groups at 25 yards of less than an inch (0.77" average) with both handloaded and factory ammunition built to FBI specifications. By contrast, the 9mm averaged 2.3" and the .45 averaged 2".

CONCLUSION

The conclusion was obvious. The best performing round within the parameters of the FBI's test protocol was the 10mm. Accordingly, the Director of the FBI approved the recommendation that the new 10mm cartridge be adopted as the standard caliber for a new FBI pistol, and that the new pistol be procured in sufficient quantities to replace existing revolvers.

The tests that led to this decision by the FBI are available, on request, to interested law enforcement agencies. Moreover, ammunition testing will continue and extend to other calibers and bullets available for law enforcement use. As additional test results are compiled, quarterly updates will be automatically mailed to recipients of the original test report. Requests for the test report entitled **"Ammunition Test Results"** should be mailed to:

Firearms Training Unit
FBI Academy
Quantico, VA 22135

FBI

Job Task Analysis

By

THOMAS J. JURKANIN, Ph.D.

*Illinois Local Governmental Law Enforcement
Officers Training Board
Champaign, IL*



The relevance and quality of training curricula in the field of law enforcement has been significantly enhanced in recent years. The major contributing factor to this success is that law enforcement trainers now employ more sophisticated procedures and processes to develop various curricula. This work has been largely accomplished through an empirical research method of validation known as job task analysis.

This article provides an historical and conceptual overview of job task analysis, or the analytical process of determining the duties and activities of a job performed by the incumbent, and how it is used to develop curricula and testing instruments in the field of law enforcement. Specifically, the article focuses on how the State of Illinois employed job task analysis to the police patrol position.

An Historical Perspective

The need for job task analysis studies in the field of law enforce-

ment arose as a result of Equal Employment Opportunity Commission (EEOC) standards. With the advent of EEOC standards, law enforcement employers were placed under pressure to validate the process by which they select and train employees.

Police officer standards and training (POST) commissions, one of which is located within the structure of each respective State government, are responsible for establishing minimum levels of training applicable to local law enforcement officers. If an officer does not meet the criterion of training established by the POST commission, then that officer is ineligible to practice as a police officer within the given State. Serving in this capacity, POST commissions have assumed the role of an employer. As a State regulatory agency, the POST commission must abide by State and Federal EEOC standards, while seeking to ensure that only competent recruits are certified as law enforcement officers.

However, with the advent of EEOC standards, it became necessary for POST commissions to prove that their minimum training requirements are nondiscriminatory; that the recruit basic curriculum used to train and certify officers is valid and job-related; and that the testing procedures designed to evaluate a recruit's level of knowledge and skill during and following the recruit basic training course are reliable and valid instruments of measurement.

Defining Content Validity

The validation process consists of determining whether a particular standard measures the quality it is designed to measure. The EEOC Uniform Guidelines on Employee Selection Procedures indicate that the first step in the validation process is conducting a job analysis to define the job domain; that is, the tasks which constitute the job and the knowledge, skills and abilities which an individual must possess to perform the job effectively.¹ Once the critical tasks, knowledge, skills, and abilities are identified for a particular job, educators and trainers have an empirical base from which to develop job-related curricula and testing instruments.

EEOC guidelines on employee testing procedures specify that one of the following types of validation procedures must be used empirically for purposes of meeting Federal Government standards: criterion referenced validity, construct validity, or content validity. In developing training curricula and testing instruments, the POST commissions have most often opted for the



Dr. Jurkanin

“... the first step in the validation process is conducting a job analysis to define the job domain....”

demonstration of content validity. Content validation is the best approach for developing statewide training and examination standards.² EEOC guidelines define content validity as: "A demonstration that the content of a selection and training procedure is representative of important aspects of performance on the job."³

In establishing content validity in training and testing, the definition of a direct link between tasks performed on the job and curriculum and testing items is critical. In the case of *Kirkland v. Department of Correctional Services*, the judge emphasized this point in discussing the method by which examinations should be validated. He stated that:

"The cornerstone in the construction of a content-valid examination (and curriculum) is the job analysis. Without such an analysis to single out the critical knowledge, skills and abilities required by the job, their importance relative to each other, and the level of proficiency demanded as to each attribute, a test (curriculum) constructor is aiming in the dark and can only hope to achieve job relatedness by blind luck."⁴

In attempting to demonstrate content validity and job relatedness in curriculum and test development projects in the field of law enforcement, a variety of methodologies have been employed. However, the three validation studies completed by the POST commissions in California, Michigan and Illinois were all similar in purpose and design. All were conducted for the purpose of

developing a content valid recruit basic training curriculum. Each employed a job task inventory checklist approach for purposes of identifying the job information and job knowledge critical to the law enforcement occupation. Each study also used the obtained job

level of attained job knowledge and skill.

The Job Task Inventory approach to curriculum and test development allows relevant job information to be obtained for a listing of job tasks. The researcher develops a list of tasks that are

“
... the Illinois POST commission has now
instituted a comprehensive written examination
that must be successfully completed by all newly
hired police officers as a condition to receiving
their certification to practice within the State.
”

information as a data base in the development of the curriculum.⁵

The Illinois Study

Because of the close similarities between the three validation research projects mentioned above, only the most recent research, the Illinois study, will be discussed in detail. The Illinois study utilized much of the job task information that was identified in the California and Michigan studies, but expanded that information by adding a number of job task statements. An additional reason for closely examining the Illinois study is the fact that the Illinois POST commission has now instituted a comprehensive written examination that must be successfully completed by all newly hired police officers as a condition to receiving their certification to practice within the State. This written examination was validated through the Job Task Inventory Checklist approach and provides a reliable assessment of an officer's

performed on the job by practicing police officers. In Illinois, these job tasks were either taken from task analysis listings that were previously developed in other States pertaining to the law enforcement function or were generated by a representative panel of practicing police practitioners. In excess of 600 such tasks were identified.

A job task was defined in the Illinois study as "a meaningful unit of work activity that can be readily observed and measured, as generally performed on the job by one worker within some limited period of time."⁶ Examples of such task statements identified include:

- Conduct a field search of an arrested person
- Arrest persons without a warrant
- Issue traffic citations
- Stop vehicle to arrest, cite, or warn occupants
- Testify before grand juries

Once identified, the job task statements associated with the policing function were then collected from two sources. First, a random sample of 2,451 police patrol officers were asked, via the questionnaire, to review each of the job tasks listed within the questionnaire and to rate the frequency with which they performed each specific job task. In addition, a random sampling of 685 police supervisors was performed, via the questionnaire, to rate the job tasks in terms of how critical the consequences of inadequate performance would be.

The objective of assessing the performance frequency and the consequences of inadequate performance for each task was to identify those tasks that had statewide significance as being relevant

Many of these had been previously identified in both the California and Michigan studies, a finding that indicates the tasks associated with the job of policing are fairly consistent from State to State.

After identifying relevant job tasks, a number of worker requirements were generated for each task. Worker requirements are those observable behaviors that must be performed to accomplish a given job task. For example, in considering those behaviors that must be performed to "arrest a person without a warrant," the following worker requirements would apply:

- Establish probable cause that the crime was committed and the suspect committed the crime as indicated by physical evidence, witness

“

... Minnesota was the first to require that police officers demonstrate a minimum level of acquired knowledge and skill related to the policing function as a condition to their licensure within the State.

”

to the job domain of policing. A statistical decision rule was developed based on the mean score of the rating for consequences of inadequate performance and performance frequency for each individual job task. In this manner, all of the job tasks a police officer must be able to perform were identified. In the Illinois study, a total of 317 job tasks were identified as being relevant to the policing function.

statements, and/or personal observations.

- Determine whether appropriate to arrest without a warrant by considering type of crime and time factor involved (e.g., availability of suspect, time elapsed from commission of crime).
- Arrest person by advising person that he/she is under arrest and taking person into physical custody.

Worker requirements are essential in identifying the knowledge, skills, and abilities relevant to the performance of the task and are effective in enumerating very specific behaviors which must be mastered in order to perform the specific job task. In the curriculum development process, worker requirements serve as a direct link between the job task statement and the student performance objectives. In the Illinois study, panels of practicing police officers were convened to write the worker requirements for each of the job task statements.

Having identified the worker requirements for each of the job task statements, the final step in the curriculum development process was translating worker requirements into training/learning objectives. This translation process limits the amount of conjecture concerning what should and should not be included in the curriculum and does not allow curriculum developers to speculate or generalize regarding appropriate training content.

Training/learning objectives were specified to the greatest possible degree by employing a process whereby 1) job tasks were identified; 2) a list of relevant worker requirements was generated for each job task; and 3) each worker requirement was translated into a training objective.

The Illinois study organized all of the learning objectives into 29 separate training groups and developed a recruit basic training curriculum. With a job-related curriculum in place, Illinois wished to develop an examination instrument to assess the degree to which individual students had

achieved the identified training objectives and to assess the police officer's attained level of job knowledge and skill.

The State of Minnesota was the first to require that police officers demonstrate a minimum level of acquired knowledge and skill related to the policing function as a condition to their licensure within the State. This requirement was incorporated as part of legislation pertaining to the licensure of police officers, which was passed by the Minnesota General Assembly in 1977. Since that time, Illinois and Texas have been the only two additional States to require police officers to complete a State licensure examination.

The process of developing the licensure examination in Illinois was simplified by the fact that Illinois had completed a job task analysis in developing a content valid recruit basic training curriculum. A complete listing of learning objectives had been derived based upon the data obtained via the job task analysis. Those learning objectives specified the knowledge and skills that were relevant to the individual tasks of the policing function. In analyzing the content of the learning objectives, examination items were developed to assess the extent to which the student had attained each specific objective. By writing such examination items, the Illinois project developed a 200-item multiple choice written licensure examination that could be proven to be job related and content valid.

The learning objectives, as well as the examination items, are written to assess the ability to recall facts, to translate this infor-

mation, and the ability to apply the information. These learning objectives directly correlate to Bloom's Taxonomy of Educational Objectives by their use of one of the three verbs "define," "identify," or "recognize."⁷ These terms, or verbs, as employed in the Illinois project have

“The cornerstone in the construction of a content-valid examination (and curriculum) is the job analysis.”

specific and differential meaning as given below:

Define

- Given a term, select the correct meaning
- Given a meaning, select the correct term
- Given a term, select antonyms and synonyms
- Given a term, select definitional elements of the term

Identify

- Given a procedure or process, select the best means of accomplishment

Recognize

- Given a hypothetical fact situation, select the best descriptor
- Given a hypothetical fact situation, select the best procedure or process to effect resolution

Conclusion

It is apparent that law enforcement trainers are indeed employing the most sophisticated methods and processes available in the development of training curricula and testing instruments. The result of this effort is that police recruits are exposed to a curriculum that is truly "on target" in terms of preparing them for their careers. As such, police recruits, once graduating from the academy and becoming certified by the POST commission, are prepared to "work the streets." They are not the product of "ivory tower" teachings. Rather, they have been exposed to a curriculum that is assuredly job relevant.

FBI

Footnotes

¹EEOC Guidelines on Employment Testing Procedures. Title 29 Code of Federal Regulations, Section 1607.1 et seq. Washington, D.C., U.S. Government Printing Office, July 31, 1970. And, Equal Employment Opportunity Commission, Testing and Selecting Employee Guidelines, Department of Justice, Commerce Clearinghouse, Inc., August 25, 1978, Section 4010.05, pp. 2223-2—2223-4.

²Illinois Local Governmental Law Enforcement Officer's Training Board, Illinois Basic Police Training Validation Project, vol. 1, Administrative Documentation, (Springfield, IL: State of Illinois, 1981).

³Supra note 1.

⁴Kirkland v. Department of Correctional Services, 7 FEP 694 (1974).

⁵California Commission on Peace Officer Standards and Training, California Entry-level Law Enforcement Job Analysis, Technical Report 1, (Sacramento, CA: State of California, 1979); the Michigan Law Enforcement Officer's Training Council, 1979; supra note 1.

⁶Supra note 1, at p. 14.

⁷B.S. Bloom, *Taxonomy of Educational Objectives: Handbook, Cognitive Domain*, (New York: David MacKay Co., Inc., 1956).

The Bulletin Reports

Law Enforcement Officers Killed and Assaulted—1988

According to figures released by the FBI's Uniform Crime Reporting Program, 78 law enforcement officers were feloniously killed and 77 officers lost their lives in accidents during the performance of their duties in 1988. In addition, 16 of every 100 officers were assaulted during the same year.

Firearms continue to be the weapons most often used in the slaying of officers. Handguns were used in 62 of the murders, rifles in 12, and shotguns in 2. The most common type of handguns used were the .38 caliber and the .357 magnum. These two weapons jointly accounted for 38 of the deaths.

Thirty-three officers were slain during arrest situations—3

were killed by burglary suspects, 7 by robbery suspects, 12 during drug investigations or arrests, and 11 while attempting arrests for other offenses. The remainder were killed feloniously while investigating suspicious persons or circumstances (22), responding to disturbance calls (7), during an ambush (7), enforcing traffic laws (6), handling or transporting prisoners (2), and by a mentally deranged person (1).

Two of the 78 officers feloniously killed were females. The victims had an average of 9 years of law enforcement service.

Law enforcement agencies have cleared 76 of the 78 slayings. Of the 120 suspects identified in the killing of law enforcement officers, 80 had prior

arrests, with 43 previously convicted. Thirty-five of the suspects had prior arrests for crimes of violence, 24 for drug violations, and 18 for weapons violations.

Eighty-three percent of the assaults on law enforcement officers during 1988 were committed with hands, fists, or feet, and 36 percent of these resulted in personal injury to the officers. Ninety-four percent of the assaults were cleared by arrest.

(Source: **Law Enforcement Officers Killed and Assaulted—1988**, Federal Bureau of Investigation, Uniform Crime Reporting Program, Washington, DC, September 1989).

New Microfiche Catalog

Criminal justice agencies, libraries, and research organizations can complete their criminal justice document and publication collections using the **Criminal Justice Research on Microfiche** catalog from the National Institute of Justice (NIJ). The catalog provides descriptions of NIJ/National Criminal Justice Reference Service (NCJRS) microfiche

products, as well as ordering information.

The microfiche materials include many hard-to-find or out-of-print documents that were not originally published for wide dissemination. The collection features nearly 30,000 full-text criminal justice research documents, article reprints, academic studies, State and local agency

reports, congressional hearings, and speeches indexed by topic, author, and title.

The Criminal Justice Research on Microfiche catalog is available by calling NCJRS toll free at 1-800-851-3420. For Maryland and Washington, DC, metropolitan area callers, the number is 301-251-5500.

Police Body Armor

The Technology Assessment Program of the National Institute of Justice has published a fourth edition of the consumer product list (CPL), "**Police Body Armor.**" This edition identifies 50 additional models of body armor that were tested and found to comply with the requirements of NIJ Standard 0101.03, "Ballistic Resistance of Police Body Armor." Armor that complies with the standard meets the minimum performance requirements critical for police protection.

The CPL is divided into two general categories of body armor—armor suitable for routine full-time wear and armor suitable for terrorist threat and tactical use. Body armor CPL's are updated at least every 6 months to include additional models of armor that have been tested and found to comply with the standard. Manufacturer models not included were either not tested or were tested and failed to comply with the standard.

To comply with the NIJ standard, an armor model must, on inspection, meet the workmanship and labeling requirements of the standard, as well as meet the penetration and deformation requirements when tested in both wet and dry conditions.

For the most current CPL or an updated list of models that comply with the standard, contact the Technology Assessment Program Information Center, Box 6000, Rockville, MD 20850, 1-800-248-2742. For Maryland and Washington, DC, metropolitan area callers, the number is 1-301-251-5060.

Large City Police Departments

A special report by the Bureau of Justice Statistics (BJS), "**Police Departments in Large Cities, 1987,**" examines in detail 59 municipal departments in cities with 250,000 or more residents, including equipment and personnel resources. The 59 departments were divided into four groups based on the size of the population they served in 1987.

Data in this report were collected from the Law Enforcement Management Administrative Statistics (LEMAS) survey conducted in 1987. The report covers such areas as vehicles used by the department, patrol allocation, lockup facilities, and special units. It also provides information on overtime and special pay, training and residency requirements, and female and minority officers.

Although the average rate of violent crime, not including drug offenses, reported to the Nation's largest police departments rose by 43 percent during the decade 1977 to 1987, the size of the departments remained essentially unchanged. In 1977, the big-city

police departments handled an average of 939 violent crimes per 100,000 residents; by 1987, this had increased to 1,346 per 100,000 inhabitants.

All 59 departments have community crime prevention units, and more than three-fourths also have special units for child abuse, drug education in the schools, and missing children.

In 1987, the full-time sworn officers in these large municipal departments were 9 percent female, 14 percent black, and 8 percent Hispanic. When the survey was conducted, the 59 departments required recruits to take an average of 674 hours of classroom instruction, in addition to 412 hours of field training. About 44 percent required recruits to live within the city limits.

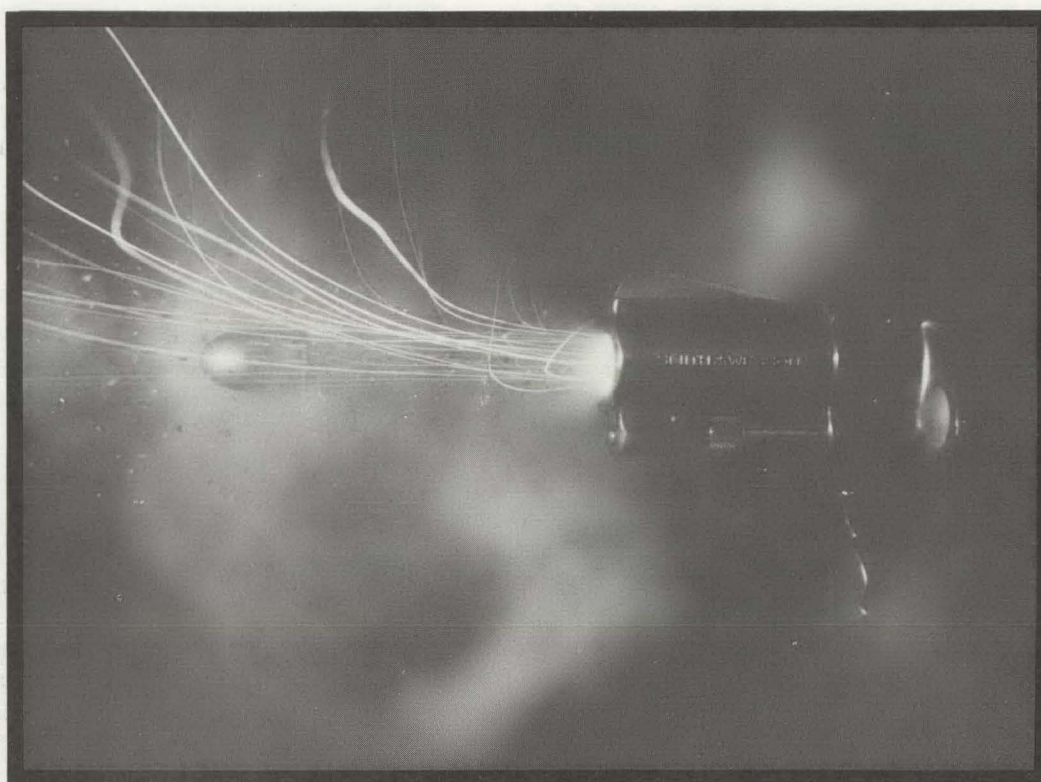
To order a copy of this NIJ publication, or for more information, write to the National Criminal Justice Reference Service, Box 6000, Rockville, MD 20850, or call 1-800-732-3277. For Maryland and Washington, DC, metropolitan area callers, the number is 1-301-251-5500.

The Bulletin Reports, a collection of criminal justice studies, reports, and project findings, is written by Kathy Sulewski. Send your material for consideration to: *FBI Law Enforcement Bulletin*, Room 7262, J. Edgar Hoover Building, 10th & Pennsylvania Ave., NW, Washington DC 20535.

(NOTE: The material presented in this section is intended to be strictly an information source and should not be considered as an endorsement by the FBI for any product or service.)

Ammunition Selection

Research and Measurement Issues



By
N.J. SCHEERS, Ph.D.
Operations Research Analyst
and
STEPHEN R. BAND, Ph.D.
Special Agent
Institutional Research and Development Unit
FBI Academy
Quantico, VA

When law enforcement officers talk about the "most effective" caliber bullet or the "best" combat handgun on the street, emotions run high and opinions vary. This can be expected, since these topics have caused considerable debate for years.

But what of the firearms expert who is tasked with the responsibility of selecting ammunition and firearms for a department? What are the crucial issues that should be considered? Where should testing begin? What needs to be addressed in order to conduct a fair and impartial ammunition and firearms selection program?

The FBI Academy's Institutional Research and Development Unit (IRDU) provides consultation primarily to the FBI's Training Division personnel regarding research methodology, evaluation and statistical analysis. This article provides an introduction to research design and statistical analysis with regard to ammunition selection. It is intended to assist firearms personnel in designing an ammunition research project and analyzing the results.

The topics addressed include (1) research design, (2) criteria for selecting ammunition, (3) rater bias, and (4) statistical analyses. Throughout the article emphasis is placed on understanding the logic of the various elements of a research project.

DESIGN OF THE RESEARCH

Kerlinger, a research methodologist, indicates that research design is the structure, plan or strategy developed to obtain results from a research project.

"Research designs are invented to enable the researcher to answer research questions as validly, objectively, accurately, and economically as possible."¹

In designing any ammunition selection study, the first step is to determine the comparisons to be made. For example, is the purpose of the study to compare the same caliber bullet performance of ammunition made by different companies or to compare the performance of the same caliber bullet in handguns produced by different manufacturers?

The following research design is used throughout this article as a convenient example; three different calibers are compared on performance measures of penetration, expansion and weight in a variety of target simulants (targets). Examples of targets are gelatin blocks to simulate human tissue, sheets of metal to resemble the properties of an automobile door, automobile windshield glass held at a given angle, and so on. The design is shown schematically below:

	Caliber		
	A	B	C
1			
2			
3			

"Internal validity" and "external validity" are two major criteria by which any research design is judged. Internal validity, for the example shown above, is

the extent to which differences in penetration, expansion and weight can be attributed to differences in the physical characteristics of the calibers rather than to other influences or conditions. External validity is the extent to which similar differences in performance would generalize to other ammunition, conditions or settings. The ideal would be to maximize both internal and external validity. However, the importance of maximizing internal validity, that is, controlling unwanted influences, by necessity, often limits external validity.

Internal Validity

Internal validity is extremely important in any ammunition selection study; if the research is internally valid, then there is a high probability that the differences in caliber performance are *caused* by the different sizes of the calibers. Internal validity is synonymous with control over unwanted influences. For ammunition selection studies, the unwanted influences that must be controlled or held constant would include environmental conditions, physical/human conditions, and target simulants.

Environmental conditions

In an indoor range, environmental conditions for firing ammunition can be easily controlled. Shooting should take place where temperature, weather, light and noise are kept fairly constant. Without an indoor range, keeping these conditions constant is extremely difficult.

Physical/human conditions

Many other physical and human influences can affect a study.

Some of these influences can be determined; others cannot. The best way to control unwanted influences is to simultaneously set up test barrels, one for each caliber to be tested, and randomly determine the order in which the

variations in the construction of these targets is critical and can be done by randomly distributing targets (again using the random numbers table) of a given type across calibers. For example, if a batch of gelatin blocks is not mixed

beyond the bullets used in the study. There are many conditions under which results may be generalized; no study can accomplish all of them. However, it's important to know what these conditions are since the generalizations that cannot be made set the limitations of the study.

“**For ammunition selection studies, the unwanted influences that must be controlled or held constant would include environmental conditions, physical/human conditions, and target simulants.**”

test barrels are fired. (A table of random numbers can be used to determine the order.) For example, a researcher who fires one caliber all morning and then fires a different caliber throughout the afternoon might have measurements influenced by the fatigue of late afternoon shooting and therefore unintentionally record measurement results favoring the caliber shot in the morning.

Other variables are not controlled by random ordering for firing the different calibers. For example, if test barrels are not of equal length, firing them in random order would not compensate for these differences. Using test barrels of unequal length will affect not only the velocity but also the extent of penetration. Therefore, if unequal length test barrels are used, additional research is necessary to determine the *extent* of the differences among the calibers tested, which adds greatly to the complexity of the research.

Targets Whether one type of target or a variety of targets are used in the study, controlling the

thoroughly and blocks with greater density are used with only one caliber, then any differences in penetration, expansion or weight for the different calibers could be partially or fully caused by the consistency of the gelatin blocks.

Since gelatin blocks are used both as stand-alones and behind other targets, two other controls are suggested. First, because gelatin blocks can deteriorate easily, care must be taken to preserve their integrity. Gelatin blocks should be stored in insulated coolers prior to use and should be checked by measuring their temperature before being used for targets. Second, an already-penetrated gelatin block should not be used again as a target. The trauma from the first round's impact may disturb the consistency of the gelatin and affect the measurement of penetration from later rounds fired into it.

External Validity

After maximizing internal validity, the researcher must also plan for external validity so that the results can be generalized

External validity is the extent to which any difference in performance among the calibers can be generalized to (1) a larger population, such as other lots of ammunition of the same caliber made by the *same* manufacturer; (2) different populations, such as other ammunition of the same caliber made by *different* manufacturers; (3) “real-life” targets that the study targets purport to “simulate”; and (4) other conditions and settings.

How can a researcher determine if the results of a study can be generalized to a larger population of other same caliber bullets from the same manufacturer? If the bullets in a study are a random sample from this larger population of bullets, the bullets are representative of that population. This means that any sample of the same caliber bullets from this population can be expected to produce similar results.

How can the results be generalized to other conditions or settings? One way is to build important conditions into the research design. When the study at the beginning of this article was designed to compare the performance of different calibers in a variety of targets, we decided to see if performance results would generalize over the different target types. If a particular caliber shows



The side view of a bullet's track through a block of ballistic gelatin. The white arrow shows the location of the bullet.

superior performance, will this occur in all targets in the study? Some of the targets?

No one study can provide answers to all the questions that can be generated around a particular research question. Often, logic and expert judgment must be used to provide some tentative answers as to whether the results will generalize to the same calibers made by other manufacturers and to other conditions and settings. Will the same results be obtained in actual automobile doors as in simulated targets? Will the same results hold in extreme temperature as in an indoor range? If it is important to answer these questions with confidence, the best procedure is to carry out a series of studies that vary the important conditions and settings to determine the extent of the generalization over conditions.

CRITERIA FOR AMMUNITION SELECTION

The criteria we are using to determine the most effective bullet are performance measures linked

“*In designing any ammunition selection study, the first step is to determine the comparisons to be made.*”

to adversary incapacitation. These performance measures are penetration, expansion and weight.

Reliable and Valid Measurements

Whenever any measurement is taken, whether it is a blood pressure test, an achievement test or measurement of bullet perform-

ance, it is important to know how reliable and valid these measurements are. Reliability refers to consistency of measurement; for example, it is the extent to which two raters measuring penetration for a given round obtain similar results. Validity refers to the accuracy of measurement; biased measurements can occur if the measurement of penetration for one of the calibers is consistently too high or too low.

Reliability and validity can affect the results of a study. If measurement is unreliable, i.e., if the measurement was taken with a ruler made of very flexible rubber, it will be more difficult to find true differences among the calibers. If a measurement is biased for one caliber but not another, the results may show differences that are not true differences.

A New Measurement Procedure

Of the three criteria for ammunition selection, the measurement of a round's penetration into a gelatin block seems to have the most potential for reliability and validity problems. The traditional method of measuring wound tracks in ballistic gelatin is to view the track through the surface of the gelatin block and measure the channel from bullet entry to the end of the "bounce back" with a tape measure or ruler. We call this method of measuring penetration "topical measurement."

There are two potential problems with the traditional measurement of penetration. The first problem centers on reliability of the measurement. Would optical/light refraction through the gelatin block result in inconsistent (more unreliable) results when penetration was measured topically? The second problem centers on the ac-

curacy of the measurement. Is there sufficient curvature in some of the wound tracks that differential results would occur if a more accurate (valid) measure of the wound track were applied?

“There are many conditions under which results may be generalized; no study can accomplish all of them.”

In our work in ammunition selection, these problems have been addressed by measuring each "wound track" by two different raters using two different methods. First, measurements were taken topically using a locking metal

tape measure. Then, a medical urethral catheter was used to measure the wound track internally up to the back of the resting bullet. The total catheter measurement was the internal measurement added to a topical measurement from the back of the bullet up to and including "bounce-back." For each round fired, two raters measured penetration both topically and with the catheter.

Both topical and catheter procedures were highly reliable when the measurements of the two raters were compared. In examining the validity of the two procedures, we found that the heaviest caliber studied showed more curvature than the lightest caliber. The average curvature for the heaviest caliber was almost one-third of an inch, with the largest recorded curvature of over one-half inch. Therefore, if curvature is expected, it is probably best to use

Bullets are recovered from the ballistic gelatin and analyzed for expansion and weight retention.



the catheter method of measuring penetration.

RATER BIAS

Rater bias can occur in ammunition selection research when the researchers themselves (raters) are measuring penetration, expansion and weight. Under these conditions it is necessary to guard against conscious or unconscious biases of the researchers who may favor a specific caliber. However, favoring a specific caliber should not prevent individuals from being active in a research project. Rather, controls must be built into the research that prevent conscious or unconscious biases from affecting the results.

The usual procedure for eliminating rater bias is to keep the raters "blind," that is, prevent those who take the penetration, expansion and weight measurements from knowing which caliber is being fired. In ammunition selection studies, firearms experts are often employed as researchers to select the most effective bullet. These experts can, for the most part, immediately determine bullet caliber from bullet performance; it is impossible to keep them "blind." To get around this problem, staff members not familiar with firearms can be taught to take penetration, expansion and weight measurements. Using blind raters will add much credibility to a research project.

STATISTICAL ANALYSES

When statistical inference tests are used in making decisions about results, the question being asked is, "Did the differences among the calibers happen by chance or are they true differences?" A statistically signifi-

cant result is interpreted to mean that the probability of the differences among the calibers being due to chance is very small.

Ammunition and firearms experts may find it useful to call upon experts in research methodology and statistics to make recommendations concerning the design of the study, sample size, procedures and statistical analyses. Oftentimes, it is possible to use a graduate student in research methods and/or applied statistics at a local university to assist in research projects.

“

Rater bias can occur in ammunition selection research when the researchers themselves are measuring penetration, expansion and weight.

”

Conditions That Influence Statistical Tests

Several conditions influence whether results of performance tests are statistically significant. Two of the most important influences are the size of the sample and the variability of the data. In general, the larger the sample size (the number of test bullets fired) and the smaller the variability (the amount of variation in penetration of several rounds of a specific caliber), the more likely it is that the results will be statistically significant if true differences exist among the calibers tested.

While a researcher usually does not have control over the variability of the data, it is possible to have some control over sample size. In ammunition selection studies, because of the labor involved in making gelatin blocks,

a sample of five rounds per caliber for several targets is considered quite large. Statistically, however, this is a small sample size and depending on the variability of the data, differences as large as one inch may not be statistically significant.

Statistical Procedures for Ammunition Selection Testing

Because various types of designs can be applied to ammunition selection studies, numerous types of statistical tests can be applied to the resultant data. The

following analyses can be considered and discussed with a consulting statistician for additional advice with a specific project:

1. Descriptive statistics summarizing the number of rounds fired, the means, standard deviations, standard errors, 95% confidence intervals, and minimum and maximum measures can be recorded and displayed in tables;
2. Homogeneity of variance tests can be conducted to identify significant differences in the variability of the different calibers tested;
3. Analysis of variance (ANOVA) tests can be conducted to identify significant mean differences among two or more calibers for the various targets. If an equal

Unusual Weapon

number of rounds is fired for each caliber, ANOVA is the appropriate statistical test since it is robust to violations of the homogeneity of variance assumption; and

4. For those ANOVA analyses where significant differences are found, post hoc comparisons can be calculated to determine significant differences between all possible pairs of means for the different calibers tested in a project.

CONCLUSION

Ammunition selection research projects must be considered in the context of the overall difficulty in obtaining bullet performance data. Despite the best intentions of researchers to control potential bias and extraneous variables, "real world" variables associated with law enforcement combat situations can never be perfectly simulated.

The research and measurement techniques suggested for ammunition selection projects are not unique to ammunition selection; indeed, they are widely used in the physical and behavioral sciences. However, techniques of this type infrequently appear in law enforcement-related research literature for ammunition testing. When more rigorous approaches to research are used, there is much more confidence in the results and the interpretation of the results. The importance of valid results cannot be overstated; the lives of law enforcement officers depend on the results.

Footnote

F.N. Kerlinger, *Foundations of Behavioral Research* (New York: Holt, Rinehart and Winston, 1984).

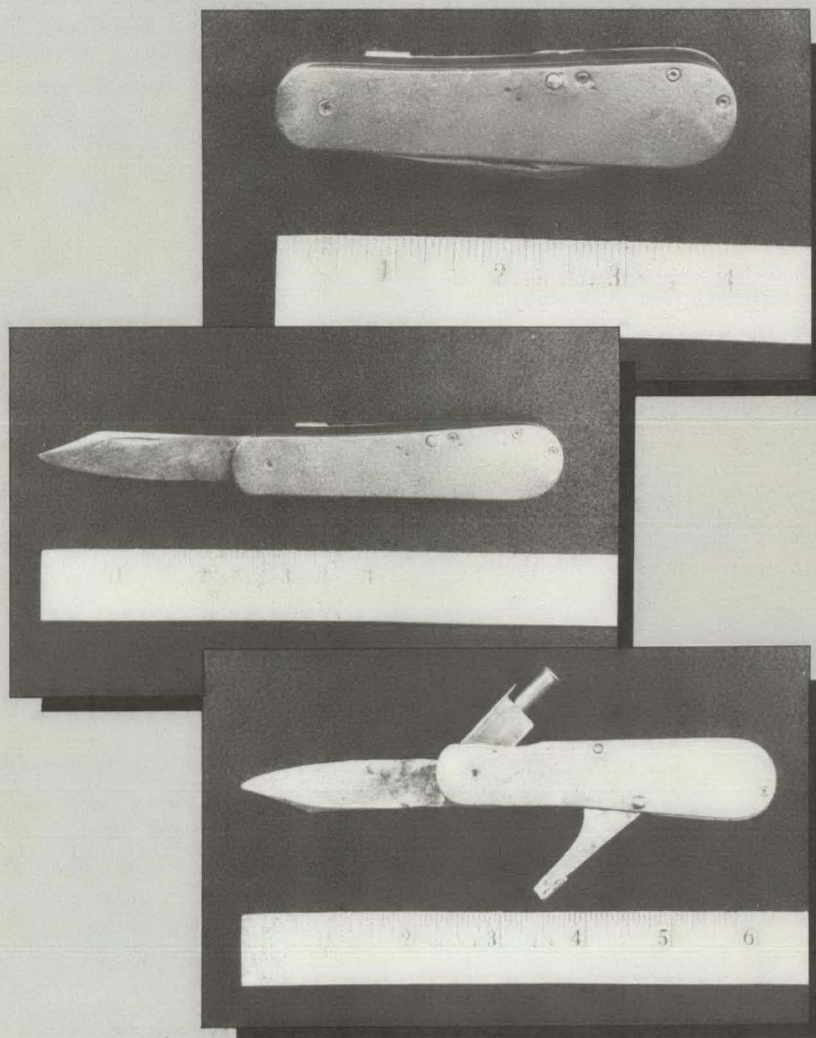
Concealed Firearm

A pocket knife found on a Driving Under the Influence (D.U.I.) suspect proved to be "doubly deadly" upon further analysis. The weapon, discovered by an Upper Allen Township, PA, officer, is not only a knife but also a .22-caliber gun.

The gun is completely contained within the knife, which has

a 2-inch blade and folds open to 6 inches. The shell is loaded into a chamber on the top side of the knife and the chamber is then pushed down into position. The gun can be cocked and fired from the same lever on the bottom side of the knife, either with the blade extended or in a retracted position.

FBI



CHARACTER AND COPS

Ethics in Policing

Edwin J. Delattre

With a foreword by
Patrick V. Murphy
Former Commissioner,
New York City Police Department

American Enterprise Institute for Public Policy Research

Character and Cops: Ethics in Policing, by Edwin J. Delattre, American Enterprise Institute, University Press of America, Lanham, MD

At long last, *Character and Cops: Ethics in Policing* gives serious and scholarly treatment to the critically important subject of police ethics. Professor Edwin Delattre, a reflective and a resolute man, is an insightful observer of American policing. He has developed a rigorous intellectual model of ethical behavior that will be readily understandable to the street cop, and he discusses complex philosophical issues and makes them relevant to everyday events.

During the preparation of this book, Dr. Delattre had conversations with hundreds of police officers from all sections of the country. He rode with officers

and accompanied them on arrests and other duties. Also, he conducted a number of executive workshops for police officials on the subjects of ethics and leadership. As a result, the book addresses the kinds of moral questions most often raised by police and others in the criminal justice system. Some examples follow. How should problems of infidelity to the public trust—whether by corruption or by abuse of authority, power, or discretion—be addressed? What basic principles of morality apply to police uses of deception and force, to treatment of informants, and to preparation of reports and testimony? What are just and wise policies for recruitment, selection, etc., of personnel? What should decent people do about hard cases where moral ideals seem to be, or actually are, in unresolvable conflict?

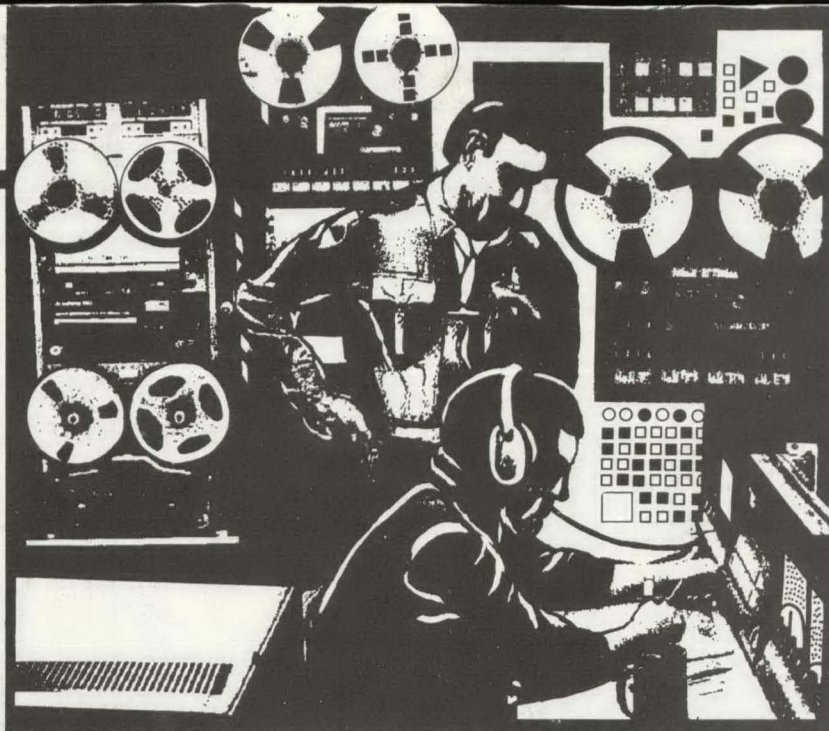
Although there can be no question of Dr. Delattre's obvious fondness for cops, he is not an apologist for the field of policing. In fact, this book examines a number of recent, well-publicized instances of police misconduct. Each incident is objectively analyzed, and recommendations are proffered to either avoid or minimize the possibility of future occurrences.

At the outset, Dr. Delattre describes what he means by excellence of character, and he

shows how morality concerns good character and right action. He emphasizes how habits of virtue are acquired by observation and imitation of others, by rejection of behavior that falls short, and above all, by practice over time in behaving well. Then, he discusses the role and mission of the police in a constitutional republic and details the idea of the public trust. Separate chapters discuss issues of police discretion, corruption, authority, leadership, and the moral dimensions of public policy debates, especially the debate over the legalization of drugs. Three chapters are devoted to police training in relation to good character and good judgment. He concludes the book with a discussion of deadly force and guilt, death and bereavement, and the importance of taking our lives seriously.

This book should be read by everyone with law enforcement responsibilities, from legislators to uniformed officers. The book should be discussed in every law enforcement recruit curriculum in the United States, and it would be an excellent text for any academic treatment of police ethics.

Reviewed by
SA Donald C. Witham, DPA
Long-Range Planning Staff
Director's Office
FBI Headquarters
Washington, DC



The Judicial Sealing Requirement in Electronic Surveillance

A Matter of Immediacy

BY

ROBERT A. FIATAL, J.D.

*Special Agent
Legal Counsel Division
FBI Academy
Quantico, VA*

Nonconsensual electronic surveillance involving the interception of telephone conversations, oral conversations, and electronic messages is a necessary and effective law enforcement technique for investigating certain types of serious criminal activity and conspiracies.¹ Legal requirements for nonconsensual electronic surveillance are set forth in Title III of the Omnibus Crime Control and Safe Streets Act of 1968 (hereinafter title III),² as amended by the Electronic Com-

munications Privacy Act (ECPA) of 1986, and various State statutes which must be at least as restrictive as the Federal statutes.³ Compliance with the provisions of these statutes often requires the expenditure of considerable time, money, and manpower.

One such provision mandates the sealing of electronic surveillance evidence. It requires that "immediately upon the expiration of the period of the order [of electronic surveillance], or the extensions thereof, [the original

tape] recordings [of the interceptions] shall be made available to the judge issuing such order and sealed under his directions."⁴ Simply stated, the original tapes must be presented at the conclusion of the court-ordered period of nonconsensual interception to the issuing judge who will oversee their sealing and custody. Compliance with this judicial sealing requirement is sometimes delayed or overlooked because investigative personnel are preoccupied with seeking indictments, making

arrests, and conducting searches. Unfortunately, failure to comply with the sealing requirement can lead to the suppression of intercepted conversations and the loss of extremely valuable evidence.⁵

This article is written to assist law enforcement to understand and to successfully fulfill the sealing mandate. The article begins with a discussion of the purpose for this sealing requirement and its immediacy component. Next, it reviews the manner in which Federal and State courts have applied the sealing requirement. Finally, it suggests how law enforcement can prepare and ensure compliance.

THE JUDICIAL SEALING REQUIREMENT

The purpose of judicial sealing is to ensure the integrity of the electronic surveillance recordings, considering their potential for modification and the technical difficulty in detecting such changes.⁶ As one court recognized, judicial sealing accomplishes this task by "... prevent[ing] tampering, alterations or editing; ... aid[ing] in establishing the chain of custody; and ... protect[ing] the confidentiality of the tapes."⁷

To effectively preserve the integrity of the original tapes, Federal and State law requires officers to present them to a judicial official *immediately* at the conclusion of the original electronic surveillance order. However, officers may generally wait to fulfill this mandate until the expiration of any continuous noninterrupted extensions of that order if the extensions involve "... the same telephone, the same premises, the same crime, and substantially the same persons."⁸ For example, if

officers obtain an order authorizing the interception of telephone calls regarding drug transactions by certain individuals at a particular phone and obtain a judicial extension of that order, they may delay their formal sealing efforts until the conclusion of the continuous surveillance period.

“

Some courts will not excuse a sealing delay ... unless the government is able to provide a satisfactory explanation for the failure to immediately seal....

”

However, if officers complete the objective of their investigation and cease their interceptions before the court-authorized time period has expired, they should fulfill the sealing requirement immediately at the time of cessation.⁹

IMMEDIACY DEFINED

When the judicial sealing requirement attaches, officers must comply with its demands immediately. The concept of immediacy usually connotes spontaneity or an absence of any delay. Law enforcement officers can normally satisfy this requirement by presenting the original tapes to the appropriate judicial official for sealing within 1 or at most 2 days of the final day of the continuous period of interceptions.¹⁰ This allows officers reasonable time to arrange the sealing appearance with the prosecuting attorney who has supervised the electronic surveillance and to schedule the sealing appointment with the appropriate judge. However, if the formal sealing process is delayed

beyond this limited period, courts must determine whether the delay is legally acceptable.

ACCEPTABLE DELAY IN SEALING

The standard for determining whether a particular delay in complying with the judicial sealing

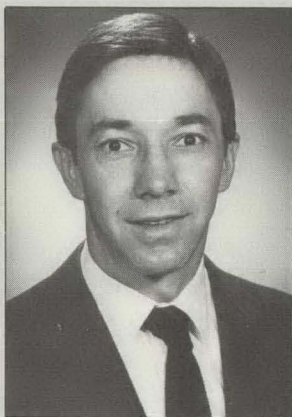
requirement is acceptable varies from jurisdiction to jurisdiction. In the absence of a definitive Supreme Court decision, courts use one of the following three standards in making this determination:

- 1) Whether the government, despite the delay, has fulfilled the purpose of formal sealing by maintaining the integrity of the tapes;
- 2) Whether law enforcement has provided a satisfactory explanation for the delay; or
- 3) Whether officers have complied with a rigid, court-imposed sealing schedule.

Each of these three standards for determining whether sealing delay is acceptable is discussed below.

Integrity of Tapes Maintained Standard

Realizing that the goal of judicial sealing is to prevent alteration or modification of the original tapes, some courts have



Special Agent Fiatel

“**Courts do not ... excuse sealing delays merely because of the busy schedule of the supervising attorney or officer.**”

indicated that the “absence of any challenge to the integrity of the tapes, combined with the lack of any indication that tampering has occurred, goes a long way toward fulfilling [this] legislative objective.”¹¹ Therefore, even where there is a significant period of delay, courts using this standard, which include the U.S. Courts of Appeals for the Third, Fifth and Seventh Circuits, will not suppress the tapes if their integrity has not been violated and the defendant has not been prejudiced by the delay.¹²

Under this standard, officers can help insure the admissibility of the original tapes by maintaining them in a safe and secure manner. For example, in *United States v. Sklaroff*,¹³ the recordings were not judicially sealed until 14 days after the expiration of the nonconsensual electronic surveillance. During this delay, the original tapes were vigilantly kept in the FBI's evidence room with limited and controlled access. Under these circumstances, the U. S. Circuit Court of Appeals for the Fifth Circuit ruled the delay was excusable

because there was no indication that the tapes were altered or that the defendant was prejudiced. However, courts that apply this standard have put law enforcement on notice that it is not an open-ended invitation to ignore formal sealing requirements and that strict compliance will “avoid considerable uncertainty and delays”¹⁴ in the judicial process.

Satisfactory Explanation for Delay Standard

Some courts will not excuse a sealing delay, even if the original recordings have not been altered, unless the government is able to provide a satisfactory explanation for the failure to immediately seal the tapes at the conclusion of the period of continuous surveillance. These courts reason that title III requires a satisfactory explanation for the absence of the judicial seal¹⁵ and that a similar explanation is necessary when the tapes are not immediately sealed.¹⁶ Accordingly, the U.S. Court of Appeals for the First Circuit has recognized that “when sealing is other than ‘immediate’ ... result-

ant evidence can be utilized if—and only if—a ‘satisfactory explanation’ for the delay eventuates.”¹⁷

The circumstances that amount to a satisfactory explanation for a delay are determined on a case-by-case basis, but a “plain and simple failure to regard sealing the tapes as a priority”¹⁸ is never sufficient. Instead, the government must set forth a particularized explanation for the delay. First, the government must show that the tapes have not been compromised, that the delay provided no tactical advantage, and that proper security measures were employed in storing the original tapes.¹⁹

Second, the good faith of the officers involved must be established. Courts pay particular attention to the diligence of law enforcement personnel in attempting to satisfy the sealing prescription and whether the circumstances causing the delay were unforeseeable.²⁰ For example, in *United States v. Massino*,²¹ a 15-day delay in sealing was satisfactorily explained by the need to divert all available personnel to determine the cause of a leak in the investigation which was discovered the day before the electronic surveillance order expired. The court found there was an urgent need to investigate the leak which threatened to expose and endanger several informants and that the need for that investigation could not have been anticipated.

Similarly, in *United States v. Rodriguez*,²² a 14-day delay was found acceptable because the supervising prosecuting attorney was engaged in an unrelated multi-defendant trial at the end of the

surveillance period. Courts do not, however, excuse sealing delays merely because of the busy schedule of the supervising attorney or officer. For example, one State court rejected an explanation that a short delay was attributable to difficulty in retrieving the tapes from the supervising prosecutor and the unavailability of the judge who had issued the wiretap order. The court determined that other justices were available to accomplish sealing and that "inadequate police procedures ... do not constitute a valid excuse."²³

A third factor considered by those jurisdictions that apply the satisfactory explanation standard is the time necessary to prepare the original tapes for sealing.²⁴ For example, one court sustained several sealing delays ranging from 3 to 8 days because there was no evidence of tampering or prejudice to the defendant, and the tapes had to be transported a long distance for duplication and judicial sealing.²⁵ However, courts recognize that law enforcement officers can make simultaneous duplicate recordings of their interceptions on a second recorder, or make copies of the original tapes on fast duplicators. In that regard, one Federal district court rejected an explanation for a 12-day delay in the absence of a proffer of why duplicate tapes used for transcription were not made promptly by the use of available sophisticated technical equipment.²⁶

Finally, the length of the delay is a crucial factor in determining the justification for any sealing tardiness. In *United States v. Ardito*,²⁷ the U.S. Court of Appeals for the Second Circuit found a 5-day delay acceptable because two of those days were

holidays, the issuing judge was unavailable for a third day, the officers responsible for delivering the recordings for sealing were busy seeking another wiretap order, and there was no prejudice to the accused.

Conversely, a lengthier delay is more difficult to satisfactorily explain. For example, in *United States v. Rios*,²⁸ FBI Special Agents conducted several court-ordered intercepts of wire and oral conversations. At trial, the government attempted to explain sealing delays of 82 and 118 days. Despite proof that the tapes were not modified and that the supervising attorney mistakenly and in good faith misunderstood when the sealing obligation attached, the court found the explanation inadequate for delays of such magnitude. The court held the government "... to a reasonably high standard of at least acquaintance with the [sealing] requirements of law"²⁹ and ruled inadmissible over 400 reel-to-reel tapes of intercepted conversations.

“

... Federal and State law requires officers to present [original tapes] to a judicial official immediately at the conclusion of the original electronic surveillance order.

”

Court-Mandated Procedures for Sealing

As the above discussion indicates, it is difficult to predict whether a particular explanation for a delay in judicial sealing is acceptable, and courts often hold extensive and costly pretrial hearings to resolve that issue. In an effort to overcome these problems

and provide timely judicial oversight of the sealing process, one court has crafted specific time limitations and procedures.

In *United States v. Mas-sino*,³⁰ the U.S. Court of Appeals for the Second Circuit held that if the original tapes are not presented for sealing within 2 days of the expiration of any continuous period of court-ordered electronic surveillance, the government must then comply with the following definitive guidelines:

- 1) If the delay is from 2 to 5 days, the government must at the time of judicial sealing submit affidavits documenting reasons for its tardiness;
- 2) If the delay is to be over 5 days, the government must seek an extension of time in which to submit the tapes for sealing from the judge who issued the surveillance order; and
- 3) If the issuing judicial officer is unavailable, the

extension order must still be obtained from another judge with appropriate jurisdiction.

The court concluded that these court-mandated procedures "... will create an incentive for the government to give priority to sealing, and judicial oversight at an early stage will limit justifiable

delays in the shortest time necessary. A failure of the government to follow this procedure will of course undermine any claim of satisfactory explanation."³¹ In the future, other courts may specifically delineate sealing standards in their orders authorizing nonconsensual electronic interceptions which law enforcement officers should carefully review and follow.

RECOMMENDED PROCEDURES

Concerted efforts to comply with judicial sealing requirements immediately at the conclusion of the continuous electronic surveillance period will avoid unnecessary litigation and assure the admissibility of valuable evidence. To avoid the devastating loss of incriminating evidence because of a sealing violation, law enforcement officers should adhere to the

pose of fulfilling the sealing function. Third, if a sealing delay is anticipated, officers should document the causes for the delay, immediately inform the supervising attorney, and consider seeking an extension of time from the appropriate judicial official.

The following additional suggestions are offered to assist officers in complying with the sealing requirement in a timely and orderly fashion:

- 1) While intercepting the communications, officers should make at least one duplicate recording simultaneous with the original tape by using multiple recording devices;³² the devices should be configured to avoid electronic erasure or physical alteration of the tapes. This procedure reduces the possibility of

information and to ensure reproduction quality. If the duplicates are unclear or garbled, the original recording should be copied before formal sealing. If a flawed duplicate tape is discovered after the original is sealed, officers should seek express judicial permission to reaccess the original for copying purposes.³³ Once copying is completed, the original tape should be resealed under judicial supervision.

- 3) Prior to formal sealing, officers should maintain the original tapes in a manner that assures their security and integrity and allows for their later identification. Persons monitoring the interceptions should contemporaneously mark the tape leader with the case number or name, the location and date of monitoring, and their initials. Once removed from the recorder, these marked tapes should immediately be placed in some type of enclosure, such as an over-sized envelope, which also reflects the case name, the location and date of the interceptions, and the monitoring officers' identities. A chain-of-custody log for these original tapes should be maintained and they should be stored in a secure area where access is monitored by logging all persons who enter and the reasons for their entry.

“

... failure to comply with the sealing requirement can lead to the suppression of the intercepted conversations and the loss of extremely valuable evidence.

”

following procedures. First, they should attempt to submit the original recordings of all nonconsensual interceptions to the issuing judicial authority for formal sealing within 1 or at the most 2 days of the expiration of the continuous surveillance period. Second, they should maintain close contact with the supervising prosecuting attorney and ensure the scheduling of an appointment with the appropriate judge for the express pur-

either accidentally erasing or recording over the original tapes, and provides duplicate tapes which are available for review, translation, and transcription.

- 2) Officers supervising the electronic surveillance should task sufficient personnel to immediately review the duplicate tapes in order to obtain lead

- 4) Officers should institute a tickler system to remind them of the specific date the sealing requirement attaches and their responsibility to arrange through the supervising prosecutor a sealing appointment with the appropriate judicial official.
- 5) If the sealing judge orders the sealed tapes maintained by law enforcement personnel rather than by the clerk of court, they should be stored in a locked cabinet which is clearly marked as containing judicially sealed material and located in a room with restricted and monitored access. Officers should obtain an inventory of the sealed tapes from the sealing judge³⁴ and access them only pursuant to explicit judicial permission.

CONCLUSION

Federal and State electronic surveillance statutes require that the original tapes of any court-ordered nonconsensual interception be immediately returned to the authorizing judicial official for sealing. Since violations of this sealing requirement can lead to the exclusion of the intercepted communications, it is imperative that law enforcement officers execute electronic surveillance orders in a manner that ensures compliance.

FBI

being investigated. A total of 2,486 individuals were arrested as a result of this surveillance activity. Report on Applications for Orders Authorizing or Approving the Interception of Wire, Oral or Electronic Communications (Wiretap Report) For the Period January 1, 1988, to December 31, 1988, Administrative Office of the U.S. Courts.

²¹18 U.S.C. 2510-20.

³⁴7 U.S.C. 605; see *People v. Sher*, 345 N.E.2d 314 (N.Y. Ct. App. 1976).

⁴¹18 U.S.C. 2518(8)(a).

⁵*United States v. Mora*, 821 F.2d 860 (1st Cir. 1987); *United States v. Vasquez*, 605 F.2d 1269 (2d Cir. 1979); *United States v. Diana*, 605 F.2d 1307 (4th Cir. 1979); *United*

“The circumstances that amount to a satisfactory explanation for a delay are determined on a case-by-case basis....”

States v. Angelini, 565 F.2d 469 (7th Cir. 1975).

⁶See *United States v. Gigante*, 538 F.2d 502 (2d Cir. 1976); *United States v. Ricco*, 421 F.Supp. 401 (S.D.N.Y. 1976).

⁷*People v. Nicoletti*, 313 N.E.2d 336 at 338 (N.Y. Ct. App. 1974).

⁸*United States v. Vasquez*, *supra* note 5 at 1278 (2d Cir. 1979); see also *United States v. Scafidi*, 564 F.2d 633 (2d Cir. 1977); *United States v. Fury*, 554 F.2d 522 (2d Cir. 1977); *United States v. Santoro*, 647 F. Supp. 153 (E.D.N.Y. 1986), *contra People v. Washington*, 385 N.E. 2d 593 (N.Y. Ct. App. 1978) (tapes must be presented for sealing upon the expiration of the specific order or extension, not at the end of any continuous period of interception).

⁹*United States v. Gerena*, 695 F.Supp. 649 (D. Conn. 1988); *United States v. Ricco*, *supra* note 6.

¹⁰*United States v. Massino*, 784 F.2d 153 (2d Cir. 1986); *United States v. Gerena*, *supra* note 9; *People v. Gallina*, 485 N.E.2d 189 (N.Y. Ct. App. 1985); *People v. Edelstein*, 429 N.E.2d 803 (N.Y. Ct. App. 1981).

¹¹*People v. Nieves*, 442 N.E.2d 228 at 233 (Ill. Sup. Ct. 1982).

¹²*United States v. Falcone*, 505 F.2d 478 (3d Cir. 1974); *United States v. Caggiano*, 667 F.2d 1176 (5th Cir. 1982); *United States v. Diadone*, 558 F.2d 775 (5th Cir. 1977); *United States v. Sklaroff*, 506 F.2d 837 (5th

Cir. 1975); *United States v. Angelini*, *supra* note 5; *United States v. Lawson*, 545 F.2d 557 (7th Cir. 1975); *United States v. Vastola*, 670 F.Supp. 1244 (D.N.J. 1987); *United States v. Harvey*, 560 F.Supp. 1040 (S.D. Fla. 1982); *State v. Olea*, 678 P.2d 465 (Ariz. Ct. App. 1983); *Gilstrap v. State*, 292 S.E.2d 495 (Georgia Ct. App. 1982).

¹³*United States v. Sklaroff*, *id.*

¹⁴*United States v. Falcone*, *supra* note 12 at 484.

¹⁵18 U.S.C. 2518(8) (a).

¹⁶See *United States v. Gigante*, *supra* note 6.

¹⁷*United States v. Mora*, *supra* note 5 at 866.

¹⁸*United States v. Ramirez*, 602 F.Supp. 783 at 792 (S.D.N.Y. 1985).

¹⁹*United States v. Mora*, *supra* note 5.

²⁰*Id.*

²¹*Supra* note 10; see also *United States v. Squitieri*, 688 F.Supp. 163 (D.N.J. 1988).

²²786 F.2d 472 (2d Cir. 1986).

²³*People v. Gallina*, 485 N.E.2d 189 at 220 (N.Y. Ct. App. 1985); see also *State v. Cerbo*, 397 A.2d 671 (N.J. Sup. Ct. 1979).

²⁴*United States v. Rodriguez*, *supra* note 22.

²⁵*United States v. McGrath*, 622 F.2d 36 (2d Cir. 1980).

²⁶*United States v. Ricco*, *supra* note 6.

²⁷782 F.2d 358 (2d Cir. 1986).

²⁸875 F.2d 17 (2d Cir. 1989).

²⁹*Id.* at 23.

³⁰*United States v. Massino*, *supra* note 10.

³¹*Id.* at 159.

³²See *United States v. Scope*, 861 F.2d 339 (1st Cir. 1988); *United States v. Angiulo*, 847 F.2d 956 (1st Cir. 1988); *United States v. Gerena*, *supra* note 9; *United States v. Ricco*, *supra* note 6; *State v. Campbell*, 528 A.2d 321 (R.I. Sup. Ct. 1987); *People v. Washington*, *supra* note 8; *People v. Nicoletti*, *supra* note 7.

³³See *United States v. Diana*, *supra* note 5; *United States v. Long*, 697 F.Supp. 651 (S.D.N.Y. 1988); *People v. Washington*, *supra* note 8; *People v. Sher*, 345 N.E.2d 314 (N.Y. Ct. App. 1976).

³⁴See *United States v. Abraham*, 541 F.2d 624 (6th Cir. 1976).

Law enforcement officers of other than Federal jurisdiction who are interested in any legal issue discussed in this article should consult their legal adviser. Some police procedures ruled permissible under Federal constitutional law are of questionable legality under State law or are not permitted at all.

Footnotes

¹In 1988, Federal and State courts combined to authorize over 700 nonconsensual electronic surveillance orders. Over one-half of these listed drugs as the most serious offense

Police Practices

"Coffee Break—Crime Break" Program

Traditional crime prevention programs have primarily focused on residential, commercial, and street crimes. One area that has not been given much attention is crime in the workplace. Yet, such crimes do occur repeatedly and can be detrimental to both the employer and employee.

The ripple effect in a workplace plagued by crime can be tremendous. The victim experiences a personal loss or injury; time lost may have an adverse financial impact on the employee; employee morale suffers as legitimate questions about the employer's concern for employees are raised and concern for personal safety rises. On the other hand, an employer who demonstrates a concern for a crime-free work environment is likely to reap the benefits of a more loyal and productive work force.

In 1987, the Howard County Police Department instituted a "Coffee Break—Crime Break" Program to prevent crime in the workplace. The program is based on the following concepts:

- 1) Sound crime prevention practices reduce victimization.
- 2) The police image is enhanced when positive contacts with the local community are made.
- 3) Businesses become more attractive to employees and consumers if the occurrence of crime is lessened.
- 4) Crime prevention is a shared responsibility between the police and community that continues

to grow as new audiences receive its message.

The "Coffee Break—Crime Break" Program brings a 1-hour presentation into local businesses on the employer's time. During this hour, the police department offers to attendees a wealth of crime prevention information. An instructional period is followed by a film on personal safety. The program also incorporates a group discussion, a question-and-answer period, and distribution of crime prevention literature to the attendees. It concludes with a post-class survey, which participants are urged to complete anonymously. The questionnaire is returned to a designated central collection point in the business and then forwarded to the police department for tabulation. The results are shared with the host business.

The "Coffee Break—Crime Break" Program is specifically designed to target the crimes of assault, rape, robbery, and theft which occur in the workplace. Employees are frequently assaulted and robbed in parking lots or have their cars broken into while they are at work. Women are raped in stairwells, restrooms, and parking lots. Purses, desks, and lockers are often looted. The program is designed to generate a greater awareness of the risks

which exist in the workplace and to present crime prevention techniques to reduce those risks.

Seminars were presented to 26 county businesses between July 1987, and December 1988, with a total attendance of 746 employees. An analysis of post-class surveys showed that:

- 88% of the employees believed they had learned more about protecting themselves and their workplaces.
- 75% believed the presentation increased their abilities to prevent crime.
- 85% believed the classes were a demonstration of their employer's concern for their safety.

Summary

Crime prevention strategies are increasingly capturing corporate interest. Crime prevention programs reduce crime and become a stepping stone to a workplace characterized with high employee morale, productivity, and loyalty. And, as a final benefit, programs like "Coffee Break—Crime Break" strengthen community relations and provide a unique link between police and businesses.

FBI

Information for this column was submitted by Chief of Police Frederick W. Chaney, Howard County, MD.

Police Practices serves as an information source for unique or noteworthy methods, techniques, or operations of law enforcement agencies. Submissions should be no more than 750 words (3 pages, double spaced and typed) and should be directed to Kathy Sulewski, Managing Editor, *FBI Law Enforcement Bulletin*, Room 7262, J. Edgar Hoover Building, 10th & Pennsylvania, NW, Washington, DC 20535.

WILLIAM HEWLETT

aka: Billy Joe Edwards, Joseph Jackson Hudson, Dearl Thompson, Harry Steven Mercer, Leonard Richardson, Richard Earl Crayton, Louis Frederick

RACE: Caucasian

DPOB: 1/27/44, West Virginia

HEIGHT: 5'6"

WEIGHT: 120-140

HAIR: Black

EYES: Brown

TATTOOS: Playboy bunny, right forearm; blue heart with arrow, left forearm; large heart, center chest

SSAN: 231-66-0940

REBECCA JO HEWLETT

aka: Linda Kay Mercer, Becky Jo Edwards, Robin Lee Crayton, Becky Jo Hudson, Becky Frederick

RACE: Caucasian

DPOB: 8/13/54, West Virginia

HEIGHT: 5'4"

WEIGHT: 100

HAIR: Brown/blonde

EYES: Blue

DISTINGUISHING MARKS:

Severely decayed front teeth

SSAN: 233-88-6272

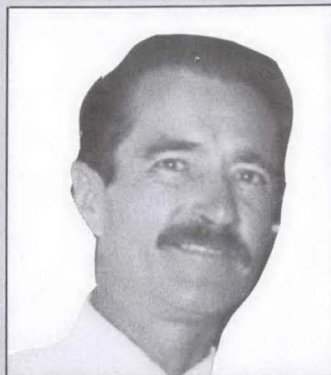
CRIME:

On December 19, 1988, William Hewlett was arrested in Gulfport, MS. He has since been convicted for the murder of Rosalyn Goodman and for outstanding rape charges in Florida and West Virginia. He currently is serving a 60-year sentence. Rebecca Jo Hewlett pled guilty to a lesser charge and received a sentence of 5 years' probation.

William Hewlett and Rebecca Jo Hewlett traveled

together for 11 years (December 17, 1977-December 19, 1988) after William violated parole from a 1972 bank robbery conviction. The Hewletts have admitted to using a number of aliases during this time and residing in several cities using these aliases. Typically, the Hewletts would move every 90 days or less, reside in rural areas in transient hotels, and work menial labor (frequently he as a cook and she as a waitress at

fast food restaurants, although William has been known to work as a mechanic and in auto body shops). The Hewletts also frequently camped in secluded wooded areas. In those 11 years, they traveled to many areas in the rural southeast (see map for the areas of the Hewletts' known travels). From comments made by William Hewlett during the debriefing process and in light of



VICAP Alert

his past crimes, a strong possibility exists that Hewlett is responsible for other violent sexual crimes. At various times during the Hewletts' flight, William carried a small handgun and a hunting knife.

MODUS OPERANDI:

The following are crimes committed by William Hewlett:

1. On April 1, 1977, William Hewlett brutally beat and raped a 29-year-old white female in Scarboro, WV.
2. On April 12, 1983, in Naples, FL, William Hewlett, under the alias of Billy Joel Edwards, raped and assaulted a 19-year-old white female at knife point. Hewlett escaped on a motorcycle which eventually was traced back to him.

Hewlett picked up both of the first two victims at bars before he raped them.

3. In September 1984, William and Rebecca Jo Hewlett, at the time using the stolen identifications of Harry Steven Mercer and Linda Kay Mercer, went camping in the Great Smoky Mountain National Park just outside of Knoxville, TN. The Hewletts met Rosalyn Goodman, a 35-year-old white female, and camped with her a couple of days. William

Hewlett then brutally raped and murdered Rosalyn Goodman. Her remains were found 3 months later by hikers. Due to deterioration of Goodman's body, the cause of death could not be determined. However, Hewlett admitted to using a small length of cord to strangle the victim. Evidence at the scene of the crime, including semen stains on the victim's clothing, indicated that there was a sexual assault.

William Hewlett failed an FBI-administered polygraph test regarding his participation in additional homicides and sexual assaults.

ALERT TO CHIEFS AND SHERIFFS:

This information should be brought to the attention of all homicide officers. If unsolved cases in your department match the movements of the Hewletts and M.O.'s of the crimes detailed, contact Senior Major Case Specialist Terry Green at the National Center for the Analysis of Violent Crime, VICAP, FBI Academy, Quantico, VA 22135, (1-800-634-4097), or Special Agent Walter Grey Steed, FBI Knoxville, (615-544-0751), 710 Locust Street, Suite 600, Knoxville, TN 37902.

FBI



VIOLENT CRIMINAL APPREHENSION PROGRAM

While on patrol, Officer Jeffery Meade of the Kingsport, TN, Police Department observed an automobile sinking into a river near a recreational park. Within seconds, he dove into the water toward the now submerged vehicle. After several attempts, Officer Meade, with the assistance of a passerby, finally gained entry into the vehicle by breaking a window with his night stick. He then pulled the unconscious driver to safety.



Officer Meade

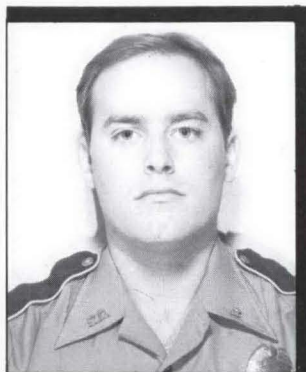
Officer Todd Heinle of the Box Elder, SD, Police Department responded to a fire at an apartment complex. After unsuccessfully attempting to fight the blaze with a fire extinguisher, Officer Heinle initiated a door-to-door search of the building, alerting residents to the danger and physically removing a resident from the complex. He then assisted a family with two small children to escape the blaze.



Officer Heinle

The Bulletin Notes

Law enforcement officers are challenged daily in the performance of their duties; they face each challenge freely and unselfishly while answering the call to duty. In certain instances, their actions warrant special attention from their respective departments. The *Bulletin* also wants to recognize their exemplary service to the law enforcement profession.



Officer Greene

Responding to a reported disturbance at an education center, Officer Don Greene of the Baton Rouge, LA, Police Department was informed by an employee that a rape was in progress. Upon entering the building, Officer Greene observed a woman being attacked by a man wielding a 10-inch knife. Fearing for the victim's safety, Officer Greene decided to act before other officers arrived. He kicked in the locked door and was confronted by the suspect. When the suspect lunged at him with the knife, Officer Greene shot and wounded him, thereby safely disarming the suspect and freeing the victim from her attacker.

Change of Address

Not an order form

FBI

Law Enforcement Bulletin

Complete this form and return to:

Director
Federal Bureau of
Investigation
Washington, DC 20535

Name _____

Title _____

Address _____

City _____

State _____

Zip _____

**U.S. Department of Justice
Federal Bureau of Investigation**

Second Class Mail
Postage and Fees Paid
Federal Bureau of Investigation
ISSN 0014-5688

Washington, D.C. 20535

Official Business
Penalty for Private Use \$300
Address Correction Requested

Major Art Theft

Four paintings by Frank Duveneck valued at \$150,000 were stolen from a New York City studio between June 30 and July 2, 1989. Pictured are two of those paintings.

Any information concerning this theft should be directed to the FBI, New York City, telephone (212) 553-2700. The file number is 87A-NY-185614. You may also contact the National Stolen Art File, FBI Laboratory, Washington, DC, telephone (202) 324-4434.



Top: *Harbor Scene of Gloucester, Massachusetts*, oil on canvas, 32" x 40", signed by artist on reverse side.

Right: *Untitled painting*, oil on canvas, 26" x 34", signed by artist on reverse side.

