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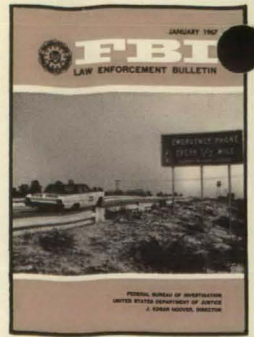
# FBI

## LAW ENFORCEMENT BULLETIN



FEDERAL BUREAU OF INVESTIGATION  
UNITED STATES DEPARTMENT OF JUSTICE  
J. EDGAR HOOVER, DIRECTOR

JANUARY 1967  
VOL. 36, NO. 1



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# FBI

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# MESSAGE FROM THE DIRECTOR

The FBI National Crime Information Center (NCIC) will begin operations later this month. This nationwide computer network represents a big advancement in scientific crime detection and electronic achievement in the fight against crime and lawlessness. It also serves as a symbol of the cooperative spirit prevailing among enforcement officials as they unite their efforts to modernize and improve enforcement techniques.

The FBI center is not a total information depot or repository. Rather, it is a nationwide index of data on crime and criminals which, by high-speed random-access search techniques, will provide within seconds pertinent information to a police officer on the scene. This service will bring more and more criminals to justice and prevent fast-moving violators from evading local authorities and "outrunning" the law.

The NCIC is not a separate entity. It will complement electronic information systems being set up or already in operation by metropolitan and State police agencies. When the network opens, there will be 15 local and State law enforcement agencies participating in the system. Each will be directly tied in to the FBI computers, and each will serve numerous other agencies. Eventually, the system will include a terminal agency in each State as well as in each of 25 or more larger metropolitan areas. Further, all FBI field divisions and offices of other Federal agencies will be connected with the NCIC computers.

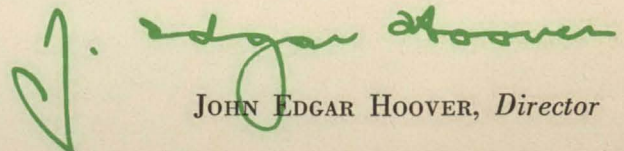
Since crime is a constant, round-the-clock problem, services of NCIC will be available on a 24-hour, 7-day-week basis. The network will

provide State and local law enforcement agencies a nationwide uninterrupted flow of up-to-the-minute crime data. If for any reason one of the computers or storage units fails, a second piece of equipment will take over.

One basic obstacle of the system was resolving how the many different computers could communicate with each other in a compatible language. A group of line and staff officers from departments throughout the country and FBI representatives met this challenge. They established a uniform set of record formats and codes to be used by all agencies and systems participating in the network. This same group established operating procedures to maximize accuracy and discipline in the system.

The exchange of criminal information among enforcement agencies is not new. It has existed for many years. However, in the past, time gap and the cumbersome means of transmitting such information have handicapped police. The big advantage of NCIC is its ability to provide "instant information" on a nationwide basis. Through this system the officer on the street can receive pertinent facts when he needs them—right now.

While law enforcement is often discouraged by public apathy, judicial leniency, and other factors encouraging criminality, it can be proud of its own efforts to move ahead progressively in the fight against crime. I feel the NCIC is a distinct step in the right direction. It will materially assist law enforcement in its responsibility to protect and safeguard the rights and lives of all citizens.



JOHN EDGAR HOOVER, *Director*





**LT. RONALD N. KULIKOWSKY**  
New York State Police

### *An Interim Survey of the New York Northway Emergency Communications System*

In law enforcement, as in other professions, new services can cause new problems which in turn initiate additional service to solve the problems. As a result, the benefit to the public is twofold.

A good example is the police service instituted in 1961 by the New York State Police to solve problems created by the opening of the Northway freeway in the winter of 1959. By early 1961 the new superhighway had spread its concrete web away from suburban Albany to the rural foothills of the formidable Adirondacks. Shortages in manpower for patrol were critical, but the need of rendering services to motorists stranded in the bewilderment of isolation that only limited access interstate highways can produce became urgent.

# Free Emergency Telephones for Superhighways



Following the simple instructions on the box, a lady in distress calls a nearby State police station.



The idea for a solution jelled into a suggested free two-way voice communication system to be open to all motorists and to be operated by available police personnel. This concept emerged into a cooperative program encompassing the skills of the New York State Police, the support of the Department of Public Works, and the contractual engineering and maintenance services of the New York Telephone Co. Construction of the system started in October 1965, and it was opened to the public on January 7, 1966.

By summer's end the testing of the longest free emergency telephone service installed along a U.S. interstate highway and operated by a law enforcement agency moved into the final phase of a yearlong pilot program of a new public service to motorists. Encouraged by the successful operation of the Northway Emergency Communications System (NETS) during the late winter, spring, and summer months, the New York State Police is confident of achieving standards of accomplishment during the coming months. This program may well set a pattern for other law enforcement agencies searching for a means to bring improved policing and services to the motoring public. The details of the system and the experience gained thus far in its operation are outlined in this article.

### *Origin of NETS*

The Northway is an integral link of Interstate Route 87. When completed, it will provide 178 miles of direct high-speed limited access motor travel from the Governor Thomas E. Dewey New York State Thruway's Albany exit to the Province of Quebec, Canada. The route traverses New York's historical capital area; Saratoga, the summertime racing center of the East; and the rugged Adirondack skiing areas of Lake George and Lake Champlain to



Officers monitor calls 24 hours a day and dispatch whatever assistance is needed.

the Canadian border. At the present time there are two completed, but unconnected, segments of the Northway. The 56.1-mile southern section stretches from Route 20 near Albany to the village of Lake George in the Adirondack Mountains.

It was first opened in late 1959 and was followed by the opening of the 40-mile northern section from Keeseville, near the city of Plattsburgh, to the Canadian line. The uncompleted section in the center of the Adirondacks is now under construction and is scheduled to open in midsummer of this year.

### *Challenges Faced*

The opening of the first sections of the Northway brought the challenge of meeting increased demands for police services on a lonesome highway plagued all too frequently with alter-

nating conditions of hazardous fogs, ice, snow, and subfreezing temperatures, particularly at night. The New York State Police assumed responsibility for policing the Northway. With the leadership of Supt. Arthur Cornelius, Jr., the New York State Police was undergoing an extensive reorganization and expansion program, and manpower was at a premium. Experienced troopers were engaged in a massive training program for new recruits and were in the first cycle of inservice training in the organization's history. This dual demand on the organization, which for many years had been severely understrength, served to amplify the need for new means of providing necessary police services to interstate motorists without reducing the effectiveness of our normal criminal, traffic, investigative, policing, and other functions.



The executive committee of the New York State Police searched for ideas. The problem was familiar to agencies patrolling rural limited-access highways, but its dimensions defied any easy solution. In many instances the physical construction of the Northway places northbound and southbound lanes on different levels. A hill or a wide mall with dense foliage often separates the lanes, so sometimes drivers in opposing lanes are completely obstructed from each other's view. These conditions, while highly desirable from a safety viewpoint, prevent an early detection of disabled vehicles. This problem becomes particularly acute during the winter nights with temperatures well below the freezing point. Under such conditions a family marooned in a stalled and unheated vehicle can become a major casualty before the needed assistance arrives. To insure prompt assistance to disabled motorists, and to be consistent with available manpower, the State police patrols on the Northway were shortened and the officers were required to make complete circuits of the post area on a continuous basis. However, this maneuver was not enough to answer the problem.

### ***Security for Motorists***

Along its entire length, the Northway has no service areas of any type. At its intersections standard road signs direct attention to the food, fuel, and lodging services located off the superhighway, but at night these services are difficult to obtain because the majority of proprietors close in the early evening hours. The blanket of darkness added desolation to the dimension of isolation. The idea of NETS germinated with a desire for providing a comforting sense of security to those in need of prompt assistance while simultaneously giving the

motorists in trouble the means of securing aid quickly without creating additional hazards. The internationally recognized symbol of a telephone handset appeared to be the answer.

### ***Organization and Operation***

Joint intercooperative agency planning developed the organization of the Northway Emergency Communications System. Contracts for procurement of equipment and its installation were negotiated after solicitation of bids between the New York Telephone Co. and the Department of Public Works. Installation of 222 telephones along the 56-mile southern section cost \$210,000. Monthly rental and maintenance amounts to \$3,250. The State of New York pays the bill and the New York State Police is the operator of the system.

The telephones are located every half mile along both the northbound and southbound driving lanes. Each phone located along the northbound lane has a counterpart instrument located directly opposite it in the southbound lane. This juxtaposition eliminates the need for motorists' crossing the highway to reach a phone. The telephone package is mounted on a wooden pole approximately 50 inches above the ground level. Experiments proved that poles encased in concrete could pull out of the ground, penetrate a vehicle, and cause serious injury to vehicle, driver, and/or passengers. It was also felt that the majority of people using the telephones would be standing when making a call rather than sitting in a car, so a lower height would be uncomfortable. Also a person bent on malicious damage or larceny would have to leave his vehicle to do his mischief. The poles are located on the road shoulder 12 feet from the outside edge of the driving lane. Sufficient room on the shoulder allows a driver to pull his vehicle out of the driving lane and make his distress call without stepping

onto the driving lane and creating another dangerous situation. When vehicles are disabled between telephones, the shoulder provides a wide safe walkway to the nearest instrument. Attached to the pole is a green and white reflectorized metal sign displaying a symbol of communication—a telephone handset.

### ***Telephone Package***

The telephone package is "national, school-bus yellow" in color and consists of a metal box equipped with an "ice breaker" handle and spring return door. The handle is operated on the double lever principle: The first position will open the box, but if there are obstructions of ice or snow, the second or "breaker position" will free the box cover for normal use. Outside the box is a reflectorized decal number of the phone and instructions on how to use it.

The instructions are simple:

1. Lift handset from mounting to actuate system.
2. Operate switch hook if you do not receive an answer.
3. Hang up when finished.
4. Your location number is listed below.

(box number in large numerals)

Inside the box is the familiar standard telephone handset comparable to a home telephone. To activate the system, the user merely follows directions on the box. Voice strength is constant throughout the system and raised sufficiently so that a normal voice speaking into the phone can be heard over the background noise of passing trucks and automobiles. Special design features and amplification every 6,000 feet along the Northway insure correct volume.

The phones are interconnected with buried cable placed along the northbound and southbound lanes. The first 56-mile chain of cable is divided into three major circuits, each connected to a nearby State police station.





Telephone package is mounted on wooden pole 12 feet from outside edge of driving lane.

several miles from the Northway. Each major circuit is further divided into four minor circuits, two northbound and two southbound. Minor circuits vary from 4 to 9 miles in length.

Activating a roadside phone causes a humming sound and a light to flash on the control instrument located at the State police station where 24-hour monitoring coverage is given to the section of the system. The light designates which circuit is being used, and the dispatcher at the station lifts the receiver announcing the State police station and his identity. For example, "State Police, Loudonville. Sergeant Eagan." The caller then states his problem, and the dispatcher takes immediate action in sending services ranging from tow trucks to fire trucks, and from police ambulances to any other services as may be required. If for any reason the dis-

patcher is unable to obtain the box number from which the call originates, he can estimate its location by noting which circuit light is on. Circuit keys A and C on the control phone instrument control even-numbered phones along the northbound lane, while circuit keys B and D control the odd-numbered phones along the southbound lane. The number of phones on each circuit is limited so no one circuit would be tied up for a lengthy period.

The phones are numbered in series which indicate the identity of the State police station servicing any particular phone. For example, the 100 series boxes are controlled by the State police station in Loudonville; the 200 series are controlled by the station in Saratoga; and the 300 series by the station in South Glens Falls. Consequently, a patrol car on the Northway can be advised by radio of the exact

lane and approximate location of the calling motorist.

At each State police station involved in NETS, a daily log is maintained of all calls made over the system. Logs are consolidated and keypunched, and monthly printouts are made available through electronic data-processing equipment for evaluation of the pilot program and for consideration in extending NETS to the remaining uncovered sections of the Northway.

### *Analysis of the System*

The general evaluation of the Northway Emergency Telephone System for the first 8 months of operation has been most revealing as to the pattern of services requested, the emergencies encountered, and the conditions under which prompt responses have been made to requests for assistance made by motorists. Complaints have been notably absent. Although one complete instrument was stolen, misuse, damage, and vandalism of equipment have been practically nil, and "no answer" calls made by the curious have sharply diminished. On the contrary, proving the effectiveness of the system, legitimate and bona fide use of the system has been made by the motoring public during an experimental period covering the deep snows of January and March and the heavy vacation traffic periods of the summer. Wrong-way traffic movements, resulting in almost certain death, were rapidly detected, and prompt action was initiated for erection of appropriate additional signs at entrance areas and other locations where a driver's error was most likely to start. The entire venture has notably proven its positive values.

During the first 8 months a total of 3,458 calls have been made over the system. As the public becomes more acquainted with NETS, the continued and increased number of calls to be

*(Continued on page 20)*



# New Communications Will Improve Law Enforcement

“New communications technology can not only vastly improve police response to crime; it can give you the opportunity . . . to help answer quickly and positively unfounded and irresponsible criticism, to promote improved internal procedures within each law enforcement agency, and to develop programs that best assure the safety of the public from the assaults of the lawless.”

This was the message of the Honorable Leonard H. Goldenson, President of American Broadcasting Cos., Inc., in an address to the graduates of the 78th Session of the FBI National Academy on November 2, 1966, in Washington, D.C.

Stressing the ever-increasing importance of scientific and technical advances in communications, Mr. Goldenson urged the graduating officers to adjust themselves to new procedures and techniques to meet social changes and new court decisions. He stated that he believes “it is essential that those responsible for the maintenance of law and order acquire and use the latest scientific advances in communications to increase the effectiveness of all law enforcement.”

In a speech providing valuable insight into the near future of law en-

forcement, Mr. Goldenson told the graduates that they and their associates must recognize and overcome new obstacles facing law enforcement—population mobility, expanding opportunities for criminal gain, easy conversion of stolen property, increasingly sophisticated techniques and equipment of criminals, and the narrowing and complicated legal restrictions on police efforts. He stated that “all of these are factors which irresistibly combine to strain existing police technology in the solution of crime to its very limit—and maybe even beyond its present capabilities.”

Mr. Goldenson noted that the basic purpose of law enforcement lies in the ability to detect and apprehend the lawless. “Law enforcement must be ready and willing to advance bold and new programs to achieve those ends.”

The FBI National Crime Information Center, soon to be opened, provides an excellent example, Mr. Goldenson stated, of effective scientific police communications. He pointed out that this system and other similar advancements by local and State agencies are the beginnings, but “much more will have to be done if law enforcement is to use all the scientific

tools at its disposal to help in the never-ending struggle against crime.”

Mr. Goldenson concluded by telling the members of the graduating class that “these systems of law enforcement communications deserve the widespread support, not only of yourselves, but of your colleagues and the public at large.”

Another distinguished guest and speaker, Mr. Efrem Zimbalist, Jr., extended his “fraternal” congratulations to the graduates. Mr. Zimbalist, who stars as Insp. Lew Erskine in ABC’s “The FBI” weekly TV series, told the officers he was beginning to feel “almost a part of your profession by a kind of electronic osmosis.”

Turning to a more serious vein, Mr. Zimbalist stated that “there is a deep concern today over the binge of ‘civil disobedience’ which has come to serve as a justification for deliberate violations of law.” He urged the graduates to apply their knowledge and ability “in strengthening the cause of law and order throughout the land.”

Recalling William Penn’s phrase that “liberty without obedience is confusion,” Mr. Zimbalist criticized the “so-called Free Speech Movement” and other groups parad-





Shown with Director J. Edgar Hoover after the graduation ceremonies are: Hon. Leonard H. Goldenson, President, American Broadcasting Cos., Inc. (left), and Mr. Efreim Zimbalist, Jr., star of the television series, "The FBI."

under counterfeit banners. Using the contrasting phrase of Penn that "obedience without liberty is slavery" to describe the existing life behind the Iron and Bamboo Curtains, he voiced concern over the tendency in many quarters to convert liberty to license. The "liberty without obedience" issue "poses one of the most perplexing dilemmas in America today," he added.

However, Mr. Zimbalist expressed his belief that "a new day is dawning across our Nation in which it will come to be known again that liberty

without discipline is no liberty at all, and that only by surrendering that tiny fraction of his personal freedom necessary to maintaining the integrity of society can man himself ever be free."

In his closing remarks urging the graduates to apply their knowledge, Mr. Zimbalist recalled an old adage from his childhood: "It's not what you know that matters; it's what you do with what you know."

Mr. Donald S. Genung, Sheriff of Pinellas County, Clearwater, Fla., and president of the class, spoke for his

fellow officers. He expressed their sincere gratitude for the opportunity of additional and vital training in the field of law enforcement. Mr. Genung echoed his fellow graduates' promise "to chart our course of future action with integrity, ability, and perseverance."

Assistant Attorney General Edwin L. Weisl, Jr., and Mr. Hoover presented diplomas to the 100-member graduating class. Represented in the class were 42 States, the District of Columbia, the Armed Forces, the White House Police, the U.S. Park Police, the U.S. Forest Service, and the FBI. Seven law enforcement officers representing five foreign countries and two officers from Puerto Rico were also members of the graduating class. The visiting officers represented the countries of Iran, Malaysia, the Philippines, Spain, and Tunisia.

The 100-member 78th Session increased the total number of FBI National Academy graduates to 5,036. By alphabetical sequence and by coincidence, the 5,000th diploma was presented to Capt. William V. Mosher, of the Illinois State Highway Patrol, Springfield, Ill.

In ceremonies prior to the graduation, Lt. Paul J. Dumas, Jr., of the Montgomery, Ala., Police Department, received the John Edgar Hoover Medal for Excellence in the Study of Law Enforcement as an award for having the highest scholastic standing in the class. Detective Lt. Victor H. Smith, Jr., of the Flint, Mich., Police Department, received the American Legion National Academy Firearms Proficiency Award.

Mr. Hoover, presiding at the ceremonies, introduced as distinguished guests Maj. Gen. Carl C. Turner, The Provost Marshal General, U.S. Army; the Honorable James C. Hagerty, formerly Press Secretary to President Eisenhower and presently Vice President of Corporate Relations of



American Broadcasting Cos., Inc.; the Honorable Tom de Paolo, representing the J. Walter Thompson Co., which handles "The FBI" television series; and the Honorable Bernard R. Goodman, Vice President of Warner Brothers Pictures Distributing Corp.

Rev. Edward Bradley Lewis, Capitol Hill Methodist Church, Washington, D.C., delivered the invocation and benediction for the exercises. A program of music was provided by the U.S. Marine Band conducted by Capt. Dale Harpham.

Mr. Goldenson's address follows:

Mr. Hoover, honored guests, members of the graduating class, and friends:

It is a privilege and a pleasure to be here today, to join with you in these exercises, and to have the opportunity to extend personal congratulations to the members of the 78th graduating class of the FBI National Academy.

At the outset of these remarks, I think it would be prudent to make one thing quite clear. I am not an expert in the business of law enforcement, nor do I attempt to pose as one.

I am in the business of mass communications—and have been most of my adult life. All of us in broadcasting are particularly excited these days over the tremendous scientific and technological advances that are being made in our industry. We are constantly revising and updating our technical methods and our procedures as the promise of the future that these advances portend becomes practical reality. Within the last few years, for example, communication satellites link your living room in split seconds with events occurring thousands of miles away across oceans; computer systems analyze and give you almost instantaneous vote results in elections across our land; and new and more portable equipment improves our service to our viewing audiences.

When I first received the invitation to be with you today, I hesitated to accept. For, as I say, I am no expert on law enforcement. But as I thought about it, I realized that I did have something to talk about that would be of mutual interest. For it seemed to me many of these new communications developments that we in broadcasting have been adding to our expanded facilities could be of equal importance to you in the law enforcement.



Hon. Leonard H. Goldenson.

Before I try to show you what I mean—why I think these evolving communications processes can be useful in a modern-day law enforcement operation—permit me to address a few personal observations to the graduating class and to our host, the FBI.

First, and properly so since this is a graduation exercise, to the members of the class:

I am sure the training you have received at the Academy will contribute greatly to your increased effectiveness as law enforcement officers. I am equally confident that what you have learned here will be reflected manifold in the increasing leadership and services all of you will be rendering in your local communities.

And while at times it may seem otherwise to you, let me assure you that you *do* have the overwhelming support of the great majority of your fellow citizens in your unceasing efforts to preserve and strengthen our free society through the proper application of the law and its enforcement.

So, gentlemen, my compliments and my congratulations. I deeply admire and respect your dedication and devotion to your chosen profession. My warm best wishes to each of you as you return to your home departments.

And next, a few personal words about our host. Like all Americans of good will, I have always had great respect and high regard for Mr. Hoover and the FBI. These feelings have been heightened even more—if that is possible—through the close relationship we at ABC have maintained with the Director of the Bureau in connection with our network presentation of the television series "The FBI."

Incidentally, I am delighted that I am sharing the speaking assignment today with the infallible Inspector Lew Erskine who, I must warn you, uses the alias of Efre-

Zimbalist from time to time.

I would suspect that the good inspector might be the object of some envy by members of this graduating class since he always is able to dispose of each case, no matter how difficult, in one hour each Sunday night between 8 and 9 o'clock, eastern standard time. Inspector, my heartiest congratulations, and may you continue to do so for a long, long time. Law enforcement needs you—but so does ABC.

But seriously, both Mr. Zimbalist and I derive great personal satisfaction from "The FBI" series. In addition to providing first-class entertainment, we sincerely believe we are helping to inform a weekly audience of 28½ million viewers of the true functioning of the law enforcement profession.

By dramatizing actual cases in the FBI files, we are trying to increase public knowledge of the ethics and devotion to duty of all law enforcement agencies, of expanding and improved techniques and procedures, of increasing service to and protection of the rights and human liberties of all our citizens.

That is our desire and that is our goal. I must leave to others the judgment on whether we are succeeding. As far as I am concerned, I am extremely proud of this program, and I publicly want to thank Mr. Hoover and his associates for their magnificent cooperation, given so unstintingly to all of us who have had the responsibility of bringing "The FBI" series into so many American homes.

Our ABC Radio Network is also participating nationally in bringing information concerning law enforcement to the public.

Each weekend the network carries two 5-minute programs recorded personally by Deke DeLoach, the Assistant to the Director of the FBI. They provide up-to-date information on wanted criminals and on law enforcement procedures and methods.

In addition the network, again working in cooperation with the FBI, is carrying during the month of November a series of public service announcements entitled "Respect for the Law." These announcements will be carried on our network news, sports, and public affairs programs and will be serviced to more than 350 affiliated stations throughout the country.

And now, to return to my topic of mass communications. I fully realize that the words "mass communications" can have many different connotations to many people.

For me, in these remarks, mass communications will center more on the scientific and technical meaning of the words. As I shall apply it, it will mean the rapid reporting and movement to all law enforcement



agencies of accurate, fast, and up-to-date information, intelligence, and records concerning the activities of the criminal element in our society. In brief, it will be a discussion of the communications gap among your own profession.

I do not believe that anyone in this auditorium will argue with the fact that the nationwide struggle to gain individual rights for all citizens and recent court decisions have radically affected law enforcement procedure and operation. As law enforcement in general must modify and adapt its procedures and techniques to meet social change and new court decisions, I believe it is essential that those responsible for the maintenance of law and order acquire and use the latest scientific advances in communications to increase the effectiveness of all law enforcement.

I am sure I don't have to remind you that there was a day when law enforcement, often with time and certainly with technique in its favor, could rather deliberately gather evidence of criminal violations and eventually arrest a culprit for his crime. But that day seems to be over—at least that is what my FBI friends tell me.

They point out new obstacles that must be overcome—the mobility of our population; the expanding opportunities for criminal gain and the effortless conversion of stolen property in our competitive economy; the increasingly sophisticated techniques and equipment now utilized by criminals; and the narrowing and complicated legal restrictions on police efforts lest they encroach on the rights of the individual. They

insist that all of these are factors which irresistibly combine to strain existing police technology in the solution of crime to its very limit—and maybe even beyond its present capabilities.

Additional manpower, better training, more qualified personnel, competitive salaries and increased police budgets, better public relations, and a more informed and supporting citizenry are important improvements, sorely needed improvements, for every law enforcement agency.

But ultimate acquisition of these depends on how law enforcement as a whole demonstrates its capability to adjust itself to what is frankly a new environment. And remember, the rightful public image, the basic purpose of law enforcement, lies in its ability to detect and to apprehend the lawless. Law enforcement must be ready and willing to advance bold and new programs to achieve these ends.

And that's where these new communications advances I referred to earlier come into the picture.

The computer and the dissemination of its vast supply of stored knowledge could be as basic and as important to police work as was the first acceptance of fingerprinting as a positive means of identification of criminals. And the communication satellite, operating both domestically and internationally, could afford instantaneous 24-hour service of immeasurable value.

Let me digress for a moment to give you two illustrations of what I mean.

Up to a few years ago, national network reporting of election returns, to put it

mildly, was a confusing mess. Each network gathered its own returns; each network transmitted different figures on each race. It got so impossible, so confusing to the public, that something had to be done and done fast.

In the 1964 presidential election, the three television networks, ABC, CBS, and NBC, joined with the two national wire services, AP and UPI, and pooled their resources and their reporting of vote returns. Within a comparatively short time after poll closing in each district or State, accurate and definite figures were available to all and the confusion of the past was eliminated. In this year's elections, we are taking the first step, in setting up the entire vote-collecting system on a computer basis by putting all returns in 11 Western States through a computer center. And by 1968 we hope to have the entire Nation on computer tabulations.

In May of 1965, on the initial Early Bird communications satellite broadcast, the FBI, using a National Academy classroom on the fifth floor of the Justice Building as a live broadcasting point, exchanged fugitive information on a three-way live broadcast basis with Scotland Yard in London and the Royal Canadian Mounted Police in Canada. The broadcast was seen by 300 million people on both sides of the Atlantic. As a result of this dissemination of police information, a long-sought Canadian fugitive was apprehended.

This arrest surely emphasized the future possibilities for cooperative international law enforcement through satellite transmission.

Now naturally any new national police communications system, using the latest of scientific advances, isn't going to happen overnight. Any system to be successful has to interconnect with existing local and State systems, which in turn have to be geared up to handle new equipment, new techniques.

And it is going to be expensive. You just don't find banks of computers and the sophisticated machinery necessary to establish such a system, or fees to pay for satellite transmission, on the nearest street corner. But money must be appropriated, for it is essential for law enforcement to set up such a system unless you want to run the risk of something you can, in the long run, least afford—obsolescence of communications in the all-important exchange of vital information on criminal activities.

Happily, as I understand it, a start has been made in the right direction.

The Washington headquarters of the FBI



Following the graduation exercises Mr. Bernard R. Goodman, Vice President, Warner Brothers Pictures Distributing Corp., and Mrs. Goodman are shown with Mr. Hoover.



will open a new National Crime Information Center in January which will be capable of servicing any law enforcement agency throughout the country that requests such assistance.

Mr. Hoover has predicted that this center would eventually be "the hub of a vast information network which will serve as a rapid means of procuring, storing, retrieving, and instantly transmitting vital police information, nationwide in scope, to any point in the country in a matter of seconds."

The FBI and their consulting scientists envision that this increasing reservoir of data on criminal activities, gathered from police throughout the country—indeed from throughout the world—can, in time, through the marvel of electronic "memory" computers, be interrogated for up-to-the-minute information for all participating law en-

his fine and moved on, that this same car was stolen and used that day in a robbery in another State.

Or being faced by a sullen and sneering suspect who literally challenges you to find out who he is, where he has been, and what he has been up to. I take it that this is something you all must have to live with frequently—not only the impudence of his actions, but, quite often, your own inability to determine promptly his identity and activities.

A computer storage communications system can end many of these frustrations. For the system will be able, upon interrogation, to identify most criminals by fingerprints or descriptive profiles, or tell whether an automobile has been stolen or used in a crime—all in a matter of seconds. Or to give you any other information you may need in other cases—again in a matter of seconds.

In addition, the FBI has already asked more than 30 major electronic firms to undertake a study for the development of a scanning device which can be used to read and classify inked finger impressions. When they get that worked out—and they will—the mammoth criminal fingerprint files of the FBI, computer-linked with a law enforcement communications network across the Nation, will afford short sanctuary—a few minutes at the most—for any criminal who refuses to divulge his true identity. It will wipe that irritating sneer off his face, but quick!

Now this may sound like Buck Rogers—or I suppose I should say Dick Tracy. But, believe me, it isn't anything more fantastic than the procedures and techniques which we in broadcasting have put into practice. It is the positive future and it will come sooner than you realize. I would hope that all of you in this graduating class would redouble your efforts within your own departments to develop and implement this new concept in police communications.

You know you really owe it to yourselves to do so. New communications technology can not only vastly improve police response to crime; it can give you the opportunity—backed up by an incredible storehouse of information at your fingertips—to help answer quickly and positively unfounded and irresponsible criticism, to promote improved internal procedures within each law enforcement agency, and to develop programs that best assure the safety of the public from the assaults of the lawless.

These systems of law enforcement communications deserve the widespread support,

not only of yourselves, but of your colleagues and of the public at large. I hope it is given wholeheartedly and promptly. I am confident it will be.

Following is the address given by Mr. Zimbalist:

Mr. Hoover, Mr. Goldenson, distinguished visitors, members of the 78th Session and particularly your wives and families:

It is indeed a great honor to take part in these graduation exercises of the FBI National Academy. To the 100 outstanding officers who are members of this 78th Session, I offer my sincere congratulations. I would like to say "fraternal" congratulations, if you will permit me, because on occasion I have had such regard for members of the State highway patrol as to furnish them personally with the opportunity to brush up on their techniques, and because through association with "The FBI" series, I have developed a feeling of being almost a part of your profession by a kind of electronic osmosis.

Working on this program has been one of the most satisfying and enlightening assignments of my career. During our recollections of actual cases investigated by the FBI, I have gained an insight into the dedication, the sacrifices, and the painstaking effort that underlie the remarkable record achieved by J. Edgar Hoover and his associates. They merit the gratitude and the support of every decent American.

Since 1924, when he became Director of the Bureau, Mr. Hoover has been the one preeminent figure on the law enforcement scene. His contributions to the cause of law and order—his selfless devotion to democracy in the real sense of the word and to justice—are a modern legend.

The FBI National Academy is but one example of Director Hoover's pioneering spirit and imaginative genius. He founded the Academy in 1935 to meet the pressing need at all levels of law enforcement for professional skills, expert training, and a unified approach to the deep-rooted problems of corruption and crime.

In the strong image of its founder, the National Academy has grown steadily in prestige, until it is recognized today as "the West Point of Law Enforcement"—a most fitting description in view of the dominant role its graduates have played in the Nation's continuing war against crime.

Some 8 years ago, a professor of law at one of our eastern universities made this

(Continued on page 22)



Mr. Efrem Zimbalist, Jr.

forcement agencies and even at the request of police officers on the street.

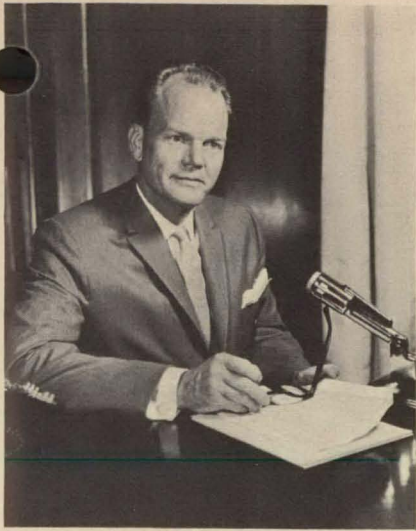
Some police departments have already started to modernize their own systems. Among others, the New York City Police Department has converted a sizable portion of its criminal fingerprint files to computer storage and the State of California already has in operation an effective statewide computer-based communication system.

These are the beginnings. Much more will have to be done if law enforcement is to use all the scientific tools at its disposal to help in the never-ending struggle against crime.

I am certain that almost every law enforcement officer, in the performance of his duty, has experienced many frustrating incidents. All of you here undoubtedly recall many such cases. For the sake of applying it to the computer system, let me give you just two typical cases:

Like an officer in a rural area who stops a speeding out-of-State car only to learn hours, if not days later, after the speeder has paid





PAUL HARVEY

# Policemen

## Must Not

## Strike

*Mr. Harvey, a noted commentator and journalist, granted permission for the Bulletin to print this recent newscast. We think his timely remarks will be of great interest to our readers.*

Today's policeman is a pro. The oldtime caricature of the "dumb cop" has long since been replaced by an educated, trained, skilled specialist in crime detection and law enforcement.

In Pontiac, Mich., on November 2, policemen went on strike and a Nation went into shock.

"Utterly inexcusable!"

"How dare they leave 80,000 people defenseless!"

"Lawmen must not break laws!"

Make no mistake, these did. The law in Michigan bans strikes by public employees so these did not formally call a "strike"; they called in "sick." The effect was the same.

This was our Nation's first police strike since 1919, when Boston policemen struck for higher pay and Massachusetts' then-Governor, Calvin Coolidge, had to call out troops to quell

resultant rioting. A thousand Boston policemen who had committed "the unpardonable crime" were never returned to duty.

In Pontiac, Mich., in 1966 a policeman's salary was a thousand dollars less than the salary of a policeman in nearby Detroit. They felt discriminated against. They asked their city commission for a raise and the city commission stalled.

So the policemen, indignant, quit.

Had that "sickness," contagious, spread elsewhere, it might have resulted in a disastrous epidemic. But within hours, sensing the gravity of the crisis they had created, the policemen of Pontiac—still without a pay raise—returned to duty.

Exactly what are a policeman's "rights"?

This column has consistently championed the interests of policemen through two generations of them. I have never known any policeman who is paid enough for what we expect of him.

It grieves me to see dedicated law officers risk their lives to apprehend felons whom the courts or parole boards subsequently set free.

I hurt inside when conscientious lawmen, forced to use force, are "suspended" pending investigation of "brutality."

I feel for the wives and children when one crooked cop throws an ugly shadow over the legions of decent ones.

But no—they have no right to strike.

Policemen are and must remain separated from the rest of us by an obligation that's bigger than all our grievances.

The rest of us may continue to demand "more pay or else." The dispensable rest of us will continue to demand "more fringe benefits" in a ceaseless quest for "security."

Though our pay, our possessions, our daughters, and our lives are "secure" only as long as the policeman is on duty.

There is no way we can afford him. Perhaps we don't even deserve him. This is true of soldiers, too. But they don't mutiny, they don't fake sickness, and they don't desert. . . .

Because they alone stand guard at the upstairs door of Hell. (Copyright 1966, General Features Corp.)

January 1967

*Week to DeLoach memo, 11/14/66, re: Paul Harvey*

*"Policemen Must Not Strike, Report of Newscast in FBI LEB."*





Recently the Omaha Police Department completed its 14th annual Preschool Child Traffic Training Program with some 3,500 youngsters participating. One of the first safety schools for young people in the country, the Omaha program has been highly successful, both in terms of numbers and results. Since the start of this program, some 50,000 children have taken part, and there has been a favorable reflection in our pedestrian accident picture regarding the preschool age level.

Most police officers are aware that the carefree attitude of children, not

properly supervised, can easily become a careless attitude which spells real danger, especially to a child whose route to and from school takes him through traffic. We also know that children and traffic, unfortunately, are an explosive combination, and the naivete of the young and the natural exuberance of childhood are the two chief factors leading children into danger in traffic.

In Omaha all children who will be going to school for the first time are sent a letter by our police division (via school officials) inviting them to participate in the traffic safety in-

struction. In the letter parents are specifically urged to have school beginners study the training which is offered without charge. It is also stated that if there are other grade-school children in the home who need a refresher course in traffic safety, these, too, are invited.

I suppose we are guilty of a little "shock strategy" in our invitations, since we use expressions such as "your child" or "the child next door" in order to get parents' attention, and these messages drive the thought home in unforgettable fashion. In this same letter that reaches the home, par-



# The Talking Traffic Light

*Members of the Omaha, Nebr., Police Department are proud of their "talking" traffic light and the valuable aid it gives in teaching safety to children in the department's Preschool Child Traffic Training Program.*

**LT. MICHAEL THOMAS LOFTUS**  
Officer in Charge of Youth Bureau,  
Omaha, Nebr., Police Department



ents are told they can have their children taught traffic safety habits by bringing their children to one of the training locations. The letter concludes by stating that since parents are morally responsible for what happens to their children, they should make every effort to insure that the children are fully equipped to take care of themselves as pedestrians in heavy automobile traffic.

## *Purpose of School*

The program is scheduled so that instruction takes place in June, running for a period of 2 weeks, at some 20 separate locations. The purpose of the program is to teach children entering school for the first time the skills and attitudes needed to become good pedestrians, and also how to conduct themselves through traffic to and from school.

Because it is necessary for the program to move without a hitch, the sponsoring groups have a traffic safety symposium the preceding January. This meeting is attended by safety chairmen, club presidents, school principals, and other interested persons. The program is explained to these people by one of our officers, and each individual is given a copy of the 2-week program schedule for June. At this meeting each school is advised as to the number of persons it should have available for assistance at each location, and adult assistants are asked to wear identical headgear. The PTA at most schools furnishes the assistants. Participants are advised prior to the symposium to secure a list of the children who will be eligible for the program. This list is obtained from the health chairman and from school registration forms.

Many gimmicks are used by the safety chairmen to insure greater attendance. Some send a card to the child in the form of a traffic light, stop sign, or patrol boy, with the date on

which they are to participate. Other safety chairmen form car pools and babysitter groups so that the mothers can take the preschoolers to the programs. Still others will call the parents the day before the program is held near their schools. Because we have 116 schools in our area, we have children from about 6 schools at a time coming to each location. If a child is unable to attend the area assigned for his school, the parents are free to attend any other one they choose.

This Preschool Child Traffic Training Program has five parts, and four uniformed police officers, assigned full time to safety education, serve as instructors. When the children arrive at the various training locations, they are registered by adults who are affiliated with parent-teacher and home and school associations. After registration the children are placed in groups of 20 without their parents. About 30 to 40 minutes are needed to complete the course. It is not necessary for others to wait while one group is going through the course. It is possible to run four groups of about 80 children simultaneously.

The officer in his first meeting with the children avoids preachiness. He is aware that youngsters tend to be impulsive and are unpredictable in the best of circumstances. As the officer goes through the course with the children, he uses every minute of instruction, every act, every word to impress upon the children the fact that safety is more than a list of rules to be memorized and repeated by rote.

The children are gathered into groups of 20 and escorted by one of the volunteer workers. The program proceeds as follows:

## *Exercise No. 1*

The volunteer assistant takes her group of 20 children to the assigned location, greets the officer with, "Hello, Mr. Policeman," and then introduces





Above, officer gets acquainted with the children prior to beginning exercises.

Right, group learns how school safety patrols assist in crossing the street.

Below, proper procedure for boarding a bus is part of instruction program.





the children to the officer. Following this is a sort of general assembly, and the purpose of this exercise is to eliminate fear and create cooperative attitudes. The officer gives a cordial greeting and kneels down on one knee and asks the little ones to sit around him. He proceeds to tell them how he can be of help on their way to and from school and that he is their friend. He picks out one of the more vocal youngsters and holds a short conversation with him by asking a safety rule or the name of the school where he will be going. The purpose of this is to have all the children know they can talk with the officer and ask him any questions they wish. From this point on, the officer dominates the conversation by telling the children what they will learn while they are with him. He then asks all the children to stand, and he takes one or two of the children by the hand and leads them to the first crossing exercise. The assistant follows at the rear of the group during the complete course.

#### **Exercise No. 2**

The police officer introduces the children to the school safety patrol officer, and during his introduction he explains what the school patrol does and why they wear the Sam Browne belt. The students are further instructed that school safety patrol officers will help them cross the streets and that these officers are generally found within two blocks of their schools. The students are then given several crossing tests under the watchful eye of the school safety patrol officer. Prior to the crossing tests, the youngsters are told to stop on reaching the curb and look both ways to make sure the street is safe. The patrol officer then steps into the street, takes his position, and gives a hand signal for the children to cross. The police officer's conversation is constant repetition with continual response from the group.



Chief C. Harold Ostler.

#### **Exercise No. 3**

The children are taught how to cross streets at unprotected crossings. The safety education officer, approaching the unprotected crossing, again asks the group what they must do before they step into the street. The loud and instantaneous response, of course, is "Look both ways." They are now stopped back of the curb, and the officer explains to them that this type of crossing is the most dangerous because they will have to cross many streets without any assistance. They now proceed to the curb edge and heads are twisted one way and then the other to see if the way is clear. When satisfied that no vehicular traffic is coming, the children cross within the marked crosswalks. The exercise is repeated many times, and different children are permitted to lead the group across the street, so that it will not be a case of follow-the-leader.

#### **Exercise No. 4**

Regular traffic lights are set up at each training location. Children are instructed as to the meaning of traffic signal light colors and then participate in actual crossing tests.

The talking traffic light as used in the Preschool Child Traffic Training Program has proved to be one of

our best instructional aids. A loud-speaker is mounted on the pole of one of the portable traffic lights, and this is tied into the safety-education vehicle which is parked out of the children's view and operated by one of the officers.

The talking traffic light tells the children where traffic lights are usually found in their community, such as near schools, in shopping areas, in the business districts, etc.

Some of the remarks coming from the traffic light are: "You are now looking at my red color; this means it is *not* your turn to cross the street," or "This is my green color; it is now your turn, but before you cross, you must look both ways." The children are fascinated by the traffic light, and the messages from the light are long remembered.

#### **Exercise No. 5**

Buses are important items in the life of the child, and each participant is taught how to get on, how to get off, and how to ride public transportation properly and safely. The bus and driver used in this safety program are provided through the courtesy of our local transit system.

The uniformed officer, as he approaches the parked bus with his group, stops at the front door and talks about the trip they are about to take. The officer instructs the children as to where they should stand while waiting for the bus, and insists they use the handrail both in getting on and off. After boarding the bus, the children are advised to be seated immediately and are told that putting arms, heads, or legs out bus windows is taboo.

The group is now ready for the ride, but only after the children are personally introduced to the busdriver by the police officer. The children are instructed to go to the busdriver, who is also their friend, if they do



not remember where they are to get off, or if they become lost. After a two-block ride, they are returned to the starting point, with each child being instructed in the use of the device for signaling the bus driver to stop. When they are ready to leave the bus, they are reminded again about the use of the handrails. After alighting, they are instructed to wait until the bus leaves before they cross the street.

### **Traffic School Reward**

After the children have participated in the program, it is time for graduation. They leave the bus and are escorted by the police officer to a table manned by school safety patrol officers. The safety patrol officers pin a green cross-for-safety badge on each graduate and give him a peppermint candy stick. The safety education officer, in his last moments with the children, thanks them for coming to visit him and for participating in the safety program. The children are truly happy with their accomplishment and hurry over to mom or dad to display the safety badge and candy. The program does not end here, however. Mothers immediately take up the question-and-answer system to see what their offspring have learned. The fathers, brothers, and sisters ask the participants what they have learned, and this starts a chain reaction quiz on safety.

A father called us after the last training session and said that at first he was afraid his little daughter did not get much out of the traffic school. He said he changed his opinion quite hurriedly on the following Sunday when he was out with his family for a ride. He stated he fudged a little bit on a traffic light, and almost immediately a tiny voice from the back seat said, "Daddy, you don't go on the yellow light; it's not your turn."

This complete program is a community effort, and is sponsored as a

public service by the Parent-Teacher Association, Safety Council, Deanery Council of Catholic Women, Transit Company, community clubs, and the police division of the Department of Public Safety.

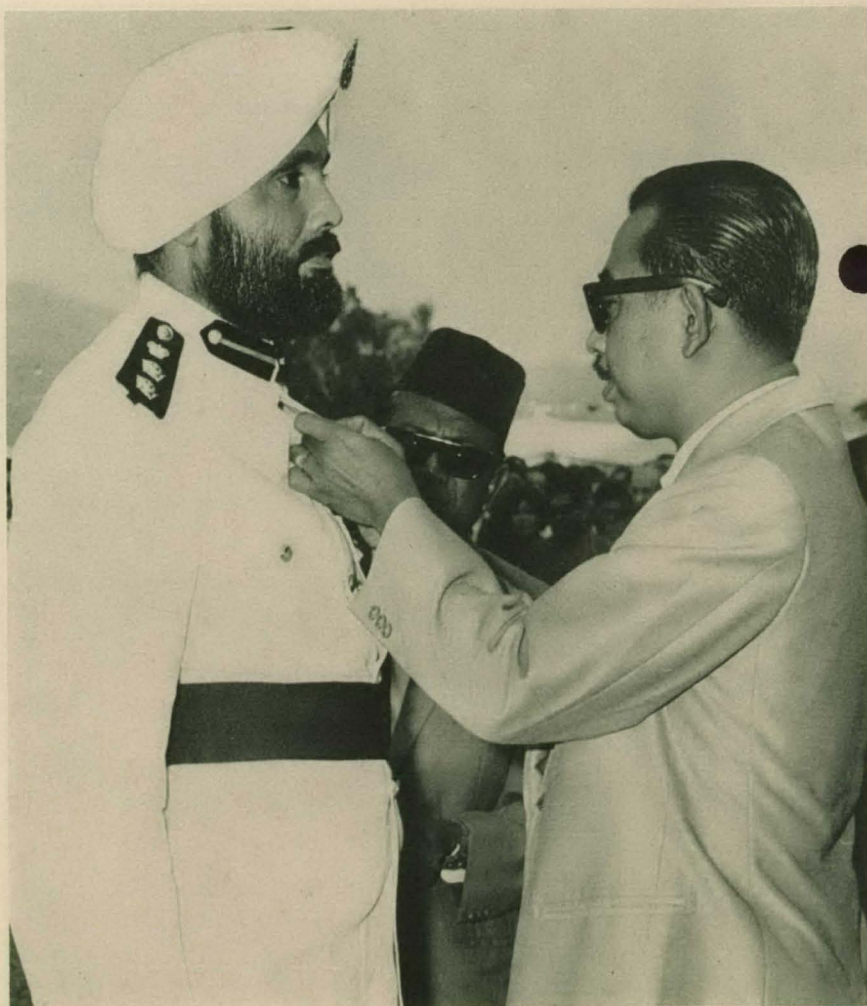
The tremendous success of this program is due in part to the genuine cooperation of the news media. Our newspapers and radio and television stations carried a daily schedule of the programs, plus many news items on the Preschool Child Traffic Training Program in general.

### **TO COVER UP**

The vehicle used as a getaway in an armed robbery was given a good search. At a glimpse, the car appeared to be in proper order with the key in the ignition. However, upon closer examination, the ignition was found to be neatly hot-wired, and the key a blank, with all but the last notch filed off. The key apparently had been placed there to give the illusion of being the proper key for the car and to avoid suspicion.

*NFO memo 7/27/66,  
Bufile# 63-4296-5*

### **NA GRADUATE HONORED**



Mr. U. Santokh Singh, Assistant Commissioner of Police, Ipoh, Perak, Malaysia, was recently awarded the Distinguished Conduct Medal for outstanding service by His Royal Highness the Sultan of Perak. Mr. Singh is a graduate of the FBI National Academy.

*S. J. Let, 9/29/66, re:  
Santokh Singh, NA Graduate, 72nd Session*

**FBI Law Enforcement Bulletin**



# A Look at Codes and Ciphers

**D**own through history man has found it necessary to communicate in secrecy with his fellow man, particularly while conducting affairs of state, espionage, war, business, and love. Through this ever-present necessity has evolved the art and science of secret communications known as cryptology. That part of cryptology dealing with codes and ciphers is called cryptography.

## *Everyday Tool*

The association of codes and ciphers as a tool of the spy has surrounded cryptography with an aura of mystery and intrigue. When stripped of this "cloak and dagger" association, codes and ciphers are readily recognized as very useful everyday tools, whether they be used for the primary purpose of secrecy, brevity, or economy. For instance, the merchant uses a code in marking his price tags to record when he purchased the item, its cost to him, and his markup. A door manufacturer might code one of his products as Model R 7832, meaning that particular door is 78 inches high by 32 inches wide and has a right swing. The jeweler scratches his own mark on the watches he repairs. The laundry uses laundry marks to identify clothes. The electronic parts manufacturer

color codes the resistors and capacitors and other products he produces. To the uninformed these bands or dots of color mean nothing, but to the electronics technician these colors instantly tell him everything he needs to know about the part.

## *In Law Enforcement*

Law enforcement officers also have their own systems of codes, such as the radio "Ten Code" or "Signal Code" or others. Under such systems a "Signal 13" call might bring all mobile units to the aid of an officer in distress, or other coded calls, such as a "10-26," might direct a unit to return to headquarters. These codes become second nature to the police officer and conserve time but have no meaning to persons unfamiliar with the system who might be monitoring police frequencies for one reason or another. Another example of a law enforcement code is the one used in the classification of fingerprints. Some departments have established their own codes as a kind of shorthand for report writing and maintenance of records. An excellent example is the coding system for sex offenders discussed in an article captioned "The Morals Squad," by William M. Lombard, Chief of Police, Rochester, N.Y., which appeared in the July 1965 issue

of the FBI Law Enforcement Bulletin.

Without question codes and ciphers are extremely useful tools to law enforcement and to mankind in general. Unfortunately, that which can be used for the welfare of man can in most instances be utilized to his detriment. Such is the case with codes and ciphers, for the criminal mind has turned them into working instruments of crime in his unceasing efforts to thwart the law. The bookmakers, the numbers operators, the madams of houses of prostitution, the prison inmates, in fact, all types of criminals, employ codes and ciphers as evidenced by the cryptograms and other cryptographic material submitted to the FBI Laboratory through the years for examination and decryption.

It is felt, therefore, that a basic knowledge and understanding of codes and ciphers should prove a very valuable tool to the law enforcement officer in the battle against crime. The purpose of this article is not to make a cryptanalyst of the law enforcement officer, but to alert him to the recognition of codes and ciphers when encountered in his work and acquaint him with some of the basic principles involved in making and breaking them. This article is in no way comprehensive. In fact, it barely lifts the lid on the subject of cryptography.

## *Code Elements*

While the terms "ciphers" and "codes" are frequently used interchangeably, they have a fundamental difference which can best be demonstrated by examples. In the police "Ten Code" mentioned above, we have an excellent example of a code. The call "10-15" means "Prisoner is in custody," and a "10-7" means "Unit is going out of service." Here, the signal represents a command, an instruction, or a reply regardless of the length of the command, or instruction, or reply—the point being that in



codes there is no relationship between code elements (digits in the above examples) and the length of the message the code element represents. Fundamentally then, in codes, elements, such as letters, numbers, symbols, words, electrical impulses, sounds, lights, signals, etc., are used to represent a whole word, a phrase, a sentence, even several sentences or, in fact, whole messages.

### Commercial Codes

Codes must be worked out by the correspondents in advance and must be memorized as in the case of the law enforcement officer's "Ten Code." If the code is too long to memorize, it must be recorded in some manner, such as in a codebook. A good example of a codebook is the many telegraphic codebooks available on the commercial market today. It is interesting to note that such commercial codes were devised largely as an economy measure to reduce cable and Teletype costs by reducing the overall message length and not as a security measure. From such a commercial codebook, the code group "AJMDK" might represent the entire sentence "Cotton prices in London are firm today" and could be transmitted at the cost of the basic rate for one word rather than at the cost for seven words. Obviously, the security of code messages in secret communications can be no better than the physical security afforded the key to the code itself. Codes can be broken cryptanalytically, but if the code elements are randomly selected, the breaking of a code can present a real challenge to the cryptanalyst.

### Cipher Text

The cryptographic submissions received by the FBI Laboratory from other law enforcement agencies are largely ciphers. In ciphers, for each

element of plain text, there is a corresponding element of cipher text. Let us look at the historic and classic Julius Caesar's Cipher in which each letter of the alphabet is shifted three places to the right to obtain its cipher equivalent in this manner:

Plaintext alphabet:

A B C D E F G H I J K L M  
N O P Q R S T U V W X Y Z

Cipher alphabet:

D E F G H I J K L M N O P  
Q R S T U V W X Y Z A B C

Using this cipher to encipher the message "Have you completed the tunnel?" and arranging the cipher text in groups of five, as is traditional, would result in the following enciphered message: KDYHB RXFRP SOHWH GWKHW XQQHO.

This is a true cipher, and most ciphers encountered in law enforcement work fall into the general categories of transposition ciphers and substitution ciphers or combinations of the two.

### Substitution Cipher

In a substitution cipher the letters of the plain text are replaced by other letters, figures, or symbols but do not change their relative positions. The previously mentioned Julius Caesar's Cipher is a good example of a substitution cipher. One such simple substitution cipher was employed by a female prison inmate in the Midwest in corresponding with her contacts on the outside. She substituted numbers for letters in direct ascending order: A=01, B=02, . . . Z=26. Her entire cipher was as follows:

Plain text:  
Cipher text:  
Plain text:  
Cipher text:

A B C D E F G H I J K L M  
01 02 03 04 05 06 07 08 09 10 11 12 13  
N O P Q R S T U V W X Y Z  
14 15 16 17 18 19 20 21 22 23 24 25 26

The cipher message 19051 40413 15140 52500 sent in her system deciphered as "SEND MONEY."

Other criminals have used similar systems but have been a little more sophisticated in randomly assigning numerical equivalents to the plaintext letters, such as A=22, B=16, C=11 . . . Z=09.

### Transposition Cipher

In a transposition cipher the letters remain the same as in the plain text but are shuffled or disarranged from their natural order according to a prearranged pattern worked out between the correspondents. In other words, the individual letters in the plain text retain their identity in the enciphered message but have a new order or arrangement. For example, the message "PSOUL OITCE ESAIR WE" can be read "Police are wise to us" if read by skipping every other letter reading across the page and back again.

For another example of transposition, let us arrange the message "The jail break is tonight at seven. Get ready." as follows:

T H E J A I L B R E A K  
I S T O N I G H T A T S  
E V E N G E T R E A D Y

Now let us strip off vertically as columns from right to left the three-letter groups thus formed and rearranged horizontally in groups of five letters. The enciphered message would then read as follows with "X's" thrown in to round out the last group: KSYAT DEAAR TEBHR LGTII EANGJ ONETE HSVTI EXXXX.

Transposition ciphers can be devised which are extremely complex



and complicated and are limited only  
the ingenuity of man.

## Crosshatch Design

Another substitution cipher which is a classic in the field and which on occasions has been employed by criminals is a cipher based upon a cross-hatch design as follows:

ABC	DEF	GHI
JKL	MNO	PQR
STU	VWX	YZ

The first letter in the three letter plaintext groups is represented by that part of the design which surrounds it or is immediately adjacent to it. Thus A=□, D=□, G=□, . . . Y=□. If the plaintext letter occupies the second position, a dot is placed in the appropriate symbol. Thus B=□, E=□, H=□, . . . Z=□. If the plaintext letter occupies the third position, two dots are placed in the symbol. Thus C=□, F=□, I=□, . . . X=□.

The message "Get me a lawyer" expressed in this cipher would appear as  $\begin{bmatrix} \square & \square & \square & \square & \square & \square \\ \square & \square & \square & \square & \square & \square \end{bmatrix}$ , a very weird-looking cipher indeed.

In the July, August, and September, 1962, issues of the FBI Law Enforcement Bulletin, there appeared a series of three detailed articles captioned "FBI Cryptanalysts Decipher 'Bookie' Codes and Ciphers" which will not be discussed again here. Bookmakers still remain the most prolific users of encrypted intelligence in the criminal field in carrying on the recording of illegal betting activities associated with numbers pools and sporting events, such as horseracing, boxing, and baseball.

Now a word about deciphering cryptograms without prior knowledge of the keys. When they are attacked with the proper skill and tools, the breaking of codes and ciphers quite frequently is not the insurmountable task it superficially appears to be. Upon reflection we realize that certain letters in the English alphabet are used more frequently than other letters. Let us look at a frequency count of 2,000 letters of English plaintext compiled by counting the individual letters from text randomly selected from a previous issue of the FBI Law Enforcement Bulletin. The result is set forth below:

E=273	H=83	G=35
T=176	C=73	W=24
O=162	D=67	V=21
R=143	M=64	X=6
I=140	F=61	J=3
A=137	U=59	K=2
N=135	P=47	Q=1
S=117	Y=46	Z=1
L=86	B=38	

From the above frequency count, we see that we tend to overwork the letters "e," "t," and "o," for example, and very seldom use the letters "j," "k," "q," and "z."

The cryptanalyst has at his disposal similar frequency tables which reflect how many times one would expect to find any letter of the alphabet in, for example, 10,000 letters of English literary text, Teletype text, or business text, etc. By making a frequency count of the elements in a simple substitution cipher under examination, the cryptanalyst is able to quickly determine which elements are used the most and in what proportion. By comparing his findings with the normal expected from the frequency tables, the cryptanalyst is able to determine which elements of the cipher text represent the high frequency letters, which represent the middle frequency letters, and which represent the low frequency letters. With skill,

tenacity, patience, and dexterity, the solution is usually forthcoming.

### Letter Combinations

The cryptanalyst has other valuable tools. For example, there are two-letter and three-letter combinations which appear more frequently in the English language than other such combinations. This is generally true for other languages as well. We call these digraphs and trigraphs. Some common digraphs are "th," "er," "on," "an," "re," "ed," "of," and "or." Some common trigraphs are "the," "and," "tha," "ent," "ing," and "ion." We also have some double letters called doublets, such as "ee," "tt," "oo," "mm," and "ss," which appear frequently, and others, such as "aa," "gg," and "zz," which appear less frequently.

In addition, certain ratios exist between the number of consonants and vowels which appear in plain text. If this ratio holds in a cryptogram, this is one indication that the cipher is probably one of transposition, since a rearrangement of the original letters in transposition would not alter the ratio. Also languages and language families have their own characteristics. For instance, the letters "k" and "w" normally do not appear in Spanish, Portuguese, or Italian except in foreign names. In a number of languages the letter "q" is usually followed by a "u."

It is readily seen that when all of this information concerning a particular language is compiled into one set of tables, the cryptanalyst has an invaluable tool for the solution of ciphers prepared in that language. Using the proper tables, it is actually possible for the cryptanalyst to decipher a cryptogram in a foreign language without the cryptanalyst's knowing how to speak or read the foreign language involved.

Not all cryptographic material submitted to the FBI Laboratory by law



enforcement agencies involves criminal codes or ciphers. One of the items submitted with some degree of frequency by law enforcement agencies is a small leather-bound booklet which is written in alphabetic code and proves to be the mnemonic code for certain fraternal organization rituals.

With some degree of frequency, well-meaning amateur and pseudo-cryptographers, who are motivated by patriotism or thoughts of monetary gain, submit their "unbreakable" codes and ciphers to the FBI Laboratory.

### Religious Symbols

Also, on occasion the FBI Laboratory receives for examination and identification from local law enforcement agencies certain articles which, because of their general appearance and foreign language text encased therein, are not recognized by the submitting agency and arouse curiosity. While superficially resembling cryptographic material, these items are in no way connected with codes and ciphers but are revered and sacred religious articles. They are included here to acquaint law enforcement officers with their existence and true purpose.

One of the items is known as a mezuzah. Mezuzah is a Hebrew word literally meaning "doorpost" and is the encased scroll of parchment which may be located on a doorpost as one

enters a Jewish home. The case is generally of wood or metal, but other materials may be used. The parchment is inscribed in Hebrew consisting of verses 4 through 9 of the 6th chapter of Deuteronomy and verses 13 through 21 of the 11th chapter, the first of these containing the proclamation of the faith.

Another item is the phylactery, which is the term applied to each of the two hollow cubes containing strips of parchment inscribed in Hebrew worn by the devout Jewish male during the morning services, except on the Sabbath and Jewish festivals, symbolic reminder to the devout of the existence of God. This can be compared to the custom of some Christian churches of wearing a cross on a chain around the neck or on a watch chain. Similar outward signs are common among the religions of the world.

Both the mezuzah and the phylactery may be plain and functional in design or may be very ornately and expertly executed in some of the finest examples of wood, leather, and metal craftsmanship.

If pertinent to an investigation, law enforcement officers should resolve any doubts arising from material suspected of being cryptographic in nature by submitting the material to the FBI Laboratory for examination, as the solution of a criminal cipher or code can furnish valuable investigative leads and on frequent occasions lead to the solution of a case and successful prosecution.

## EMERGENCY TELEPHONES

(Continued from page 5)

made in the next 4 months will lower the cost per call paid by the State during the first year of the program. The intangible value of lives saved and injuries to persons and property prevented cannot be given a dollar value. The caliber of services rendered by the New York State Police and agencies of the State's government strengthen the leadership of New York in promoting better and safer highways serviced by skilled public servants.

In general, the administration of NETS has proved to be an easy function. Daily logs and monthly activity are self-explanatory, thus facilitating their rapid completion. Pertinent base data can be readily extracted for special studies involving low and peak points of use by location, time of day, type of services requested, most frequent causes for disablement of the vehicles, road conditions requiring immediate correction, and other similar categories. This data will be more fully discussed at the completion of a full year of operation of the system. For example, the most calls received on the system come from box 134 (55 calls) and the least number of calls from box 383 (1 call). Peculiarities of the location may be the reason for this wide variance. Further detailed study will answer this. The least active day of the week is Tuesday (397 calls), the most active days on the system are Fridays (595 calls), Saturdays (595 calls), and Sundays (560 calls). Tabulations of number of calls by hour of the day show 8 p.m. to be the busiest (263 calls), while the activity on the network slows to a low point of 40 calls at 5 a.m. At this point these trends appear to be consistent with the normal traffic patterns and habits of the traveling public. As expected, the most calls were received from the rural sections between the larger cor-

### A BIKINI WON'T DO

Owners of supermarkets in a western beach resort town were plagued by the loss of hundreds of dollars worth of expensive cuts of meats from their stores. After extensive investigation, authorities discovered that a

group of individuals used a "pouch" of clear plastic sewn inside a bathing suit as a depository for a flat, expensive cut of beef.

When arrested, the thieves explained that they figured no one would suspect a person clad in a bathing suit of shoplifting.

*L.A. Herald, 9/12/66, Bufile #  
63-4296-26.*



munities. The State Police Loudonville control section nearest to Albany received 910 calls, State Police South Glens Falls had 1,023 calls, whereas State Police Malta had the greatest number of 1,525. Malta services the Saratoga area where summertime racing and the performing arts center draw heavy traffic, particularly in the evening hours.

For the first 8 months, analysis of daily logs reflect the type of vehicles involved in calls on NETS as follows:

Automobiles -----	2,225
Trucks -----	617
Motorcycles -----	15
Buses -----	17
Other vehicles -----	14
Vehicles unknown -----	570

During the remainder of the first year of the operating experiment, additional improvements in reporting will further narrow the identification of the type of vehicle.

### Requests Made

Of 3,458 calls received, 79 percent involved service for gas (681), tires (640), batteries (65), mechanical problems (1,151), and other types of service (191). During the same reporting period 13 percent of the calls received involved either motor vehicle accidents (183), ambulances (9), fire (53), reports of a violation (34), hazardous conditions—for Department of Public Works to act upon—(31), wrong-way drivers (26), other police action (111), accident and ambulance requests (12), or accidents with violation (2). The remainder of the calls were for directional information, location of services, test calls, no answer calls from the curious or pranksters, and calls for other miscellaneous reasons.

Experience so far has proved that monitoring the system does not unreasonably interfere with the normal duties of the dispatcher at the State

police station in Loudonville nor with the desk troopers at the stations in Saratoga and South Glens Falls. Fortunately, the power blackout in the Northeastern States in the fall of 1965 occurred during the installation of NETS. Since then emergency 10 kw. generators have been installed in State police installations not previously so equipped. The system normally operates on line power; however, it can now be supported should another general power failure develop.

### Bilingual Service

The initial experience in operating the system has also provided opportunities to improve the service. Instructions on the cover of the box in future installations will be stated in French, and instructions both in English and in French will be repeated on the inside cover of the box. The Northway is a major link with neighboring French-speaking Quebec, and the vast numbers of French-speaking Canadians who use the Northway will appreciate the consideration accorded them.

The emergency services available to Northway motorists include: Fire vehicles, ambulances, large and small towing services, as well as gasoline and tire services. Most proprietors of these services willingly agreed to be on 24-hour standby call, and others are available on a limited basis.

Patrons do not necessarily have to use one of the present listings for service. When a patron states a preference for a particular proprietor, the dispatcher makes every reasonable effort to obtain that service. Fees charged by service operators for labor and parts are not the responsibility of the State police. It is gratifying to note an absence of complaints concerning the fees charged or the quality of services performed. There have been isolated instances when a patron has been short of

funds; but here too, satisfactory arrangements have been made between the service operators and the patron, and no police action was necessary.

The success of the NETS concept so far has generated considerations for extending the system to the Northern section of the Northway, now open, and ultimately to the center section when construction is completed. The New York State Police will then police and operate the Northway Emergency Communications System from Albany to the Canadian border. In the future it is not inconceivable that similar emergency communications systems will bring the same advantages to new as well as to other now unserved interstate limited access highways in New York as NETS has given to the Northway.

### PROBABLE CAUSE

Two young men driving through a midwestern city early one morning hit a wet spot in the pavement and rammed into a bus traveling on the highway. No one was injured and little damage was done, but beneath a smashed front fender of the car protruded an orange-colored package.

Police officers who investigated the accident had just finished a school on lawful searches and seizures. They later reported, "We didn't search the car, didn't even talk to the suspects about the package until Federal authorities arrived with a search warrant. We let the car sit right there in the street."

Federal narcotics officers conducted a legal search on probable cause and located 99 1-pound packages of marihuana concealed throughout the car. The marihuana was later reported as having a recovery value estimated at \$150,000.

The two men were held for Federal prosecution.

*Oklahoma City  
Crimin., 8/12/66,  
Bufile # 63-4296-35.*



## NA GRADUATION

(Continued from page 10)

observation: "We too often forget that criminals are at war with society. Our armed forces are heroes, but policeman is a dirty word. We overlook the times when the police and military forces simultaneously fight the same enemy."

What is that enemy? It is a force awesome in number, at home and abroad, that would circumvent, undermine, and destroy the great ideals that America represents—the ideals of justice, equality, and liberty under law.

William Penn commented nearly 300 years ago: "Any government is free to the people under it (whatever be the frame) where the laws rule and the people are a party to those laws. . . . Liberty without obedience is confusion, and obedience without liberty is slavery."

"Obedience without liberty"—these words very aptly describe life as it exists behind the Iron and Bamboo Curtains of Europe and Asia; or the type of regime which Castro has inflicted upon the island nation of Cuba; or the fate which Hanoi and the Vietcong would bestow upon the freedom-loving people of South Vietnam.

"Liberty without obedience"—this poses one of the most perplexing dilemmas in America today, and no one is more aware of this fact than you members of the law enforcement profession who are called into action whenever liberty gives way to license and the flames of disobedience begin to spread.

"Liberty without obedience" has asserted itself across the United States under many pretexts and guises. In California, we have seen it parade beneath the counterfeit banner of a so-called "Free Speech Movement." In other areas and on other occasions, it has posed as a "champion" of peace, social justice, civil liberties.

Among those most learned and experienced in America's honored system of government by law, there is deep concern today over the binge of "civil disobedience" which has come to serve as a justification for deliberate violations of law.

Last year, the then President of the American Bar Association, chief spokesman of our legal profession, sternly warned: "However successful the techniques of disobedience and coercion may be in the short run and whatever the justification, they are self-defeating and imperil individual freedom in the long run. An ordered society cannot exist if every man may deter-



Lt. Abraham H. Waiamau, Kauai Police Department, Lihue, Kauai, Hawaii, receives his diploma from Assistant Attorney General Edwin L. Weisl, Jr.

mine which laws he will obey and if techniques of coercion supplant due process."

A former Justice of the Supreme Court urges that in a government of law no man or group of men can be permitted to defy the law "for that is anarchy, which always results in chaos."

And speaking from experience garnered from a 49-year career in Federal law enforcement, J. Edgar Hoover has observed, and I quote: ". . . a peaceful, healthy, orderly society cannot exist, now or ever, if each individual may determine which laws he is going to obey and which he is not. . . . Civil disobedience and the unwillingness of many to resolve their differences by established legal means will surely lead to the destruction of the institutions which protect their freedoms."

And I would point out that the last sentence refers to the freedom even of the civilly disobedient.

The doctrine of civil disobedience gathers much of its support among the bigots, the fanatics, the extremists, the emotionally unstable, and immature. To these opportunists, America is a land where rights can exist without responsibilities—where the obligations of citizenship can legitimately be ignored or even arrogantly defied.

Contrast their attitude with that of the dedicated police officer who is, at one and the same time, enforcer of the law; guardian of public safety; friend of the sick and the confused; protector of the innocent; nemesis of the criminal; and target for insult, ridicule, and even physical abuse

by any character—or mob—which happens to take offense at a particular law.

More than 2,000 years ago, one of the wisest of the ancient Greek philosophers made the penetrating observation, "Man perfected by society is the best of all animals; he is the most terrible of all who lives without law, and without justice."

As crime continues its steady upward climb, as more and more citizens confess a fear to walk the streets at night, as permissive court decisions and penal leniency continue to favor the criminal at the expense of his victims, an important crossroad is fast being approached in America. Our citizens must make a choice. Will they continue to condone civic apathy and tolerate attacks upon our traditional concepts of decency, respectability, and justice?

I believe there are signs to the contrary—signs that the American people are finally awakening to the fact that their land is being turned into a jungle by the forces of the subversive, the criminal, and the morally corrupt. I believe the average citizen has had his fill of demagogues grown too arrogant and pressure groups too demanding. I believe a new day is dawning across our Nation in which it will come to be known again that liberty without discipline is no liberty at all, and that only by surrendering that tiny fraction of his personal freedom necessary to maintaining the integrity of society can man himself ever be free. And each of you National Academy men, together with the departments you serve, is better prepared for the coming of that



by virtue of the expert training and skills which the FBI has helped you to attain.

I recall an old saying from my childhood: "It's not what you know that matters; it's what you do with what you know."

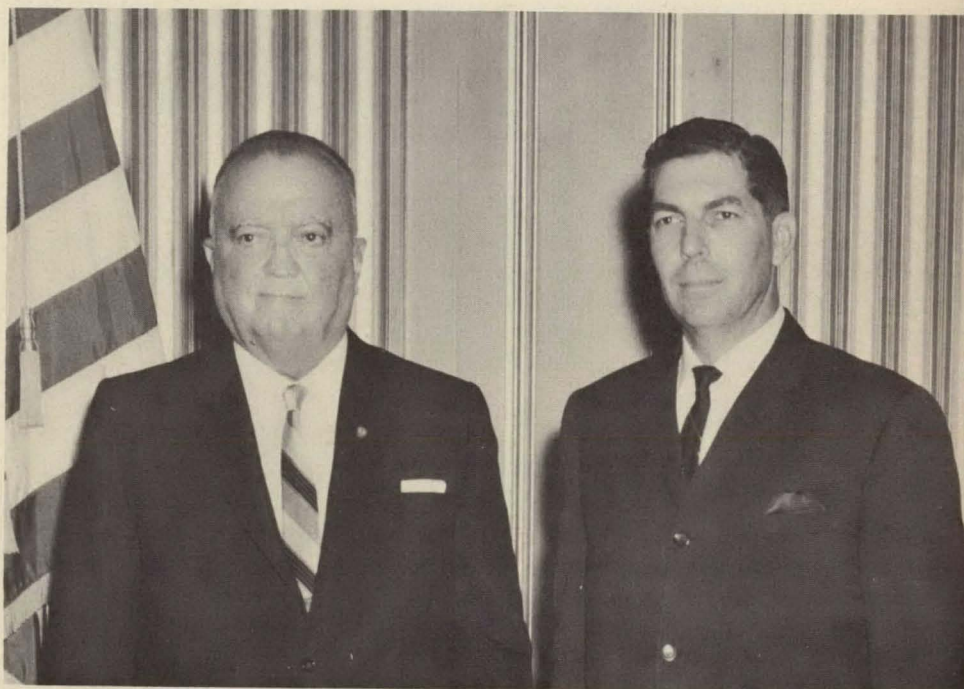
Members of the 78th Session, during the past 12 weeks your heads have been filled with the latest professional techniques of police administration and investigative procedures. Today, as you complete this course and return to your homes, I urge that you take with you not only the knowledge you have acquired, but also a strong determination to apply that knowledge in strengthening the cause of law and order throughout the land. Good day.

The members of the 78th graduating class of the FBI National Academy are:

John R. Affeldt, Bureau of Police, Binghamton, N.Y.  
Billy J. Anderson, Oklahoma City, Okla., Police Department.  
Ray L. Anderson, Jackson County Sheriff's Department, Edna, Tex.  
Ang Thian Sang, Royal Malaysia Police, Kuala Lumpur, Malaysia.  
William T. Bagron, Juneau, Alaska, Police Department.  
Oliver R. Bailey, San Joaquin County Sheriff's Office, Stockton, Calif.  
Thomas M. Betts, Department of Public Safety, Tallahassee, Fla.  
Alexander H. Boeder, Jr., Whitefish Bay, Wis., Police Department.  
James H. Brewster, Federal Bureau of Investigation.  
Raymond W. Brisnehan, Westminster, Colo., Police Department.  
Lawrence Donald Burrell, Rock Hill, S.C., Police Department.  
Donald Butler, Mississippi Highway Safety Patrol.  
Robert R. Caldwell, Metropolitan Police Department, Washington, D.C.  
Raymond Louis Carroll, Seattle, Wash., Police Department.  
Eugene S. Cavanaugh, Redondo Beach, Calif., Police Department.  
Peter G. Connell, New Milford, N.J., Police Department.  
Richard D. Coomer, Latah County Sheriff's Office, Moscow, Idaho.  
Bernard P. DeMember, Elmira, N.Y., Police Department.  
Henry A. Dougherty, Benton County Sheriff's Department, Corvallis, Oreg.  
Edgar C. Duke, Raleigh, N.C., Police Department.  
Paul J. Dumas, Jr., Montgomery, Ala., Police Department.

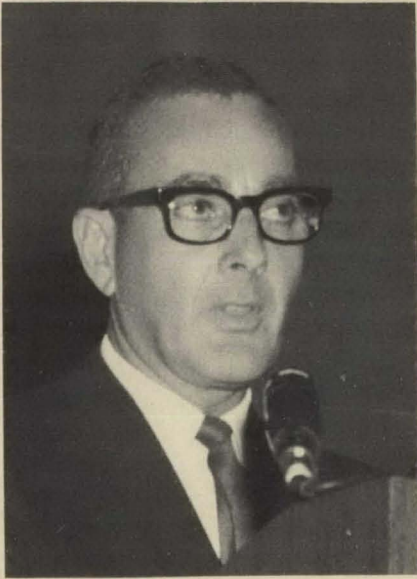
W. Frank Dyson, Dallas, Tex., Police Department.  
Francis Marion Eddings, U.S. Marine Corps.  
James S. Edwards, Meridian, Miss., Police Department.  
Robert S. Fadzen, Bureau of Police, Pittsburgh, Pa.  
Archie L. Finagin, U.S. Park Police, Washington, D.C.  
Richard E. Foutz, Pennsylvania Department of Justice, Harrisburg, Pa.  
Neil Fox, Billings, Mont., Police Department.  
Eugene B. Gamble, Akron, Ohio, Police Department.  
John A. Garnand, Durango, Colo., Police Department.  
Salem Mohamed Gataa, National Guard, Tunis, Tunisia.  
Donald S. Genung, Pinellas County Sheriff's Department, Clearwater, Fla.  
Shahrokh Ghodoussi, General Police Administration of Iran, Tehran, Iran.  
Donald Goettel, Westfield, N.J., Police Department.  
Don A. Golding, Maricopa County Sheriff's Office, Phoenix, Ariz.  
David R. Gonzales, Santa Fe, N. Mex., Police Department.  
Thomas O. Gooch, Creve Coeur, Mo., Police Department.  
Ray B. Gubser, Jr., Clark County Sheriff's Department, Las Vegas, Nev.  
Russell J. Hebert, Louisiana State Police.

William R. Hanlon, Medford, Mass., Police Department.  
R. L. S. Hendrickson, U.S. Air Force.  
Lawrence A. Hoffman, Jr., Department of Police, Town of Tonawanda, N.Y.  
Meredith Marc Irvin, Scott County Sheriff's Office, Davenport, Iowa.  
Richard Jackson, Pensacola, Fla., Police Department.  
Ghanbar Jahantab, General Police Administration of Iran, Tehran, Iran.  
Floyd J. Jones, San Bernardino County Sheriff's Department, San Bernardino, Calif.  
Kenneth E. Joseph, Federal Bureau of Investigation.  
Warren H. Kanagy, San Diego County Sheriff's Department, San Diego, Calif.  
John L. Keenan, New York, N.Y., Police Department.  
Richard P. King, White House Police, Washington, D.C.  
John F. Kreckler, Boston, Mass., Police Department.  
Billie D. Lamkin, Division of Police, Louisville, Ky.  
Eugene H. Lant, District Attorney's Office, Sacramento, Calif.  
Carl J. Lechner, Florissant, Mo., Police Department.  
Eduardo G. Lemi, National Bureau of Investigation, Manila, Philippines.  
Larry E. Lunnen, Orem, Utah, Police Department.



Capt. William V. Mosher, Illinois State Highway Police, Springfield, Ill., the 5,000th graduate of the FBI National Academy, is shown following graduation exercises with Director Hoover.





Mr. Donald S. Genung.

John W. McCarthy, New York State Police.  
 Thomas C. McGahee, Athens, Ga., Police Department.  
 Alvin D. McLean, New Hope, Minn., Police Department.  
 Milton S. Magee, Mississippi Highway Safety Patrol.  
 Manuel de J. Marrero, Police of Puerto Rico, San Juan, P.R.  
 Delano Bill Mathis, Belle Glade, Fla., Police Department.  
 Raymond C. Meador, San Angelo, Tex., Police Department.  
 Cecil L. Melvin, Indiana State Police.  
 Donald Carroll Messer, South Portland, Maine, Police Department.  
 William V. Mosher, Illinois State Highway Police.  
 Hubert Nash, Lynchburg, Va., Police Department.  
 Antonio Piqueras del Rey, Cuerpo General de Policia, Madrid, Spain.  
 Donald E. Porter, Oakwood, Ohio, Police Department.  
 Bernard M. Prais, Lake Forest, Ill., Police Department.  
 Bill S. Price, Memphis, Tenn., Police Department.  
 Fred W. Prussing, U.S. Forest Service.  
 Emil Reiprecht, Baton Rouge, La., Police Department.  
 Chester C. Rollins, Aberdeen, S. Dak., Police Department.  
 Wallace D. Rossall, Carlsbad, Calif., Police Department.  
 Andrew L. Rutherford, Williamsburg, Va., Police Department.  
 Robert F. Sandie, Nassau County Police Department, Mineola, N.Y.

John H. Sangster, Jr., Lakeland, Fla., Police Department.  
 Donald A. Schlitz, Durham, N.C., Police Department.  
 Billy L. Sherrard, Kentucky State Police.  
 Garland L. Smith, North Little Rock, Ark., Police Department.  
 Robert G. Smith, Oak Ridge, Tenn., Police Department.  
 Victor H. Smith, Jr., Flint, Mich., Police Department.  
 Milton C. Snell, Beaumont, Tex., Police Department.  
 Victor E. Solis, Jr., Webb County Sheriff's Department, Laredo, Tex.  
 Frank A. Spallina, Indianapolis, Ind., Police Department.  
 George A. Strong, Federal Bureau of Investigation.  
 Franklin Woodrow Taylor, Greenville, S.C., Police Department.  
 Vivian M. Thomas, Gladstone, Mo., Police Department.  
 Jonathan Shock Van Horn, U.S. Army.  
 Rodney N. Vandiveer, Shelby County Sheriff's Department, Memphis, Tenn.  
 Antonio Vazquez Rodriguez, Police of Puerto Rico, San Juan, P.R.  
 Thomas E. Veditz, Maryland State Police.  
 Philibert L. Vierra, Maui Police Department, Wailuku, Maui, Hawaii.  
 Abraham H. Waiamau, Kauai Police Department, Lihue, Kauai, Hawaii.  
 James E. Weaver, Savannah, Ga., Police Department.  
 John Charles Wenk, Muskegon, Mich., Police Department.  
 J. C. Williams, Jefferson County Sheriff's Department, Birmingham, Ala.  
 Michael A. Wood, Atchison, Kans., Police Department.  
 Charles E. Wright, Atlanta, Ga., Police Department.  
 Seth Rigby Wright, San Juan County Sheriff's Office, Monticello, Utah.  
 Domenic A. Zacchio, Wethersfield, Conn., Police Department.  
 Juan Zamora Moreno, Cuerpo General de Policia, Madrid, Spain.

## THE SHOW MUST GO— BUT NOT ON

Police had reliable information that an establishment in their city was showing obscene film on a "peek show" movie machine. For a quarter the machine showed a certain amount of film footage, and for another quarter an additional length of film could be viewed.

A visit to the fun house by members of the vice squad resulted only in their viewing movies of the "art" type, nothing obscene.

It was learned, however, that some of the machines had two projectors. One of the projectors showed obscene film; the other ran film of the art variety. When police or suspected law enforcement authorities entered, the manager or proprietor would switch off the projector with the obscene film and turn on only the one projecting the art film.

A raid of the place resulted in the indictment of the owner and a part time manager. They were charged with the possession and exhibiting of obscene movies. Thirty-five reels of film were confiscated.

*Louisville Criminal, 10/11/66, Bufile #63-4296-27.*

## DUE PUNISHMENT

A city judge in England is taking steps to make the sentences he hands out fit the crimes by finding out first how much harm has come to the victim.

He has asked the city probation service to supply him with reports on the victims of crimes, since this information was lacking in cases when the criminal pleaded guilty and the victim never gave evidence. He stated that in a serious crime where the victim has suffered extensively, these circumstances would certainly be taken into consideration in the sentence he handed out.

*London Criminal, 4/25/66, Bufile #63-4296-24.*

FBI Law Enforcement Bulletin

## NONE BUT THE BLIND

Local ordinances of the city of Cincinnati, Ohio, contain a statute making it illegal for anyone other than a blind person to use a white cane. The penalty for such a violation is a \$25 fine.

*Cincinnati Criminal, 4/20/66, Bufile #63-4296-10.*



# Police Management

## *Recruitment and Selection of Personnel*

### **Selection Procedures\***

The importance of sound and workable selection procedures for processing law enforcement applicants is a matter which cannot be overstressed. Only a small percentage of applicants will receive appointments, and in some jurisdictions this is less than 5 percent. The majority must be eliminated during the selection process, and the task is to insure that the unqualified, the misfits, and the marginal individuals who will never make topnotch officers do not enter the police service.

In some cities the selection process is handled entirely by the law enforcement agency, and in other areas this function is performed by a civil service commission or central personnel agency. Many police officials have found that effective liaison with a civil service commission (when the police executive makes known the type of personnel needed for police duties) can result in the central personnel agency's setting up standards and screening procedures which will produce the type of employees necessary for law enforcement duties.

While they may encounter problems in setting up mutually satisfactory arrangements, in the final analysis, the law enforcement agency and the civil service commission should each have the same objectives—attracting the best qualified to submit applications and then selecting only the best for entrance into the police service. Cer-

tainly our profession has no room in its ranks for the dull, the uneducated, the emotionally unstable, the criminally inclined, and the loafer. Properly designed selection procedures, carried out in a reasonable manner, will keep these undesirables out of uniform and will not reduce the present high quality of law enforcement personnel in this country.

Some persons appear well qualified "on paper" but should be denied entrance to the profession of law enforcement after all the facts are known. All doubts in selection should be resolved in favor of the department, for it is better to be slightly undermanned than to operate at full strength with men who do not have the ability to function as police officers in these changing times. The problems facing the police in this dec-

ade are too numerous and complicated to justify the risk of hiring people whose response to the problems of our society appears doubtful.

There should be an orderly process in selection procedures, and applicants should progress from one stage to another during the screening in accordance with a preconceived plan. To keep the expenditure of time and expense at a minimum, the law enforcement agency should first institute those procedures which are simple, relatively inexpensive, and which will eliminate a substantial number of applicants early during the screening process. The most costly and time-consuming procedures should be performed near the end of the selection process.

The usual first step in the selection stage is reviewing the application

***"Selection of personnel is a primary key to effective operation in any organization. We feel that our personnel do not work for the FBI, but rather we consider that they are the FBI. Our recruitment and selection program is, therefore, calculated to enlist employees of fine quality—men and women who have a capacity for growth. The Agent applicant in particular must meet rigid physical and educational requirements; he must have a real interest in a career of service, and his private life must withstand the closest scrutiny."***

**—J. Edgar Hoover**

\*This is the fourth and last of a series of articles on recruitment and selection of personnel.



forms to determine if the applicants meet the basic qualifications or standards set by the department. This is a sound first step and will help eliminate the wasting of valuable time and effort in processing applicants who do not meet these minimum requirements.

Experience has shown that no matter how well a law enforcement agency publicizes its standards during recruiting, there are always some people who submit application forms even though they do not possess the basic qualifications for the position.

One author has described the application form as the "bridge" between recruitment and selection. The detailed review of this form is normally the first opportunity police management has to weed out the obviously unqualified.

A simple, comprehensive, and well-designed application form covering the entire life of the applicant is an important step in guaranteeing that pertinent information will be available during the various stages of the selection process. The application form can be used for information purposes during the oral screening, and it is also extremely helpful in conducting a proper background investigation. The FBI uses a detailed application form that requests information in almost 50 different categories.

### ***Criminal and Fingerprint Checks***

Immediately after the review of the application form, or in conjunction with this review, name checks of agency files should be made to eliminate those persons who have disqualifying criminal records but have not listed these facts on the form. The applicant should be fingerprinted on the earliest possible occasion and a search made of the FBI Identification Division, the State's identification division if applicable, and

the fingerprint files of the employing agency at the time the background investigation is instituted. There is no point in further processing an applicant with a disqualifying criminal record or one who has deliberately left out pertinent arrest data from his application. In some cases where minor discrepancies occur, it is advisable to interview the applicant to determine if omissions were deliberate or caused by inadvertence.

### ***Written Examinations***

Since written examinations can be given to a large number of applicants at one sitting with a minimum of time and expense, this procedure should be held during the initial stages of the selection process. Written examinations should be designed to test the individual's general intelligence, as well as his potential and aptitude for law enforcement work. In the past some examinations were designed to test the applicant's knowledge of local law and geography. However, since police officials realize that an alert and intelligent trainee can rapidly assimilate these matters during recruit training, this practice is seldom used at the present time.

Designing and validating written examinations are most difficult. Unless qualified personnel are assigned to the law enforcement agency, the police executive should secure professional advice from a central personnel agency or a company or association which prepares tests of this type.

The subject of testing is a rather controversial one, and there has been much criticism of efforts to evaluate people through written examinations. Although police managers may be dealing with the imperfect methods of tests and examinations, it is still necessary to use the best available written examinations during the selection process. When a large number of

applicants successfully pass the test, examination scores provide a means of listing candidates in the order of their grades to formulate an eligibility list.

Written examinations should be administered in a well-lighted and ventilated room. As a precaution, the tests should be proctored. Schoolrooms, auditoriums, gymnasiums, and armories are frequently used for holding these examinations. There should be no distractions during the examination, and only authorized personnel should be permitted to enter the area where the examination is being held.

Written examinations or tests should be considered only as administrative aids during the selection process, and an eligibility list should not be made up solely on the basis of written examination scores. Grades achieved by the candidate in the various selection steps should be used in arriving at an overall evaluation or a composite grade for the applicant.

Much research is necessary for the proper preparation and administration of written examinations. An attempt should be made to validate these examinations to determine if they are actually measuring the attributes needed in the police service. When a patrolman is dismissed during his probationary period, a police executive should check the grades received by this officer on the written examination. If a number of men receiving high grades on the written examinations were dismissed because of failure to assimilate instructions given during the police academy or because of poor job performance, serious questions arise as to whether the written examination is really measuring the applicant's intelligence, potential, and aptitude as it relates to the police service.

To see if a sufficiently high degree of correlation exists, officials attempting to validate the examination should



compare the grades received by recruits after the training school stage with the test results at the applicant stage. Unless steps of this type are taken, the police administrator will never really know if the written examination is accomplishing objectives as expected.

### ***Strength and Agility Tests***

The dangers faced by law enforcement officers require that they possess at least average strength and agility to defend themselves and to use necessary force whenever circumstances demand. The normal medical examination does not always determine this factor. For this reason, some form of strength and agility tests is recommended either as part of the selection process or part of the recruit training.

When these tests are given as part of the selection process, they can usually be afforded to large groups in a gymnasium with a minimum of time and expense. For this reason, it is recommended that strength and agility tests be given to those who receive passing grades on the written examinations as the next stage in the selection and elimination process.

Examiners, in giving these tests, should be alert for any physical and medical defects or deformities which would preclude further consideration of the applicant. During a survey of more than 500 departments represented in recent FBI National Academy classes, it was found that approximately 35 percent require that candidates undergo some form of strength and agility tests during the screening process. Some of those departments not requiring these tests do require that recruits pass similar tests before graduation from the police academy. These latter departments feel that a regular exercise routine during recruit training enables the officers to pass the required tests.

It is a moot question whether the oral interview or the medical examination should be the next selection procedure. While interviews are time consuming, they usually require little extra cash outlay on the department's part. Medical examinations, however, can be expensive.

Oral screening functions in a variety of ways. In some cities only one department official will interview the applicant. In other cases a board or committee of three or more police officers will conduct the oral examination. In some areas persons other than law enforcement officers, such as officials of the local civil service commission and business and professional people in the community, are represented on these panels. Where boards, committees, or panels are used, each panel member should be furnished a copy of the application form for general background purposes.

To be effective, the oral interview or examination should be well planned in advance. If more than one person asks questions, coordination is particularly necessary. Interviewing officials should be thoroughly familiar with the patrolman position and its requirements. Some departments use an interview form with instructions and a checklist or a set of prepared questions to insure that important matters are not overlooked. These interviews should not become stereotyped nor should interviewing officials be required to confine their questions to matters covered in a form or a checklist.

Following the oral interview, each interviewer should furnish his evaluation of the candidate's qualifications for the position of patrolman. All doubts should be resolved in favor of the department, and no applicant should be favorably recommended if he does not appear to have the potential for developing into a fine police officer.

Cost is an important factor in the medical examination stage unless the examination is performed by the police surgeon or doctors attached to city, county, or State medical facilities. The police department may bear the costs of certain necessary tests, and the police managers should insure that these tests are afforded applicants even though the department may have to bear the expense. At the conclusion of the examination, it is a good idea to have the examining physician certify the applicant's physical and mental competence for performing a patrolman's job or its equivalent.

### ***Psychological and Psychiatric***

Since emotional stability is such an important factor in the makeup of a competent police officer, this should be evaluated at all possible steps during the selection process. Some departments also use various written tests and examinations designed specifically to determine the candidate's emotional stability.

Police administrators should recognize that psychological and psychiatric testing is a highly controversial procedure for evaluating applicants. The standard tests particularly have been the subject of much criticism during recent years. The police officials should familiarize themselves with the negative and positive elements of this type of testing before deciding to introduce it into the selection process.

### ***Background Investigations***

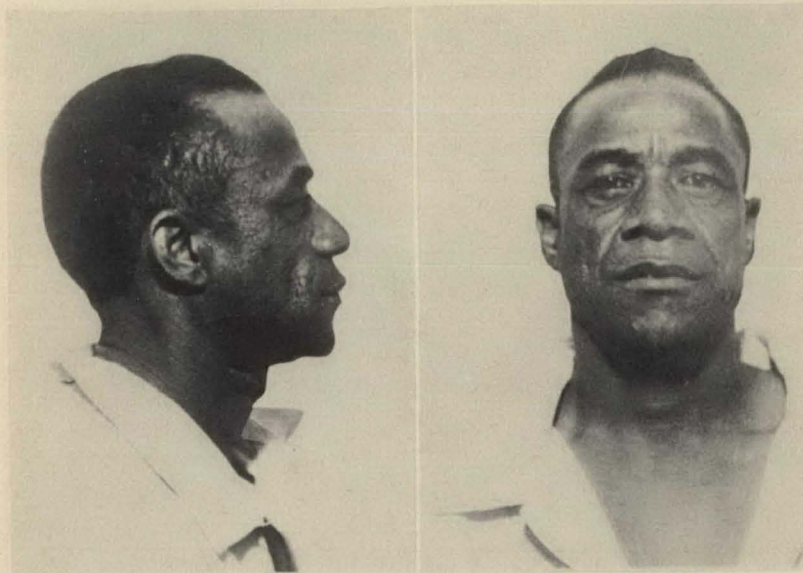
Since the background investigation is the most costly and time consuming of the selection process, it should be the last stage and confined to those applicants who have passed the preceding hurdles. Personnel conducting these investigations should be carefully selected and indoctrinated in

*(Continued on next page)*



# WANTED BY THE FBI

Occupation ----- Brickmason, carpenter, laborer.  
 FBI No. ----- 1,501,726.  
 Fingerprint classification ----- O 32 W MOM 12  
 O 32 W MII



## Caution

Since Johnson is reportedly armed with a revolver and has stated that he will shoot to avoid apprehension, he should be considered extremely dangerous.

## Notify the FBI

Any person having information which might assist in locating this fugitive is requested to notify immediately the Director of the Federal Bureau of Investigation, U.S. Department of Justice, Washington, D.C. 20535, or the Special Agent in Charge of the nearest FBI field office, the telephone number of which appears on the first page of most local directories.

**HOWARD CALLENS JOHNSON, also known as: "Dirty Red."**

## Interstate Flight—Murder

HOWARD CALLENS JOHNSON is being sought by the FBI for unlawful interstate flight to avoid prosecution for murder. A Federal warrant for his arrest was issued on June 3, 1966, at Selma, Ala.

## The Crime

Johnson is charged with the brutal shotgun-slaying of an 18-year-old boy in Summerfield, Ala., on the evening of May 3, 1966. He allegedly committed the crime after having an argument with the boy's mother earlier the same evening.

## The Fugitive

Johnson has a reputation of violence. On one occasion he allegedly put rat poison in his mother-in-law's well, and he has been accused of fre-

quently beating his blind mother. His criminal record dates back to 1935 with convictions for such crimes as assault, arson, and violation of liquor laws.

## Description

Age ----- 50, born Apr. 14, 1916, Dallas County, Ala. (not supported by birth records).  
 Height ----- 5 feet 9 inches.  
 Weight ----- 160 to 170 pounds.  
 Build ----- Medium.  
 Hair ----- Black.  
 Eyes ----- Brown.  
 Complexion ----- Medium, freckled.  
 Race ----- Negro.  
 Nationality ----- American.  
 Scars and marks-- Large growth back of neck, wen on left wrist, scar right arm, scar left knee; tattoo: nude woman left forearm.

## POLICE MANAGEMENT

(Continued from page 27)

their duties. The department should have a manual or some form of written instructions pointing out the aims and objectives of such investigations as well as the main steps to be followed in each case.

These investigations must be thorough, and ample time must be allowed for the investigators to perform a satisfactory job. Training should be afforded to the investigators on conducting inquiries in accordance with departmental policies and regulations and on reporting the results of their investigations. Since this is such an important selection process, a future article in the FBI Law Enforcement Bulletin will be devoted solely to background investigations of law enforcement applicants.



## FOR CHANGE OF ADDRESS

Complete this form and return to:

DIRECTOR  
FEDERAL BUREAU OF INVESTIGATION  
WASHINGTON, D.C. 20535

\_\_\_\_\_  
(Name) (Title)  
\_\_\_\_\_  
(Address)  
\_\_\_\_\_  
(City) (State) (Zip Code)

### TO THE RESCUE

While on patrol along the lakeshore, two officers of the Washtenaw County Sheriff's Office, Ann Arbor, Mich., saw an overturned motorboat on the water. Near the boat a couple with a small child were struggling to stay afloat in the chilly water. The officers immediately stripped off their outer clothing, seized their spare tire from the scout car, and swam out to the struggling family, pushing the tire ahead of them. They helped the three to the tire and told them to cling to it until they could come back with help. One of the officers stayed with the couple and their 3-year-old son, protecting them as well as he could from the high waves and urging them to hold on. The other officer swam back to shore and radioed for the sheriff's boat, which soon appeared to effect the rescue.

Upon apprehension, the burglar confessed that he always left his tools at the scene of the crime to prevent being caught with them in his possession. By so doing, he reasoned, he could not be linked directly with the crime through any markings which the tools may have made.

Apparently the burglar did not take into consideration the fact that the tools themselves were readily traceable.

### BOND RACKET EXPOSED

A gang of confidence men in a Canadian city bilked local residents of more than \$1,200,000 by selling them worthless bonds. The illegal bonds were sold over a 2-month period in the name of a popular church center in the area. They were official looking and bore the name of the center's manager, a well-known churchman, and that of the salesman. The buyers were told they could turn in the bonds to the center at any time for a refund. When several people did try to regain their investment, they found the bonds had not been authorized by the center and were worthless.

### \$20 BILL SWINDLE

Criminals devise all sorts of devious methods to accomplish their nefarious deeds. Some of these ingenious schemes reveal the depth of the criminal's planning and the intensity of his desire to "make a fast buck." Although of a less serious nature, the following example still reflects the intricate plans used by some crooks.

At a bank, two people working together will obtain a quantity of \$20 bills in serial number sequence. Using one of them, one of the individuals makes a purchase.

After waiting a short time, the second individual will go into the same store and make a purchase with a bill of a smaller denomination. When the store owner gives him the change, the purchaser will claim he gave him a \$20 bill. As proof, he will explain that he had just received a number of \$20 bills from a bank and that the one he gave him should have a serial number in sequence with the others, which he gladly shows the owner.

Naturally, as the owner goes through his \$20 bills, he finds, the one which the first partner had given him. As a result, he has little choice but to agree with the customer and give him the change from \$20.

### TRACEABLE EVIDENCE

In a series of burglaries investigated by local authorities in a southern city, the tools used in each instance had been left at the scene of the crime.

*Louisville  
Crimdel, 7/5/66,  
Bufile # 63-4296-27*

*Ottawa crimdel, 5/18/66,  
Bufile # 63-4296-243*

*NFO crimdel, 9/15/66, Bufile  
63-4296-53*

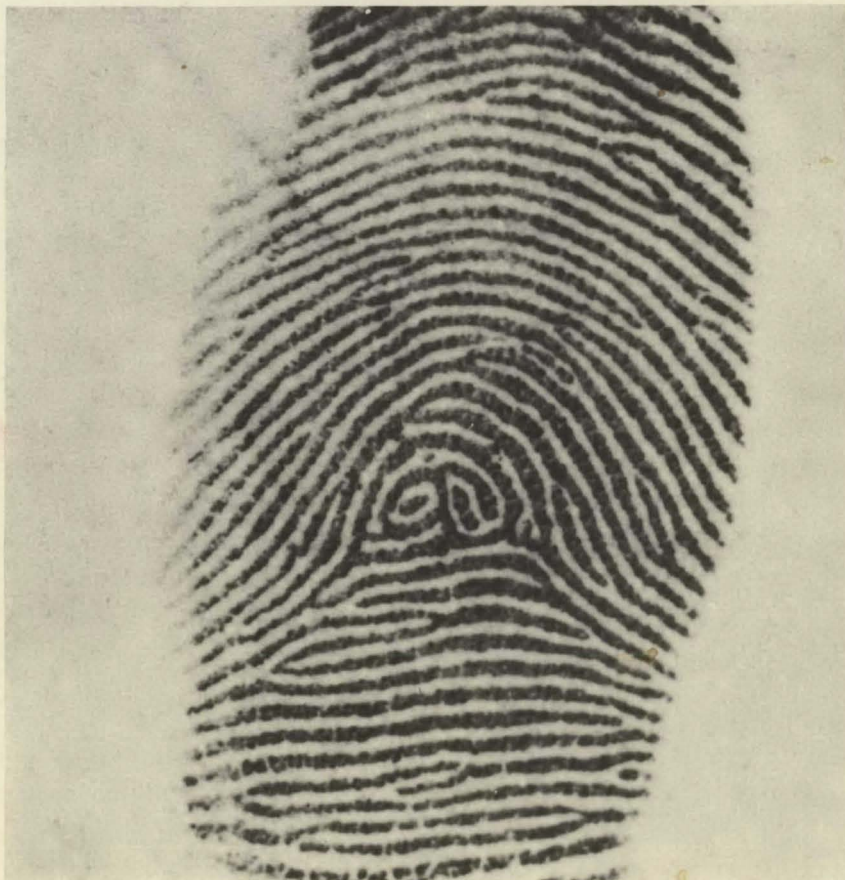


UNITED STATES DEPARTMENT OF JUSTICE  
FEDERAL BUREAU OF INVESTIGATION  
WASHINGTON, D.C. 20535

OFFICIAL BUSINESS  
RETURN AFTER 5 DAYS

POSTAGE AND FEES PAID  
FEDERAL BUREAU OF INVESTIGATION

## QUESTIONABLE PATTERN



Although this impression contains several possible recurving ridges, none of these ridges are considered to have a sufficient recurve because of the appendage or appendages attached to each. Therefore, this pattern is given the preferred classification of a tented arch and is referenced to a loop and a whorl.