

SEPTEMBER 1970



# FBI

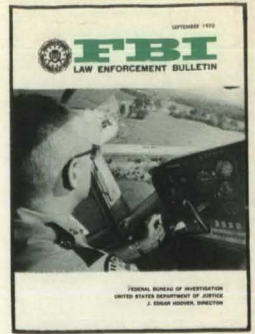
## LAW ENFORCEMENT BULLETIN



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

SEPTEMBER 1970

VOL. 39, NO. 9



THE COVER—A pilot for the Kentucky State Police Air Patrol watches from the air as a ground unit catches up with a speeder. See article beginning on page 2.

# FBI

LAW ENFORCEMENT BULLETIN

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Published by the  
FEDERAL BUREAU OF INVESTIGATION  
UNITED STATES DEPARTMENT OF JUSTICE  
Washington, D.C. 20535



# MESSAGE FROM THE DIRECTOR . . .

. . . To All Law Enforcement Officials

IN A VERY SHORT TIME our Nation's colleges and universities will begin their fall terms. Thousands of our finest young people will resume their pursuit of education that will enable them to better serve their communities and their country. These young men and women will soon be among those entrusted with the responsibility of leadership and the obligation of shaping the future direction of our Nation. It is imperative that their preparation for this most significant task be of the highest quality and that it be gained in an uninterrupted atmosphere conducive to educational excellence.

The responsibility for insuring that these goals are achieved rests squarely with college administrators. They alone, by setting the guidelines of conduct, control the activities of their students. Let not the issue of student conduct be clouded by philosophical mouthings of self-determination, cries of repression, or claims of attack against intellectual freedom. College administrators must rise to face the issues honestly and then have the courage to firmly implement policies that will not permit or condone any illegitimate interruption of the educational process. This position must be maintained regardless of the dire consequences threatened by those who seek, either deliberately or through confused direction, to disrupt our institutions of higher learning.

The radicals who have plagued many of our colleges and universities know well that their success in part is dependent upon weak administrators—leaders who refuse to accept the respon-

sibility of maintaining order. Certainly, unlimited freedom of students to disrupt or destroy and doubtful punishment for such activity give great impetus to its continuation. College administrators across the land must unite in placing order on their individual campuses as the top priority item. Unruly students, of course, are not the only bane of college and university officials. Some faculty members act like rabid anarchists and spend most of their time encouraging enthusiastic but naive young people to overthrow established procedure. To some professors, academic freedom appears to mean freedom to destroy our educational processes. The disarrays of last spring must be replaced with firm, established policy designed to protect the entire student body and not just a vocal minority whose uncontrolled activities threaten the entire structure of higher education.

As law enforcement officers, we must also insure that our conduct in the enforcement of law and order on college campuses is worthy of the respect of the entire citizenry. The campus is not a privileged sanctuary and law-breaking in any form should not be condoned. Enforcement of the law on the campus must be vigorous, yet never tainted with excessive force or the venting of emotions unworthy of a professional police officer.

Just as we call on college administrators to unite and accept their responsibility of restoring order on their campuses, we, too, in the event of their failure, must perform our duty in strict observance of the rule of law we swore to uphold.

JOHN EDGAR HOOVER, *Director*

# Kentucky State Police Spread Their Wings



By  
**LT. COL. PAUL M. SMITH**  
Deputy Director,  
Kentucky State Police,  
Frankfort, Ky.

If motorists in Kentucky are looking at the sky a little more often these days, it is not because of any sudden interest in local weather conditions. Long accustomed to nature's capricious and frequently bizarre attitude toward the Bluegrass State, they are finding that something just a bit more unusual has captured their attention. Its effect on their driving habits is apt to be far more immediate.

As a steadily growing parade of sadder but wiser drag racing enthusiasts, speeders, and bottle-toting highway hot rodders already have discovered, radar and other speed analyzing instruments are only some

of the weapons used by the Kentucky State Police to control a daily flood of traffic along the State's major highways. Now, there is also an air patrol to worry about.

The flying troopers do play an important part in Kentucky's statewide campaign to put a real crimp in the traffic offender problem, a fact evidenced by the successes they have scored since the patrol's inception only 4 years ago. Few county judges in the State today have not heard frequent testimony on traffic arrests involving the air patrol, and the conviction rate currently averages nearly 100 percent.

Numbering only two aircraft, one based in Western Kentucky at Madisonville and the other in the north-central part of the State at Frankfort, the patrol routinely logs about 40 hours total flying time each week on traffic surveillance assignments. About 10 citations an hour—for each aircraft—are written while they are in the air.

Using 15-watt, two-way radios to converse with their uniformed counterparts on the ground while circling overhead at altitudes of a thousand feet or more, the trooper-pilots often report sighting several traffic violators almost simultaneously.

### *Effectiveness*

During a recent patrol above one of Kentucky's most heavily traveled interstate highways, seven offenders, some clocked at speeds reaching 100 miles an hour, were flagged down and arrested by a single ground unit in less than 20 minutes. Two were so drunk they were unable to get out of their cars unassisted.

In each case, the arresting trooper, having already been alerted to their approach by an air patrol officer, was waiting for them, ticket book in hand, as they topped a hill near the point where his cruiser was parked.

Although far from being a new de-

velopment in traffic or criminal law enforcement—some States have regularly used air patrols with a great deal of success for 20 years or more—the idea of forming such an arm within the Kentucky State Police did not take root until 1952, about 4 years after the State police was first organized. Finding its proper niche took a good deal longer. It was not until 1966 that the patrol was finally adopted as a permanent member of the State police family.

During those early, intervening years, the progress of the patrol could only be described, at best, as fitful. Seemingly, the program was destined to suffer from sporadic outbursts of enthusiastic experimentation followed by much longer periods of almost complete oblivion.

First discontinued in 1955 after a 3-year stint during which a four-place, single-engine plane was used pri-

marily to transport personnel, fly emergency blood runs, and work an occasional aerial surveillance, the program lapsed into a long spell of quiet limbo.

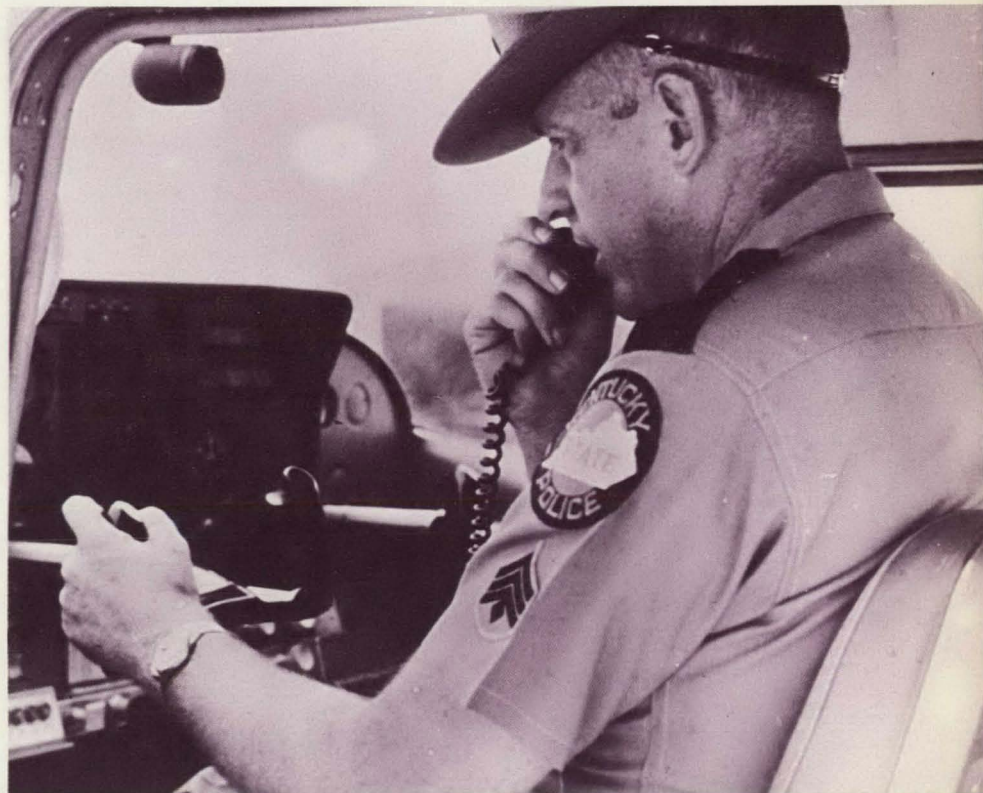
### *Air Patrol Reactivated*

Then, in 1959, the air patrol was reactivated with the purchase of a small, two-place helicopter for use in aerial searches. This type of aircraft was unsuited to our particular needs and, once more, the patrol was abandoned. That time, in less than 12 months.

But, by early 1966, the climate for a rebirth of the air patrol was changing. Behind that shift in attitude loomed the shadow of a new interstate highway system which was causing the first pangs of some very real alarm.

Death tolls on the highway were suddenly beginning to mount at a

A Kentucky State Police Air Patrol officer relays information to his uniformed counterpart on the ground.



faster pace than ever before. Worried authorities were dolefully predicting a record year in fatalities on Kentucky's highways. But the number of troopers available to patrol the federally subsidized roadways was in dangerously short supply and threatening to dwindle even more drastically as engineers announced plans for a still broader net of interstates and toll roads.

Casting about for a realistic solution, one which could be implemented with the least amount of delay, then State Police Director Col. James E. Bassett III seized upon the idea of a new, improved air patrol. Certainly, it suggested several advantages which could not be dismissed lightly.

### **Reduced Manpower**

One man in an airplane flying at a thousand feet or more could easily monitor long stretches of highway which, on the ground, required several troopers to cover. And, given a two-way radio communications capability, he could report traffic viola-



**Col. Charles B. Crutchfield, Director, Kentucky State Police.**

tions to a nearby ground unit as they occurred and keep the offender in sight until a waiting officer flagged him down.

Obviously, such a system would eliminate any chance that a violator, once spotted, might successfully evade arrest. Added to that was an equally strong likelihood that high-speed or long-distance pursuits would be re-

duced, thus lessening the danger of accident and serious injury both for the troopers and innocent motorists encountered along the highway.

Enthusiasm for the hard practicalities of such a plan led the State police to Kentucky's Department of Aeronautics, which agreed to lend a hand in launching the new patrol. Temporarily, at least, they would supply both the aircraft and men to pilot them. Observers—one for each plane—were to be provided by the State police.

Later that same year, the State police acquired two aircraft for their exclusive use. Since that time, the Aeronautics Department role in the program has been limited to paying costs of maintenance and operation.

One plane, a four-place, single-engine craft capable of cruising at speeds up to 145 miles an hour, was purchased outright. Another, an elderly courier given to the State police by Aeronautics, has since been replaced by a second plane like the first. Both have proven highly adaptable



Emergency transportation of blood is a frequent part of the Kentucky State Police Air Patrol's mission. Shown at left, a trooper delivers blood to an aircraft for relay to a hospital several hundred miles away.



Rarely can both planes of the Kentucky State Police Air Patrol be seen on the ground. Usually one or both are in the air.

to State police operations and are still in use today.

### *Experienced Pilots*

Finding troopers to pilot the aircraft proved to be almost no problem at all. Sgt. Bobby Holloway and Trooper Ray Sisk, already experienced pilots, jumped at the opportunity to pioneer the new patrol. In addition to being licensed private pilots, both men had also satisfied Federal Aviation Administration (FAA) requirements for commercial pilot ratings. And, Holloway's experience also included helicopters.

Both Holloway at Frankfort, as chief pilot for the patrol, and Sisk at Madisonville still fly regularly today. Three other troopers have been added to the patrol as reserve pilots. Each easily meets the requirement that every patrol member be a privately licensed pilot with a minimum of 300 hours in the air. Among all five men

there is now an aggregate total of some 8,500 flying hours.

Settling the question of how to clock vehicle speeds from the air was answered by adopting a simple technique already used in several other States. Not only is it highly effective, but it is one which can be learned in only a matter of minutes and which eliminates the need for a second man—or observer—in the aircraft.

Highway crews were mobilized to paint white lines on the emergency pull-off strips along every major highway. Positioned perpendicular to the roadway, and broad enough to be seen easily from the air, each is separated by a carefully measured "furlong." For nonracing fans, that is 660 feet or one-eighth of a mile.

Armed with a critically calibrated timing table and stopwatch, each trooper-pilot can quickly calculate the speed of a moving vehicle over a 660-foot stretch with a high degree of accuracy. For example, a vehicle

covering that distance in 5 seconds is guilty of traveling 90 miles an hour.

Courtroom experience has shown that the system seems to leave little room for argument. Variations of a tenth of a second or less, established by test timing runs, are consistent.

Translated into simple language, such a variation means that the difference in speed calculated at a tenth of a second, plus or minus, for any vehicle crossing a 660-foot zone in 5 seconds would vary only from 91.84 miles an hour at 4.9 seconds to 88.24 miles an hour at 5.1 seconds—a plus or minus difference of only 1.80 miles an hour. Not enough to make any real difference at all.

Questions on the probability of error in identifying vehicles from the air are effectively countered by a procedure which both the air patrol officer and units on the ground follow religiously. Each pilot carries a citation log. At the moment a violation is spotted and reported to a ground unit,

the pilot records time, date, location, and speed of the vehicle.

### **Visual Contact Unbroken**

Detailed descriptive data, necessarily limited by altitude, is usually restricted to color and, sometimes, make of the vehicle. Any unusual characteristics, such as towing a trailer, camper, or boat, are also noted.

But, most importantly, visual contact is not broken until the car has been flagged down and an arrest made. Routine does not quite end, even there. Upon stopping the vehicle, the ground unit contacts his air patrol officer once more to confirm that he does have the right vehicle.

Today, although still a curiosity for much of the public, the air patrol is fully accepted as a prominent feature of Kentucky's traffic enforcement program. Operating as a section assigned to the office of the State Police Director, now Col. Charles B. Crutchfield, it figures regularly in both routine traffic safety press releases and special holiday warnings to the motoring public. And, a growing number of drivers,

seeing an aircraft overhead, are easing up on the accelerator.

Basically, that is what the patrol is aiming for, says Colonel Crutchfield. "Writing citations for traffic violations is just one means to an end. We are far more interested in creating a reputation which will serve as an effective deterrent for the potential offender."

In addition to just spotting traffic violations as they occur, the building of that reputation leans heavily on two other ploys. Both receive almost constant emphasis. Publicity is one. Often the subject of feature articles by local news media, the patrol makes it a practice to court both the press and local officials. Judges, reporters, and attorneys often are given the opportunity to fly with the patrol and see just how effective it really is.

A second and equally important tactic stems from the realization that the patrol's two aircraft must seem to be in several places at once. That calls for a deliberately erratic schedule. No more than 1 or 2 hours are ever spent over any single stretch of highway on any one day.

"No matter how many violations a pilot may be spotting," says Colonel Crutchfield, "after 2 hours, he breaks it off and moves to another highway in some other part of the State."

But, while curtailing traffic violations is a major concern for the patrol, it is not their only activity. The same air-to-ground radio contact used to apprehend speeders works equally well in many different areas of criminal investigation.

### **Valuable Assist**

The value of an airborne assist in tracking down fugitives was illustrated graphically some time ago when Trooper Sisk flew in support of a ground search for a military deserter. Troopers and local police officers on the ground were unable to locate the man because sympathetic spotters warned him each time anyone neared his hiding place and made it an easy matter for him to slip away undetected.

From the air, however, Sisk was able to see the route taken by the man to his last hideout. Radio contact with ground units quickly led to his arrest.

Although Sisk's experience was not unusual, surprisingly enough the patrol is frequently credited with helping to capture a man whom they never were able to spot from the air. Such occurrences are particularly true in densely wooded or mountainous areas where good concealment from the air is plentiful. As often happens, just the presence of a low-flying aircraft is enough to make a fugitive stay put until ground units spot him.

More recently, the patrol played an important part in the recovery of several thousand dollars worth of stolen goods. Sergeant Holloway was called in to search a heavily wooded rural sector where a large cache of stolen loot was believed to have been hidden. Part of the goods, five tractors se-

*(Continued on page 30)*

Kentucky State Police Lt. James Mayes (left), Troop A Commander, and Sgt. Willard Kelley are shown during a last-minute discussion before going aloft on an aerial search mission.





# GUNPOWDER

# AND

# SHOT PATTERN

# TESTS

## *Introduction*

It is not uncommon for law enforcement officers to encounter firearms or the use of firearms in criminal investigations. In fact, in 1968 over 65 percent of the criminal homicides in our country resulted from the use of a firearm.<sup>1</sup>

Among other things, investigators often need to know the distance a firearm was held from the victim at the time it was discharged. Likewise, they may want to determine whether a person recently fired a weapon. This type of information can make it possible for investigators to distinguish between murder and suicide. In some cases, it can also refute a suspect's allegation that the shooting was in self-defense. Further, this information might help to prove the innocence of some who have no connection with the crime in question. In this article the current procedures conducted on evidence received by the FBI Laboratory in connection with gunpowder residue, primer residue, and shot patterns will be reviewed.

## *Evidence for Examination and Proper Handling*

Before discussing the aforementioned procedures, the necessary evidence for submission and its proper handling should be set forth.

It is of prime importance that all of the clothing through which bullets or shot pellets have passed be submitted to the Laboratory. If a bullet hole is near the edge of a garment, the adjacent piece of clothing should also be submitted.

It is imperative in making tests for gunpowder patterns and shot patterns that the same type of ammunition as that used in the shooting be used in the tests. Ammunition manufactured

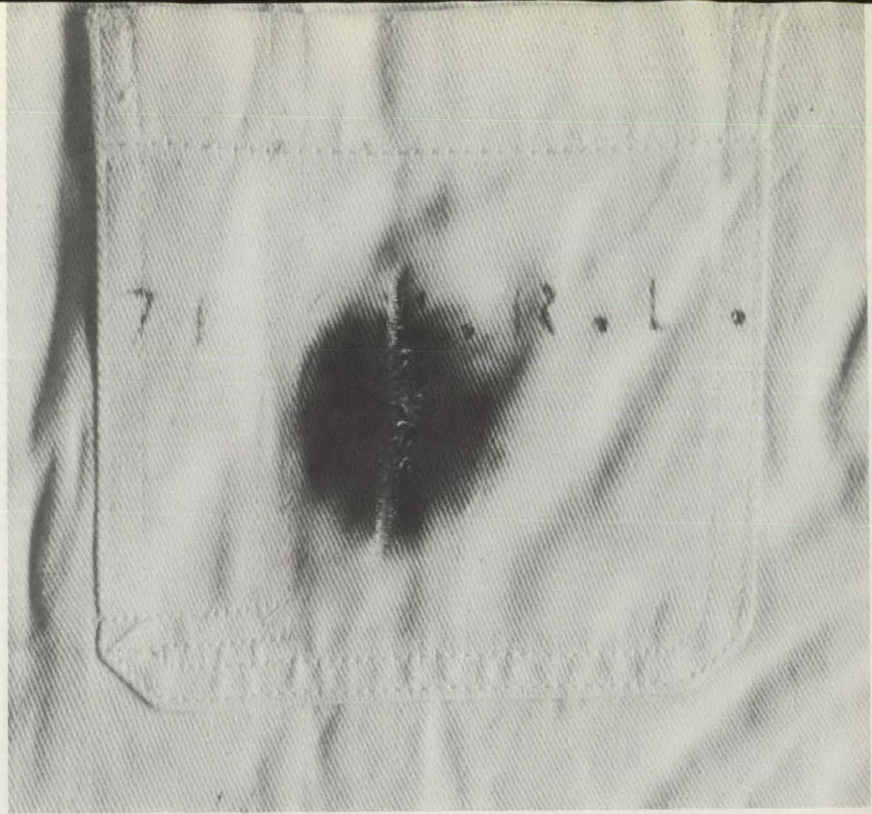


Chemicals and materials necessary for conducting a gunpowder residue test.

<sup>1</sup> FBI Uniform Crime Reports—1968, p. 7.

by different companies can produce different patterns at a set distance due to gunpowder variances such as the use of "ball" or "flake" gunpowder, as well as manufacturing differences, such as variations in shotshell wadding. Therefore, the fatal bullet and, if available, the cartridge case or shotshell casing should be submitted to the Laboratory.

The suspect weapon must also be made available to the FBI Laboratory for an accurate comparative test since the length of the gun barrel has an effect on the size of the pattern. For example, a 2-inch barrel will deposit residue over a larger area than will a weapon having a 6-inch barrel using the same type ammunition at the same distance. Further, less complete burning in a 2-inch barrel results in more unburned gunpowder on the garment. If the suspect weapon is not available, a test can still be made of the same type of weapon if an accurate description of this weapon is furnished and if one is available in the Laboratory's reference collection of firearms. It is pointed out that the use of a duplicate weapon should be



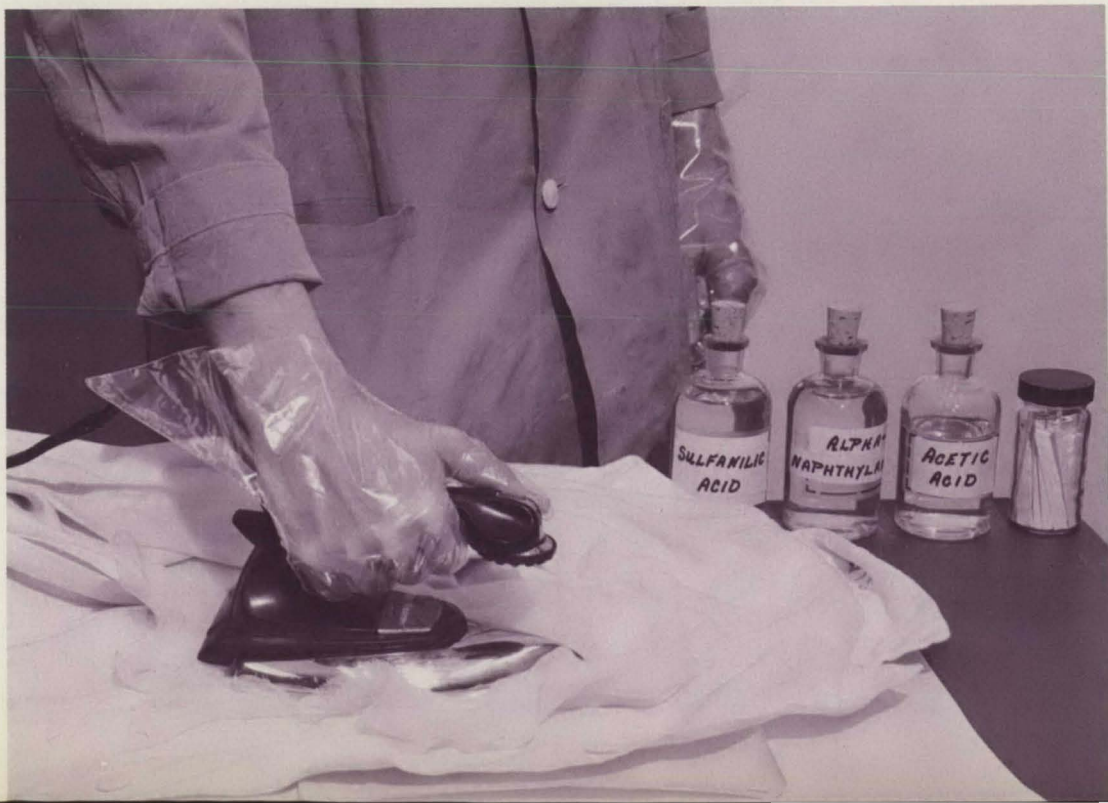
Typical contact shot exhibiting characteristic smoke ring and tearing of cloth.

avoided, if possible, as some courts will exclude testimony unless the actual weapon is used under conditions similar to those at the time of the shooting.

The victim's clothing should be

cautiously removed and carefully handled to prevent any loose gunpowder residue from being dislodged. Each garment submitted should be separately wrapped to prevent possible contamination.

Examiner pressing cloth dampened with acetic acid which has been placed over the area of the suspected bullet hole.



Clothing containing any wet blood should be thoroughly air dried before it is wrapped. This will prevent any putrefaction, mildew or sticking together, which can leave the clothing unsuitable for testing.

A letter of transmittal should be prepared containing all the information as to the existing circumstances and conditions known to the investigators so that the examiner can, as closely as possible, duplicate these conditions.

### **Gunpowder Residue**

The size and density of a pattern of gunpowder residue found on a garment are the principal factors used in ascertaining the distance between the muzzle of the weapon and the victim at the time of the firing.

As the distance between the muzzle and the victim increases, the size of the pattern increases and the density of the pattern decreases. Also, a point is reached at which no residue will be deposited. The pattern of residue found on the victim's clothing, which is comparable to the pattern produced by the suspect weapon using ammunition similar to that used by the suspect, indicates the approximate muzzle-to-garment distance. The presence of unburned gunpowder and particles of lubrication from the barrel or the bullet around the hole in the garment can also aid in this determination.

If no gunpowder residue is found around a bullet hole, it would be logical to assume that the muzzle-to-garment distance was beyond the maximum distance (for a particular weapon) that such residue would normally be deposited. However, profuse bleeding, rough handling in removing the victim's clothing, or the intervention of an object between the muzzle of the weapon and the victim may affect the amount and density of the residue found on a garment.



Test pattern from 7 yards. Note pattern approximately 7 inches in diameter.

Conversely, no residue in a small area around the entrance hole is usually found when the muzzle of the weapon is held in tight contact or near contact with the garment. However, singeing and tearing usually accompany such shots. A melting of the ends of some synthetic fibers is sometimes noted. Unburned gunpowder and gunpowder residue are often carried with the expanding gases through the outer garment to inner garments or even directly into the wound itself.

It has also been found that the passage of time can affect the density

of the pattern of the residue which is chemically developed, although the size of the pattern remains approximately the same.

Therefore, it is necessary, as previously mentioned, to have all of the garments promptly submitted to the FBI Laboratory so that a complete test and proper evaluation can be made of the results.

### **Microscopic Examination**

Garments are first examined microscopically for visible indication as to the distance from which the shot was fired.

Such things as tearing, singeing or melting of the fabric, dark deposits surrounding the hole (smoke and lubrication), unburned or partially burned gunpowder in the fabric and metal particles are factors which are used in the determination of muzzle-to-garment distances.

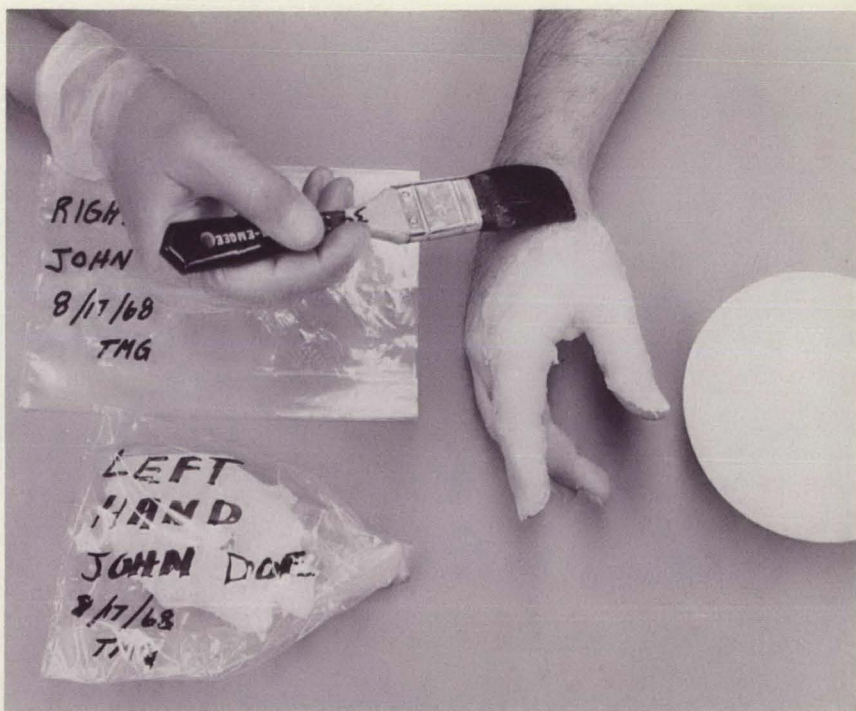
The absence of visual indications does not preclude the possibility that gunpowder residue is present. The color or fabric of the garment can prevent its visual detection. Further, gunpowder residue can be embedded in the fabric and can be so microscopic in character as not to be detected visually.

### **Chemical Test for Gunpowder Residue**

Smokeless gunpowder consists of nitrocellulose obtained from cotton or wood fibers which have been treated with a mixture of concentrated nitric and sulfuric acid. Smokeless gunpowder is, therefore, rich in what is chemically referred to as "nitrates." When smokeless gunpowder burns or partially burns, as when a cartridge is fired, the residues will contain what is chemically referred to as "nitrites."

The "Sulfanilic acid-alpha naphthylamine-acetic acid" method is used for detecting "nitrites" in the burned gunpowder residue, and it is not used for the detection of "nitrates" in unburned gunpowder.

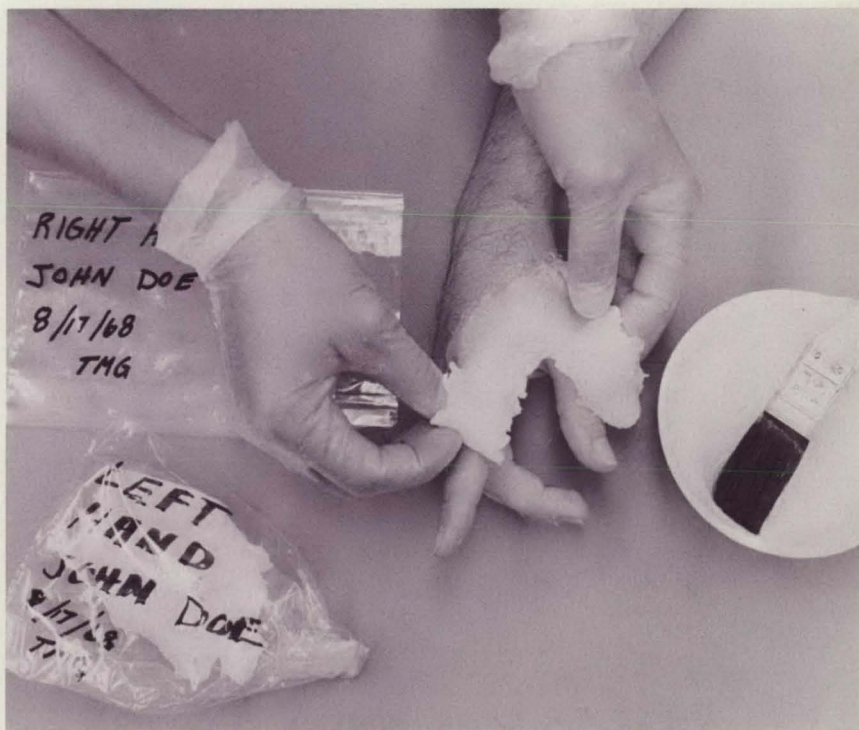
The chemical reactions which take place in the test for nitrites are based on the conversion of the nitrites to a dye. Photographic paper which has been desensitized by photographic hypo (removing the silver halides from the paper leaving only a gelatin-coated paper) is treated with a 0.5 percent solution of sulfanilic acid in distilled water and dried. The dried paper is then treated with a 0.5 percent solution of alpha naphthylamine in methyl alcohol and dried again. The entrance hole in the garment is placed directly over and next to the



Complete paraffin lift. Paraffin is applied to the thumb, forefinger, and connecting web area.

gelatin side of the treated photographic paper. The nitrites from the burned or partially burned gunpowder particles present on the

garment are transferred to the desensitized and treated photographic paper by pressing the garment with a hot iron using a pressing cloth



Officer wearing gloves removes paraffin lift from the suspect's hand.

dampened in a 25-percent solution of acetic acid in distilled water. The sulfanilic acid is diazotized by nitrous acid, formed by the breakdown of the nitrite by the acetic acid. This diazo compound couples with alpha naphthylamine to form an orange-red azo dye. This reaction will not occur unless nitrites are present and the reaction must occur in the presence of an acid.

The burned or partially burned gunpowder particles present originally on the garment will have been transferred to the paper in the form of orange-red dye specks. The pattern of the dye specks on the paper will be the same as the pattern of burned or partially burned gunpowder particles on the garment before it was tested.

The size and density of the pattern are the bases for determining the distance between muzzle and victim at the time of discharge.

#### ***Approximation of Muzzle-to-Garment Distance***

After the garment or garments have been microscopically examined and chemically processed, test shots are fired at various distances from muzzle-to-test cloth, ranging from contact to that distance at which no residue will reach the cloth. The cloth at each distance is chemically processed and the pattern obtained is compared for size and density with the pattern obtained from the victim's clothing. The distance at which the test pattern most closely resembles the pattern obtained from the victim's garment in size and density is the approximate distance from which the shot was fired.

#### ***Shot Pattern Tests***

Theoretically, the shot discharged from the average cylinder bore sporting shotgun will cluster together and not separate to any appreciable extent until the cluster has traveled approxi-

mately 3 or 4 feet from the muzzle of the weapon. The shot begins to spread, covering a larger area, as the distance between the muzzle and target increases. The degree of spread is approximately proportional to the range, but not exactly so, due to the many variables involved. These include variations from shell to shell in loading, gunpowder, gunpowder loads, wadding, loading pressures, shot sizes, and the varying deformation of shot as it travels through the barrel.

Weapons themselves present variables which affect accurate reproduction of shot patterns, such as barrel length, muzzle constriction (choke), and the condition of the gun barrel.

The results of tests conducted in the FBI Laboratory are based on a number of shots which are fired from the suspected shotgun utilizing the same type of ammunition as that used in the crime. The average spread of each pattern is recorded after firing at varying distances from the target. The distance at which a shot pattern comparable to that on the victim's garment is obtained is reported as the approximate distance from which the fatal or questioned shot was fired.

As an investigative aid, the muzzle-to-victim distance can be estimated. Generally speaking, an inch of spread in the pattern is equal to 1 yard. Thus, a 5-inch pattern would be produced at approximately 5 yards.

#### ***Examinations of Paraffin Lifts by Neutron Activation Analysis***

The problem of determining whether or not a suspect has fired a weapon often arises during the investigation of a murder or apparent suicide. The diphenylamine test on paraffin lifts from the hands has been found to be extremely unreliable for determining whether a person actually has fired a weapon. The reagents used in this test, diphenylamine or di-

phenylbenzidine, are not specific for the detection of gunpowder residue since they will also react positively with other oxidizing agents. It is to be noted that oxidizing agents that will react positively to the aforementioned reagents are also present in such common substances as soil, fertilizer, tobacco, cosmetics, and many others, as well as gunpowder residue. Therefore, the FBI Laboratory does not use this test as a method for determining whether or not a person has recently fired a weapon.

A powder residue test without the ambiguities of the diphenylamine test, yet amenable to a modern crime laboratory, involves the use of neutron activation analysis. The elements, antimony and barium, which are found in most primer mixtures for ammunition, have been found in the majority of times to contaminate the hand of a shooter after the firing of a weapon. Generally, cartridges are ignited when a firing pin falls on a primer and in turn ignites the smokeless powder charge in the cartridge. The escaping gases can deposit antimony and barium from the primer on the shooting hand in amounts normally so small that their presence cannot be detected by ordinary techniques. Employing neutron activation analysis, one can positively identify these elements and measure their amounts.

The investigator removes the residue from the hands of the suspected shooter by the ordinary paraffin lift procedure. It is important to obtain lifts from each hand of the suspect and from the same areas of each hand. Laboratory experiments involving handguns have demonstrated that the index finger, thumb and connecting web area of the shooting hand are most likely to be contaminated with the gunshot residue. The paraffin should be applied to the back of this area and not the fingerprint or underside. (Continued on page 30)

# A Modern Telecommunications Center for Effective Law Enforcement

By  
**SGT. JACK N. LISTER**  
Police Department,  
Greenville, S.C.



**C**ommunications are the lifeline of effective law enforcement. As cities grow in size and population, police responsibilities also increase. Larger quarters become necessary and more officers are needed to serve the public.

Outmoded and inadequate communications facilities will negate other improvements and advancements if delays and overloads become excessive. With this thought in mind, 2 years ago the Greenville Police Department established a project team to analyze and plan a modern police telecommunications center. Assistance was provided by engineers from a prominent firm specializing in radio communications and from the local telephone company.

The team's objective was to design a system which would provide the following:

1. Adequate communications under emergency as well as normal conditions.
2. Coordination of police operations with those of other law enforcement agencies as well as with the fire, traffic engi-

neering, and public works departments.

3. Effective use of limited manpower.
4. Data processing for making evaluations of manpower deployment and intelligence regarding hazardous traffic locations and criminal activity.

In July 1969, an application was made to the Governor's Highway Safety Coordinator for a grant under the Federal Highway Safety Act of 1966 to finance one-half of the estimated \$150,000 cost of the department's communications system. This application was approved by the Governor's Highway Safety Commission and subsequently by the National Highway Safety Bureau. The mayor and city council provided a special appropriation to finance the city's share of the cost.

In November 1969, the new telecommunications system for the Greenville Police Department began operation. The equipment in this communications center was specifically manufactured according to the

project team's final design for the department and is not a stock-manufactured product.

The old police radio communications system had one-frequency, one-channel capability which was inadequate even under normal operating conditions. It was subject to interference from many sources, such as generators and other machinery located inside industrial plants. The car-to-car transmissions were unreliable with numerous "dead pockets" within the city's area, where neither base nor car-to-car transmissions could be made.

Our new center allows the police dispatcher to simply and effectively coordinate police activities. Each call for police service received at the console is recorded on magnetic tape.

The dispatcher has complete control of four new police channels plus access to fire, public works, and State police channels. At each of three positions the dispatcher can transmit on any selected channel or simultaneously on all channels. All channels are recorded on magnetic tape.

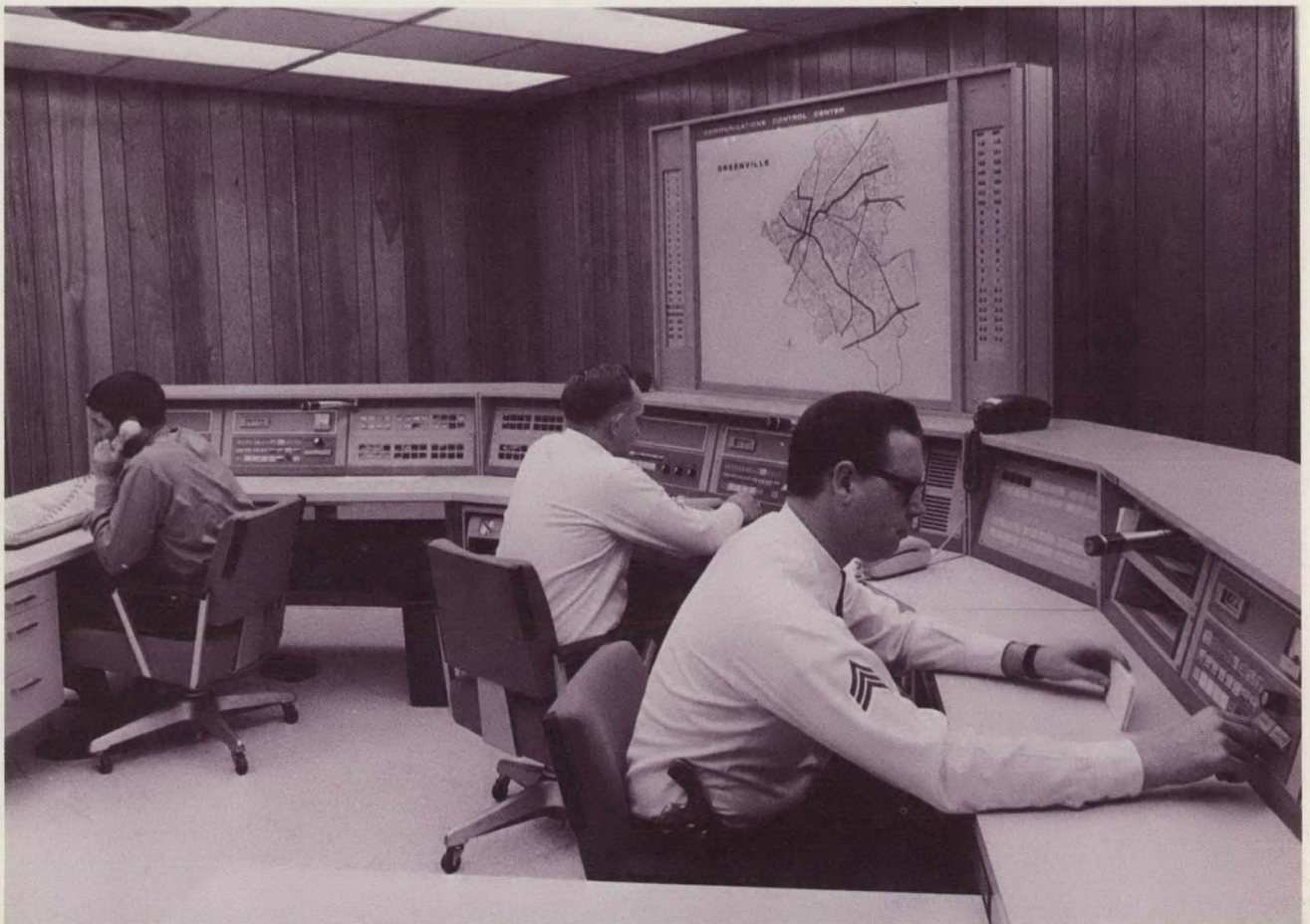
To further enhance the efficiency of the system, we installed new solid state mobile radios in all police vehicles. These mobile units use all four channels and can expand to 12 channels or 24 frequencies. Channel-switching is controlled by a rotary switch on the radio control head. Any voice messages transmitted from one of these mobile units are sent through one of four strategically located repeater stations. These stations automatically repeat the message with a

much stronger signal to insure its reception by all other units on that channel.

### *Immediate Assignment*

When a call for police assistance is received at the console, the operator records the pertinent information on a pre-numbered computer card and immediately inserts it into a special clock that stamps the date and time of day. The card is then passed to the dispatcher who assigns an appropriate vehicle to answer the call. The card is again stamped with the time that the call was assigned for investigation. After the call has been assigned, the card is placed in a status slot on the console which gives the dispatcher a visual display on the status map.

After receiving a call for police assistance, an officer, left, records it on magnetic tape. The dispatchers, center and right, check the status map to assign appropriate vehicles to answer calls as well as control the four police channels.



The status map is divided into alphabetical districts, such as Adam, Bravo, Charlie, etc. When the complaint card is placed in the status slot, the light in the district to which the vehicle was dispatched changes from green to red. At a glance the dispatcher is able to determine the number of men and vehicles he has on call and how many he has available for assignment.

When the vehicle assigned arrives on the scene, the officer notifies the dispatcher who clocks the arrival time. Upon completion of his investigation, the field officer makes notes pertinent to his investigation on a field investigation report while the facts are still fresh in his mind. The original of this triplicate report is later matched with the original call card. The second copy will be retained by the officer for his records.

### **Total Response Time**

If the nature of the case is such that additional in-depth investigation is required, the detective division or juvenile and narcotics section will receive the third copy. The information on this field report will bring them up to date on what actions have already been taken in the initial investigation. From the information contained on these documents, we can determine the total response time to the call.

In addition to the time element, we also know the type of complaint (which is coded under the FBI Uniform Crime classification code), the name of the complainant, his or her address, and the area of the city in which the alleged violation occurred. The field investigation report and the disposition code give us full details on each call investigated by every officer in the field. This information can be used to evaluate the individual officer's performance, as well as that of the whole department, and provides information relative to the number of



Chief of Police Ernest N. Norris.

crimes by types in each of the districts within the city.

To bring about a well-planned program of selective enforcement, we place this information into the data bank, which gives us instant retrieval and, in some cases, a modus operandi to use as a lead in criminal investigations. The new telecommunications system, utilized in conjunction with the computer, provides a most sophisticated approach to law enforcement.

Until the new system was installed, the Greenville Police Department was served by a manually operated switchboard with eight incoming lines and 38 extensions throughout the department. In order to make an outgoing call, a caller had to signal the PBX operator for an outside line. He then dialed his call. For interior calls, the operator manually made the connections.

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**"Progress is the Law  
of Life."**

**—Browning**

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For many years this system had been adequate for the needs of the department, but, as Greenville grew

rapidly and as the volume of police activities increased proportionately, we realized that along with new radio communications we would also need a new telephone system. Any new system would have to handle a greatly increased number of calls as well as provide adequate flexibility and speed, particularly if we should experience a major disaster or disorder.

Local telephone engineers designed a system specifically tailored for the department's needs and demanding workload. Under this system routine calls are handled efficiently, and in an emergency the system can instantly be expanded for speedy handling of a greatly increased volume of incoming as well as interior communications.

The entire system is now dial operated with 12 lines for incoming calls. Special features permit calls to be placed on hold or transferred to other phones and three-way conferencing to be established instantly by pressing a button. If an officer is already talking when he receives another incoming call, the equipment signals him with a tone to let him know he has a call waiting. As soon as he completes his conversation and breaks the connection, his waiting call rings him without assistance from the PBX operator.

Another important feature permits the console operator, should he receive a call indicating a major community problem or disaster, to throw a switch and immediately activate the emergency communications center. This emergency center provides four additional positions for answering incoming calls. These calls are answered quickly and automatically recorded. This information can then be radioed to police vehicles, ambulances, fire-fighting and other emergency service vehicles.

The new telecommunications system of our police department presents an outstanding improvement in the effectiveness of law enforcement in the city of Greenville. FBI



# Tributes to FBI Academy



Mr. John T. Howland, President, FBI National Academy Associates, is shown presenting FBI Director J. Edgar Hoover a silver bowl on behalf of the New England Chapter. The honor was in commemoration of the 35th Anniversary of the FBI National Academy. Shown in Mr. Hoover's Office, left to right, are: FBI Inspector James V. Cotter, Mr. Howland, Mr. Hoover, and FBI Inspectors Thomas J. Jenkins and Dwight J. Dalbey.

FBI Director J. Edgar Hoover was recently presented with a plaque in recognition of the 35th Anniversary of the FBI National Academy by Mr. Ferris E. Lucas, Executive Director, National Sheriffs' Association. Mr. Lucas was accompanied to the Director's Office by his sister, Mrs. Nina Mae Darling, and his nephew, Rick Darling. Shown below, left to right, are: FBI Inspector James V. Cotter, Rick, Mr. Lucas, Mr. Hoover, Mrs. Darling, and FBI Inspectors Thomas J. Jenkins and Dwight J. Dalbey.



# Keep the Pressure on Car Thieves

**A**uto theft has been called the crime of the century. Officials of the National Auto Theft Bureau predict that more than a million cars will be stolen annually early in this decade. Statistical projections certainly confirm this prediction. Auto thefts increased 139 percent from 1960 to 1968. If this alarming trend continues, it is not improbable that more than a million and a half automobiles will be stolen in 1980.

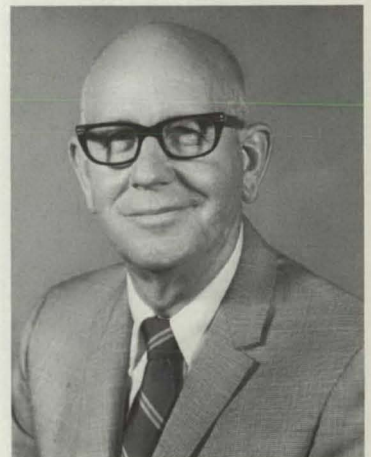
Auto theft is one of the most serious crimes against property. Often the first step in a career of crime, it is an enticer of young people. In 1968, 16 percent of the persons arrested for auto theft were under 15 years of age. The rap sheets of many hardened criminals show arrests for auto theft at an early age. Automobiles are also the target of more sophisticated thieves who strip them, or sell them to dishonest persons who do not object to fraudulent titles.

The economic loss from auto theft is staggering and points up the seriousness of this crime. About 15 percent of the cars stolen in the United States are never recovered. These are mostly the more expensive late-model cars stolen by professional thieves. Eighty-five percent of the cars are stolen primarily for transportation by young people and amateur thieves.

According to a recent survey, each recovered stolen car has been damaged approximately \$600 from crashes and ill treatment. This loss, as well as the involvement of youth in crime, is all the more tragic because auto thefts are largely preventable.

One aspect of auto theft of particular interest to State police agencies is the relationship which it has to highway safety. Specialized studies suggest that persons driving stolen cars are 200 times as likely to be involved in an automobile crash. A

By  
**COL. RALPH D. SCOTT**  
Director,  
Arkansas State Police,  
Little Rock, Ark.



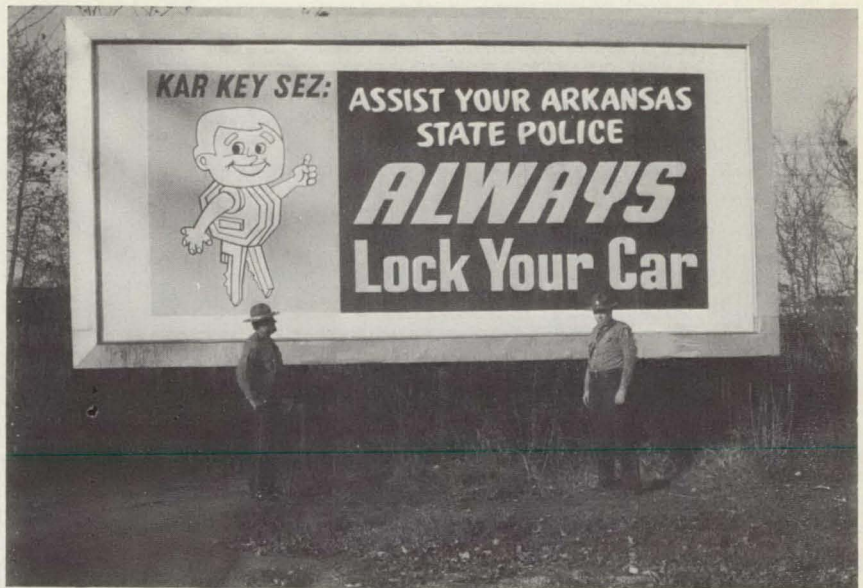
fleeing felon in a stolen car, or a tired and sleepy teenager in an unfamiliar car, constitutes a real menace on the road. An analysis of 16 fatalities on Arkansas highways during the 102-hour Christmas holidays in 1969 revealed that one victim was driving a truck taken without the consent of the owner and another victim was killed by an ex-convict driving a stolen car.

At 4:30 a.m., on March 22, 1970, near Little Rock, four young men in a car with out-of-State license crashed into the side of one of our patrol cars and fled. The driver then crashed into highway signs, and the young men, three 14 and one 15, were arrested. They were escapees from an industrial school in Texas, where they had stolen and wrecked a pickup truck. They had abandoned a second stolen car at Carthage, Tex., where they had stolen the car which they wrecked near Little Rock. When asked where they were going, one of the teenagers replied, "Wherever we can get to." This, unfortunately, is typical of many car theft cases.

### *An Urban Crime*

Auto theft is an urban crime and does not constitute as serious a matter in a rural State like Arkansas as it does in some other areas. Even so, it is a problem in this State, and in late 1968 the Arkansas State Police undertook to determine if enough interest could be generated to sustain a statewide yearlong auto theft-prevention campaign. The prime incentive for considering such a project was the realization that law enforcement must enlist public support in the area of prevention. Many auto thefts are preventable through reasonable precaution, and this seemed a logical way to encourage the public to join with law enforcement in dealing with crime through prevention.

Maj. W. C. Struebing was assigned exclusively to the project, and in the



Billboards in or near major cities and on major highways throughout the State called attention to the campaign.

fall of 1968 he scheduled a number of meetings involving insurance associations, civic and professional groups, police authorities, the FBI, the National Auto Theft Bureau, the Insurance Information Institute, and representatives of the news media. A steering committee was selected to spearhead the campaign.

The committee decided that a specific aspect of the auto theft problem would be highlighted each month and prepared a slogan to correspond with the point of emphasis for use in advertising and news releases. Members of the news media suggested the use of an emblem which would enable the public to identify with the campaign.

During December the problem of thefts from automobiles was emphasized.



In November the steering committee met for the second time. At this meeting a public relations firm submitted for approval a cartoon-type character called "Kar Key." The idea received the approval of the committee and was used throughout the campaign on all advertising material. Final plans were made for the kick-off of the campaign.

In an effort to secure financial assistance, an appeal was made to major insurance companies. The contributions received supported the initial campaign plans. In April 1969, a \$6,500 grant was received from the Governor's Commission on Crime and Law Enforcement to finance a portion of the program. Some of the monthly sponsors also funded their own activities during their specific month.

A press conference was held January 2 in Governor Winthrop Rockefeller's office, at which time 1969 was proclaimed Auto Theft Prevention Year in Arkansas. Governor Rockefeller urged all citizens to join actively in helping curb auto thefts as a means of reducing crime and juvenile delinquency.

Since auto theft is largely an urban problem, the participants decided that the campaign should be aimed primarily at cities having a population in excess of 5,000. Prior to the beginning of the campaign, mayors in these cities were contacted and urged to cooperate. It was suggested that local auto theft-prevention campaign committees be established to coordinate activities on the local level. Organizational meetings attended by city and county officials were held in all State police district headquarters in the State.

### ***The Controlling Factor***

Development of public awareness was recognized as the controlling factor in an effective campaign. If this could be accomplished, attitudes could

be changed and the chances of success enhanced. The importance of removing ignition keys, locking doors, and parking in lighted areas were some of the commonsense preventive techniques to be highlighted. Cities participating in the campaign were encouraged to enact key ordinances for the primary purpose of focusing attention on the theft problem.

Since a part of the solution to the auto-theft problem is the removal of ignition keys from unattended cars, emphasis during January was focused on this matter. The Arkansas State Police sponsored January and used the slogan, "An unlocked car invites a thief." All newspapers in the State had been provided with mats of the "Kar Key Sez" slogan and the "Kar Key Sez" emblem.



**Maj. W. C. Struebing.**

The National Auto Theft Bureau provided several copies of the film entitled "Too Late for Regret." The film was used in high school assembly programs across the State by safety education officers of the Arkansas State Police. It was also shown in appearances before church, civic, and professional groups.

In February the FBI filmed a 10-minute television program to be used statewide to encourage the prompt reporting of auto thefts. The film also

explained how the FBI National Crime Information Center (NCIC) functions. Easel posters carrying the slogan, "Report Auto Thefts Promptly," were distributed to all banks in the State. The poster also outlined procedures used by law enforcement agencies in checking on suspicious cars and persons.

During March the Arkansas Bus and Truck Association focused attention on the importance of reporting suspicious cars. This group was chosen for this particular problem because of their close relationship to highway safety. Large vinyl posters, bearing the "Kar Key Sez" emblem and the slogan, "An Unlocked Car Invites a Thief," were placed on all city buses and major truckline equipment operating in the State.

In April emphasis was placed on the importance of reporting dangerous and damaged vehicles by the sponsor, the Independent Insurance Agents Association of Arkansas. One Saturday in April was proclaimed Auto Theft Prevention Day in 15 major cities. Press conferences were held in all the cities on the Friday before. On Saturday members of the Insurance Women's Association in the State checked the streets for cars left unattended with keys in the ignition. Auto theft-prevention material was left on the windshield of those cars found to have the keys in the ignition.

The Arkansas Municipal Police Association was the sponsor for May and placed emphasis on reporting abandoned cars. City police officers distributed business-size cards containing the auto theft-prevention slogan and a picture of the "Kar Key Sez" emblem to persons observed leaving their vehicles unlocked on city streets and shopping center parking lots.

June was sponsored by the Arkansas Automobile Dealers Association. Each association member displayed a large sign depicting the "Kar Key



Gov. Winthrop Rockefeller holds a proclamation naming 1969 Auto Theft Prevention Year at a press conference attended by representatives of various agencies and organizations participating in the campaign. Col. Scott, at left, and Arkansas Attorney General Joe Purcell were among those present.

attention to its topic through radio spots, speeches, and news releases.

In September attention turned again to the involvement of youth in crime. The Arkansas State Police and the Arkansas Jaycees, the sponsoring agencies for the month, called attention to juvenile crime and joyriding. The film, "Too Late for Regret," was again used in high school assemblies and other programs conducted by members of the Arkansas State Police Safety Education Division. A news release explaining the involvement of youth in crime and pointing out their implication in auto theft was distributed.

During the final 3 months of 1969, emphasis was placed on two basic auto-theft-related problems. In October and the first half of November, attention was focused on the importance of parking in lighted areas. The Arkansas Independent Insurance Agents Association and the Insurance Women's Association of the State were the sponsoring agencies for the month and a half period. Twenty thousand poster cards depicting a street light with a car beneath it were

Sez" emblem and slogan in its show-room windows. In news releases attention was focused on the desirability of reporting persons who arouse suspicion because of their appearance or manner of driving. The automobile dealers also mailed out auto theft-prevention literature in their monthly billings.

During July and August the Arkansas Sheriff's Association and the Arkansas Law Enforcement Training Academy placed emphasis on hitchhikers and reporting dangerous drivers, respectively. A news release entitled "Beware of Hitchhikers" was mailed to the news media. Most of the sheriff's departments in the large urban areas participated in the campaign during July. The Arkansas Law Enforcement Training Academy drew

The "Kar Key Sez" emblem and appropriate slogans were used on posters, placards, and other types of advertising material.



printed. The poster cards contained the "Kar Key Sez" emblem and the slogan, "Park in lighted areas and prevent auto theft." On Saturday, October 25, 1969, 8,000 cards were distributed at the University of Arkansas football game in Little Rock. The cards were passed out as automobiles entered parking areas adjacent to the stadium. Major insurance agencies across the State enclosed the cards in their monthly billings.

### Statewide Campaign

A massive billboard campaign was conducted during November and December. Arrangements were made with the Arkansas Outdoor Advertising Association for public service space on billboards throughout the State. Funds from the campaign were used to buy 150 standard size billboard posters. The 150 posters were placed in or near all major cities in the State. They also dotted all major highways in the State. As the billboards were posted, the local newspapers were contacted and given a release and a photograph.

During December the Arkansas State Police launched a campaign aimed at the serious problem of thefts from automobiles. Eighty thousand poster cards bearing the slogan, "Lock 'em up, prevent thefts," and depicting the "Kar Key Sez" emblem were printed. All major department stores in the State were supplied with a quantity of the cards for distribution by store employees at gift-wrapping counters. A photograph of the poster card was mailed with a news release to all of the State's newspapers and television stations. Along with the cards, 1,000 10 x 22-inch easel-type posters were placed in many retail outlets in the State's major cities. Over 100 vinyl posters bearing the same slogan were used in the Little Rock area in major retail outlets. City buses in Little Rock displayed larger versions

of the vinyl posters depicting the same slogan.

It is difficult to sustain a campaign over a 12-month period, and it certainly must be acknowledged that there were times when interest lagged considerably. The only possible solution is to break the monotony by focusing attention on a different aspect of the problem at periodic intervals and finding creative and enthusiastic sponsors. We feel that we were particularly fortunate to have strong support and encouragement from a great many people, with special recognition to the FBI and the Arkansas Association of Independent Insurance Agents. We also had strong support from the Insurance Women of Arkansas.

### Promising Results

A comparison of the number of car thefts tabulated in Arkansas for 1969 with the figures for 1968 indicates that the campaign may have been successful in reducing the overall total.

	1968	1969
January	147	97
February	151	108
March	177	84
April	131	122
May	154	121
June	160	111
July	192	123
August	166	122
September	162	138
October	160	116
November	162	130
December	134	129

TOTAL 1,896 1,401

This comparison shows a 25-percent reduction in car theft in Arkansas as opposed to a 12-percent increase nationally.

The FBI National Crime Information Center played an important role in bringing about this reduction. The Arkansas State Police interfaced with the NCIC in January 1969, and during the year Arkansas law enforce-

ment made 20,845 inquiries, resulting in the identification of 187 stolen cars. The tangible benefits from this sophisticated adaptation of computerized science to law enforcement are apparent. Less obvious are the improved morale and performance of officers who know that they can check a suspicious vehicle almost instantly. The auto theft-prevention campaign was a convenient *vehicle* to introduce the NCIC to the citizens of Arkansas.

The intangible benefits from a coordinated effort of this type cannot be calculated. The Arkansas State Police and the insurance industry established a close working arrangement which spilled over into cooperative efforts in the area of safety. The same result was accomplished with the automobile industry, where we established a particularly close relationship with the Arkansas Bus and Truck Association. Such a cooperative effort also builds good will among law enforcement agencies, which, in 1969, reached a new peak of effectiveness in Arkansas.

The economic benefits to motorists who safeguarded valuable Christmas packages will never be known. Favorable comments were made by department store managers throughout the State, and excellent cooperation and assistance were received from the Arkansas Retail Merchants Association and the Arkansas Grocers' Association, which ran the "Kar Key" emblem and slogans in their full-page advertisements.

### To Gain Public Support

One of the suspected intangible benefits from a crime-prevention campaign is the carryover effect and the extension of the idea into other areas. Auto thefts in Arkansas decreased a further 6.8 percent in the first 2 months of 1970, which suggests that we may be able to sustain interest through periodic "refresher" pro-

(Continued on page 31)

# Crime Combat Team



By  
**KUNIYASU TSUCHIDA**  
Director,  
Personnel and Training Division,  
Metropolitan Police Department,  
Tokyo, Japan

In July 1962 the FBI Law Enforcement Bulletin published an article describing the development of the "Flying Squad" by the Tokyo Metropolitan Police Department to boost our effectiveness in investigation of major crimes. At that time Tokyo, with a population of 10 million, was the largest city in the world, and the Tokyo Metropolitan Police Department consisted of 28,866 men.

Today, Tokyo is still the world's largest city, with over 11,450,000 persons. To keep pace with our growing responsibilities, the Tokyo Metropolitan Police Department has now expanded to 40,647 men.

As population has increased, so have the number and complexity of crimes, placing increased pressure on the police to devise more effective methods of combating violations of the law.

In the spring of 1963, all Japan was shocked by the vicious kidnap-murder of a 5-year-old boy. As investigation later revealed, the child had already

been strangled when the emotionless killer made seven telephone calls to the anguished parents demanding ¥500,000 (\$1,389) in ransom. The ransom was paid, and police missed apprehending the killer at the scene of the payoff by only a split second. For days thereafter, news media hammered mercilessly at this police failure. Having missed what should have been an easy pickup, police took another 2 years, during which they eliminated over 12,000 suspects and expended literally millions of man-hours before they apprehended the kidnaper.

In this connection, technical advice and assistance from the FBI played an important part in eventual solution of this major case.

The great cost in time, manpower, and prestige of this extended investigation emphasized the need for a more specialized, fast-moving, fully equipped police arm. As a result, the Tokyo Metropolitan Police Department Crime Combat Team was formed.



Supt. Mitsuo Muto, chief of the Crime Combat Team.

### Special Investigations Squad

The above-cited kidnaping as well as other similar cases emphasized to us that just as science has progressed in recent years, as transportation facilities and industries have developed, and as human communities have expanded and grown more complex, so the problems encountered by law enforcement agencies everywhere continue to change and render orthodox investigative techniques used successfully yesterday inadequate today. To cope better with these problems, we established, in April 1964, a special investigations squad to take charge of investigating major crimes such as kidnaping, blackmail, and bombings. We had learned the lesson that, in crimes where human life is at stake, a police agency cannot afford to fail. The eyes of the nation are focused on every move of the police when such crimes occur. It is impossible to place too much emphasis on the necessity of thorough and precise investigation at the very outset of such cases.

The Special Investigations Squad, which in turn led to development of the Crime Combat Team, exists at present as a compact unit headed by Supt. Mitsuo Muto, with seven inspectors and assistant inspectors, eight detective sergeants, and seven detec-

tives, including two policewomen. All are experienced personnel with proven records. Policewomen on the team have been particularly effective in interviewing parents of kidnap victims and victims of rape and handling other serious crimes involving females.

To handle major crimes and public disorders requiring more manpower and equipment and additional specialists, we created the Crime Combat Team in March 1969. This group is made up of about 110 persons with the Special Investigations Squad as a core and is supported by selected personnel from the Identification Section, the Flying Squad, the Police Crime Laboratory, and even professors (as technical advisers) from leading Tokyo universities. This well-organized and trained team goes into action in any case that demands immediate, intensive investigation. The record of the team has been outstanding, as shown by the following tabulation:

Year	Kidnaping cases	Extortion and blackmail cases	Bombings and explosions	Major disasters	Total
1968	33 (33 cleared)	16 (16 cleared)	15 (15 cleared)	16 (8 cleared)	80 (72 cleared)
1969	17 (17 cleared)	11 (11 cleared)	11 (11 cleared)	16 (13 cleared)	55 (52 cleared)

An example of the work of the Crime Combat Team is seen in a recent kidnaping case. Early on the evening of September 10, 1969, a 6-year-old schoolboy was kidnaped in downtown Tokyo while he was returning from school. The parents received a phone call at about 11:25 that night from the kidnaper, who said, "I have your kid. Prepare ¥5,000,000 (\$13,890). I will wait 1 day only. If you contact the police . . ." From the tone of his voice in the unfinished sentence, there was no doubt of the meaning of the unspoken words. The

parents did contact the police, however, and within minutes the combat team was on the scene. Through cooperative press relations, Tokyo news media agreed to withhold any mention of the case, hoping that the victim might be recovered alive.

Immediate, preliminary investigation indicated likelihood that the kidnaper lived in the general area of the victim's family. A house-by-house, inch-by-inch check of the area was undertaken, and just after midnight a detective spotted a young man on the street whose actions seemed somehow unnatural. The detective stopped him and under close questioning a number of inconsistencies were detected in his account of the day's activities. After intensive interrogation, the 19-year-old youth suddenly confessed the crime. He said he had planned the kidnaping some time earlier and, according to his plan, had taken the victim directly to a nearby public restroom, where he had secreted a large suitcase. He killed the boy, placed the

body in the suitcase, and checked it at the luggage room of the nearest railroad station. His story was confirmed by recovery of the victim's body from the checkroom. Effectiveness of the Crime Combat Team was again proved with a major case solved in a matter of hours.

### Equipment

The Crime Combat Team is equipped with every item that modern police science can offer, ranging from transportation (helicopters, armored





Crime Combat Team officers use special armored vehicle as cover. This vehicle, equipped with ports for firing gas guns or other weapons from the rear and sides, has multiple rearview mirrors since it is employed by backing slowly toward a dangerous subject.

cars, wreckers, boats) to communication and recording equipment (transceivers, video recorders, television,

noctovision); and such investigative aids and protective devices as a voice-print examiner, Geiger counter, poly-

graph, weapons detectors, cameras, teargas equipment, and bulletproof vests and shields.

### *Training*

There is no substitute for thorough training in police work. Our Crime Combat Team and Special Investigations Squad are particularly aware of the truth of this statement. With respect to kidnaping investigations alone, we conduct three levels of training annually. In addition, specialized seminars are periodically conducted on this and other pertinent topics, with professors from leading universities participating.

Utilizing highly qualified personnel, the best available equipment, and the most thorough training programs possible, our Crime Combat Team strives constantly to perfect its investigative ability in keeping with the motto of the Special Investigations Squad, "Advance!" ®

Members of the Crime Combat Team wear special black overalls designed to reduce visibility in night operations.



# POLICE CADETS ON A COLLEGE CAMPUS

**M**acomb County Community College, South Campus, Warren, Mich., is located in a middle-class suburban area bordering Detroit. In the past 10 years the community population has more than doubled. During this same time the college enrollment has mushroomed to 12,800 at the South Campus.

As a result of these increases, according to Mr. Mike Stacy, chief of the college's Department of Public Safety, social problems on campus have multiplied, and the college administrators frequently had to call the Warren Police to investigate vandalism, larcenies, assaults, property damage, traffic accidents, drag racing, fraternity pranks, and monumental parking congestion.

The college officials decided that, because the campus problems need constant attention, they should employ their own personnel who could devote full time to prevention as well as investigation. In May 1968 the college hired Mr. Stacy as chief security officer to supervise contractual guards. Because this arrangement did not fully meet the law enforcement needs of the school, the chief, working with the campus business manager, initiated a department of public safety. He hired eight students, ages 18 to 20 years, who were studying for an associate degree in law enforcement for the position of public safety cadet. Later

the program was expanded to include 13 student officers supervised by the chief and one public safety officer.

The cadets wear a police-type uniform and work 24 hours weekly. Their duties include: directing traffic, issuing ordinance violations and internal violations on unregistered vehicles, policing traffic accidents and submitting reports, investigating larcenies, administering first aid and performing hospital runs, foot and

vehicle patrol of the campus complex, and servicing fire extinguishers.

The college rules and regulations are similar to local ordinances, Mr. Stacy explains, and the cadets are instructed to enforce these rules. They refer violations to the dean of students who can issue warnings, place students on probation, suspend, dismiss, or permanently expel student violators. The student can appeal the dean's decision to a duly elected student judiciary board on campus whose decision is final. Nonstudents who violate local ordinances and/or State statutes are prosecuted in district court. Mr. Stacy said the cadets have solved a kidnaping and rape case and that a \$600 larceny was successfully prosecuted.

The Macomb County Police Chiefs' Association and the Michigan State Police endorsed the cadet program, and agreements were made whereby a cadet could work with the various county police agencies as an observer after completing 6 months on the campus force.

The cadets are rendering a valuable service, and the campus community has readily accepted their presence, Mr. Stacy noted. An important by-product of the program, he adds, is that the student officers are getting practical experience in dealing with the public while studying law enforcement.

# *A Successful Strategy in the War Against Crime*

By

**WILLIAM D. LEEKE\***

**Director,  
South Carolina Department of  
Corrections,  
Columbia, S.C.**



\*Mr. Leeke, a career professional in South Carolina corrections for more than 15 years, has been director of the South Carolina Department of Corrections since 1968. He has served as Superintendent of the Greenville County Rehabilitation Center for Juvenile Offenders, Warden of the Central Correctional Institution, and Deputy Director of the South Carolina Department of Corrections.

**C**rime is one of the most serious domestic problems confronting the American people today. It is a pervasive problem that costs the taxpayers more than \$31 billion each year and threatens the property as well as the safety of everyone.

Arrest, court, and prison records furnish insistent testimony to the fact that recidivists (repeated offenders) constitute the hard core of the crime problem (President's Commission on

Law Enforcement and Administration of Justice, "The Challenge of Crime in a Free Society," 1967, p. 45). Nineteen out of every 20 persons (95 percent) who are sent to prison return to society, and 40 percent of those released from confinement later return to prison (President Richard M. Nixon, November 13, 1969). The U.S. Justice Department has estimated that four of every five felonies during the last decade were committed by a per-

Some work-release participants are employed on each of the normal work shifts in local industries. At the end of a shift, inmates return to Mid-State Community Pre-Release Center, where they pay \$3.50 a day for room, board, and transportation.



son who had previously been convicted of a crime, and U.S. Attorney General John N. Mitchell has stated that: ". . . if we can achieve a substantial decrease in the rate of recidivism, we can achieve a substantial decrease in the crime rate" ("The Case for Penal Reform," *Trial Magazine*, Oct./Nov. 1969, pp. 14-15).

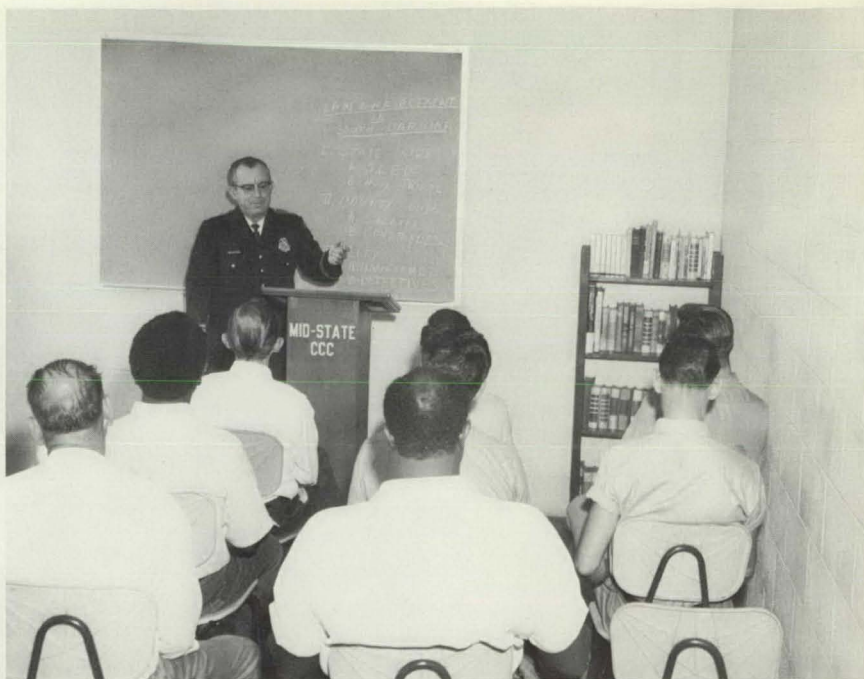
As one considers these facts, it becomes apparent that correctional institutions and their staffs must play a crucial role in the national effort to reduce the crime rate and to re-establish a respect for law and order in our society.

### **Effective Correction**

The Nation can no longer afford the luxury of ineffective correctional systems which further isolate and alienate the offender from the society to which he must return. Crime is largely a community-based phenomenon, and the ultimate adjustment of the offender must be within the community, not within the artificial, unnatural environment of a correctional institution. It is logical, therefore, that meaningful and effective correction must provide an opportunity for the offender, under carefully controlled conditions, to demonstrate whether or not he can adjust to the community to which he plans to return upon release.

The South Carolina Department of Corrections is the State correctional system for adult offenders. The current population of the department is more than 2,600 adult offenders. Only 100 of these are females. In addition, there are approximately 2,500 adult males incarcerated in the 43 autonomous county prisons.

Several years ago, the South Carolina Department of Corrections realized that a carefully planned, well-organized, and closely supervised pre-release program was necessary if the department expected to fulfill its



Chief D. M. Warren of the Cayce, S.C., Police Department discusses law enforcement in South Carolina in a class at Mid-State Community Pre-Release Center. Each inmate attends class for 20 hours during his stay in a center.

responsibility to the public by returning ex-offenders to the community as law-abiding, productive, taxpaying citizens. Years of frustration and failure had proven that inmates could not

be prepared to successfully cope with the many problems of re-entering a free community while exposed only to carefully controlled, artificial environment completely isolated from the

Jack Pratt, South Carolina Probation, Parole, and Pardon Board, discusses parole procedures with three work-release participants at the center.



community. Accordingly, a pre-release center was opened in 1964; most male inmates spent their last 30 days of incarceration at this center.

Through organized pre-release classes, group discussions, individual counseling, and limited interaction with selected members of the community, concerted efforts were made to prepare the men for their return to their respective communities.

While this 30-day pre-release program did enhance the chances for successful re-entry into the community, it soon became apparent that this program was not sufficient. Men were encountering personal, social, family, and vocational problems which could neither be anticipated nor dealt with satisfactorily in a centralized, corrections-oriented program which lasted only 30 days. More extensive inmate-community interaction for a longer period of time was needed; however, enabling legislation was necessary before the pre-release program could be extended into the community.

The South Carolina Legislature responded to the request for enabling legislation by adopting Section 55-321.1 of the *South Carolina Code of Laws*. In part, this section authorized the South Carolina Board of Corrections to extend the limits of confinement of inmates into the community and to permit selected inmates to participate in paid employment or training programs in the community.

### **Community-Based Corrections**

Since the enabling legislation was passed in 1966, the South Carolina Department of Corrections has successfully initiated two programs which are designed to facilitate the return of inmates to society as law-abiding, productive citizens: (1) The Work Release Program which was begun in 1966 and (2) the Accelerated Pre-Release Program which was begun in 1968. Both programs provide

the individual with an opportunity to demonstrate his readiness for total release and paid employment in the community using the skills and training he has learned or improved while incarcerated. The primary distinction between the two programs is that the work release participants may spend their last 6 to 12 months in paid employment in the community while the Accelerated Pre-Release Program participants spend only their last 90 days working in the community. Both groups return to a correctional institution during nonworking hours.

A network of community-based correctional facilities called community pre-release centers is being developed in the industrial and population centers of the State to accommodate the Work Release and Accelerated Pre-Release Program participants. Each community pre-release center will have space for 50 to 60 inmates. The ultimate goal is to have a community pre-release center within a realistic commuting distance of any geographic location in the State. When this has been accomplished, an inmate can continue his pre-release employment after he has returned home upon his release. Three community pre-release centers have been opened to date and a fourth is under construction. Since the State is geographically small, only seven or eight community pre-release centers will be necessary.

### **Objectives of Programs**

The primary objectives of community pre-release programs in South Carolina are as follows:

1. *The Protection of Society*—The law requires that an individual who has been incarcerated as the result of a crime must be released at the end of the specified sentence whether or not he has demonstrated his readiness for release. Most States provide methods whereby the inmate can reduce his sentence substantially. In South

Carolina through a combination of methods—good behavior, 7-day work credits, and credits for the donation of blood (limited to 60 days—12 days for each of five pints—during a 12-month period)—an inmate can reduce his sentence by approximately one-third. Time off the original sentence, which is commonly referred to by inmates as “good time,” can be withdrawn by the director of the South Carolina Department of Corrections if there is just cause. Inmates enter the community pre-release programs on the basis of their “good time” release date; consequently, if they are unable to adjust to the partial release provided through these programs, all or a portion of their “good time” can be revoked. When this occurs, the inmate is returned to incarceration without the costly and time-consuming necessity of arrest and judicial action. To date, 585 inmates have entered the community pre-release centers; of this number 111 (18.9 percent) have been dismissed and returned to other correctional institutions for further adjustment and incarceration.

This is obviously a sound procedure by which society, to a degree, can be protected from inmates who are likely to return to criminal activities.

2. *Aid to Law Enforcement*—Before the days of community pre-release centers in South Carolina, an inmate was released at the expiration of his original sentence minus any accumulated “good time.” He was provided a one-way ticket home and one suit of “suitable clothing.” A notification of release was mailed to the appropriate law enforcement official; however, this official did not know when the ex-inmate would arrive, where or if he would be working, or where he would reside. These circumstances no longer exist for individuals being released through community pre-release centers. The law enforce-

ment officials know when he will arrive, where he will be staying prior to and after release, and where he will be working.

Law enforcement officers visit the community pre-release centers on both a formal and an informal basis. They teach pre-release classes and interact with pre-release participants in small groups or individually. Through their interactions, the inmates learn to respect the law as well as law enforcement officers. Also, it should be mentioned that the South Carolina Department of Corrections has employed a number of former law enforcement officers as members of staffs at community pre-release centers.

3. *Crime Prevention*—As it was pointed out earlier, recidivists comprise the hard core of the criminal population in the United States. The South Carolina Department of Corrections is making every effort to reduce recidivism for adult offenders in South Carolina and, thus, to reduce the crime rate for the State. Table I shows preliminary recidivism data for the 30-day pre-release, accelerated pre-release, and work release programs.

ship between the length of the transitional period between the prison environment and the free world and the rate of recidivism. The recidivism rate increased as the length of the transitional period decreased. While only one of the 137 men who participated in the work release program returned to the South Carolina Department of Corrections, 466 of the 3,243 who participated in the 30-day pre-release program returned to the South Carolina Department of Corrections.

If the above conclusion regarding the relationship between the length of the transitional period and the recidivism rate is valid, it can only be concluded that the community pre-release programs are effective in reducing recidivism.

4. *Financial Savings to Taxpayers*—The community pre-release centers have not been in operation long enough to conclusively establish their effectiveness as a means of preventing recidivism; however, there is conclusive evidence to establish the economic justification of community pre-release programs. Table II reflects the salaries earned and taxes paid by participants in these programs.

South Carolina taxpayers for operating the South Carolina Department of Corrections is \$1,641 per year; therefore, the cost of incarcerating 60 persons in the South Carolina Department of Corrections is \$98,460 per year.

### Savings to Taxpayers

Participants in the community pre-release programs are gainfully employed in the community, and they earn the standard civilian wages. Consequently, they are each required to pay \$3.50 a day to the South Carolina Department of Corrections for room, board, and transportation. One man would, therefore, pay \$1,277.50 a year to the South Carolina Department of Corrections for the privilege of participating in the community pre-release program. This represents a net savings to the taxpayers of \$1,277.50 (77.8 percent) for each participant in the program. In addition to saving the taxpayers almost 80 percent of their imprisonment, residents of the community pre-release centers pay taxes—local, State, and Federal—as well as contribute to the support of their families.

### Conclusion

Community pre-release programs and other forms of graduated release are still in the experimental stages of development. Numerous studies have been conducted in other States to ascertain their effectiveness in reducing recidivism, and the results of existing studies are not very encouraging (“Graduated Release,” *Information Review on Crime and Delinquency*, December 1969). The results of previous studies are not conclusive; and, of course, the effectiveness of the pre-release programs in South Carolina cannot be determined on the basis of studies in another State. Preliminary statistics in South Carolina are most encouraging in that only 3.1 percent of

TABLE I

SOUTH CAROLINA DEPARTMENT OF CORRECTIONS\*  
RECIDIVISM DATA\*

30-day pre-release program			90-day accelerated pre-release program			6-month to 1-year work release program		
No. Released	Returned to SCDC No.	%	No. Released	Returned to SCDC No.	%	No. Released	Returned to SCDC No.	%
3,243	466	14.4	213	10	4.7	137	1	0.7
11-1-64 to 8-1-69			1-1-68 to 8-1-69			1-1-68 to 8-1-69		

\*The above rates include only persons who were released from and returned to the South Carolina Department of Corrections. The number, if any, who returned to prison at the county level or in another State is not known.

Preliminary analysis of the effectiveness of the community pre-release programs is most encouraging. Data in Table I show an inverse relation-

Historically, the total cost of the incarceration of offenders has been borne by the taxpayers. At the present time, the per capita inmate cost to the

the 350 persons who had been released through the combined pre-release and work release programs (shown in Table I) have returned to the South

TABLE II

CUMULATIVE EARNINGS, TAXES PAID, AND OTHER DISBURSEMENTS FOR COMMUNITY PRE-RELEASE CENTERS OPERATED BY SCDP

	Totals for Month	Totals Since Inception
Total Men in Program—2-28-70:	86	
Admitted:	29	585
Dismissed:	5	111
Released:	15	295
Paroled:	4	99
Total Loss:	24	505
Total Men in Program—3-31-70:	91	
<i>Fiscal Report:</i>		
Total Salaries Paid:	\$30,945.08	\$1,157,686.09
Average Weekly Salary:	90.00	
Amount Disbursed to Dependents:	4,670.35	191,088.57
Amount Disbursed to Inmates:	9,400.39	185,505.76
Amount on Hand:	20,987.04	
<i>State and Federal Income:</i>		
Department of Corrections:	9,474.50	246,852.39
S.C. State Tax:	489.78	13,906.30
Federal Income Tax:	3,564.98	105,261.83
Social Security:	1,280.88	37,995.12
Miscellaneous Deductions:	73.33	4,791.06

Carolina Department of Corrections. The department is engaged in a continual evaluation of the pre-release programs, and the South Eastern Correctional and Criminological Research Center at Florida State University is also researching the effectiveness of the program.

A major factor in the success of the pre-release programs in South Carolina has been the extensive community involvement in the planning and operation of the pre-release centers. The future success of the South Carolina Department of Corrections in its efforts to combat crime through the community pre-release programs will be dependent upon the continued cooperation and support of local law enforcement officials, business and industrial leaders, civic, social, and religious organizations, and private citizens. The South Carolina Department of Corrections is optimistic that this support will continue and that the community pre-release programs will remain an effective front in the war against crime in South Carolina. (8)

Work-release participants are transported to and from various work situations in the Columbia vicinity in unmarked South Carolina Department of Corrections' vehicles.



## SPREAD THEIR WINGS

(Continued from page 6)

creted under a tarpaulin on one suspect's farm, had been found. But two other tractors and a bulldozer were still missing. A fly-over by Holloway quickly spotted the missing machinery in a nearby woods and eliminated a lengthy and difficult ground search by the detectives.

Transportation of detectives and laboratory technicians to distant and sometimes remote crime scenes also crops up with increasing frequency in air patrol activities as does the movement of personnel and supplies into otherwise inaccessible disaster areas where flood, fire, or tornado has ripped up or blocked roadways.

Probably the most humane service performed by the patrol is the emergency relay of whole blood, rabies serum, and donor eyes where any delay in delivery could mean the loss of a life or the destruction of some-

one's hopes that he might see once again.

"It has to be a real emergency," says Colonel Crutchfield. "But, when it is, our pilots are ready to fly at any time of the day or night."

On occasion, that means taking advantage of some unusual landing sites. There have been times, recalls Sergeant Holloway, when an abandoned drag strip or unopened stretch of highway was considered ideal under the circumstances.

While the Kentucky State Police Air Patrol does not supply a panacea for every problem confronting our troopers, technicians, and detectives in their day-to-day duties, its value as a highly flexible member of the traffic-criminal law enforcement team is not likely to be questioned again. Experimentation has long since given way to recognition of the very real contributions which an air patrol can make to progressive law enforcement. FBI

minimized. However, in a suspected suicide case, many days may pass without the body being disturbed, in which case time is not a factor. Additionally, it has been demonstrated that the position of the weapon in the shooter's hand (for instance, held by both hands or held upside down) will affect the deposition of gunshot residue.

If antimony and barium are found as contaminants on the hand of a subject, it will be pointed out that residue was present on this hand which is typical of that residue which contaminates a shooter's hand subsequent to the discharge of a firearm. Generally, the number of shots fired cannot be determined from such residue, nor can the specific type of ammunition be established by this data. If antimony and barium are found as contaminants on a paraffin lift from the hand of a subject, it cannot be absolutely stated that the subject has fired a weapon; it will be concluded that the residue present on the lift is typical and characteristic of that residue which contaminates a shooter's hand subsequent to the discharge of a firearm. An individual who has handled a weapon or cartridge case which was recently fired could logically contaminate his hands with primer residue.

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## SHOT PATTERN TESTS

(Continued from page 11)

The paraffin, food grade in quality, should be melted in a clean dish and applied at 120° F. with a new nylon brush that has been rinsed clean in distilled water. A separate batch of paraffin, brush and dish should be used for each hand. The person applying the lift should wear plastic gloves and not touch the paraffin except with gloved hands.

The lift should be thick enough that it does not crumble when removed, but excessively thick lifts should be avoided. No reinforcing material such as gauze should be used. The hardened paraffin is removed from the hands and placed in clean plastic bags which are sealed, labeled, and initialed. A sample of the paraffin used in making the lifts should also be submitted. Soft cotton or other

packaging material should be placed around the plastic bags to minimize breakage while being shipped to the Laboratory.

In all instances, if the spent cartridge and the weapon are available, they should be submitted to the Laboratory in a manner which will prevent contamination of the cast during shipment.

The decision whether or not to obtain paraffin lifts from a suspect must be made by the investigator who has the facts surrounding the case at his disposal. For investigative information, it has been shown that the antimony and barium deposits can be removed from the hand by washing, rubbing and wiping. Obviously, if many hours or a few days elapse between the time of the shooting and the preparation of the paraffin lifts, the chance that the antimony and barium deposits remain is certainly

### *Testimony of the Examiner*

The examiner who conducted the gunpowder pattern tests, shot pattern tests, or neutron activation analysis can testify at court proceedings as to his results. However, he can testify only to the approximate distance that a comparable gunpowder pattern as that found on the victim's clothing was obtained or the approximate distance from which a comparable shot pattern had been produced. In the event no gunpowder residue was found as a result of his microscopic examination and chemical processing



of the victim's clothing, his testimony is limited to this finding and that it is not possible to determine the approximate muzzle-to-garment distance. The examiner will point out, however, the maximum distance at which residue will be deposited by the particular weapon.

### **Examination of Body Tissues**

The FBI Laboratory receives many requests to examine body tissues for the determination of muzzle-to-victim distance. The examination of body tissue is strictly the job of the medically trained coroner or pathologist. The FBI Laboratory does not conduct such examinations. FBI

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## **CAR THIEVES**

*(Continued from page 20)*

grams. Two such programs are planned for this year. A yearlong statewide burglary-prevention campaign is being planned for 1971.

A most significant aspect of the 1969 program was the opportunity to show the policeman in a new light. Many people know the officer only as an agent of the State who arrests people and gives traffic citations. They may never have seen the policeman in the role of public servant, wanting to spend more of his time on prevention and rendering service rather than on enforcement. A major objective of this program was to stress prevention and seek public support.

In considering this campaign, the participants recognized that the cooperation of the communications media was an absolute essential. The decision to undertake the project was influenced primarily by the encouragement from friends in radio and television, as well as newspapermen. They contributed ideas, talent, and thousands of dollars worth of public service spots and advertising.

With their help public support was obtained.

The public awareness aroused by the auto theft-prevention campaign has prompted the Arkansas State Police to undertake a massive campaign of safety education this year. We hope to reach virtually every citizen of this State with some aspect of this program. The time must surely come when the police will be viewed in their true and proper perspective. Efforts in prevention are at least a part of the answer. FBI

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## **LAW ENFORCEMENT CONFERENCES**

"Bombings and Bomb Threats" will be the subject of the 1970 FBI-sponsored law enforcement conferences to be held throughout the country in September and October. Since almost every police jurisdiction has been confronted recently with a bombing or threat of bombing, this topic is of interest to all law enforcement members.

The conferences will feature panel discussions by FBI police instructors and Federal, State, and local law enforcement representatives knowledgeable in the subject matter. The programs will cover the planning and action in handling bomb threats, searching and evacuating buildings and other premises, visual recognition of the more prevalent types of explosives and incendiary devices, methods of isolating an area where a suspected explosive device has been located, and scientific aids available in bombing investigations. The discussions will emphasize that explosive devices should be handled only by trained bomb disposal personnel.

Full-time, duly constituted law enforcement personnel, prosecutors, and members of the judiciary will be invited to the conferences, which will be conducted in closed sessions.

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## **CHILD MOLESTER**

Tots all over the country will soon be trudging their way to school—many for the first time—unaware of the dangers that may be lurking on the way. The child molester poses an especially dangerous threat to the unsuspecting child.

To emphasize this threat and to attract the attention of small children to this danger, the FBI makes available free of charge supplies of the FBI child molester poster. Agencies or individuals desiring to distribute them to schools or children's groups may request copies from the Director, FBI, Washington, D.C. 20535.

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## **TOY PISTOL MADE REAL**

Following the apprehension of three juveniles in a midwestern town, the arresting officer discovered what appeared to be a toy pistol on one of the boys.

Further inspection of the pistol revealed that it had been altered to fire a .22 caliber short cartridge. This was accomplished by inserting a copper tube through the barrel and into the action of the weapon to a point just in front of the hammer face when the hammer was in a down position. The serrations on the hammer face were sufficient to fire the cartridges which were hand loaded individually into the copper tube. When the hammer was cocked, several strong rubber bands, wrapped around the frame of the gun, added sufficient force to ignite the primer and fire the weapon.

# CAN YOU IDENTIFY THESE BANK ROBBERS?



No. 1.

The FBI is looking for the unidentified bank robbers shown in the above photographs taken by a surveillance camera on July 31, 1969, during the robbery of the Northwood Banking Center, 2900 Woodville Road, Northwood, Ohio.

## The Crime

Robber No. 1 entered the bank through the rear door from the parking lot shortly before noon, approached the teller's cage, and requested \$10 in nickels. When the teller turned from getting the nickels, Robber No. 2 had entered the bank and both men were holding guns on the tellers. No. 1 had drawn a .38 caliber revolver, and No. 2 was armed with a semi-automatic pistol.

Robber No. 1 placed his revolver in his jacket pocket and put on a pair of gloves. He walked over to a teller and demanded that he open the gate to the tellers' area. When the teller told the bandit that he would have to push



No. 2.

an electric release button, the holdup man ordered the teller to stand still and he jumped the gate.

Meantime, Robber No. 2 had asked the second teller the location of the restroom. When the teller replied it was upstairs, the robber ordered the teller to jump both the teller and vault gates and go into the vault, where the bandit sprayed him in the face with a chemical from a pencil-shaped dispenser. The chemical left the teller temporarily blinded.

Robber No. 2 returned to the banking area and was instructed by his accomplice to take the first teller back to the vault. He was also ordered to jump both gates, and once in the vault, he too was sprayed and immobilized.

At this point Robber No. 1 emptied one cash drawer and both bandits fled the bank unobserved. However, both tellers had observed the bandits' arrival in a dark green 1969 Dodge Super Bee, possibly with a black vinyl top and with a black stripe around the

trunk. The tellers stated that the words "Super Bee" were inscribed in a small circle on the stripe. The car has not been located.

The loss to the bank was in excess of \$8,600. No bait money was taken by the robbers.

Composite descriptions of the robbers follow:

### No. 1:

Age ----- 30 to 35 years.  
 Race ----- White.  
 Sex ----- Male.  
 Height ----- 5 feet 10 inches to 5 feet 11 inches.  
 Weight ----- 145 to 164 pounds.  
 Hair ----- Black.  
 Build ----- Average.  
 Complexion ----- Ruddy.  
 Eyes ----- Dark.

At the time of the holdup, this man was unshaven and wore a black suit-coat, dark trousers, dark-green shirt, no tie, and a narrow-brim black hat.

### No. 2:

Age ----- 20 to 25 years.  
 Race ----- White.  
 Sex ----- Male.  
 Height ----- 6 feet 5 inches.  
 Weight ----- 175 to 180 pounds.  
 Hair ----- Light brown or blond.  
 Build ----- Average.  
 Complexion ----- Light.

At the time of the holdup, this man was clean shaven and wore a dark green short coat, colored shirt, green slacks, watch with leather band, and glasses with flip-up sunglasses.

Anyone having any information or knowledge believed to pertain to these persons please notify the Director of the Federal Bureau of Investigation, 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.

# OBTAINING KNOWN WRITING

## HANDWRITING IDENTIFICATION DEPENDS ON THE QUALITY OF THE KNOWN WRITING

Handwriting examination begins with the investigator and results obtained depend on how well he does his job in obtaining handwriting from suspects (known writing) for comparison with questioned (disputed) writing.

### Questioned and Known Specimens Must be COMPARABLE

A's cannot be compared with G's - "John Jones" cannot be compared with "Samuel Hansen" - The J's must be compared with J's and the ohn's with ohn's.

### Approximate the Questioned Writing Conditions

If handwritten - Get handwritten known.

If upper-case hand printing - Get upper-case printing.

If written in pencil - Get known writing in pencil.

If ball-point pen ink - Get known with ball-point pen.

If writing is on a check - Get known writing on checks.

If writing is on ruled paper - Get known on ruled paper.

DUPLICATE THE WORDING, THE WRITING INSTRUMENT AND THE SPACE ON THE PAPER AVAILABLE FOR WRITING.

### Known Specimens Must be ADEQUATE

In obtaining dictated known writing, get a sufficient quantity for the document examiner to study the normal variations in that person's writing. Get several specimens for each questioned document. DO NOT LET SUSPECT COPY QUESTIONED WRITING - Dictate the wording to him.

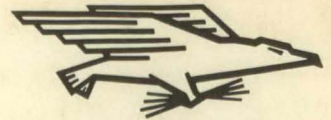
In obtaining undictated known writing, get business papers, letters, checks, applications, etc., containing the same names, words, letter combinations and letters as the questioned writing.

STUDY THE QUESTIONED MATERIAL  
BE PREPARED BEFORE INTERVIEW WITH SUSPECT

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

MR. FRANK DE MARTINO  
198 WOODSIDE AVENUE  
NEWARK, N.J. 07104

F

## QUESTIONABLE PATTERN



Although the questionable pattern presented above has the appearance of a loop, a close examination reveals the delta formation is located on the only looping ridge; consequently, no ridge count is obtainable. Therefore, this impression is classified as a tented arch and is referenced to a loop.