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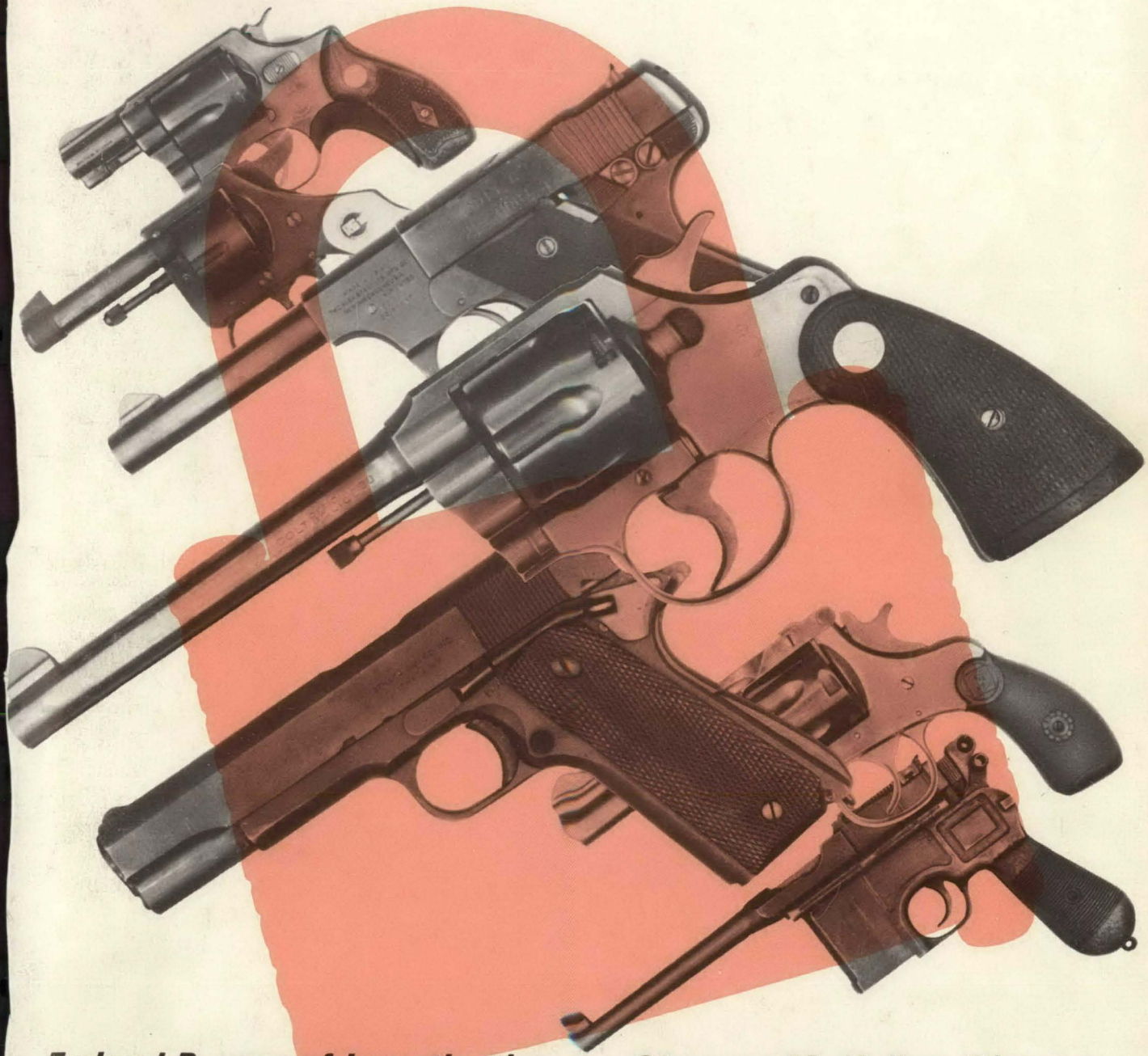
FBI Law Enforcement Bulletin

FEBRUARY 1975



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Clarence M. Kelley, Director

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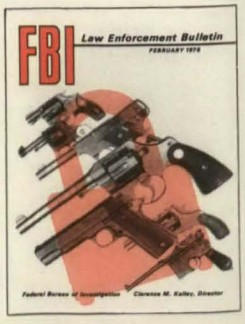
THE COVER

Putting a lock on the proliferation and use of handguns, as suggested by this month's cover, is a major issue in the control of crime. See Mr. Kelley's comments on facing page.



Message from the Director . . .

HANDGUN CONTROL IS A SUBJECT of serious concern to me. Admittedly, it is a highly emotional issue. However, so is the subject of death.

From 1964–73, a total of 858 law enforcement officers were feloniously killed, and individuals using handguns were responsible for 613 of these deaths—a shocking 71 percent. During 1973, an estimated 19,510 murders were committed in the United States, and 53 percent of these homicides were through the use of handguns. These are truly tragic statistics. Equally tragic are the thousands of friends and relatives who also suffered irreplaceable losses as the result of these handgun-related killings.

In considering these statistics, one additional fact needs mentioning. There are presently in the United States an estimated 30 million handguns. That represents a lot of triggers that can be pulled, both accidentally and intentionally.

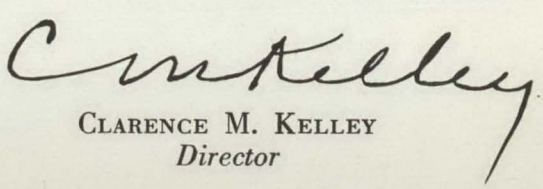
The proliferation of the so-called Saturday Night Special is particularly menacing. The weapon has no worthwhile sporting value and is unsafe for use as protection. Under any criteria, its possession should be prohibited.

As I perceive the present situation, the solution to the handgun problem hinges on keeping them from potential criminals, while at the same time guaranteeing that the interests of persons desiring weapons for legitimate use are respected. By strictly controlling access to handguns, I believe a significant reduction can be made in the high rates of aggravated assault, robbery, and homicide. At the same time, I feel the interest of those individuals wishing shoulder weapons for strictly sporting purposes must be given proper consideration.

I advocate two proposals to keep handguns from those who intend to use them wrongfully. First, it is essential that there be adequate local, State, and Federal regulations pertaining to handguns, and it is imperative that these regulations be strictly and vigorously enforced. Second, I strongly urge at least mandatory minimum sentences—stiffer penalties—for those persons convicted of a crime where a handgun is used. Only persons who can meet the provisions of local, State, and Federal regulations should be lawfully able to possess handguns. Violators should face the stern penalties enacted by concerned legislators supported by an aroused public.

The "right of the people to keep and bear Arms" (not necessarily handguns) is well known to me—and I certainly respect that right. However, the unlimited exercise of any right should not be tolerated where the public is endangered.

Human life unquestionably must be a respected value among mankind. Truly effective handgun controls can save the lives of hundreds of law enforcement officers and thousands of other citizens. It's up to you—it's your life.



CLARENCE M. KELLEY
Director

FEBRUARY 1, 1975

"[O]ur capacity to reduce crime is limited by social forces over which we have no control. . . ."

A LONG LOOK AT CRIME

By
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*The following remarks by Professor Wilson were given before a Meeting of Major City Chiefs of Police in Chicago, Ill., August 26–29, 1974.

I wish to discuss two subjects. First, where are we headed with the crime problem, especially the youth crime problem? And, second, what is the proper role for police administrators in our large cities during the years ahead? First of all, I want to emphasize a point Mr. Conger of the FBI made about the relationship between the youthful component of the population and crime. There have been in the last 100 years in this country three major crime waves. There have been several crime waves, but three that have been especially significant. One occurred in 1875–1880, after the Civil War. Another occurred in 1930–1935, and the third one began roughly in 1963 and continues now. The last one is well into its 11th year. Each one of these major upsurges in crime corresponded to a time when the proportions of persons under the age of 24 in our population were at a record height. This was true right after the Civil War, it was true in the early years of the Depression, and, of course, it has been true in the 1960's as a result of the post-World War II baby boom. I am not arguing that the crime rate can be explained entirely, or perhaps even largely, by the number of young persons in the population. Certainly, the number of young persons in the population cannot explain why Detroit has seen a five- or six-fold increase in the number of murders over the last 10 years. But, we have to realize that these enormous population shifts do create preconditions for increases in crime and set some of the limits to what we can reasonably do about controlling crime.

The most important thing that can be done is already being done for us. People are having far fewer children now than they once did. We are close to zero population growth, at least from natural reproduction. Most of the population growth which will occur in this country in the next 15 years will be the result of immigration. Much of it may even be from illegal immigration. Little of the pop-

ulation growth which will occur over the next few decades will be the result of natural reproduction. This means that those of you who will still be police chiefs in 1980 can expect, other things being equal, a fairly general and persistent reduction in certain forms of crime, especially those committed by young persons. By 1990, for those of you who are still here, I expect, other things being equal, the crime to be probably at its lowest level since the 1950's, because the youthful component of the age population by that time will be at its lowest point since the 1950's. But the sheer number of young persons cannot alone account for the amount of crime, because crime has increased far more rapidly than has the number of young persons.

A second factor related to population which is largely beyond our control and, therefore, sets a limit to what we can reasonably expect to do, has been the changed family structure of this country. From studies done in the 1950's, I think it can be said with some confidence that children raised in broken homes where the father is absent are much more likely, other things being equal, to commit crimes, to be arrested, and to be sentenced than are persons who are raised in families with an intact household, mother and father both present. These studies were done in the 1950's and have not been repeated lately, but I see no reason to believe that these relationships have changed. The family structure of black families in the United States has continued to deteriorate at an alarming rate. In the 1960's, when Daniel Patrick Moynihan published his report on the Negro family in the United States, 24 percent of black families were female-headed. Since that time the situation has become worse. At the present time, 35 percent of all black families in the United States are headed by females with no father present. Some of the increase may result from men who were killed in the service in the Vietman war, which, of course, cannot be helped. Others may be the result of other natural events. But a large proportion, surely the greatest proportion of the increase, is the result of forces for which no social scientist that I know has a reasonable explanation. The forces that continue to operate on the black family, especially in the inner city, continue to create situations in which young persons are hopelessly disadvantaged. If the incidence of crime among persons with that family background continues to be as high as it was in the 1950's, the continued weakness of the family will produce continually high delinquency rates.

The third factor I wish to stress is urbanization. For a long time it was generally believed, I think rightly, that the more people we have living in cities, the higher the crime rate, other things being equal. For one thing, there are more things to steal in the cities than on the farms. Just as Willy Sutton robbed banks because that's where they kept the money, so people will find more things to steal in the cities because that's where they keep things worth stealing. Furthermore, as persons come together in cities, family structures weaken, neighborhood controls are weakened, and persons who are criminally inclined find a large number of like-minded persons readily available to support delinquency, street gangs, and the like.

I think this continues to be true, but we must realize that there is a new problem becoming evident that to a degree contradicts or modifies the phenomenon of urbanization. This is the phenomenon of deurbanization. As the middle classes move out of our central cities in accelerating numbers and as black middle-class families join this exodus in large numbers, there remain behind in our older cities an increasing number of abandoned neighborhoods. In those neighborhoods, the whole social intrastructure that is provided by middle-class and working-class people watching the streets, running the PTA's, and reporting crimes to the police disappears, leaving these neighborhoods wholly in the possession of those who either cannot move or will not move. The crime rates go up alarmingly, along with other forms of social pathology. For example, during the 1960's there was an enormous improvement in the standard of living of black Americans. Their income went up, their eduction went up even higher, and adult employment went up, and the housing conditions improved. By almost every objective measure one can think of, Negro Americans improved their lot in the 1960's—except in the innermost parts of our central cities where there is a substantial deterioration. I think much of this deterioration is the result of the mobility and prosperity this country has enjoyed. Female-headed households have not kept up with the general prosperity, and poverty and pathology are widespread in this group.

Fourth, I want to say a little about drugs, although I am not sure that I can clarify the issues that have already been raised. I would like to offer a few observations as one who has been closely involved with the Federal narcotics program in the last 2 or 3 years. I recently spent a considerable amount of time in the San Francisco district office and in the New York regional office of the Drug Enforcement Administration. My impressions are that the disagreements we have as to the influence of narcotics on law enforcement are not in fact disagreements but differing perceptives based on differing parts of the country. If you look at nonpolice-related statistics on heroin abuse in the major eastern cities—admissions to hospitals, urinalyses done in jails and lockups, deaths from overdoses, rates of serum

hepatitis, admissions to methadone clinics and the like—you find with some exceptions a general decline, in some places a dramatic decline, in the number of heroin addicts, especially new addicts, being identified in large eastern cities. This accounts, it seems to me, for the lower number of heroin-related arrests in many eastern cities. In the New York regional office of the Drug Enforcement Administration, cocaine arrests are now twice as common as heroin arrests and cocaine seizures twice as common as heroin seizures. The situation on the street has changed.

On the west coast and in the Southwest the situation is very different. Mexican heroin is as abundant as or more abundant than ever before. It comes across the border virtually unimpeded. The reason the U.S. Government working with the Mexican Government has been unable to score the successes there that we scored in France and in Turkey is due to the fact that areas where much of the heroin production and marihuana cultivation is now taking place are, in effect, unpoliced. The situation on the west coast is, I think, dramatically different and will remain dramatically different for the foreseeable future. I know of no measures now underway or in the works that will make a substantial dent in the flow of heroin, cocaine, and marihuana into the Southwest and Western States.

In short, it seems to me that our social indicators are telling us that we can expect in the short run a continued increase in crime rates, especially youthful crime rates, because the youthful proportion component of our population is continuing to grow, because of the pressures of a combination of urbanization and deurbanization, and because of continued family weakness. In the long run, I think we can expect decreases in crime even if we make few changes in our policing tactics and our criminal justice machinery. Between the short and the long run there will be sporadic decreases in some places and sporadic increases in other places. Some of you chiefs will enjoy decreases, but they may not be persistent, and you should not take much comfort from them because the figures might turn around in the next year. You are now in a highly unstable period as the post-World War II youth cohort passes through our population. As it gets older, fortunately, most of it will cease its criminal activities, for reasons that are hard to understand. During this period there will be ups and downs in the crime rate in our large cities.

In fact, over the last 10 years there has been a striking phenomenon about urban crime rates for which I have no explanation. Every 2 years the crime rate changes in most cities. This is, the rate of increase or decrease is different in odd years than in even years. More precisely, there is a greater increase in the crime rate as you move from odd to even years than there is when you go from even to odd years. I don't know why that should be. I'm struck by the fact that most big city mayoralty elections are in odd years. Maybe there's some relationship between what people are reporting and what the politicians want to believe, but I'm not a cynic and I don't press that point of view.

In the next 6 or 8 years we have to expect up and down fluctuations in crime rates. We may not be able to see a consistent pattern until the 1980's.

If these are the facts, what is the proper role of the big city police administrator? It seems to me the big city police administrators have not made as good a case for their role or responsibility as they could. Many police chiefs, noticing the short tenure that police chiefs enjoy in their offices today, have apparently decided that discretion is the better part of valor—do your job and stay quiet, don't rock the political boat. Other chiefs have expressed their quite understandable frustration and rage at the seeming inability of other institutions in our society to play their proper role in preventing crime, but they have only expressed frustration and rage and not really given many suggestions to the community or provided many inducements to the community to join in a more constructive program. I think it is high time for police administrators to play a leading and potent role in trying to make clear the nature of our crime problem and those things that we can or cannot do about it, what we may soberly and realistically expect will happen to crime, and what other institutions in our society must do if we are to realize even the modest gains that can be made from improvement in our criminal justice system.

It seems to me that the police administrator has to participate actively in educating the community to accept, first of all, a sober and realistic view as to what is possible in terms of crime control. The average citizen believes that crime can be reduced in front of his house if he had a policeman on foot stationed in front of his house 24 hours a day. It doesn't occur to him how much that costs or what it would do to the police protection afforded to other neighborhoods and other houses. However valuable or not valuable a foot patrolman may be, it is an unrealistic suggestion. Furthermore, most citizens believe that crime has gone up in this country because of something peculiar about the United States. There have been some peculiarly American contributions to crime, but the crime increase has been a worldwide phenomenon and has occurred in communist and socialist, as well as in capitalist, countries. Being a worldwide phenomenon, it will respond ultimately to worldwide

changes—to a reduction in the youthful component in the population, to an abandonment or moderation of the cult of personal liberation, and to worldwide changes in the use of narcotics, though the exact relationship between drug use and crime has yet to be established.

Though we can talk about a sober and realistic assessment of what is possible, we must be equally firm about how important it is to do those things that are possible and not to wait for poverty to end or for young people to grow old or for the cult of personal liberation to disappear. The first step is to educate our community about the differences among kinds of crime so that when people begin to talk about the crime problems, they don't talk about the crime problem generically, they talk about *specific* kinds of crimes for which *specific* police and criminal justice responses are appropriate. For example, all citizens are concerned about residential burglary. This is an important component of the crime problem. But a study recently done by Thomas Reppetto, formerly a commander in the detective division of the Chicago Police Department, who later earned a doctor of public administration degree at Harvard, points out that there are at least two kinds of residential burglaries and different strategies are appropriate to each kind. One kind, quite common, is that committed in and around inner-city, low-income homes, public housing projects, mostly by young black males who live in the projects or very close to them, who steal rather small amounts but steal very frequently. These offenders can be deterred by aggressive police and community patrols, in the areas where they operate.

Another kind of residential burglary is that committed in middle-class, suburban homes, largely by whites who plan their crime very carefully, do not steal quite as frequently but make much larger scores when they do steal, and who are not at all deterred by random police patrol. This kind of crime is best deterred by two factors, neither of which involves street patrol. One of these, of course, is making the homes physically more secure by better locks, alarms, safety devices. The other is by removing these more professionalized burglars from society so that while they are in prison or in jail they cannot commit as many crimes as they are now committing. At the present time persons in this category do not regard the criminal justice system as a credible deterrent. They do not believe that the cost of crime exceeds or even equals the benefits of crime, given their taste for risk, and they are prepared to act accordingly.

We see that there are at least two different kinds of burglary problems. You gentlemen understand this very well. The community at large does not understand this, and it seems to me, therefore, that it is your responsibility to help educate the community about the specific problems created by different kinds of crime and to help to plan the specific strategies best suited to deal with each.

The police administrator must be the leader in his community in evaluating, as objectively as possible, the strategies and tactics he and others are employing to deal with crime. Police administrators sometimes criticize, and I think rightly, prosecutors and judges for the way which they dispose of the cases brought to them. I've made these criticisms myself. But I know that criticism is not enough—at best you make the other party defensive, at worst you make him angry.

The great strength that the police have lies in the fact that, unlike other parts of the criminal justice system, they are organizations which have the capacity to plan, to evaluate, and to act in concert. For example, all police departments divert a certain number of juvenile offenders. The reason you do is either because certain offenses are too minor to bother with or because you know if you referred everyone you arrested to the juvenile courts they could not possibly handle the workload. But the question is, are you making the right decision about whom you divert and what is happening to the persons diverted? And if you try to do more than divert them—for example, expose them to some educational program, require them to come in on Monday and Wednesday nights with their parents to listen to lectures about the evils of crime—are these programs making any difference? On the basis of my review of the evidence so far, there is serious doubt whether these programs help at all, but in any event we do not know what difference they make.

We do not know whether it is a good idea or a bad idea to divert people. We do not know whether it is a good idea or a bad idea to try to educate, train, rehabilitate or some way deal with those who are the criminal. I have read reviews of every published account of police diversion programs, and I can find no evidence that suggests that they make matters better or make matters worse.

It seems to me, to continue this example, you must approach the diversion problem with an evaluative point of view. First of all, set some guidelines. Who will be diverted and who will not? Perhaps only first offenders, perhaps only certain kinds of them. Whatever the guidelines are, set up a mechanism to find out what happens, the rearrest rates of those who were diverted and those who were not. If there is an educational or police probation program, try to determine, so far as one can, what difference it makes whether a person goes into this program or is diverted without going into this program, or is sent to a correctional institution. Some departments may now be doing this, but no

such study to my knowledge has been completed.

On the whole, the police are far in advance of other parts of the criminal justice system in their readiness to confront these issues and some police departments have shown remarkable initiative in devising ways to try to find out what works. I think more of that must be done and it must be done in ways that can explain to the community, with concrete facts, what difference it will make whether we treat juveniles one way or another way. To do this, we must involve the rest of the criminal justice system—the judges and the prosecutors—not by exhortation, not by harangue, but in an effort to serve common goals. If they can be shown, in black and white, the consequences of various ways of handling juvenile offenders or narcotics dealers or whatever, either they will act or the public will demand to know why they have not acted. There will be powerful incentive on all sides to attempt to improve the system. We all, I think, have worn ourselves out complaining of the unjust and ineffective sentences that are often handed out to defendants. It is not enough to simply say this over and over again. We must show in great detail what is happening. I think the police are well situated to do this. One way is to make sure that the officers on your staff are familiar with the studies which have been done already on the consequences of different ways of sentencing convicted offenders.

There was a recent review published which examined over 230 such studies on the subject of criminal rehabilitation. The result of this review was the showing that there is no consistent or measurable gain in reducing recidivism to be had from any of the rehabilitation programs that have been examined. Yet judges are in many cases devoted to the belief that we *can* rehabilitate offenders. You should not merely argue with them, but suggest what the evidence shows about the futility of the rehabilitative ideal.

Another example: there have now been between 1 and 2 dozen studies that have measured, on a State-by-State basis, the effects on the crime rate of the certainty and severity of punishment. These studies support the view that the more certain the prospect of imprisonment, the lower the crime rate. Some have suggested that for certain kinds of crime the severity of punishment will also deter crime, but all agree that certainty of punishment does seem to deter crime.

A third example: every big city police chief can produce a list of the last 100 robbery suspects his force has arrested or a list of the last 100 residential burglaries his force has cleared. Each of you should be prepared to produce such a list on a regular basis—quarterly, semiannually, or annually—and indicate on it what happened to each one of those cases; what proportion got to trial; what proportion were acquitted; what proportion pled guilty; what proportion convicted were given prison sentences, or suspended sentences, or probation; what proportion of those appealed their cases and how long that took; and so on. On a regular basis you should explain to the community the results of your activities, not in the unrealistic sense of how many arrests you have made but the more realistic sense of what has happened to those persons arrested by the police, with probable cause, for serious crimes. You should ask the community—is this what you want to happen? If they do *not* want that to happen, then it is the community's responsibility to alter our institutions or procedures so it will not happen. If this *is* what they want to happen, then they should understand that the police are operating a very expensive revolving door.

In short, there is a perspective that police administrators ought to bring to their jobs in the 1970's which is somewhat different from the perspective that I think that many of you would have brought to your jobs in the 1950's or the 1960's. In the 1950's, the dominant police issue in this country was that of professionalism and integrity. Police chiefs spent most of their time dealing with the problem of integrity. In the 1960's, without losing sight of integrity, the dominant concern for the progressive police administrations became police-community relations. It seems to me that in the 1970's the dominant issue is the need to redesign police organizations and operations so they can better serve crime-control and community-service objectives and the need to pose a clear and unemotional challenge to other parts of the criminal justice system to go and do likewise.

We must ask, what is our goal? Crime control? What does this mean for specific kinds of crime? What is the effectiveness of alternative strategies for dealing with those specific crimes? What happens to those persons we arrest after employing those strategies? This is not an easy task for a police department. To adapt itself to be a rational instrument for crime control, to soberly evaluate its own strategies, to challenge the strategies of other parts of the criminal justice system is very difficult. It requires a chief to expose himself to the possibility of failure, and it requires him to manage his department in new ways so that various elements in the department cannot block change. I do not underestimate the difficulty. I urge you nonetheless to face up to this responsibility in your department and, though we recognize that our capacity to reduce crime is limited by social forces over which we have no control, we also recognize that within these limits we can do a better job.

Bank Fraud and Embezzlement

The threat that "white-collar" crimes pose to the community is shown by the seven-fold rise of bank fraud and embezzlement violations committed against federally insured financial institutions during the last decade. While these offenses are only a small part of the total white-collar crime problem, losses from them, nevertheless, rose from $20.4 million in fiscal year 1965 to $151.1 million in fiscal year 1974. Prosecutions during the same period resulted in a jump from 604 to 1,200 convictions. The bank fraud and embezzlement convictions during the past fiscal year accounted for 39 percent of all those obtained in white-collar crimes investigated by the FBI.

With the increase in size and complexity of fraud and embezzlement crimes has come the need for more sophisticated approaches by FBI Special Agent Accountants who are assigned these investigations. FBI Agent Accountants are now being afforded advanced accounting and computer training to enable them to cope with intricate embezzlement schemes which are often disguised by the new data processing technology in the banking industry.

Federal criminal statutes relating to financial institutions have been broadened gradually to protect over 64,000 establishments. It is a violation of Federal criminal laws, for example, to furnish false information to a federally insured financial institution to influence action on an application for credit. No longer can a con artist dupe an unsuspecting banker by furnishing stolen or counterfeit securities as collateral for a loan without running the risk of Federal prosecution. Federal statutes also provide for a variety of means by which criminal prosecutions can be used to combat organized crime activities. Some underworld hoodlums have been prosecuted for furnishing false information to obtain business and personal loans. Hoodlums seeking loans through legitimate lending agencies are vulnerable since they are often unwilling to reveal necessary information about themselves. When they falsify such background data, they risk prosecution.

Organized crime, however, is not the main threat to banking institutions. A major portion of the fraud and embezzlement losses they suffered during the past 5 years was caused by respected and highly placed officers and directors of the victimized institutions. Prosecution was recently begun against an officer of an eastern bank who misapplied funds in excess of $8.1 million. Another bank officer in the Southeastern United States was convicted for misapplying in excess of $4.7 million. The rising statistics over the past decade give every indication that losses in bank fraud and embezzlement matters will continue to increase.

Local and State law enforcement authorities, along with the FBI, have concurrent jurisdiction over thefts and embezzlements from banking institutions. With the trend toward fewer Federal prosecutions in favor of local prosecution in selected areas where concurrent jurisdiction exists, the need may exist in the near future for a more active role by local police and prosecuting authorities in bank fraud and embezzlement matters. To curtail crimes that could result in staggering financial losses to the community will require not only cooperation among law enforcement agencies but the banking industry as well. The public, too, must become more conscious of the damage done to the community by white-collar crime. The public has the need, and indeed the right, to demand the highest level of integrity from employees of banking institutions. The banking industry cannot operate effectively without the confidence of the public anymore than it can without the vigorous enforcement of laws designed to protect it.

Participative Planning at Work in the Criminal Justice Community

By
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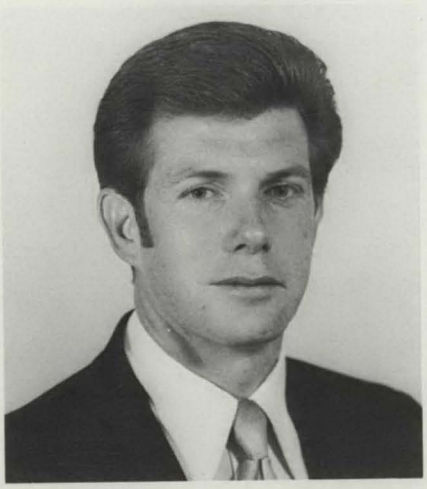
Police Department
Los Angeles, Calif.

The Los Angeles County Sheriff's Department (LASD) and the Los Angeles Police Department (LAPD) overcame many of their coordination and consolidation problems through the use of "participative planning." The LAPD–LASD Consolidation Project, described herein, is a successful "people-centered" project which led to the formation of a "task force" organization. This structure is now being used to plan and implement other joint agency ventures, particularly in the area of interagency automation systems.

It had been recognized for many years that tax dollars could be saved and more efficient law enforcement provided by consolidating various Los Angeles city and county functions. The artifacts of many plans for consolidation efforts, developed over the last several decades, can be found in the files of both departments. All of these past plans had merit, but none was implemented.

It was decided, several years ago, to again tackle the consolidation effort but first to determine what caused past efforts to fail. The goals and areas of development for this endeavor were defined as:



A Mutual LAPD–LASD Booking System. Persons booked into the LAPD, at the time, were processed with a booking form, fingerprint card, and property package, sent to court, then remanded to the LASD after arraignment. LASD would then completely rebook the prisoner with a new booking form, new fingerprint cards, and again package their property—a complete duplication of effort.

A Mutual LAPD–LASD Arrestee Information Center. Both agencies had clerical personnel providing around-the-clock information service on persons booked. A citizen trying to locate someone they thought to have been arrested would usually have to call both agencies. This inconvenience to the public, plus the duplication of functions, was an area of potential consolidation.

Mutual Interagency Prisoner Transportation Service. Both agencies manned large prisoner transportation units consisting of many buses and a considerable number of sworn personnel who had been removed from field functions to perform the transportation function. LAPD transported their prisoners to court where they would then be transported by LASD personnel to the county jail facilities. A considerable duplication of manpower and equipment existed.

Compatible Computer Systems. Both departments had been designing and, in some cases, implementing automation systems with little consideration for what the other agency was developing. This was leading to the

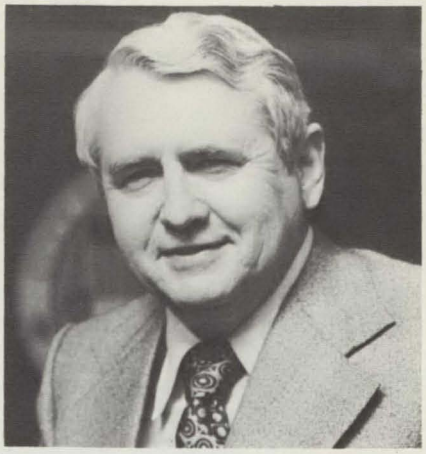
implementation of computer programs which would contain limited data and cost excessively. By pooling information possessed by both agencies, sharing the costs, and consolidating the programing efforts, much time and money could be saved and more efficient and effective systems developed.

By researching the history of the earlier consolidation efforts, it was found that past planning had been accomplished by staff research employees and that the plans were rejected by management down through the rank and file in both organizations. The reason for the rejection seemed to be the ever-present resistance to change. The people that were going to have to live with the changes felt no allegiance to the planned programs because they had nothing to do with the development. In many cases the plans were not practical, because they were developed around the "book's" description of how both departments ran the functions that were to be changed. The fact was that things ran much differently than described in the agencies' "manual of operations," and the people who really knew how things functioned, the people who performed the work, had not been consulted.

Armed with this information, staff personnel obtained permission to visit with the employees in those areas that were earmarked for consolidation planning. The staff did not take the approach of telling these employees that the staff had some plans, but rather solicited from the "workers" their ideas and suggestions. They took a consulting type leadership role. They asked if consolidation in these areas was possible and necessary and found that most employees felt that consolidation between the two agencies in the functions listed above was logical and needed despite the fact that they had previously rejected such plans. The main purpose of this process was to get the people who knew most about the functions interested and involved in the planning process. At the same time, the key people, or as a well-known behavioral scientist called them, the "linking pins," were located.[1]

The next step was to form these "linking pins" from both agencies into a group which was (and still is) called the Consolidation Project Team. To do this, management in both departments had to agree to allow these employees to participate once a week for 2 to 3 hours. As both agencies were still sensitive to the past consolidation effort failures, obtaining approval was a difficult task. It was finally agreed that command level personnel from each agency would form a consolidation project group to which the team would report and be responsible.

The Coordinating Consolidation Group was thusly formed. The Los Angeles Police Department was represented by two inspectors (now called commanders), one from the Technical Services Bureau and one from the Planning and Control Bureau (now called Planning and Fiscal Bureau). The sheriff's department was also represented by two inspectors, one from the Jail Division and one from the Administrative Division. (Bureaus in LAPD and divisions in LASD equal the same organizational unit.) These inspectors had responsibility over the areas and functions in



E. M. Davis
Chief of Police

each agency which were the subjects of consolidation. This group was established to meet once a month, or as necessary, to review the team's progress, make recommendations, give direction, and report their findings to top management of both departments. They thereby gave authority to the team and communicated the efforts of the project to the decision-makers.

The team was composed of unit level personnel. The police department was represented by members from the Information Services Division (Management Services Division), Advance Planning Division, Central Jail (now Jail Division), Records and Identification Division, and Valley Services Division. The sheriff's department participation was from the Research and Development Bureau, Transportation Bureau, Jail Division, and Electronic Data Processing and Record Bureau. Since communication links between the two agencies were affected by this project, a representative from Pacific Telephone and Telegraph Co. was also included as a technical advisor to the team. Personnel from both

"By pooling information . . . sharing the costs, and consolidating the programing efforts, much time and money could be saved and more efficient and effective systems developed."

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the city and county administrative offices were brought in later, when financing needs were being defined. Other city and county personnel joined the team as it expanded into various functional areas in later project phases.

The team met once a week, alternating between the police and sheriff's offices, to discuss problem areas and resolve them at the working level. Should the problem fall outside the realm of a team member's assignment, it was taken either to the source by team members who reported on their findings the following week, or a person from the concerned unit was invited to the meeting to help resolve the problem.

The team coordinator was a lieutenant from the police department, with a lieutenant from the sheriff's department as alternate, and these members hosted the meetings. Each week the coordinator forwarded to the team members the minutes from the previous meeting, when and where the next meeting would be held, and what the topics of discussion would be, including problems yet to be resolved. This method kept all personnel informed of the progress and also provided mental stimulation for the upcoming meeting.

The team adopted the following as its slogan and printed it on all its correspondence:

"COMING TOGETHER IS A BEGINNING, KEEPING TOGETHER IS PROGRESS, WORKING TOGETHER IS SUCCESS."

These words are mentioned here as they seemed to express the feeling of the team as it gained confidence and pride in working together and developed a definite "esprit de corps."

The first few team meetings were loosely structured and allowed the members to get accustomed to working together. It was soon noted, however, that although the members were excited about what they were involved in, nothing productive was happening. The staff members (two sworn personnel and one administrative assistant), who were assigned full-time to this effort, had definite ideas on what had to be accomplished, but they did not want to force them on the team, but rather wanted to have team members come up with suggestions. The staff decided to talk to the members individually at their places of work and suggest bits and pieces of what the staff thought the beginning plan should be. This was not meant to manipulate the team members but rather to get them started in a positive direction. What resulted was that the team members showed up at the following meetings with these thoughts fresh in their minds. More than this, the ideas had been refined in accord with the working knowledge possessed by team personnel. They had taken "drawing board" plans and made them working plans.

"They had taken 'drawing board' plans and made them working plans."

This beginning exercise set the stage for the future of the project. When the staff developed ideas, they were presented to the team members who took them back to their working areas, sifted them through the light of reality, and brought them back the following week with appropriate comments. This process assured that the plans were practical, that they were the plans of the people who were going to have to live with the results.

With this beginning, the team members and staff developed the plan which is briefed in overview fashion in figure 1. The team defined objectives, problem areas, and methods of solution, flow-charted procedures, charted workloads, arrived at a method of presentation, and prepared the final draft of the proposal.

It is important at this point to note that the team developed these plans without the direction of their immediate supervisors. There was no authoritarian direction which forced these people to do the job. First of all, they had to have volunteered for the task. Many of those working on this project had no background in planning, especially in such techniques as flowcharting and the Program Evaluation and Review Technique (PERT) process which were used extensively. It was necessary to give special training to these "lay" members, and much of this went on outside of their regular work hours. It is also to be noted that the regular duties of the persons involved were not reduced so that they could have the necessary time to work on the team's tasks during their regular tours of duty. Most team members gave willingly of their own time to keep this project on target and on time.

To insure that team members received proper recognition for their work, most were given the opportunity to give oral presentations to the Coordinating Consolidation Group. Additionally, the names of every member were printed on all planning and progress report documents. This allowed the members to "take a bow" and gain a feeling of ownership of results. It also made it easier for the decisionmakers to give approval to the plans being presented because:

They knew the people working on the plan and recognized they were from units under their command;

The plan was developed and presented by persons who were going to have to live with the results; and

They knew the planners would help overcome the natural resistance to change by those per-

Figure 1. CONSOLIDATION OVERVIEW

STEP I

1. **Establishment of a booking communication link between departments making use of existing teletype system.**
2. **Creation of compatible booking form and mutual prisoner transportation form.**
3. **Development of compatible prisoner processing system.**
   - **(a) Armbanding of LAPD prisoners, as LASD was already doing.**
   - **(b) Compatible handling of prisoners' property.**
   - **(c) LAPD's use of LASD's county booking numbers.**
4. **Establishment of a centralized arrestee information service to include information on persons booked by both agencies.**

STEP II

1. **Installation of Cathode Ray Tube (CRT) terminal devices to replace LAPD's teletype input to the booking information communication link.**
2. **Storage of LASD Wants/Warrants in LAPD Automated Want and Warrant System (AWWS) computer.**
3. **Initiation of an automated printing of LAPD Booking Blotter.**
4. **Instigation of a mutual booking form (both departments making use of same form).**
5. **Implementation of physical transportation of LAPD prisoners to court from divisional stations by LASD.**

STEP III

1. **Initiation of the LAPD/LASD booking computer systems.**
2. **Implementation of computer storage of mutual booking information.**
3. **Instigation of CRT inquiries at mutual arrestee information center.**
4. **Implementation of a mutual bail system.**
5. **Complete LAPD prisoner transfer from divisional stations to court by LASD.**

sons whose work would be affected by the plan.

When the plan was ready to be implemented, the team members provided the training to their fellow workers. This task went exceptionally well, as the team had "talked the project up" with their peers and supervisors during the development stage. The training was also accepted because it was coming from one of them rather than from outsiders.

In step I, compatible booking forms were designed to record, in common format, specified information on each booked person, and compatible prisoner processing techniques were developed for use by both the LAPD and LASD. The utilization of these procedures resulted in the creation of a mutual information service that now provides both the public and other agencies with a central file of booking information on all persons arrested by both agencies. This has tremendously reduced the amount of duplicated effort between the two departments.

Step II caused the LAPD Automated Want and Warrant System (AWWS) specifications to be adjusted to utilize booking information being teletyped to the LAPD–LASD information center. As a result, the system could automatically log the issuance of booking numbers; generate a form control log for booking documents; initiate a Master Booking Blotter; accept, verify, and transmit booking data on arrested persons to the information center, in addition to generating an AWWS check and printout update information for the Master Booking Blotter.

In the final step the automated booking information system began providing computer control of arrestee booking information, an automatic want and warrant check on each booked person, digitized booking information on each booked person stored on magnetic tape, and a computer-to-computer link between the LAPD and the County Justice Data Center's Automated Justice Information System (AJIS). This system is used by the court system, law enforcement agencies, and the public (figure 2).

The team initiated a legislative amendment to the California Penal Code, Section 1269b, and caused the execution of a City-County Joint Powers Agreement, which resulted in the implementation of the integrated bail procedures. Integrated bail increased service to the public by providing bail-acceptance procedures between the police and sheriff's departments which allows citizens to go to

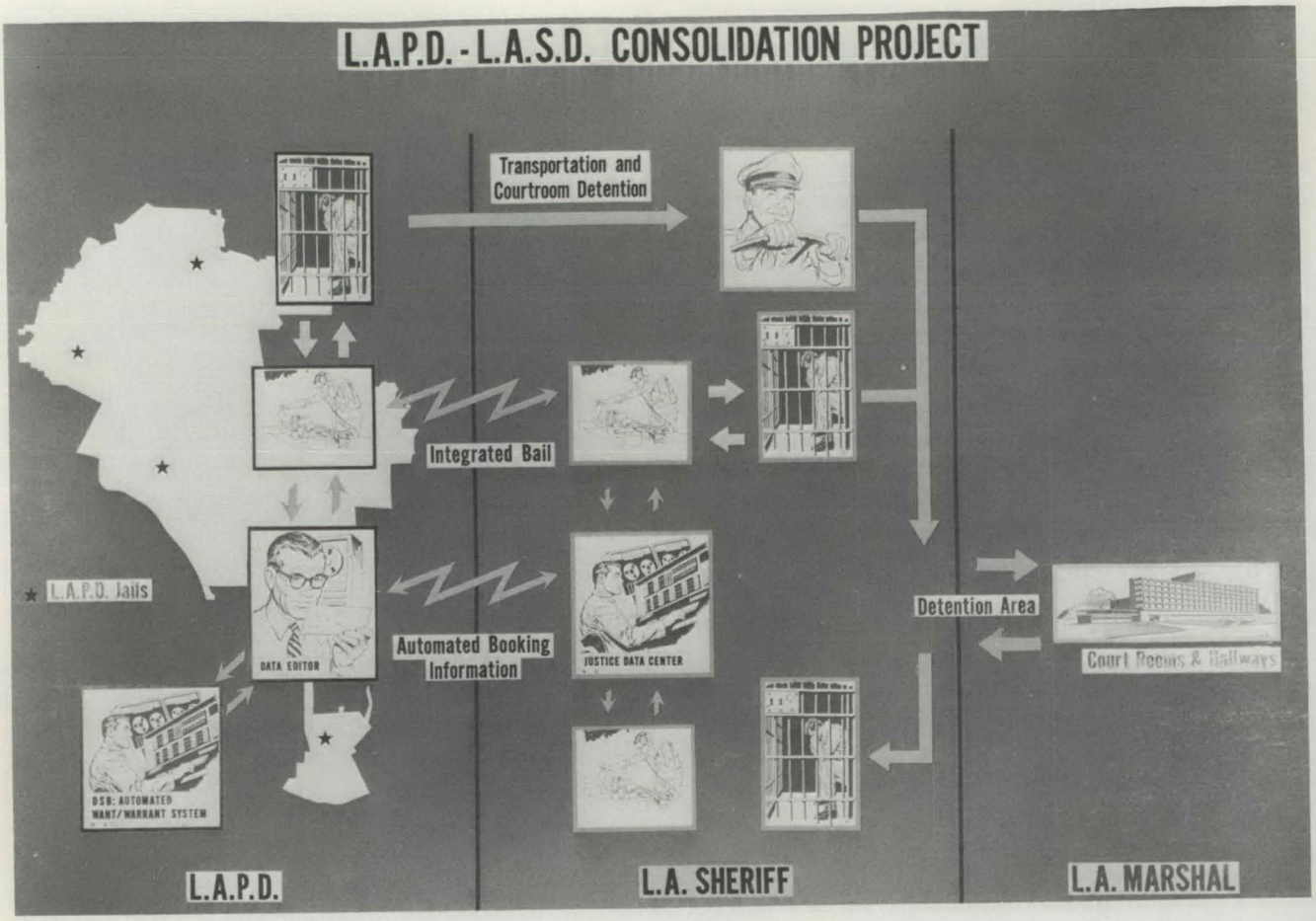

Figure 2.

any LAPD division or LASD station and post bail for prisoners in custody at any detention facility of either department. In addition to providing better public service, integrated bail procedures provide more information and the means for uniformly processing bail deposits through the court clerk system, thus expediting accounting and refunding procedures within that agency.

The integrated bail procedures operate at no extra cost to either agency. Implementation of the mutual information service concerning arrested persons and the automated booking information system cost the city about $36,000 in recurring annual operating costs. These two services, however, released 13 clerical positions, thereby saving $44,000 annually. Transportation services cost about $250,000 per annum for LAPD, but released 24 police officers to field duty in addition to a potential investigator time savings of over 4,000 man-days a year due to increased service.

". . . the 'working level' people were consulted and allowed to take an active part in the development and implementation of this program."

It is important to realize that this effort worked, where prior efforts had not, because the "working level" people were consulted and allowed to take an active part in the development and implementation of this program. It became *their* project and a very practical one at that, because it was screened through the realities of their experience. Even though the original project has been more than completed, the team still meets and is now working on expanding the system to the other 48 police agencies in Los Angeles County.

FOOTNOTE

[1] The Conference Board, *Behavioral Science Concepts and Management Application*. The Conference Board, Inc., New York, 1971, pp. 31–40.

Developing the Public Information Function

"When dealing with the news media, truth, understanding, and cooperation should be the bywords."

By
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New Orleans, La.

The principal mission of a police public information unit should be to maintain liaison with the news media and the general public for the primary purpose of continuously informing the public of the department's activities, current crime situations, and changes in the department's policies which could affect the general public.

Any public relations function in which the public information unit is engaged should be secondary in importance. With this in mind, it is necessary for us to separate public relations and public information. In the most simple terms, public relations attempts to sell the positive aspects of a department or situation. By way of contrast, public information should be distinguished by its candor and completeness. There is a growing awareness among law enforcement personnel of the need for active public information programs and the important role the news media can play in fulfilling this objective.

Public Information

When dealing with the news media, truth, understanding, and cooperation should be the bywords. There will be times when all of the facts pertaining to a news story cannot be told to the public. There may be any number of reasons why the story cannot be told. The responsible newsman should be told why the facts must be withheld from the public. Is it to protect a potential victim; is it to avoid alerting a suspect that he is being sought? Is it for some other reason? TELL THE MEDIA WHY. In most cases, they will cooperate.

A promise made to the media must be kept, and the facts for a story provided them as soon as disclosure will not violate legal, moral, and practical restraints. It is unreasonable to expect any reporter worth his salt to sit on a story for very long. The news business is very competitive. Once this is understood, the task of providing information will be easier. A responsible information officer must understand both the fields of policing and journalism. Media deadlines must be considered. Television and radio deadlines are usually hourly, and they always want the story NOW. The public

interest can be served, and this can be worked out if there is mutual understanding of each other's problems and responsibilities.

In developing guidelines for the release of information, thought must be given to indoctrinating all members of the department as to their responsibilities in dealing with representatives of the news media. Such guidelines, when followed, should discharge the responsibility of the department with regard to fair administration of justice and the privacy of individuals. Beyond assuring compliance by departmental members, it should not be the responsibility of the police agency to restrict activities of the news media, either to insure the fair trial or to protect the privacy of individuals.

Many of the conflicts between police and the media arise at scenes of crimes, emergencies, or disorders. Under these circumstances, where individual perceptions are often distorted by the intensity of the emergency, misunderstandings can easily occur. In order to avoid these conflicts, officers in command at such scenes, where numerous members of the news media are drawn, should as soon as practicable assign an officer to coordinate police-media activities pending the arrival of a representative of the public information unit.

It is advisable for any police agency in an area where there is a representative number of news-gathering agencies to develop a system of issuing police-news media passes or so-called press cards. It should then be mandatory that members of the news media display these cards, preferably by wearing them on an outer garment by use of a clip or chain, when at the scene of any occurrence having police interest. To the extent possible, without hampering police operations or investigations, the holders of such passes should be furnished access to locations from which they may take photographs or recordings. The police, however, have no authority to invite the news media into private premises.

Police officers should not prevent media cameramen who hold police-news media passes from photographing persons or scenes, even in instances where the police agency would not release to the media departmental photographs of such persons or scenes. However, access to crime scenes may be restricted to avoid jeopardizing successful conclusion of an investigation. The police should neither assist nor discourage members of the news media in photographing an accused person in custody. The exception to this would be in cases where individual departments or jurisdictions may have rules or laws prohibiting cameras inside of certain buildings such as courts or police buildings, in which case cameras would be prohibited.

Courtesy and diplomacy should characterize dealings with members of the news media who can be furnished, upon request, information falling into the following categories:

- Names, ages, and addresses of individuals involved in an incident, if the information will subsequently appear in records open to public inspection; except victims of sex offenses, juvenile defendants, witnesses, and deceased persons before next of kin is notified.
- Circumstances surrounding an incident or arrest, such as time and place, possession and use of weapons, resistance, pursuit, identity of the arresting officers, length of the investigation, and a general description of items seized.
- Additional information, at the discretion of the officer in charge of the investigation, which may assist in locating wanted persons or vehicles.

"The simplest rules to follow in organizing information to be furnished the media are . . . WHO DID WHAT, WHERE, WHEN, WHY, and HOW?"

The simplest rules to follow in organizing information to be furnished the media are those same rules trained investigators have put to memory long ago, namely, WHO DID WHAT, WHERE, WHEN, WHY, and HOW? Generally, these facts can satisfy a reporter's inquisitiveness without jeopardizing the investigation. These, coupled with good commonsense and a knowledge of the individual policies of a given agency or jurisdiction, should lend themselves toward establishing a good relationship with local news media. Of course, law enforcement personnel must be guided by State and local laws governing the disclosure of information in the lawful possession of their departments.

Officers on the scene of occurrences should be careful not to release for publication or make remarks which could likely result in publication of information falling into the following categories:

- Information which may jeopardize the successful conclusion of an investigation (access to crime scenes also may be restricted for this reason).
- The identity of any suspect prior to arrest or the results of any investigative procedures except to the extent necessary to aid in the investigation, to assist in apprehension of a suspect, or to warn the public of dangers.
- Any opinion as to guilt or innocence of the accused, as to the merits of the case, or the evidence in the case.
- Statements or information regarding the character or repu-

tation of the accused or victim.

- The existence or contents of admissions or confessions made by an accused or his refusal or failure to make any statement.
- The identity, testimony, or credibility of any prospective witness.
- Speculation as to how an accused might plead.
- The construction, content, and mechanism of any explosive or incendiary device.

Records of police personnel should not be open to routine public inspection. Likewise, the addresses or telephone numbers of officers should not be released to a member of the news media. The purpose of this is to strengthen the off-duty privacy and safety of the officer and his family, but not to make him inaccessible to legitimate inquiries. Every reasonable effort should be made to insure that officers receive messages through the units to which they are assigned and respond to legitimate questions and interviews by the media.

Dissemination of Information

If the police agency has a formal public information unit, this unit should be responsible for the issuance of all printed or formal news releases. As in any news story, timing is important, and once again, the importance of deadlines is emphasized. If the content of a news release is important enough to make a release in the first place, timing must be considered. It is unwise to release a story at 4:30 p.m. if the local television stations broadcast at 5 p.m. Chances are this release will end up discarded.

Whenever possible, the public information unit should have personnel on the scene of major crimes and occurrences to coordinate media inquiries. It is important that information be obtained and provided to on-the-scene reporters and to all other news agencies in a manner that best serves the public and the police.

To disseminate information on a regular basis, a convenient method should be developed. Most news agencies will cooperate in bearing the cost of a telephone straight line, or "hotline." This is simply a telephone that, when the receiver is lifted at the law enforcement agency headquarters, rings at all of the several news agency offices. A simple rollcall can then be conducted and the story related or the prepared release read. Most radio and television stations will have the ability to tape record the telephone messages for subsequent broadcast of pertinent excerpts.

If the public information unit cannot be manned on a 24-hour basis, an extension of the hotline can be installed in the communications section where the news media can be kept abreast of happenings during off-duty hours. It may be advisable to make periodic hotline broadcasts, say once a watch, giving news media agencies a rundown of happenings during the past 8 to 12 hours, depending on the size of the city or area served by the law enforcement agency and the amount of activity that would interest the public.

The hotline could also be utilized when roads and bridges are closed to traffic, serious accidents that may cause a diversion of traffic, or other occurrences that may be of public interest.

To further facilitate the release of information, a form should be devised describing major occurrences and prepared by the communications section with copies to the chief, public information unit, and other interested parties. If there is a press room in the law enforcement agency building, a copy could be designated "press room." However, the copy should be so designed as to omit information of a confidential nature.

Press Freedom

Finally, we come to the delicate issue of "freedom of the press." While none of us in law enforcement consciously wish to deprive anyone of his constitutional guarantees, the meaning of the words "freedom of the press" is often abused by some members of the media. It is not our intention to censure but rather to alert police personnel to the possibility of irresponsible journalism, both in printed and electronic media.

Interpretative reporting rather than factual accounts often frustrate police agencies or individuals involved. It is important to understand certain problems of the media that tend toward this type of reporting. Television and radio reports are often handicapped by time limitations. Usually it is necessary to capsule a news story in 1 minute or 2, or even less. Because of this complication, people are sometimes misquoted, quoted out of context, or only partially quoted, thus distorting an account. Newspapers are more fortunate in that they can more frequently present all of the facts, accounts, and happenings. In the printed media, we must be concerned about editorial comment sometimes carefully concealed in a story. This can happen in cases where young, inexperienced reporters may write a story, although some nationally known, well-experienced journalists and commentators have been accused of such irresponsible journalism.

Should a police agency experience what may be considered by some as irresponsible reporting, the best remedy is for its officials to meet with the editors and news directors and air their grievance. If cooperation, truth, and understanding is continually strived for, the community will be the beneficiary.

Both the printed and electronic media have established canons of ethics. Hopefully, they will live by them.

The UFO My

Investigating Reports of Sightings—

A toll-free "hotline" for the use of law enforcement agencies has been established by the Center for UFO Studies. UFO reports made to these agencies can be relayed to the center for handling and study. The toll-free number (not for general public use) can be obtained by law enforcement agencies by writing to the Center for UFO Studies, P.O. Box 11, Northfield, Ill. 60093.

It is natural for law enforcement agencies to solve mysteries. Now, they can help solve what may be one of the greatest mysteries of all time.

Law enforcement agencies have been repeatedly involved with people who have reported unidentified flying objects (UFOs). Sometimes, UFO witnesses have been under great emotional stress, and have turned to the police for urgent help and guidance. For many years, local law enforcement officials have borne the brunt of public concern in the persistent mystery of UFOs.

Police Involvement

A great many times police officers have figured in the UFO sightings directly—they have experienced UFOs themselves! This is by no means as rare as the reader might think. In late 1973, dozens of police chiefs, deputies, and officers reported UFO experiences of their own.

On October 16, 1973, the crew of a Delaware State Police helicopter along with flight controllers at the Dover Air Force Base reported a UFO which the helicopter crew chased 14 miles across Kent County.

Several days later, two Adams County, Ohio, deputies on a routine patrol at 1 a.m. reported a UFO hovering some 200 feet above the ground.

On October 19, 1973, a Tulsa, Okla., police sergeant confirmed another officer's report of a hovering multicolored object whose size, they said, would dwarf a 747 jetliner.

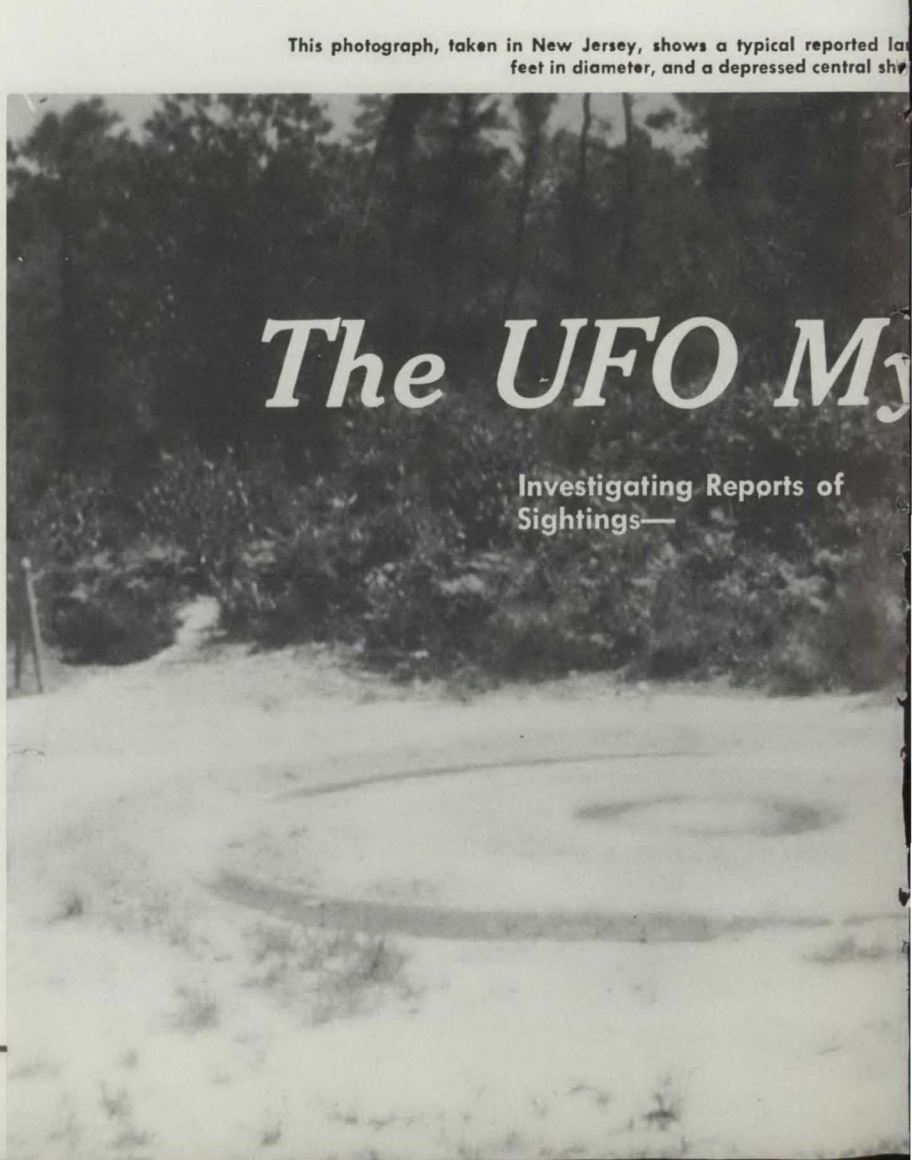
Two Los Angeles, Calif., policemen, on November 12, 1973, said they saw a large, round, bluish white object at 9:50 p.m. and observed its maneuvers for more than a minute before it disappeared "at a dazzling rate of speed."

On December 29, 1973, area policemen in Culpeper, Va., sighted three UFOs.

An entire book was written about the famous UFO sighting in Exeter, N.H., on September 3, 1965, when two officers were called to the scene and observed a spectacular UFO phenomenon.[1] Accounts of other sightings by law enforcement officers have also been published.[2]

In February 1974, a Rochester, Minn., patrolman chased a "meandering, flame-spewing UFO" along Highway 52 as dozens of motorists pulled off the road in astonishment. During the chase, the radio dispatcher reported to the patrolman that the police

This photograph, taken in New Jersey, shows a typical reported la
feet in diameter, and a depressed central sh



station was receiving many phone calls from people saying they had observed something strange in the sky.[3]

Many other police reports are on record. And, these experiences are not uniquely American—French, Italian, English, Canadian, and Australian police have frequently been involved in UFO sightings.

Despite all this, the matter of UFOs has generally been the subject of ridicule. For years, we have laughed at UFOs and the people who report them. But now, after a quarter century of poking fun, of laughing it off, and of calling UFOs entirely the result of overheated imaginations, the scientific world is slowly awakening to the fact that something real is going on. Science and law enforcement are facing a mutual problem as they have many times before.

A body of scientists and other professional persons, all established in their own fields, organized to create a center for UFO studies because no one was "minding the store." Although some wide-ranging studies had been conducted, these had not followed the continuing nature of the UFO phenomenon. In late 1973, these men—physicists, astronomers, sociologists, psychologists, laboratory heads at several universities around the country (and in France and Australia too)—established the Center for UFO Studies.

UFO Central

In the fall of 1973, the United States experienced a major wave of UFO reports, a great many of which involved law enforcement personnel—either directly or indirectly. Regardless of the source of UFOs or their legitimacy, these sightings represented a real problem for law enforcement because people had to have someplace to go to report and some official person to whom they could recount their experience.

Into this breach, the Center for UFO Studies entered. It operates a toll-free telephone service (UFO CENTRAL), 24 hours a day, 7 days a week. Upon observation of a UFO or receipt of a UFO report, law enforcement officials need only dial the number and an operator (located in Chicago) will request specific information. The form used by the operators is shown on next page.

"Law enforcement agencies have been repeatedly involved with people who have reported unidentified flying objects (UFOs)."

Through the cooperation of the director of Northwestern University's Traffic Institute, this toll-free number was distributed to several thousand police chiefs and sheriffs around the country. It is urged that this number be widely disseminated to lawmen in all parts of the country. Phone stickers with this number are available through the center.

A word of caution. The number should ***not*** be given to citizens reporting the UFO. The law enforcement agency should place the call. Nor, of course, should the number ever be released to the public for obvious reasons.

The UFO CENTRAL "hotline" serves the purpose of mutual cooperation. On the one hand, the Center for UFO Studies is helped by receiving UFO reports that have been prescreened, so to speak, by first be-

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Center for UFO Studies
Northfield, Ill.

*Dr. Hynek is chairman of the Department of Astronomy, Northwestern University, and director of the Lindheimer Astronomical Research Center and of the Dearborn Observatory. He was formerly associate director of the Smithsonian Astrophysical Observatory, Cambridge, Mass., and scientific consultant to the Air Force on the subject of UFOs. He is the author of many technical articles and books.

e with a ring, 30

UFO CENTRAL

Do not write above this line

POLICE/OFFICIAL AGENCY REPORTING:

Caller _____ #_____

Agency _____

Address _____

City/State/Zip _____

Phone ( ) _____

IDENTITY OF WITNESS(ES)

Name _____

Address _____

City/State/Zip _____

Phone ( ) _____

List other witnesses, details of sighting, on other side.

SIGHTING INFORMATION:

Date_____Time_____AM PM

Circle one: LIGHT or OBJECT in the sky?

How close?_____

How many?_____

How long in view?_____

How many people saw it?__

WERE THERE ANY PHYSICAL EFFECTS ON:

Animals___Plants___TV___

Radio___Cars___Phone____

Explain any other effects on the other side.

DID THE OBJECT LAND?_____

If so, how close?

_____

DATE OF CALL_____ OPERATOR_____ TIME_____AM PM

Form used by UFO CENTRAL operators when sighting reports are received.

ing reported to a law enforcement agency. Equally important, the law enforcement agency has an authoritative, scientific agency to which reports can be passed for any appropriate action, such as followup interviews or scientific examinations.

There is, however, a more important cooperative function law enforcement agencies can serve—to protect the scene of a sighting, as they do the scene of a crime—that is, to insure that in those cases in which marks on the ground, broken tree branches, or crop damage is found, the site is protected from curiosity seekers and souvenir hunters. Many times in the past, before a scientifically qualified investigator could arrive, bystanders not only destroyed physical evidence but loitered. They pestered the original witnesses to an extent which discouraged some from an interest in reporting further their experience.

Here is how the center operates once a report comes into UFO CENTRAL:

The report is evaluated by the receiving operator; if it is considered urgent (for example, a landing case, particularly if physical evidence is reported), the director of the center is immediately notified, regardless of the time of day, and appropriate action is taken. Usually, this consists of telephone interviews with the original witness to get the record straight early in the game, followed by notification of a center investigator in the area. Since investigators serve on a volunteer basis (but are generally professional people, often engineers or those with other technical training), they are notified immediately only in urgent cases.

If the UFO report does not demand immediate attention, an investigator is notified by phone or mail, and a report form is sent to witnesses for return to the center.

The Invisible College

The Center for UFO Studies did not spring up suddenly. It had already existed in spirit among a number of scientists and engineers who had taken a private interest in UFOs, meeting wherever they could at private homes, or with one another in their travels. These men called themselves the "Invisible College," a name with an ancient and honorable history. Way back in the "dark ages" of science, when scientists themselves were suspected of being in league with the Devil, they had to work privately. They often met clandestinely to exchange views and the results of their various experiments. For this reason, they called themselves the Invisible College.

And it remained invisible until the scientists of that day gained respectability when the Royal Society was chartered by Charles II in the early 1660's. Similarly, the creation of the Center for UFO Studies from the UFO Invisible College represents a step toward recognition. To a considerable extent, however, it is still a matter of bucking indifference as the early scientists once had to resist the popular superstition of the day.

In late 1973, it had clearly become the time to act.

The scientific board of the center consists of faculty members and scientists at such universities as Stanford, UCLA, University of Chicago, Colorado, Texas, Wisconsin, Utah, Illinois, Johns Hopkins, Yeshiva, and Northwestern.

". . . proper scientific investigation of current UFO reports is of prime importance."

Announcement of the center brought responses from many quarters and offers of volunteer help from technically trained persons from all over

the country. In the main, these people offered their services as investigators of current UFO cases. Although present UFO data are already mountainous, proper scientific investigation of current UFO reports is of prime importance. In the past, because of the obscuring "ridicule curtain," proper investigation was rarely carried out, and many cases could probably have yielded hard-core data; instead, only anecdotal material resulted.

In obtaining hard-core data, the cooperation of law enforcement officials is of great importance. Only they can protect, for instance, the scene of a UFO incident from disturbance, and their presence at such a scene lends authority which the public recognizes.

In France, officials have publicly acknowledged their support of cooperative efforts when investigating serious UFO reports. The "Gendarmerie Nationale," an official publication of the Gendarmes (a branch of the French National Police), discusses procedures which French police should follow upon receiving a report of a sighting.

Public Concern

It is misleading to assume that because one does not read a great deal about UFOs in newspapers (there are far more reports of UFO sightings in small town newspapers as compared with large urban dailies) that the public is not interested or concerned about them. The "grassroots" interest is nevertheless believed to be very high. Just start a conversation about UFOs at almost any gathering—from a cocktail party to a civic meeting—and you'll be surprised how (slowly at first) UFO stories will pop up. It has been my regular experience in giving talks about UFOs in various parts of the country that 10 to 20 percent of my listeners will confess by a show of hands to having some sort of a UFO experience. Yet, when I ask the same people how many of them *reported* their sighting to the police or to the Air Force, only a small percent had.

I am entirely convinced that a large reservoir of unreported UFO cases exists—the sightings have not been reported largely out of a fear of ridicule. A Gallup poll released in 1973 suggests that as many as 15 million Americans may have seen UFOs and that 51 percent of the persons polled believe UFOs are "real." Whatever UFOs eventually prove to be—visitors from outer space or what have you—15 million people is a number to be reckoned with—and the police are the first in line to have to do the reckoning!

It is well, then, to be prepared to handle an excited—sometimes even hysterical—voice at the other end of the line reporting a UFO. The basic facts that the center needs to know are those listed on the UFO CENTRAL form. The most important of those are:

A. Was an object seen *nearby*, on the land or close above it?
B. Were there any physical disturbances or effects?
C. What was the duration of the UFO experience?
D. How many witnesses were there to the event?

As soon as these basic points are noted, the caller should be advised that his report will be referred to the center and that he may be contacted by persons from the center. Do not give the caller the toll-free number. The operators are instructed not to accept calls from private individuals.

At this point, providing, of course, there is no violation of law apparent, the responsibility of the law enforcement agency has been discharged—as far as the UFO report is concerned. *There* is one great *exception*: In the event that the caller states an object has landed, and especially if damage to property or danger to life is indicated, police action is obviously called for. In such cases, it is important for scientific and public safety purposes that the affected area be cordoned off and protected from the public until qualified investigators arrive.

The data-gathering function of the center is only one aspect of its work. Study and analysis of UFO reports are its prime aims. And primary in this is the laboratory study of those "close encounter" cases in which associated physical effects are alleged to have occurred: damage to crops, property, trees, ground, or persons, or material said to have come from the UFO is found. Medical examination of persons reported temporarily blinded or paralyzed is also sponsored by the center. Likewise, when the physical effect takes the form of interference with electronic circuits, automobile ignitions, and electrical systems, the center attempts to study the equipment affected and the manner in which it was affected.

Pattern studies, involving statistical analyses of types of UFO occurrences, their frequency, the geographic and time distribution, and the numbers and distribution of witnesses reporting them, are made; likewise similar studies of types, training, and community status of witnesses are important.

To those not familiar with the UFO phenomenon and the type of reports that continue to be made by responsible persons, here is a quick rundown of terminology:

Close encounters. These are sightings of UFO events reported seen at close range—a few hundred feet generally. For convenience, they have been divided into three classes:

First kind. A sighting at close range, but nothing tangible happens.

Second kind. Something tangible does happen, for example, electrical circuits can be severely affected; marks can be left on the ground; persons can be temporarily paralyzed or blinded, and skin burns can occur; plants, trees, and crops can be damaged, and so forth.

Third kind. Like the first and second kinds, except that living or robot-type creatures (humanoids, "ufonauts," occupants) are reported. For a fuller treatment, see Hynek, "The UFO Experience."

Non-close encounters.

Radar returns. The most significant and interesting cases are those in which there are simultaneous radar and visual observations, as when an aircraft is involved in a visual sighting and the control tower confirms the sighting on radar.

Nocturnal lights. Lights seen in the night sky whose movements, behavior, and appearance cannot be simply explained as aircraft, meteors, satellites, stars, and so forth.

Daylight discs. These are daytime sightings and are generally described as oval, metallic discs, or more frequently, as "two saucers, one overturned on the other." They are described as capable of hovering a few feet off the ground or water, and able to take off, generally at a high angle, with enormous acceleration, disappearing in a matter of seconds. A faint humming sound is frequently reported. The authenticity of photographs of daylight discs depends, of course, on the integrity of the photographer. It would seem, however, that not all the many photographs examined by the center are fakes.

Misconceptions

Finally, there are many misconceptions about the UFO phenomenon held generally by those who have never examined the data. The first of these is, of course, that UFO reports are made mainly by crackpots. The facts are quite otherwise. Clearly, police officers, commercial and military pilots, air traffic controllers, scientists, and school teachers are not in this category. Experience definitely shows that the best reports, those with the greatest information content, come from technically trained, professional people, especially law enforcement personnel.

UFO's continue to concern an increasing number of people.

A second popular misconception is that even if reporters of UFOs are not "off their rockers," they have greatly overstimulated imaginations. The reports themselves argue strongly against this. For the reports do not range over a broad spectrum. There are virtually no reports of *unidentified sailing objects*, or of UFOs with wings or wheels, and there are no reports of flying pink elephants (FPEs!) or of the Empire State Building being seen upside down in Pittsburgh. Overheated imaginations should certainly generate a far wider range of reports than that of the typical UFO reports we do receive. Granted, although the unexplained reports we do get are truly incredible, they almost always fall into the distinct patterns mentioned above. Pure imagination should produce, by definition, all sorts of things—but concerning UFOs, it does not.

UFOs have been called "incredible tales from credible persons" and that is just what they are. So incredible (from our present technological standpoint) that it has been very tempting for all of us, including scientists, to dismiss such reports out of hand. Yet, it is absolutely incontrovertible that our most puzzling reports come from reliable, often highly trained witnesses!

Lastly, a third misconception is that people "see what they wish to see," that is, that they are victims of their own desire to see a UFO. Once again, experience denies this. Time and again, the witnesses try first to explain their sighting to themselves. "At first we thought it was a balloon (or an aircraft, or an accident on the road, and so forth) but then we realized it just couldn't be" is a statement I have heard many, many times.

So then, something is happening which, in our ignorance, we call UFOs, or the UFO phenomenon. It is something that continues to concern an increasing number of people as the Gallup poll clearly indicates. In 1966, the Gallup poll suggested that 5 million Americans may have witnessed UFOs; in 1973, the number had increased to 15 million. Because many agencies advise callers to report to their local police, the UFO phenomenon has also become a problem for law enforcement. And finally, in the last several years particularly, law enforcement officers themselves have been primary UFO witnesses. Close cooperation of law enforcement with the Center for UFO Studies can help us solve a most perplering modern mystery.

FOOTNOTES

[1] John Fuller, "Incident at Exeter," Putnam (1966).

[2] J. Allen Hynek, "The UFO Experience: A Scientific Inquiry," Regnery (1972), Ballantine (1974).

[3] Reported to UFO CENTRAL.

The Informer's Identity at Trial

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

From the earliest days of law enforcement history, police have found it necessary to deal with sources of information whose identities must be concealed. Whether the source is a regular informer or a citizen volunteering assistance, the officer's responsibility to the source is similar. Recognition of the need for police utilization of undercover activity has been expressed many times by the Supreme Court of the United States. As Chief Justice Warren, speaking for the Court in 1966, noted:

> ". . . it has long been acknowledged by the decisions of this Court . . . that, in the detection of many types of crime, the Government is entitled to use decoys and to conceal the identity of its agents." [1]

Although the use of informers is invaluable to the solution of all classifications of crimes, a bulk of the reported judicial decisions concerns informant utilization in the enforcement of laws such as those directed against gambling, prostitution, and the illegal sale and use of liquor and narcotics, where a complaining witness is rare. Indeed, it has been estimated that 95 percent of all Federal narcotics cases are obtained by the work of paid or unpaid informers.[2]

Recognizing a societal need to foster and encourage private citizens [3] and confidential police sources to furnish information concerning criminal activities, the judiciary developed the informer privilege. This testimonial doctrine allows the Government to withhold the identity of persons who give information concerning violations of the law to officers charged with enforcement of that law.[4] The rationale for the privilege is twofold: To insure a flow of information of illegal acts to the police and to protect the informer from adverse social reactions.[5]

At common law and in the early American decisions,[6] the privilege of nondisclosure was absolute. Today, however, under certain conditions, the Government must relinquish the privilege and furnish the defendant with the identity of the confidential informant or dismiss the case. The reasoning for the current policy was expressed by the U.S. Supreme Court as follows:

> ". . . since the Government which prosecutes an accused also has the duty to see that justice is done, it is unconscionable to allow it to undertake prosecution and then invoke its governmental privileges to deprive the accused of anything which might be material to his defense." [7]

The courts have recognized it is in the interest of society for police to use information they acquire from sources whose identities must be protected. Because all officers must use these sources, they should also be aware of the factors and considerations which determine whether their informer's identity may be revealed at trial.[8]

In 1957, the Supreme Court addressed itself to the question of whether the identity of an undercover informant should be disclosed after he had been a participant in the criminal offense for which the defendant was charged. The facts of *Roviaro* v. *United States* [9] are as follows:

Two narcotics officers searched an informer, "John Doe," and his car, then provided him with marked money. One officer secreted himself in the trunk of Doe's car and the other followed in a police vehicle. The second officer observed Doe rendezvous with one Roviaro after which Roviaro entered Doe's vehicle. The two then drove around briefly before Doe

stopped again. Roviaro exited, picked up a package near a tree, returned to the vehicle, and made an exchange of objects with Doe. Thereafter, Roviaro left and Doe drove away. When Doe and his vehicle were searched minutes later, a package of narcotics was located. Subsequently, a Federal grand jury indicted Roviaro for (1) having sold heroin to one "John Doe" and (2) transporting it knowing it to be unlawfully imported. Before and during his trial, Roviaro sought unsuccessfully to learn Doe's true identity. On the appeal following his conviction, Roviaro contended that because Doe was an active participant in the illegal activity his identity could not be withheld.[10] The Supreme Court reversed the conviction and held that disclosure was required because the informer was a participant in the crime, did not appear to testify at trial, and might have been a material witness on the issue on guilt.[11]

In delineating the standard for disclosure, the Court said:

> "We believe that no fixed rule with respect to disclosure is justifiable. The problem is one that calls for balancing the public interest in protecting the flow of information against the individual's right to prepare his defense. Whether a proper balance renders nondisclosure erroneous must depend on the particular circumstances of each case, taking into consideration the crime charged, the possible defenses, the possible significance of the informer's testimony, and other relevant factors." [12]

In considering the pertinent factors in *Roviaro*, the Court noted that the informer's testimony "might have disclosed an entrapment" and "might have thrown doubt upon petitioner's identity or on the identity of the package." Also recognized were the facts that the informant "was the only witness who might have testified to petitioner's possible lack of knowledge of the contents of the package that he 'transported' . . ." and the "informer was the sole participant, other than the accused, in the transaction charged." [13] These considerations, when weighed against the public interest in insuring a flow of information about criminal activities, rendered disclosure essential to a fair determination of the cause.

Because of the Court's holding that disclosure depends on the peculiar factual situation of each case, the decisional law on the issue is as varied as the myriad backgrounds of the cases themselves. Although it appears that *Roviaro* rests on evidentiary principles and was based on the Supreme Court's supervisory power over the Federal judiciary,[14] most State courts interpret the decision as resting on a constitutional mandate and employ the "balancing" test in reviewing their decisions.[15] A survey of these cases and post-*Roviaro* Federal decisions establishes that one highly relevant factor considered by the courts when ruling on the disclosure issue is the nature of the involvement of the informer. Based on that denominator, the Government's source will usually fit into one of the following four classifications: Tipster, witness, go-between (introduced defendant to the Government agent), or full participant in the criminal act.

Tipster

When the informant merely points the finger of suspicion at one who violates the law but neither witnesses nor participates in the crime, the courts tend to label him a "tipster." In these cases, it is clear his identity is not material to the defense and disclosure will not be required.[16] Independent investigation by the police usually will establish the elements of the violation charged, making moot the issue of the informer's identity. Even when the informer's information is one of the grounds used to obtain a search warrant, his identity need not be revealed at trial. In *State ex rel. Berger* v. *Superior Court*,[17] the informer told officers that appliances stolen in two separate house burglaries were located in the defendant's home and that a stolen television set from one of the houses was in the back of a pickup truck currently parked near a bar. The informer also stated that he had personally seen some of the appliances and that the defendant was attempting to sell them for a very low price. The officers verified the burglaries, recovered the television set from the pickup, arrested two codefendants, and obtained a search warrant for the defendant's residence. A request for disclosure in the form of a motion for a bill of particulars was made the first day of trial. The trial judge granted the motion, but the State supreme court vacated the order and held disclosure was not required. It reasoned that the informer was not at the scene of the crime, he was neither an accomplice nor a witness, and his testimony was apparently not material to the issue of guilt. In short, he was a tipster.

Witness

In considering cases in which the informer is a witness, one writer has asserted that "disclosure will be compelled if the informer is a material witness on the issue of guilt." [18] The Court of Special Appeals of Maryland in *Nutter* v. *State* [19] carefully assessed the disclosure probabilities of an informant who was merely a witness to the criminal offense and not a participant or accessory. In noting that a "material witness" is one whose testimony is important to a fair determination of the cause, the court said:

"Presence is only one fact to consider . . . in determining whether disclosure of . . . [the informer's] identity is essential to assure a fair determination of the issues."

". . . although an eyewitness to a crime is clearly a 'material' witness as that word is ordinarily used, if he is an informer, simply observing an illegal transaction but not participating in it, the fact that he observes the transaction does not necessarily make his possible testimony so important as to compel disclosure of his identity in the face of the rationale of the nondisclosure privilege." [20]

State v. *Booker*,[21] a 1965 New Jersey case, offers a typical factual situation wherein the informant's role is limited to that of a mere witness. The informer was with a narcotics agent when the defendant approached their vehicle and initiated what resulted in a sale of narcotics to the agent. The court held that the mere presence of the informer during the commission of the illegal act did not remove him from the protection of the privilege.

Presence is only one fact to consider with all the other facts in determining whether disclosure of his identity is essential to assure a fair determination of the issues.[22] It appears, then, that when the informer merely witnesses the allegedly illegal act his identity normally will be protected.[23]

Go-Between

The cases are divided when the informant participated but only to the extent of introducing the defendant to the officer to set the stage for the criminal transaction. Often the theory of the defense [24] is determinative as to disclosure and can compel contrary holdings in cases with apparently identical factual situations. Two recent decisions in the U.S. courts of appeals illustrate this anomaly. *United States* v. *Martinez* [25] and *United States* v. *Davis* [26] were cases in which informers introduced undercover narcotics agents to individuals who sold heroin to the agents. In both situations, the informers were also present and apparently witnessed the sales. Martinez was convicted of unlawful possession and distribution of heroin. His defense, based on the theory he was out of the house on an errand when the sale occurred, was substantiated by the testimony of two codefendants but refuted by the undercover agent.[27] In vacating Martinez' conviction, the court noted his defense relied solely on establishing that he was absent from the house at the time of the sale, and the jury's verdict necessarily hinged on whether the jurors believed the undercover agent or the two codefendants on this issue. The informer's testimony could have resolved this testimonial conflict. It bore directly on the question of guilt as he was the only other person present at the time. Disclosure was ordered.[28]

In *Davis*, the informant was present when two undercover agents made buys from the defendant, who was introduced by the informer only as "Coon." Davis contended he was mistakenly identified as the seller and asserted that the officers had, in fact, dealt with a person, other than the defendant, commonly known as "Coon." The court of appeals held it was not error to deny disclosure and noted there was sufficient evidence in the record to conclude that Davis was the seller, pointing out the agents were able to get a good view of him, their descriptions were consistent with his physical appearance, he had a tattoo the agents had observed during the sale, he was much shorter than the other individual known as "Coon," and he was the registered owner of an automobile used during the transaction.

A holding similar to that in *Davis* is found in *United States* v. *Soles*,[29] where the informer introduced the defendant to an undercover officer and was present during negotiations for the sale of narcotics but was absent during the actual buy.

The Court of Appeals for the Second Circuit noted there was little chance of misidentification inasmuch as the defendant was with the undercover agent for a considerable period of time, his vehicle and residence were identified, he gave the agent his telephone number, and he refused to participate in a lineup. However, in *People* v. *Williams*,[30] disclosure was required on the issue of misidentification on a similar factual situation when the officer was the sole witness at trial and had seen the defendant only a few minutes 3 months prior to his arrest.

Another frequently cited case calling for disclosure of a go-between informer is *Gilmore* v. *United States*,[31] where the informant was instrumental in arranging a meeting between an undercover narcotics agent and the defendant in the defendant's bar. The informer, "Anonymous," earlier had informed the defendant that the agent was a seaman interested in obtaining narcotics. During the meeting in the bar, "Anonymous" was present for part of the conversation in which the sale of narcotics was arranged but did not witness the actual purchase which was consummated by the defendant's placing the narcotics in the agent's car. In ordering disclosure, the court characterized "Anonymous" as more than a mere tipster. "He was an active participant in setting the stage, in creating the atmosphere of confidence beforehand and in continuing it by his close presence dur-

ing the moments of critical conversation." [32]

Because the defendant was linked to the narcotics found in the agent's car only by the circumstance of his conversation with the agent, the contents of that conversation were critical to the inference of possession. Disclosure was required to determine the interest, motives, and credibility of the informant.

Notwithstanding the holdings of the *Williams* and *Gilmore* cases, the courts generally have refused to compel disclosure of a go-between informer when he was not present during the criminal act but simply introduced the defendant to the officer.[33]

Participant

Although the *Roviaro* decision noted that no fixed rule with respect to disclosure is justified, when the informer is an actual party to the illegal transaction disclosure is almost a certainty.[34] This is especially true when the defense of entrapment is asserted.[35] For an informer to be considered a participant, it appears that his involvement must be such as to allow him to testify from personal knowledge about the very transaction constituting the crime. Again, mere physical presence at the scene of the offense is not sufficient to classify him as a participant.[36]

The relatively few informer-participant cases which deny disclosure adhere to a strict reading of *Roviaro* by requiring the informer to be the only witness or "transactant" other than the defendant. A recent example is a Missouri case, *State* v. *Taylor*,[37] in which the trial court's denial of a disclosure request was upheld when the facts showed that the informer, accompanied by an undercover officer, witnessed and participated in the purchase of narcotics from the defendant. The court placed emphasis on the fact that in *Roviaro* the informer was the only participant and witness and thus he alone could confirm or contradict the testimony of the Government's witness. It also indicated that participation itself is not enough to require disclosure. When the informer participates jointly with an undercover officer in an offense, the *Taylor* decision would then require another factor, such as alleged mistaken identity, contradictory testimony, or denial of the accusation, before disclosure is proper.

An informer's involvement in the offense charged also affects the proof necessary to obtain a disclosure order. Thus when the informer participates in the offense, the *Roviaro* case itself appears to be authority for the proposition that the accused is not required to present proof of a need for the informant's testimony.[38] The judge will order the informant produced if a timely request is made. The present trend in the nonparticipant cases, however, is that prior to a disclosure order the burden is on the defendant to show a need for the informant's identity.[39] Speculation that the informer might possibly be of some assistance is not sufficient to overcome the public interest in the protection of his identity.[40]

The latter position gives rise to a dilemma. The usual defendant cannot know if the informer's testimony is needed for his defense unless he knows what that testimony is. The prosecution may be reluctant to furnish this information for fear it will identify the source. An interview of the informer, even by the defense attorney himself, appears objectionable to the prosecution for the same reason. The result is that the defendant carries the burden of showing that the informer's testimony is necessary and relevant to his defense without possessing a means of discovering that testimony.

One response to this dilemma is coming from both the judiciary and the legislature in the form of the *in camera* hearing.[41] This procedure allows the trial judge to question the informer in private to discover the nature of his possible testimony. If he finds it unfavorable or of no benefit to the accused, the informer's identity will be protected. But if he decides it is of merit and necessary to insure a fair trial for the defendant, disclosure will be ordered.[42] (Normally a written record of this hearing is prepared, sealed, and preserved for future use by an appellate court in case an appeal is perfected.) In the event of a disclosure order, the prosecution still retains a choice, albeit a double-edged one. It can maintain the informer's confidentiality and terminate the prosecution or produce the informer and go ahead with the case. The second course of action will usually deny society the informer's future services as his value will be minimal if his identity is known.

". . . the *in camera* hearing . . . allows the trial judge to question the informer in private to discover the nature of his possible testimony."

The legal procedure in this area appears far from settled, and there may be other more feasible and workable approaches to the problem. The *in camera* hearing, however, is a method used in some jurisdictions which allows a judicial officer to determine on the merits the issue of whether an informant's testimony will be helpful to an accused's defense without undue risk of a premature, and perhaps unnecessary, disclosure of the informer's identity.

FOOTNOTES

[1] *Lewis* v. *United States*, 385 U.S. 206, 208, 209 (1966).

[2] "Informers in Federal Narcotics Prosecutions," 2 Columbia Journal of Law and Social Problems (1966), p. 47.

[3] Courts have recognized that private citizens have a duty to communicate to the authorities information about the commission of criminal offenses. *In re Quarles and Butler*, 158 U.S. 532 (1895); *Wilson* v.

United States, 59 F. 2d 390 (3d Cir. 1932).

[4] The doctrine has also been sanctioned in civil cases. See, e.g., *Westinghouse Elec. Corp.* v. *Burlington*, 351 F. 2d 762 (D.C. Cir. 1965); *Wirtz* v. *Continental Finance & Loan Co.*, 326 F. 2d 561, 563 (5th Cir. 1964); Annot, 8 A.L.R. Fed. 6 (1971).

[5] 8 Wigmore, *Evidence*, § 2374, p. 762 (McNaughton rev. 1961). It has been noted that informants have a shorter life expectancy than other citizens. *James* v. *State*, 493 S.W. 2d 201, 203 n. 1 (Tex. Crim. App. 1973).

[6] As early as 1884 the U.S. Supreme Court recognized the privilege in *Vogel* v. *Gruaz*, 110 U.S. 311. Twelve years earlier, it had been approved on the State level in *Worthington* v. *Scribner*, 109 Mass. 487 (1872).

[7] *United States* v. *Reynolds*, 345 U.S. 1, 12 (1953).

[8] There is no constitutional requirement for disclosure at a pre-trial hearing when the sole issue is probable cause and not guilt or innocence. *McCray* v. *Illinois*, 386 U.S. 300 (1967) (warrantless arrest); *Rugendorf* v. *United States*, 376 U.S. 528 (1964) (search warrant); *United States* v. *King*, 478 F. 2d 494 (9th Cir. 1973), cert. denied, 414 U.S. 846 (1973) (order for wiretap); *United States* v. *Willis*, 473 F. 2d 450 (6th Cir. 1973), cert. denied, 412 U.S. 908 (1973) (motion to suppress evidence obtained in consent search); *United States* v. *Mendoza*, 433 F. 2d 891 (5th Cir. 1970), cert. denied, 401 U.S. 943 (1971) (search warrant); *Mullaney* v. *State*, 5 Md. App. 248, 246 A. 2d 291 (1968) (warrantless arrest).

[9] 353 U.S. 53 (1957).

[10] The Government did not defend nondisclosure on the sale count of the indictment but attempted to sustain the conviction on the second count which charged illegal transportation. It argued the informant's identity had no real bearing on that charge and was therefore privileged. The court indicated, however, that if Doe's participation made him a relevant witness to the sale it followed that he should be made available to the defense on all charges arising from that criminal transaction. Ibid. at 63.

[11] *Roviaro*, *supra* footnote 9 at 65. In a footnote, the Court indicated Doe's identity and address should have been furnished prior to trial as count one charged Roviaro with a sale of heroin and it was apparent from the indictment that Doe was a participant in and a material witness to that sale. It has been held, however, that no prejudice attaches in denying disclosure prior to trial if the informer subsequently is called as a trial witness and is subject to cross-examination. *United States* v. *Roell*, 487 F. 2d 395 (8th Cir. 1973); *United States* v. *Woods*, 486 F. 2d 172 (8th Cir. 1973). If the Government does utilize the informer as a witness and his credibility is questioned, it is impermissible to withhold his true identity and address. The confrontation clause of the sixth amendment requires full disclosure of this information when the informer testifies to insure meaningful cross-examination. *Smith* v. *Illinois*, 390 U.S. 129 (1968).

[12] *Roviaro*, *supra* footnote 9 at 62. The Court also affirmed the principle that the privilege applies only to the identity of the informer and not to the contents of his communication. If, however, the communication tends to reveal the informer's identity then it, too, is privileged. Ibid. at 60. Accord, *Bowman Dairy Co. et al* v. *United States*, 341 U.S. 214 (1951), and *State* v. *Roundtree*, 118 N.J. Super. 22, 285 A. 2d 564 (1971). Further, if identity is known to those who would have cause to resent the communication, the privilege is no longer applicable. *Roviaro*, *supra* footnote 9 at 60.

[13] *Roviaro*, *supra* footnote 9 at 63–64.

[14] *McCray* v. *Illinois*, *supra* footnote 8 at 309, 311.

[15] Gutterman, "The Informer Privilege," 58 J. Crim. L.C. and P.S. 32 at 46 n. 109. An interesting secondary issue is the relevance of a denial of disclosure in State cases to subsequent Federal habeas corpus proceedings which require an assertion that the applicant is being held in custody in violation of the Constitution or laws of the United States. (28 U.S.C.A. § 2241). Recent cases have raised doubt whether a claim under *Roviaro* is recognizable in habeas corpus. *Phillips* v. *Cardwell*, 482 F. 2d 1348 (6th Cir. 1973); *United States ex rel. Coffey* v. *Fay*, 344 F. 2d 625 (2d Cir. 1965). But see *McLawhorn* v. *State of North Carolina*, 484 F. 2d 1 (4th Cir. 1973), where the court established a fourteenth amendment fundamental fairness limitation. This seems to comport with the Roviaro emphasis on ". . . fundamental requirements of fairness." 353 U.S. at 60. It has also been asserted that refusal to identify an informer may be a denial of the sixth amendment's guarantee of compulsory process for obtaining witnesses. Friendly, "Is Innocence Irrelevant? Collateral Attack on Criminal Judgments," 38 U. Chi. L. Rev. 142, 155–57 (1970).

[16] *Sher* v. *United States*, 305 U.S. 251 (1938); *McLawhorn* v. *State of North Carolina*, 484 F. 2d 1 (4th Cir. 1973); *United States* v. *Mendoza*, 433 F. 2d 891 (5th Cir. 1970), cert. denied, 401 U.S. 943 (1971); *Miller* v. *United States*, 273 F. 2d 279 (5th Cir. 1960), cert. denied, 362 U.S. 928 (1960); *Sorrentino* v. *United States*, 163 F. 2d 627 (9th Cir. 1947). But see *Glover* v. *State*, 251 N.E. 2d 814 (Sup. Ct. Ind. 1969), where an informer's tip led to the identification of the defendant as the burglar. The prosecutor, on redirect examination of an officer, introduced testimony that an informer had said the defendant was guilty. The Indiana Supreme Court, in ordering disclosure, ruled that if an informer's identity is to be protected, the prosecutor should not bring into the trial evidence relating to that informant. Disclosure was necessary to allow the defendant to attack the credibility of the witness.

[17] 106 Ariz. 470, 478 P. 2d 94 (1970).

[18] Wigmore, *supra* footnote 5 at 769.

[19] 8 Md. App. 635, 262 A. 2d 80 (1970).

[20] Ibid. at 84.

[21] 86 N.J. 175, 206 A. 2d 365 (1965).

[22] Accord, *Miller* v. *United States*, 273 F. 2d 279 (5th Cir. 1959), cert. denied, 362 U.S. 928 (1960); *State* v. *Oliver*, 50 N.J. 39, 231 A. 2d 805 (1967).

[23] *Estevez* v. *State*, 130 Ga. App. 215, 202 S.E. 2d 686 (1973); *State* v. *Oliver*, 50 N.J. 39, 231 A. 2d 805 (1967); *Kovash* v. *State*, 519 P. 2d 517 (Okla. Crim. App. 1974). Contra, *People* v. *McShann*, 50 Cal. 2d 802, 330 P. 2d 33 (1958) (where the court indicated an eyewitness-nonparticipant informer's testimony that would vindicate the accused or lessen the risk of false testimony would be relevant); *James* v. *State*, 493 S.W. 2d 201 (Tex. Crim. App. 1974).

[24] Common defenses in narcotics cases are entrapment, misidentification, lack of intent or knowledge.

[25] 487 F. 2d 973 (10th Cir. 1973).

[26] 487 F. 2d 1249 (5th Cir. 1973).

[27] An officer in a vehicle located outside the residence where the alleged offense took place testified he saw Martinez leave the house and return shortly thereafter while the undercover agent and informer were inside.

[28] On petition for rehearing, the court modified its ruling and ordered an *in camera* hearing before the trial judge to determine whether the informer's testimony was favorable to the defendant. If not, the conviction would stand. If favorable, the Government would be required to either identify the informer and make him available at a new trial or drop the charges and maintain his confidentiality.

[29] 482 F. 2d 105 (2d Cir. 1973), cert. denied, 94 S. Ct. 455 (1973).

[30] 51 Cal. 2d 355, 333 P. 2d 19 (1958).

[31] 256 F. 2d 565 (5th Cir. 1958).

[32] Ibid. at 567.

[33] *United States* v. *Clark*, 482 F. 2d 103 (5th Cir. 1973); *United States* v. *Connolly*, 479 F. 2d 930 (9th Cir. 1973), cert. dismissed, 414 U.S. 897 (1973); *United States* v. *Russ*, 362 F. 2d 843 (2d Cir. 1966), cert. denied, 385 U.S. 923 (1966) (defense was mistaken identification); *United States* v. *Simonetti*, 326 F. 2d 614 (2d Cir. 1964); *People* v. *Reed*, 21 Ill. 2d 416, 173 N.E. 2d 422 (1961), cert. denied, 368 U.S. 990 (1962). The likelihood of a disclosure order is greater when the informer is a go-between and also witnesses the transaction but does not personally participate. This is especially true when the defense is entrapment. *United States* v. *Clarke*, 220 F. Supp. 905 (E.D. Pa. 1963).

[34] *United States* v. *Williams*, 488 F. 2d 788 (10th Cir. 1973); *McLawhorn* v. *State of North Carolina*, 484 F. 2d 1 (4th Cir. 1973); *United States* v. *Lloyd*, 400 F. 2d 414 (6th Cir. 1968); *Portomene* v. *United States*, 221 F. 2d 582 (5th Cir. 1955); *United States* v. *Conforti*, 200 F. 2d 365 (7th Cir. 1952); *Sorrentino* v. *United States*, 163 F. 2d 627 (9th Cir. 1947); *People* v. *McShann*, 50 Cal. 2d 802, 330 P. 2d 33 (1958); *People* v. *Lawrence*, 308 P. 2d 821 (Dist. Ct. App. Cal. 1957).

[35] An interesting exception is *United States* v. *Eddings*, 478 F. 2d 67 (6th Cir. 1973), where it was held there was no error in refusing to order disclosure when the defendant admitted purchasing whiskey within sight of a Government agent and that he intended to sell such whiskey. The court reasoned the proof approached establishing predisposition as a matter of law.

[36] *McLawhorn* v. *State of North Carolina*, 484 F. 2d 1 (4th Cir. 1973).

[37] 508 S.W. 2d 506 (Mo. App. 1974).

[38] *McLawhorn* v. *State of North Carolina*, *supra* footnote 16. But cf. *State* v. *Dolce*, 41 N.J. 422, 197 A. 2d 185 (1964).

[39] *Rugendorf* v. *United States*, 376 U.S. 528 (1964); *United States* v. *Alvarez*, 472 F. 2d 111 (9th Cir. 1973), cert. denied, 412 U.S. 921 (1973); *United States* v. *Kelly*, 449 F. 2d 329, 330 (9th Cir. 1972); *United States* v. *Coke*, 339 F. 2d 183 (2d Cir. 1964); *United States* v. *Dioguardi*, 332 F. Supp. 7 (S.D.N.Y. 1971); *State ex rel. Berger* v. *Superior Court*, 106 Ariz. 470, 478 P. 2d 94 (1970); *Kovash* v. *State*, 519 P. 2d 517 (Okla. Crim. App. 1974) (holding standard of proof to be preponderance of the evidence); *State* v. *Massey*, 68 Wash. 2d 88, 411 P. 2d 422 (1966), cert. denied, 385 U.S. 904 (1966).

[40] *Lannom* v. *United States*, 381 F. 2d 858 (9th Cir. 1968), cert. denied, 389 U.S. 1041 (1968).

[41] Cases approving the *in camera* hearing are *United States* v. *Rawlinson*, 487 F. 2d 5 (9th Cir. 1973), cert. denied, 94 S. Ct. 1579 (1974); *United States* v. *Soles*, 482 F. 2d 105 (2d Cir. 1973), cert. denied, 94 S. Ct. 455 (1973); *United States* v. *Hurse*, 453 F. 2d 128 (8th Cir. 1972), cert. denied, 414 U.S. 908 (1973); *United States* v. *Lloyd*, 400 F. 2d 414 (6th Cir. 1968); *United States* v. *Jackson*, 384 F. 2d 825 (3d Cir. 1967), cert. denied, 392 U.S. 932 (1968). Statutes providing for the hearing are Cal. Evid. Code § 1042(d); Ill. Rev. Stat. ch. 110A, § 415(f) (1971); A.L.I., A Model Code of Pre-Arraignment Procedure, § SS 290.4, Proposed Official Draft No. 1, 1972.

[42] Many jurisdictions not only require the disclosure of the informant's identity but, if he is unavailable, reasonable efforts by the Government to locate him. See, for example, *United States* v. *Williams*, 488 F. 2d 788 (10th Cir. 1973); *United States* v. *Pollard*, 483 F. 2d 929 (8th Cir. 1973), cert. denied, 94 S. Ct. 882 (1974); *Velarde Villarreal* v. *United States*, 354 F. 2d 9 (9th Cir. 1965); *People* v. *Goliday*, 106 Cal. Rptr. 113, 505 P. 2d 537 (1973); *Eleazer* v. *Superior Court*, 83 Cal. Rptr. 586, 464 P. 2d 42 (1970).

THE FBI'S APPROACH TO AUTOMATIC FINGERPRINT IDENTIFICATION*

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and
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This is the conclusion of a two-part article begun in the January 1975 issue.

IV. Planned Automatic Fingerprint Searching System

The FBI is presently pursuing a comprehensive plan for the automation of the fingerprint card processing and related activities carried on at the Identification Division in Washington, D.C. The complete system, which will be implemented over the next several years, is to be known as the "Automated Identification Division System (AIDS)." AIDS will eventually provide for automatic fingerprint searching, computerized name searching of the criminal name indices, computer storage and retrieval of arrest record data, and the capability to gather criminal statistics and system performance data.

The scope of this paper does not provide for a full discussion of the plan for AIDS. Rather, this section of the paper will be confined to the presentation of the general plan for implementing the automatic fingerprint searching portion of the AIDS system.

Figure 8 is a functional block diagram of the major processing steps in the planned automatic fingerprint searching system. Figure 9 depicts the general hardware configuration for the system.

Fingerprint cards will be received from a *Data Entry Unit.* Prior to being submitted for fingerprint searching, Data Entry Unit personnel using key-to-disk devices will have entered the alphanumeric descriptive data (name, date of birth, sex, and et cetera) appearing on the cards into the AIDS computer where an automated name search will have been performed against the criminal name indices. Those cards that are matched to prior criminal history records in the system by the name search and which pass a subsequent fingerprint verification, will not need to undergo a fingerprint search. However, those cards that are not matched by name, or those tentatively matched by name but failing fingerprint verification, must undergo a search of the computerized fingerprint file.

When fingerprint cards are fed into the *FINDER II fingerprint readers,* an optical character recognition station on the card handler will read preprinted processing control numbers (PCN) appearing on each of the fingerprint cards. These numbers uniquely identify each card and are the means by which the cards are logged into the system. The PCN of a fingerprint card will remain associated with the card and its computerized data until such time as the card is identified with a prior record having an FBI identification number; or, if unidentified, until an FBI number is assigned to the card.

After the initial "logging in," the cards move automatically on to the fingerprint scanning station of the

*This is a paper which was presented at a Conference on The Science of Fingerprints held at the Home Office, London, England, on September 24–25, 1974, and is reprinted from the conference proceedings with the permission of the Home Office. In the interest of currency, certain information has been updated.

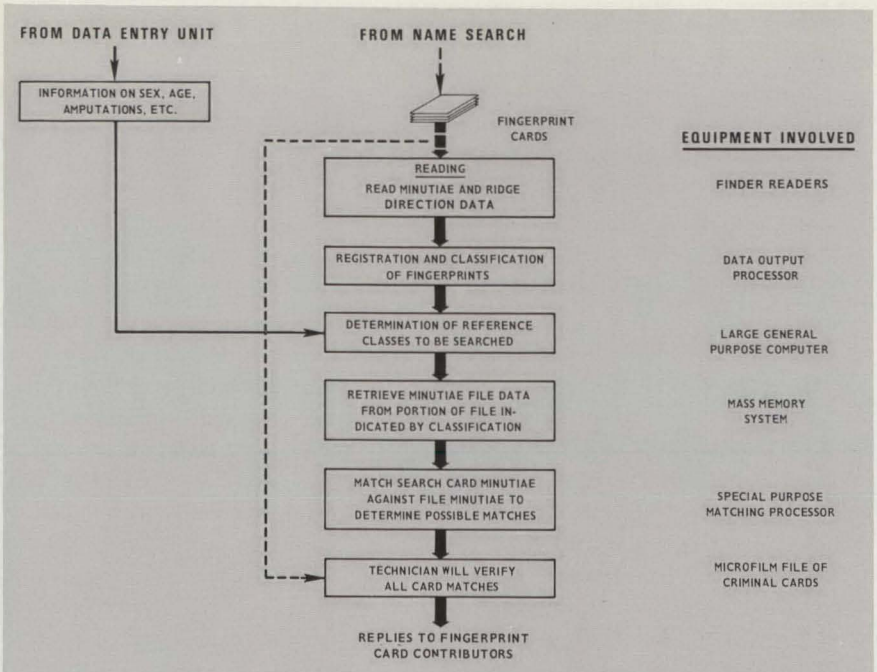


FIGURE 8. AUTOMATIC FINGERPRINT SEARCH FUNCTIONAL BLOCK DIAGRAM

". . . with the advent of computerized on-line arrest record storage and retrieval systems . . . there arises a need to accomplish the fingerprint identification task much faster so as not to nullify the benefits of faster record retrieval."

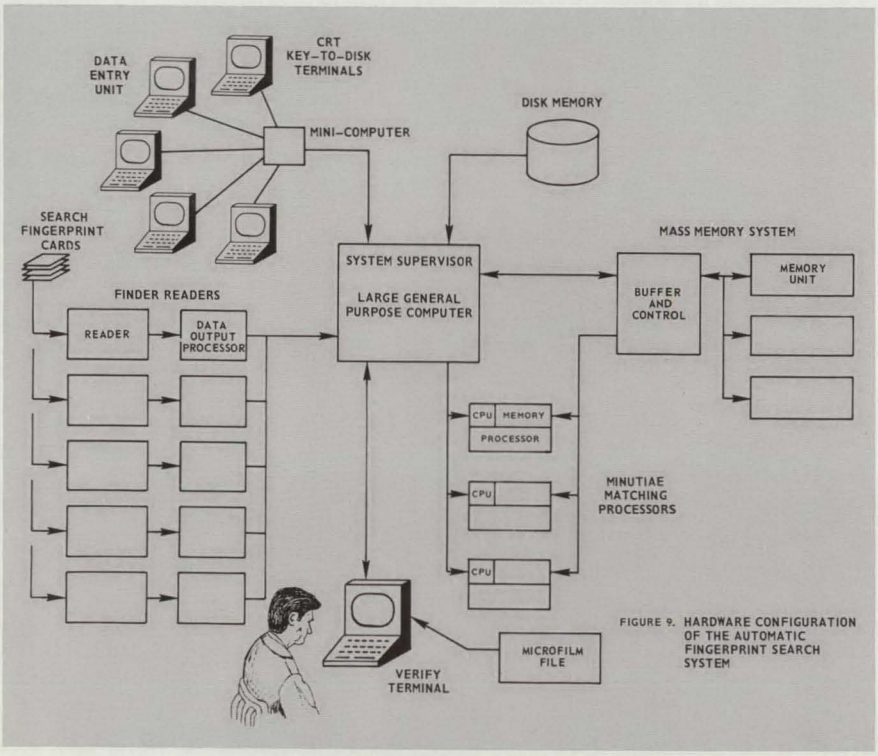


FIGURE 9. HARDWARE CONFIGURATION OF THE AUTOMATIC FINGERPRINT SEARCH SYSTEM

FINDER II readers, where minutiae and ridge direction data are read from each of the fingerprints. These data are passed directly to *data output processors (DOP)*, which are high-speed minicomputers that service each of the readers. The DOP's perform the registration and classification functions. After each individual fingerprint on a card is classified, the individual classifications are combined to make up an overall classification for the card.

The composite classification and registered minutiae data will then be transmitted to a large general-purpose computer, called the "*system supervisor computer.*" This computer acts as the central controller and information exchange for the system. In a sense, the readers, data entry terminals, mass memory devices, matching processors, and verification terminals are input/output terminals for the system supervisor computer.

The system supervisor computer merges the classification data with related information on sex, age, et cetera, previously entered by the Data Entry Unit. These latter data help decrease the area of the file required to be searched and matched. The system supervisor computer next determines all reference or "possible" classes that must be searched, based on fingerprint class. This is similar to searching a tented arch as an arch, when the pattern is in doubt, but involves more cross-referencing because of the complexity of the automated classification scheme.

Once the classes to be searched have been determined, each of the corresponding file sets of minutiae must be retrieved from the *mass memory system*. Because of the size and access times usually involved in a storage system approaching 0.3 trillion bits (0.3×10^{12} bits), a complex system for queuing requests and file ordering will be required. How-

ever, the mass memory system will be capable of on-line storage of a minutiae file of up to 15 million fingerprint cards. These will be stored in groups according to their classification, but in addition each card will be assigned its own FBI identification number.

Minutiae retrieved from the mass memory system on the basis of a search request will be processed through the *matchers,* which are special-purpose high-speed hardware implementations of the NBS minutiae-matching algorithm. Each matcher compares the minutiae of a search fingerprint card with every file set of the same classification and determines the match scores. A minicomputer (CPU) in the matcher keeps track of the scores and reports possible matches to the system supervisor computer.

The final step in the processing is the verification of possible matches. Verification is performed by a fingerprint technician. It should be noted that the technician will not see or handle all the search fingerprint cards, since in many instances the matcher will not find a possible match for them. But, when there is a possible match, he will visually compare the hard copy search card with a displayed microfilm or microfiche image of the possible matching file card selected by the matcher. It is important to note that he is not working from the digital minutiae data, such as used by the matcher, but is working with the original search fingerprint card and a filmed image of the possible matching file card. He will either verify or reject the match using traditional manual fingerprint comparison procedures.

If the technician verifies the match, he will signal the system supervisor computer of this fact. This notification will set in motion a series of activities within the AIDS system. The end result will be that any arrest information associated with the search fingerprint card will be added to the prior criminal history record which was matched with the card. Also, the criminal history record will be transmitted on-line to the contributor of the card; or, if the contributor lacks on-line access to the system, a printout of the record will be produced for mailing.

If, on the other hand, the technician rejects the match, he will again signal this fact to the system. In such cases, the contributor will be notified, either on-line or through the mail, that no prior criminal record was found on the person fingerprinted. If the search card reflects information on an arrest for a serious offense, the information from the card will be used to establish a new criminal history in the system and an FBI identification number will be assigned to that record for future reference.

V. Future Extensions of the FBI's Technology

The FBI is presently focusing its research efforts on the problems of searching 10-finger inked fingerprint cards against the large criminal fingerprint card file it maintains at Washington, D.C. However, the digital image-processing techniques and the classification and matching algorithms developed for automatic fingerprint searching hold great promise for extended application in other areas of identification. We believe that for law enforcement, the most productive and beneficial area for this extension involves the automatic searching of latent crime scene fingerprints. Another logical extension would be to make automatic fingerprint search capability more widely available by means of remote fingerprint reader terminal devices located at State and local law enforcement agencies. Through such devices, distant agencies could obtain on-line fingerprint searches of the FBI's computerized national fingerprint file.

Automatic Searching of Latent Fingerprints

In order to be successful, *any* system of searching latent crime scene fingerprints must recognize the basic problems inherent in latent fingerprint identification. These problems involve the poor quality of the prints, their often fragmentary nature, possible interference caused by background surfaces, the fact that one must work with an incomplete set of fingerprints, and the frequent lack of any descriptive information regarding the criminal.

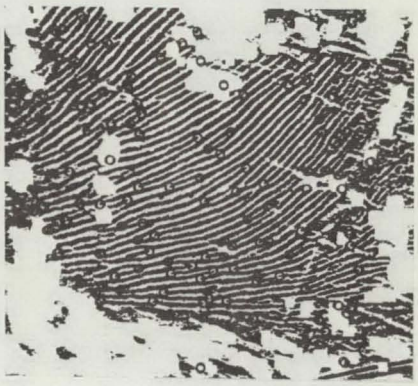
In view of the variety and complexity of these problems, the realistic approach to designing an automated latent fingerprint searching system is to view such a system as a tool to be used by a human latent examiner to extend his searching capability, not as a replacement for him. Even if it were technically feasible to duplicate the knowledge, experience, and intuitive powers of the latent examiner, it is not believed that it would be cost-effective to do so. Therefore, the FBI's plans for an automated latent searching system have as their basic premise the continuation of the primary role of the human latent examiner and the relegation of automation to a supporting role. With this basic premise in mind, the automation problem becomes one of determining the ways automation can assist a latent examiner.

One way is to provide him with a means of enhancing low-quality latent fingerprints. We have already seen in Figure 5 how the prototype FINDER reader can enhance an inked palm print. Figure 10 shows how the FINDER enhanced a lifted powder palm print. The further development of this capability to enhance latent ridge structure and at the same time filter out background interference ap-

pears to be a worthy area for further research.

But, there is another area where there is an even greater potential to assist the latent examiner, that is, to provide him with a large file of fingerprints which he can easily search. Such a large file has not been previously achievable for several reasons. First, most sizable manual 10-finger inked card files are organized on the basis of 10-finger classification schemes. This precludes efficient searches on less than a full set of 10 fingerprints. Second, the special manual single fingerprint files organized for searching latents involve time-consuming coding and tedious searching. The result has been that there has been a practical upper limit on the size of manual fingerprint files that can be compared against latents; and, consequently, the general practice in conducting latent fingerprint examinations has been to confine them to comparisons against the fingerprints of known suspects.

LATENT PALM PRINT LIFT



BINARY IMAGE OF LEFT PORTION OF PALM PRINT

FIGURE 10.

READER ENHANCED BINARY IMAGE OF LATENT PALM PRINT WITH MINUTIAE DETECTIONS SHOWN AS CIRCLES

However, the problems encountered in searching a 10-finger file and the time-consuming burden of coding latents are not involved in a FINDER-generated fingerprint file. FINDER will encode the inked fingerprints automatically and, since the file is computerized, it can be duplicated, reorganized, and indexed on all or any part of the information entered into it. For example, each file card in the file could contain minutiae data from each individual fingerprint, the classification by pattern of each individual finger, the composite classification by card sets, and the physical description of the person fingerprinted.

The more information the examiner has regarding the latent prints to be searched, the smaller the area of the file which must be searched. For instance, if a fragmentary latent fingerprint were found at the scene of an unwitnessed burglary, the file might be searched sequentially on the basis of minutiae comparisons alone. However, if a latent print were found at the scene of a witnessed bank robbery and it had been determined that the pattern type was an arch, it came from the right index finger, and that the criminal was a white male, then the minutiae comparison search could be confined in the file to number "2" fingers having arch patterns belonging to white males.

Even though the speed of digital computer logic would make more extensive file searches possible, there will still be practical limitations on the extent of such searches. Therefore, rather than attempt to search latents against the whole general criminal 10-finger card file, it would appear wise to follow the traditional approach of establishing a special file on known criminals for searching latents. This file could be organized according to offense categories; for example, kidnaping, forgery, and bank robbery. Then, on the basis of probability, latent fingerprints found at the scene of a bank robbery would be searched against the bank robbery portion of the computerized file. While the resulting computerized latent fingerprint search file would not be as large as a general criminal 10-fingerprint file, it would still be much larger than previous manual single-fingerprint file counterparts.

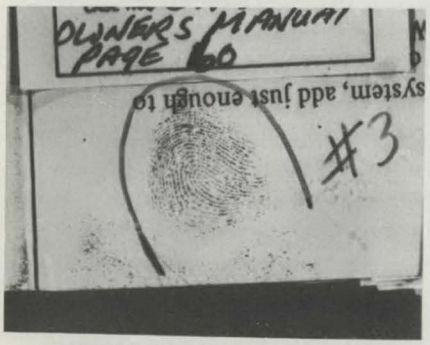
Having established the merits of searching a FINDER-read fingerprint file, the question arises as to how the latent crime scene prints would be computerized for searches against the file. The answer will depend in part on the condition of the latent prints and in part on the availability of equipment. Some latent fingerprints may equal the quality of well-inked fingerprint impressions and therefore can be read automatically by the FINDER reader. However, most latent prints are of such poor quality that they cannot be read automatically by FINDER. Such a case is shown in Figure 11. But, even if the prints are readable by FINDER, an agency may not

"FINDER will encode the inked fingerprints automatically and, since the file is computerized, it can be duplicated, reorganized, and indexed on all or any part of the information entered into it."

be able to afford that type of equipment.

There are, however, alternative methods of encoding digital fingerprint minutiae. The first method is to use an optical display system to enlarge the prints so that manual methods can be used to mark and measure the locations and direction angles of the minutiae in the prints. The measured data are then keypunched for entry into the computer. Obviously, this is a very tedious and time-consuming process.

A more efficient, yet relatively low-cost, alternative is the use of semiautomatic encoding equipment. This equipment generally consists of a television (TV) camera to view a print, a TV tube to display it on, an interactive control device or light pen by which the operator can mark the minutiae on the screen, a small computer to digitize and record the minutiae data, and a control keyboard.



ACTUAL LATENT FINGERPRINT CHEMICALLY DEVELOPED

FINGERPRINT READER ENHANCED BINARY IMAGE FROM ABOVE LATENT IMPRESSION

FIGURE 11.

ENHANCEMENT OF LATENT FINGERPRINT BY FINDER READER.

The semiautomatic device is operated in the following manner: First, the operator places a print under the TV camera so that an enlarged image appears on the TV display screen. He then uses the control or light pen to place a small dot of light at the location of each minutia. As he moves from minutia to minutia, he will signal the computer to digitize the location of each dot. The direction of a minutia is determined by placing a second dot in the direction of ridge flow and signaling the computer to determine the angle made by the two dots with the horizontal axis.

Such semiautomatic encoding equipment would require 3 to 5 minutes per print encoded, and it therefore is not well suited to compiling a large file of computerized fingerprints. It is better suited to encoding prints that are to be searched against an automatically read and compiled file.

Therefore, the FBI has adopted an approach to latent fingerprint searching wherein both fully automatic FINDER readers and semiautomatic encoding devices are used. The FINDER readers will be used to compile the search file, and the semiautomatic encoding devices will be used to code latent fingerprints that cannot be read by FINDER. In this way, the high-speed reading capability of FINDER readers will be utilized to perform the onerous task of en masse coding of inked fingerprint cards for the file, while the knowledge, experience, and intuition of the latent examiner will be brought to bear in his use of the semiautomatic device to code the latent prints for searching.

This approach has several advantages: (1) It employs the strengths of each system to offset the weaknesses of the other; (2) The latent file can be searched with a minimum of information, but the search becomes more efficient with each additional item of information added to the search argument; (3) The latent examiner is in charge and makes all the final decisions, including identification. In regard to this latter point, no aspect of the automated system should pose a problem to the examiner's appearance in court as an expert witness since he will prepare his testimony, evidence, and exhibits in the traditionally accepted manner.

The FBI's approach to latent fingerprint searching has advanced beyond mere theorizing. Limited experiments using manually coded latents and FINDER-read inked fingerprints have resulted in encouraging results. Further, a semiautomatic fingerprint encoding system has been built and is undergoing evaluation at the New York State Division of Criminal Justice Services (DCJS) at Albany, N.Y.[6] The FBI is presently participating in a joint effort with DCJS to demonstrate the compatibility of minutiae data read from latent fingerprints using the DCJS semiautomatic reader and those from rolled inked prints read by the FBI's fully automatic FINDER reader. Although the study has not yet been completed, the results to date indicate that there is no fundamental impediment to the achievement of compatibility between the two systems.

Remote Fingerprint Reading Terminals

Over the years, the most commonly used means of transmitting fingerprint cards to the FBI Identification Division has been by mail. This practice has been adequate (except in urgent cases where facsimile equipment is used) in view of the time required to search the card at the Division using manual methods and the fact that the reply is normally by mail.

However, with the advent of computerized on-line arrest record storage

and retrieval systems such as the National Crime Information Center's Computerized Criminal History File, there arises a need to accomplish the fingerprint identification task much faster so as not to nullify the benefits of faster record retrieval. The realization of the automatic fingerprint searching system described in Section IV of this paper will greatly increase the speed by which fingerprint cards are processed internally at the Identification Division. The new automatic system will also have the capability of furnishing on-line replies to the contributors of the cards. Therefore, the only remaining impediment to achievement of an efficient fingerprint processing system would be the lack of a faster means of transmitting fingerprint card data to the Division.

The most obvious solution to this inadequacy is to expand the usage of facsimile equipment as a means of transmitting fingerprint images to the FBI. This approach has the advantage of dealing with an available and proven technology and therefore may be a reasonable means of fulfilling the need. However, facsimile has its shortcomings, too. It is a cumbersome process; and, since it requires a relatively long transmission time to send high-resolution fingerprints, communications costs associated with facsimile are relatively high.

The FINDER technology presents a more attractive alternative. Since the data generated by the FINDER readers are digital, they are amenable to transmission using standard data communications techniques. Further, since FINDER reduces the volume of data contained in a fingerprint from about 2 million bits of raw image data down to about 2,500 bits of meaningful identifying information, there is much less data to be transmitted than in facsimile methods. Using a standard telephone line, one FINDER-read print could be transmitted in just over one second, which is much faster than presently possible with any known facsimile equipment in use today. Another advantage is the fact that the data would be ready for immediate processing in the Identification Division's automated fingerprint searching system, whereas a facsimile printout would have to be rescanned by a FINDER reader.

We believe it is well within the state-of-the-art of technology to develop remote terminal readers. These might take the form of smaller, but more advanced, versions of the FINDER II reader, utilizing solid-state scanners and large-scale integrated circuitry. These devices could be designed to read inked cards and/or directly from fingers.

Other Extensions of the FBI's Technology

This paper has dealt with the application of FINDER and its associated processing logic for the automatic registration, classification, and matching of fingerprints only in regard to law enforcement identification problems. It takes little imagination to foresee its extended application to other areas requiring high-speed identification of persons, such as security access control and commercial credit transactions.

VI. Conclusion

The increasing activity, mobility, and sophistication of the modern criminal present new challenges to law enforcement. As a further complication, in recent years, landmark court decisions have made it necessary for law enforcement to rely more and more on positive scientific evidence such as fingerprints. However, the traditional time-consuming manual fingerprint identification procedures are proving to be inadequate to meet the new challenges.

> ***"The increasing activity, mobility, and sophistication of the modern criminal present new challenges to law enforcement."***

The story is becoming all too common about the individual who was arrested on a local charge and released, and later it was found out through a delayed fingerprint identification report that the person was a fugitive wanted in another jurisdiction. Also, consider the frustration of the law enforcement officer who finds excellent latent fingerprints at the scene of a crime, but without additional clues has no way of searching them against a fingerprint file.

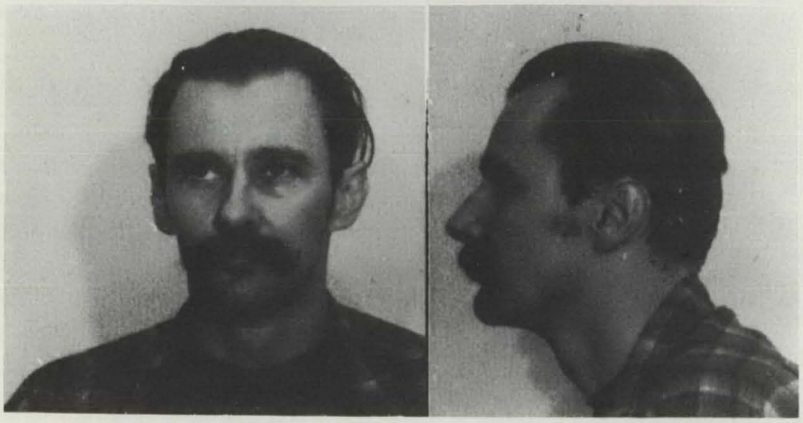
The marriage between EDP technology and the science of fingerprints is long overdue. This is especially evident when one views how successfully EDP has been utilized in other technical areas. It is true that the problem of fingerprint identification has for a long time defied the application of conventional EDP techniques. However, we believe that the development of the FINDER prototype fingerprint reader system represents positive proof that the problem is not insoluble.

Although much remains to be accomplished before the FBI achieves its goal of a fully automatic fingerprint identification system, we believe it is now only a matter of time before it becomes a reality. But, when at last our goal is achieved, we will no doubt feel much like Sir Winston Churchill did when he wrote, "I pass with relief from the tossing sea of Cause and Theory to the firm ground of Result and Fact" (*The Malakand Field Force*, 1898).

REFERENCE

[6] Thornburg, D. D., and Madrazo, F. G., "Semi-automated Latent Fingerprint Processing System," *Proceedings of the 1972 Carnahan Conference on Electronic Crime Countermeasures*, University of Kentucky, Lexington, Ky., April 1972.

WANTED BY THE FBI



LEWIS ALBERT SANDERS, JR., also known as Larry A. Kingston, Larry Albert Sanders, Jr., Larry Lanier Sanders, Lewis Allen Sanders, Jerry Turner, Larry Craig Williams

Theft from Interstate Shipment; Bond Default

Lewis Albert Sanders, Jr., is wanted by the FBI for theft from interstate shipment and bond default. Federal warrants for his arrest were issued on May 24, 1971, and on June 3, 1971, at Fresno, Calif.

The Crime

Sanders was arrested on February 10, 1971, by the California Highway Patrol at Dos Palos, Calif., in connection with the theft of copper wire from an interstate shipment. He appeared in the U.S. District Court, Fresno, Calif., on May 3, 1971, and was sentenced to serve a term in the custody of the Attorney General of the United States. On June 3, 1971, a Federal grand jury sitting at Fresno, Calif., charged him with failing to surrender to the U.S. Marshal after having been granted a delay of sentence to settle his affairs.

Right ring fingerprint.

Description

Age	30, born April 26, 1944, Amarillo, Tex.
Height	6 feet to 6 feet 1 inch.
Weight	160 to 165 pounds.
Build	Slender.
Hair	Brown, sandy blond.
Eyes	Blue.
Complexion	Medium.
Race	White.
Nationality	American.
Scars and marks	V-shaped scar center of forehead, scar right forearm, scar left side of abdomen, scar inner right knee; tattoos of "KIN G S T O N COURT, MISSION BEACH" right shoulder; bull's head, Scorpio insignia with "LINDA" left forearm.
Occupations	Laborer and a self-employed truck driver.
Social Security No. used	557–60–4215.
FBI No.	7,064 E.

Fingerprint classification:

18 O 29 W IOO 19 Ref: 29
I 20 W IOI 24

NCIC classification:

PO PI 18 PO 19 DI PI 15 PI 16

Caution

Sanders has been convicted of possession of marihuana, receiving stolen property, and interstate transportation of a stolen motor vehicle. He has possessed a pistol in the past, and should be considered armed and dangerous.

Notify the FBI

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

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Complete this form and return to:

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FEDERAL BUREAU OF INVESTIGATION

WASHINGTON, D.C. 20535

____

NAME *TITLE*

____

ADDRESS

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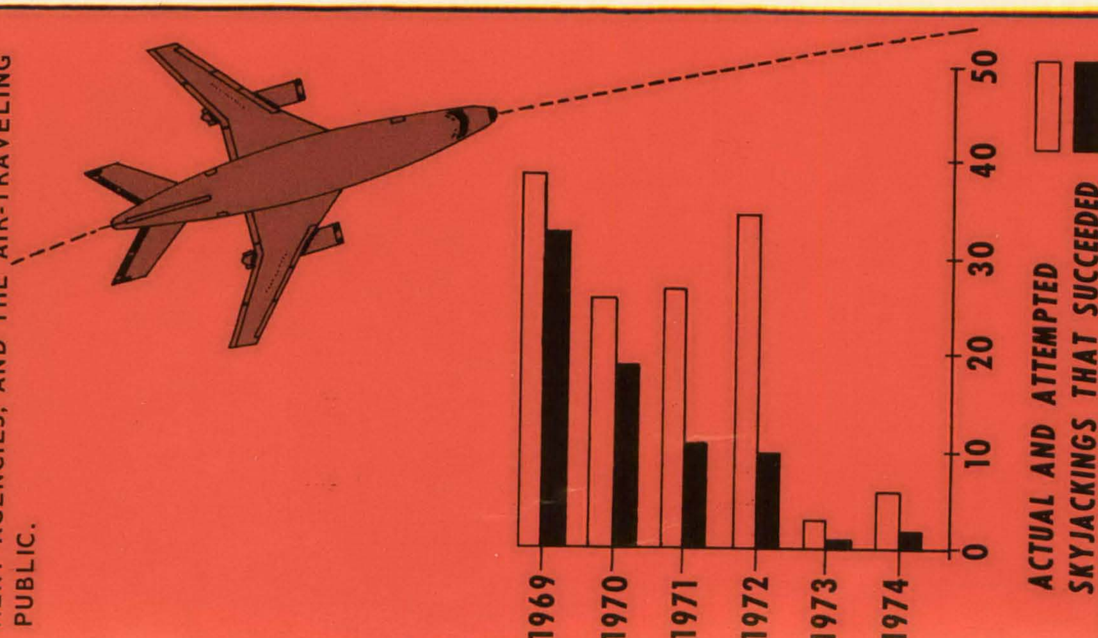
CITY *STATE* *ZIP CODE*

- -

Aircraft Hijacking Statistics, dated 12/2/74.

A SILVER LINING

AMONG THE DARK CLOUDS OF RISING LEVELS OF CRIME THAT CONTINUE TO HOVER OVER THE NATION, THERE IS AT LEAST ONE WITH A SILVER LINING. SKYJACKINGS HAVE TAKEN A WELCOME NOSE-DIVE FROM THE UNPRECEDENTED HEIGHT THEY REACHED A FEW YEARS AGO. SUCCESS IN BRINGING THIS COWARDLY CRIME "DOWN TO EARTH" IS ATTRIBUTED BY MOST AUTHORITIES TO THE VIGOROUS ANTI-SKYJACKING CRIME PREVENTION PROGRAM LAUNCHED IN RECENT YEARS THROUGH THE COMBINED COOPERATION OF THE AIRLINES, LAW ENFORCEMENT, AND OTHER GOVERNMENT AGENCIES, AND THE AIR-TRAVELING PUBLIC.



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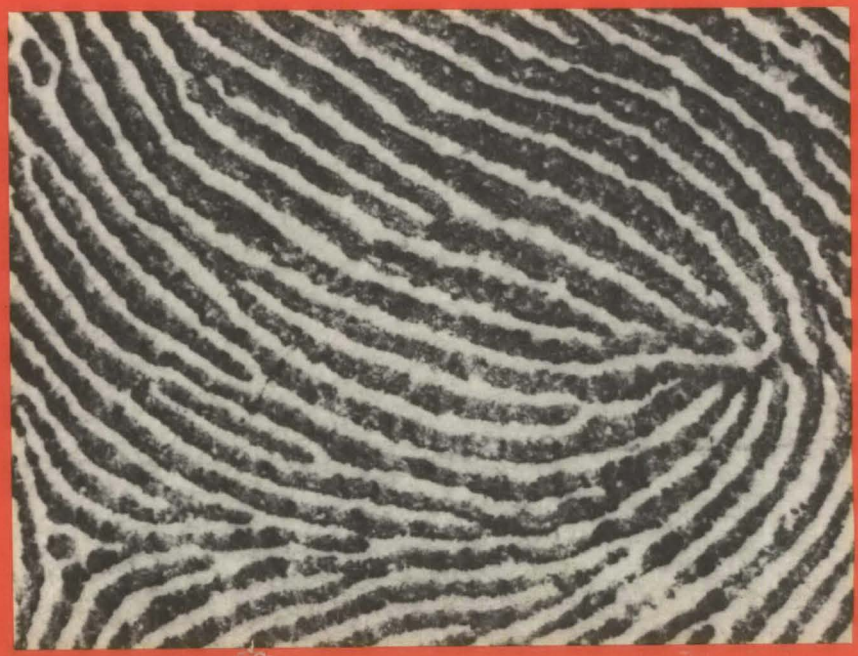
THIRD CLASS



INTERESTING PATTERN

The interesting impression shown here appears at first glance to be a loop-type pattern; however, upon closer observation, it is noted there is no sufficient recurve present which is necessary for all loops. The pattern is classified as a tented arch.