FBI LAW ENFORCEMENT BULLETIN

SEPTEMBER 1981

Houston Police Department's Eye In the Sky

FBI LAW ENFORCEMENT BULLETIN

SEPTEMBER 1981, VOLUME 50, NUMBER 9

Contents

The Cover:

Helicopters are effective tools of law enforcement. See article on the Houston Police Department's Helicopter Patrol Division on p. 1.

Federal Bureau of Investigation
United States Department of Justice
Washington, D.C. 20535

William H. Webster, Director

The Attorney General has determined that the publication of this periodical is necessary in the transaction of the public business required by law of the Department of Justice. Use of funds for printing this periodical has been approved by the Director of the Office of Management and Budget through December 28, 1983.

Published by the Office of Congressional and Public Affairs,
Roger S. Young
Assistant Director

Editor—Thomas J. Deakin
Assistant Editor—Kathryn E. Sulewski
Art Director—Kevin J. Mulholland
Writer/Editor—Karen McCarron
Production Manager—Jeffery L. Summers

ISSN 0014-5688 USPS 383-310

Houston Police Department's Eye In the Sky

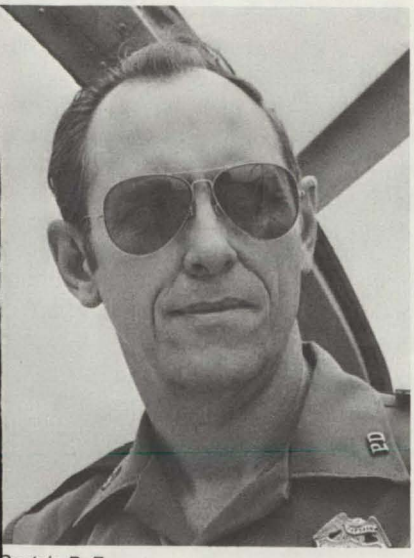
By CAPT. KEN T. DeFOOR
Helicopter Patrol
Police Department
Houston, Tex.

EDITOR'S NOTE: Material published in the FBI Law Enforcement Bulletin is solely for the information and assistance of law enforcement personnel. While brand names and companies may be mentioned from time to time, this is done in a strictly objective manner to help present articles in their entirety from authoritative sources. In such instances, publication of the article in the Bulletin should not, under any circumstances, be construed as an endorsement or an approval of any particular product, service, or equipment by the FBI.

Late one evening, officers in a police helicopter, flying over one of the many bayous in the Houston area, spotted a car parked in a remote spot. While the helicopter circled the car, a 9-year-old nude female jumped from the vehicle and began waving her arms. A suspect attempted to flee the scene but was arrested by patrol units that had been directed toward the scene by the helicopter. The mother of the small girl later wrote a heartwarming letter of appreciation to the chief of police, commending the helicopter officers for preventing the rape of her young daughter and possibly even her death.

A new era in law enforcement methods for the Houston Police Department began in January 1970. The establishment of the department's Helicopter Patrol Division came after nearly 8 years of meticulous research and planning. Since its inception 11 years ago, with three Hughes 300B helicopters and a division composed of 7 police officers, the division has grown to 16 Hughes helicopters and a staff of 74. Of the 51 police officers assigned to the division, 21 are pilots, all of whom have commercial helicopter ratings. Of the 23 civilians, 12 are civilian mechanics, 7 are ground crewmen and the remainder are secretaries.

A hangar at a nearby airport houses the administrative, maintenance, and airborne patrol functions of the helicopter patrol division.



Captain DeFoor

Chief B. K. Johnson

The city of Houston purchased 11 Hughes 300C model helicopters with city funds and 5 Hughes 500C model turbines were purchased in 1976 with money from a Federal grant. All ships are used solely for criminal law enforcement assignments. They are not used for traffic enforcement of any type.

The patrol officers assigned to the division work a 4-day week, alternating from days to nights every fifth Tuesday. Safety is a foremost consideration in the division, and an 11-year fatality-free record reflects this concern. Precautions taken in training and maintaining flight proficiency to the highest level are the reasons for this outstanding safety record. For example, each pilot is given a checkride when his shift changes or after returning from extended vacation or sick leave. Additional checks are made when one of the three instructor sergeants or three patrol officer instructors believe it may be necessary.

Over the years, the police ground units have come to depend on the airborne "Fox" units to assist them in foot and car pursuits, surveillance of narcotics and vice suspects, suspect searches, burglary and robbery arrests, and a broad range of other criminally related offenses. The helicopter division presently has an average response time of 91 seconds to any police assignment over Houston's 585 square miles. Police helicopters are available on a 24-hour basis to the patrol beats that crisscross the Houston area. Flight hours average between 1,000 and 1,200 per month, depending on weather conditions and the number of training flights being conducted.

All pilots and observers are trained in department facilities by department instructors. Most officers spend at least 1½ years as observers before entering pilot training on a seniority basis. Initial flight training is in a Hughes 300C helicopter; however, the last 3 weeks of training are spent training the new pilots on the 500C turbines.

A close working relationship has been developed with other police aviation units in the Houston area, as well as Hermann Hospital's Life Flight and other patrol and specialized units of the Houston Police Department. This has resulted in a common exchange of assistance and information that has been of tremendous benefit to all concerned. One of these benefits was the assistance rendered to Wichita Falls, Tex., in the wake of a devastating tornado that ripped through that city during Easter week of 1979. A helicopter, five officers, two mechanics, and enough support equipment to assist the Wichita Falls Police Department for as long as the need existed were assigned. For a full week, airborne units from several agencies flew patrol over the city, helping in the prevention of looting, assisting in body searches, and directing emergency units from the air. For the Houston group to render airborne aid to such a distant city was a real "first"—a gesture that was obviously appreciated by the city officials and citizens of Wichita Falls.

On the homefront, there have been numerous instances in which the "Fox" units have saved lives, prevented criminal offenses, and assisted in arrests that would have been impossible without the use of a helicopter.

A case of a life saved was an attempted suicide victim spotted sitting in his car behind some trees in a city park. The officers noticed a hose leading from the exhaust into the enclosed car. A ground unit was talked into the location and the subject was pulled from the vehicle and rushed to a hospital, where he was revived.

Another life-saving incident involved flying medical supplies from the airport to a nearby medical center for a heart transplant operation. A letter of

commendation from the medical staff stated that the use of the police helicopter made possible the young patient's survival.

There has also been a 30-percent reduction in burglaries and vandalism of the Houston schools since police helicopters began flying over these schools while on routine patrol. This reduction, of course, has a corresponding reduction of police manhours to investigate the burglary and/or vandalism, as well as a reduction in tax monies to replace stolen or destroyed property.

These and many other cases demonstrate the varied types of criminal and emergency calls provided by the largest city police helicopter division in America—a helicopter division that was presented the department's Chief of Police Commendation Award in May 1980, in appreciation for the many contributions made to both the city of Houston and the police department.

". . . there have been numerous instances in which the 'Fox' units have saved lives, prevented criminal offenses, and assisted in arrests that would have been impossible without the use of a helicopter."

In the Houston Police Department, helicopters have become an indispensable tool for effective law enforcement and support for our police ground units. City officials, as well as the citizens of Houston, have been very supportive. This support is due primarily to the outstanding manner in which our officers present themselves—first of all as professional police officers and secondly as professional helicopter crewmen. **FBI**

Officers attend ground school prior to flying patrols.

Crime Stoppers

By DEMETRIA MARTINEZ
Crime Stoppers—USA, Inc.
Albuquerque, N. Mex.

In the city of crime, a sleeping giant is beginning to stir. Aroused citizens are proving to be a source of power for law enforcement officials who are plagued with growing crime rates and shrinking budgets. Thanks to a program which began in Albuquerque, N. Mex., in 1976, citizens are providing police with information on criminal activity at a rate never dreamed possible. The program is "Crime Stoppers," and its phenomenal impact is no fairy tale.

Crime Stoppers serves as a clearinghouse of information for law enforcement officials. When citizens with information about criminal activity call Crime Stoppers, they are given a code number. Thereafter, they are known only by this number, thus ensuring anonymity. The person handling the phone calls, usually a police officer, channels the information to the correct investigative agency.

Rewards are offered to citizens whose information results in a case being solved. The amount, established by the program's civilian board of directors, varies. Factors considered in deciding what the reward amount should be include the severity of the crime committed, the quality of the caller's information, and the amount of stolen property or narcotics recovered. The reward fund consists of donations from businesses, private individuals, and community organizations. At a time when funding is difficult, obtaining funds for rewards has been remarkably easy. Donations range from a few dollars from enthusiastic children to a few thousand dollars from grateful shopowners whose burglaries have been solved. The knowledge that the donated dollars are producing tangible results is a factor in the impressive response.

The simplicity of its organizational structure has spared Crime Stoppers the hassles of large bureaucracies and precludes its death by red tape. In each locale, the program is administered by a volunteer citizen board of directors, which handles matters such as fundraising and supervising the reward payments.

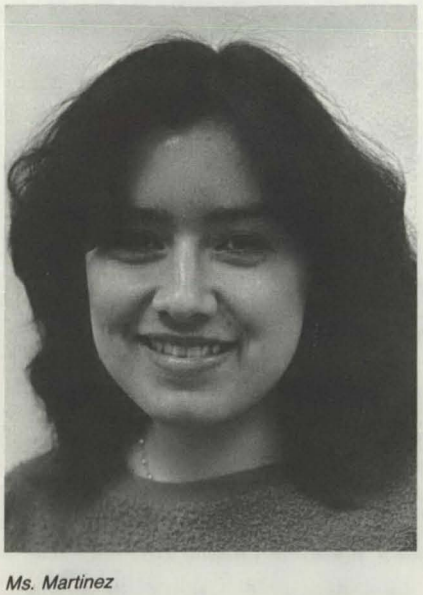
The centerpiece of Crime Stoppers is the "Crime of the Week," which involves the media. Each week, the program's police coordinator selects an unsolved crime and designates it "crime of the week." Reenactments of the crime appear on local television, descriptions are broadcast on radio and published in local newspapers, and citizens are promised anonymity and encouraged to call Crime Stoppers if they have information about this particular case or about any other unsolved felony crime. Once the case is cleared, informants receive the designated reward.

The "Crime of the Week" program not only advises citizens where they should call with their tips but it also raises the public's consciousness about crime in general. Dramatic reenactments and newspaper articles inject a healthy dose of caution into audiences who, for the most part, are sure it can't happen to them.

The "Crime of the Week" also does much to unite three often estranged entities—the media, community, and police. Through the combination of publicity and investigation, police and media become allies in the battle against crime. In addition, the publicity generated through the program is often credited with enhancing the image of law enforcement officials in the public eye. A solved "Crime of the Week" translates into a success story for both the police and the media. It is a welcome contrast to the negative approach where criminal success stories abound.

A single tip to Crime Stoppers can have phenomenal ramifications. In Albuquerque, N. Mex., a tip led to the recovery of 45 automobiles. On his way to Albuquerque, an escapee from the Colorado State Penitentiary stopped in Amarillo, Tex., and stole a mobile home. In Albuquerque, he hired some teenagers to steal cars, which were then repainted and converted with elaborate equipment which had been assembled in a garage. A stolen printing press was used to print titles to the cars. Crime Stoppers received a call from a member of the ring saying that he had gotten in over his head and he believed that supplying Crime Stoppers with information would help resolve his problem. His information resulted in the recovery of the automobiles, which were valued at approximately $250,000.

In another case, a call to Crime Stoppers from a distressed parent resulted in the largest seizure of angel dust (PCP) in New Mexico history.



Ms. Martinez

Chairman H. Coleman Tily

Members of the Albuquerque Police Department and agents of the Federal Drug Enforcement Administration arrested two persons in possession of 8.2 pounds of angel dust, with a street value of over $800,000. The pair also had enough chemicals to manufacture another 50 pounds of the drug.

In Kalispell, Mont., a break-in occurred at a local tavern. The police coordinator of the Crime Stoppers program placed fliers on tavern tables, announcing a $1,000 reward for information leading to the solution of the crime. Later that evening, police arrested the three offenders as they were breaking back into the bar to return the stolen property. The trio reasoned that they would receive more money by calling Crime Stoppers with information about the property and then collecting the reward.

Crime Stoppers is especially helpful in "hopeless" cases. The program has been credited with providing police with a "starting place" for tackling unsolved crimes. Citizens' tips often assist in solving crimes when traditional police methods have failed.

The Albuquerque Crime Stoppers program helped police solve a murder case that baffled the department for 3 years. The testimony of the sole witness to the murder, who called Crime Stoppers, resulted in a conviction. Without the combination of publicity and reward, the case probably would have never been solved.

The success of Crime Stoppers looms large at a time when criminals are experiencing too many successes. Nationwide through March, the program has led to the solution of 7,652 cases, $21,527,764 worth of stolen property and narcotics have been recovered, and 2,179 prosecutions with a 99.4-percent conviction rate.

Since its beginning 5 years ago, this program has been adopted in over 100 cities, including Houston, Cincinnati, Minneapolis, and Phoenix, using Albuquerque's program as the model. The instantaneous success of the program was totally unexpected by its creator, Detective Greg MacAleese, whose invention was born of frustration. "There were too many unsolved cases and too much apathy," says MacAleese, who was with the Albuquerque Police Department. The post-Vietnam atmosphere fostered little or no confidence in law enforcement officials, and MacAleese believed that changing the situation would require something dramatic—and dramatic it was. What began as a plan on scratch paper soon became a successful program. In its first year, the Albuquerque Crime Stoppers cleared 289 cases. MacAleese's imaginative leap earned him the prestigious 1977 Policeman of the Year Award, given by the International Associaton of Chiefs of Police.

In a time when fear of crime permeates the air, the question of how to prevent this poison from paralyzing citizen involvement is confronting law enforcement officials. This question is answered by Crime Stoppers' policy of anonymity. The code number assures citizens that they remain just another number unless he or she wishes to testify. Rewards also serve an important function. Many informants, however, refuse to accept a reward when their tip leads to a case being cleared.

As crime increases and budgets dwindle, more police departments are turning to Crime Stoppers. In terms of saving time and money, the program seems nothing less than miraculous. When the community identifies the suspect, the amount of investigation conducted by the police during the initial stages is reduced, making the cost-effectiveness of the program a major reason for law enforcement officials to push for the program.

Few ideas have gained such overwhelming approval. The system of anonymity and rewards has proven itself. Chief among the advocates of Crime Stoppers is the Honorable William H. Webster, Director of the FBI, who spoke at the first Crime Stoppers National Conference last October.

The conference, which drew over 200 persons from some 38 States, was held in response to years of nationwide interest in the program. Topics of discussion included implementing a program, legal and ethical aspects of Crime Stoppers, and the role of the police coordinator. Over 400 persons are expected to attend the upcoming conference, October 6–10 in Austin, Tex.

Crime Stoppers' reputation among citizens throughout the Nation is enviable in an era when disillusionment with large-scale organizations is widespread and legitimacy is a hot commodity. With hundreds of programs started and thousands of cases cleared, it is believed that the program will continue to grow. The impetus for its growth will come from citizens who will clamor for more programs as they witness Crime Stoppers' success. **FBI**

Patrol Resource Allocation In A Medium-Sized Police Department

By
LT. WILLIAM J. HOOVER
and
S. SGT. JOHN BODENSCHATZ
Police Department
Ann Arbor, Mich.

In February 1979, the Ann Arbor, Mich., Police Department began a new system that provided more efficient use of its road patrol units.

Up to that time, assignments were usually made on the subjective basis of anticipated need. The end result was that overlap shifts and unequal distribution of patrol resources were in existence.

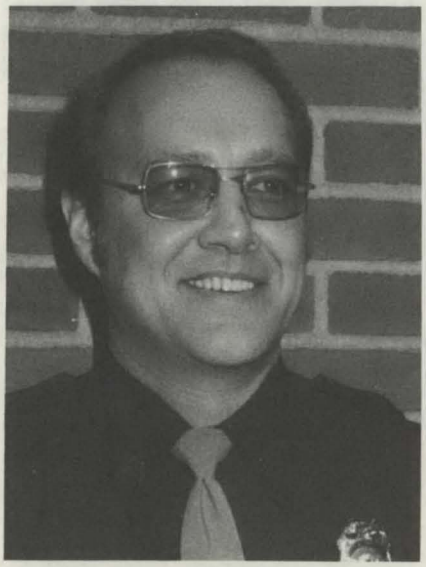
In turn, need usually was based on the experienced judgment of senior officers and a modest examination of historical workload. Staffing of patrol units was based on this same experience and to some degree a union contract clause which stated:

> "The city agrees that, insofar as manpower allows, during the hours of darkness, all Ann Arbor Police 'marked patrol' units shall be manned by two (2) officers. In no instance shall any officer be required to ride alone during the hours of darkness for any reason other than shortage of manpower."[1]

The contract language regarding double units during darkness has been interpreted to apply basically from 9:00 p.m. to 7:00 a.m. The number of patrol units required on specific days at specific times was the decision of the patrol shift supervisor. Thus, it was not uncommon to have five double units at 4:00 a.m. on one Tuesday morning as compared with six single units and two double units the next Tuesday morning. The assignment of the same 10 officers on different Tuesdays was based on the supervisor's judgment, experience, and approach to the job.

In the fall of 1978, a member of the Ann Arbor Police Officer's Association filed a grievance against the department, claiming it did not strictly follow the contractual guidelines that ". . . during the hours of darkness, all Ann Arbor Police 'marked patrol' units shall be manned by two (2) officers. . . ." [2] In addition to the problems caused by some supervisors splitting up units when they were short of personnel between 9:00 p.m. and 7:00 a.m., a complaint was lodged about the period before 9:00 p.m. and after 7:00 a.m., when it was often dark. It was obvious that strict adherence to the contract language as interpreted by the association grievant would cause significant scheduling and logistics problems. Management's initial interpretation was that the contract clause had additional qualifiers that supported existing management practices, i.e., ". . . insofar as manpower allows . . ." and ". . . other than the shortage of manpower."

Lieutenant Hoover



Staff Sergeant Bodenschatz

Management understood that their chances of an arbitration victory depended on being able to justify reasonably their actions. In this case, justification boiled down to having standards against which to compare departmental actions. The perceived problem was that there were no guidelines as to when manpower allowed units to be doubled and when an actual shortage of manpower existed. It was necessary to develop guidelines.

A review of the patrol personnel assignments by time of day and day of the week during the previous year showed wide variations. These variations were caused by officers taking time off, shift assignment configurations, and individual shift supervisor preferences.

In order to retain efficient control over the allocation of patrol resources, a system which specified the minimum number of marked patrol units and officers assigned to those units by time of day and day of the week was needed. Additionally, guidelines had to be initiated regarding allowable time off and the circumstances under which overtime would be paid.

Three primary goals of the patrol resource allocation system were identified;

1) Consistently have on duty the number of units and officers that "fit" the workload;
2) Consistency in granting time off;
3) Use of the most efficient mix of single and double units by time of day.

It appeared that accomplishment of the identified goals would improve the efficiency of the patrol force and solve four potential personnel problems.

1) Supervisory decisions as to how many officers could be allowed off at any given time would be standardized, avoiding periods of "feast or famine";
2) Grievances of unequal treatment would be avoided. One supervisor could not allow as many officers who wanted off on a Saturday night, while another forced everyone to work;
3) A realistic foundation supporting management's actions regarding the number of units assigned and the number of officers in the units by time of day and day of the week would be established; and
4) Improved assignment of the officers by time of day and day of the week promised to improve overall and emergency response time, as well as increase officer productivity.

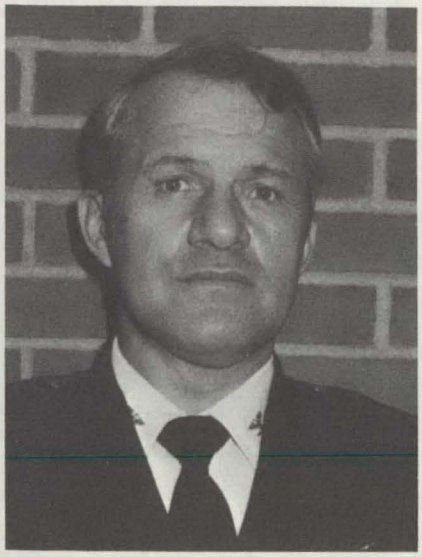
Development of the System

Data processing equipment was not available to record, tabulate, and message past workload data. Thus, the initial problem was to determine which data could be collected and analyzed manually.

Using one randomly selected test week for each month during the period July 1, 1977, to June 30, 1978, records of patrol unit-time spent were collected and tabulated by hand. The objective was to look at those tasks that required patrol unit-time usage, determine the number of minutes involved, and assign those minutes to the time zone and day of the week where they were used. The data was tabulated using unit-time. After the number of units was decided, the number of officers in each unit was determined by reviewing the requests for service requiring two officers as opposed to the requests for service requiring one officer. Figure 1 shows the source of patrol unit activity time records, as well as the time zones used to capture patrol unit data.

The data analysis phase was divided into three sections:

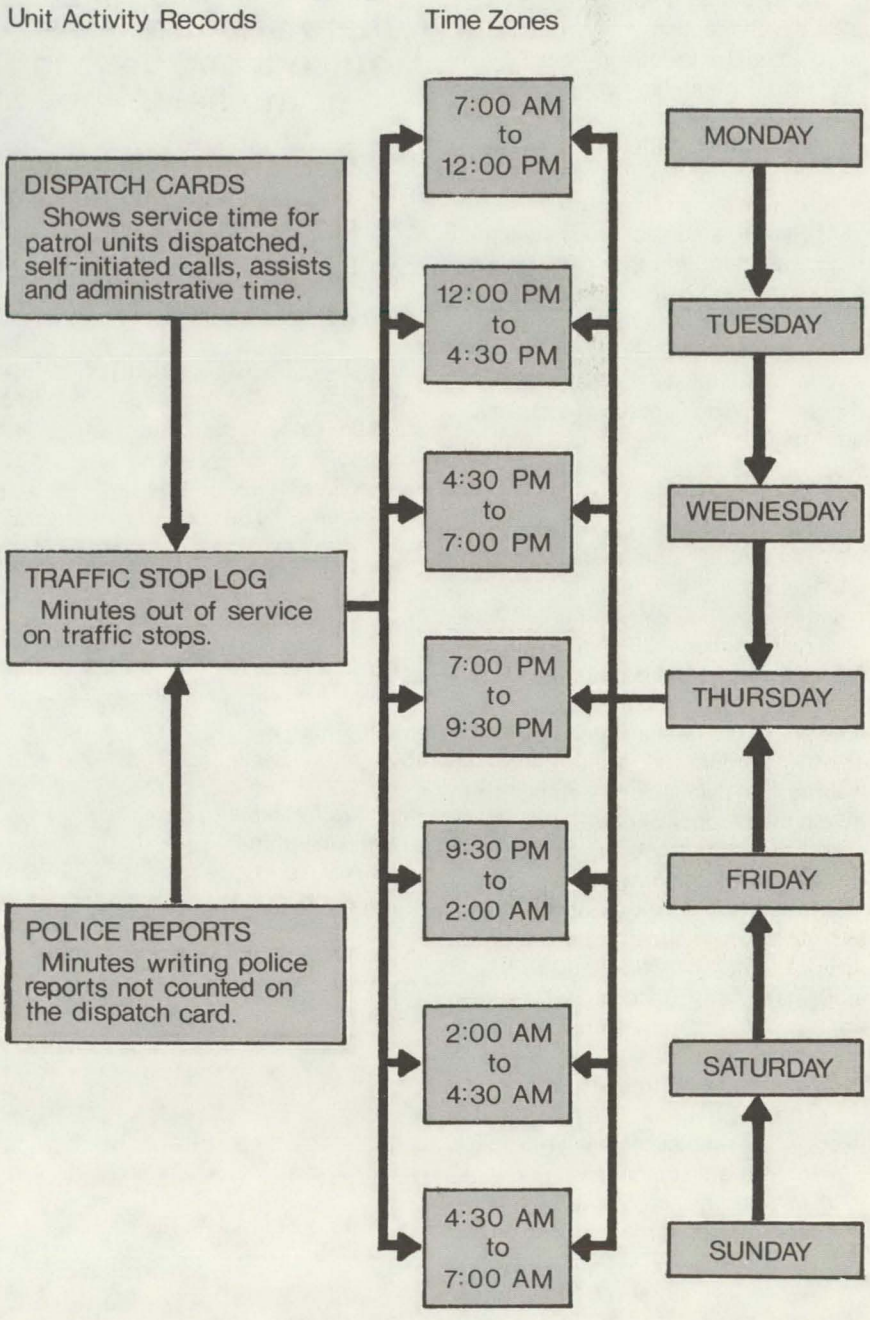
1) A statistical analysis of the workload using standard deviation [3] and Poisson distribution [4] techniques. These techniques were used to estimate the number of units required to handle the workload a particular percentage of the time.



Chief William J. Corbett

Figure 1

Patrol Unit Time Spent: Record Sources and Time Zones



2) Workload data was massaged by a programable pocket calculator to estimate the mathematical probability that all patrol units on duty during a shift would be busy simultaneously. For example, given past workload in the 2:00 a.m. to 4:30 a.m. time zone on Tuesdays, if five patrol units are on duty, what is the expected percentage of time all will be busy at once?
3) Finally, a subjective evaluation was made of other general factors to assist in making the proper judgment as to the number of units to be assigned.

In the statistical analysis stage, the mean of the minutes of unit service time required for a specific day of the week and time zone was obtained, as well as the standard deviation. The standard deviation was multiplied by two and added to the mean to give an expectation of the number of patrol unit minutes necessary to handle workload expectations 95% of the time.[5] Figure 2 shows the patrol unit minutes used during the 2:00 a.m. to 4:30 a.m. time zone on Tuesdays during the July 1, 1979, to June 30, 1980, period, as well as the calculations completed to obtain the number of patrol units needed. Calculations to obtain the standard deviation are not shown.

In figure 2, analysis of the standard deviation suggests that 6.2 patrol units assigned between 2:00 a.m. and 4:30 a.m. on Tuesdays will supply enough patrol response units to handle adequately workload expectations in 95 out of 100 occurrences.

The Poisson distribution was also used in the statistical analysis stage. Based on the historical mean of workload minutes by time zone, a relative frequency of required workload minutes at the 80%, 85%, 90%, and 95% levels was calculated. In other words, workload minutes to handle 80 out of 100, 85 out of 100, 90 out of 100, and 95 out of 100 occurrences were calculated using the Poisson techniques. Each of these workload estimate levels was then divided by the number of service minutes available to one patrol unit in that time zone, thus estimating the necessary number of patrol units. Figure 3 shows an example of this method for the Tuesday 2:00 a.m. to 4:30 a.m. time zone.

". . . workload is up and response time is down, even though there are now fewer officers and units in the field."

Figure 2

Unit Determination With Standard Deviation

Patrol Minutes Used on Tuesdays Between 2:00 a.m. and 4:30 a.m.

July	561	January	261
August	660	February	513
September	969	March	383
October	283	April	425
November	422	May	320
December	759	June	606

Total	6,162	Min.
Mean	513.5	Min.
Standard Deviation	210.5	Min.
Mean Plus Two Standard Deviations	934.5	Min.
Minutes Available to One Patrol Unit in the 2:00 A.M. to 4:30 A.M. Time Zone	150	
Number of Units Needed to Handle Expected Workload 95% of the Time	934.5/150 =6.2 Units	

Next, using a programable pocket calculator, data on calls for service per hour, service minutes per call, percentage of calls that require assists, assist minutes per assist call, and administrative minutes per unit per hour for a set number of units was processed, developing a mathematical expectation of the percentage of time when no patrol units would be available. The calculator program assumes calls are dispatched as soon as received and thus uses a "no stacking" concept. This procedure comes from the "patrol plan" program developed by the Institute for Public Program Analysis in St. Louis, Mo.

The results of the standard deviation, Poisson distribution, and expectation of having no units available procedures were then simultaneously and subjectively examined along with seven other relevant factors:

1) Past number of units fielded by time zone and day of the week;
2) Past number of unit assists by time zone and day of the week;
3) A manual past estimation of the number of minutes no units were available by time zone and day. These figures were collected by communications dispatchers during the randomly selected weeks each month;
4) History of when and how often workload requests were delayed from one time zone to another;
5) Police response time by time zone and day of the week;
6) Uncontrollable time of trends—when sick and personal leave days are most likely to be taken; and
7) The ratio of requests for service by time of day and day of the week that require a single or double unit at the time of dispatch.

Figure 3

Unit Determination With Poisson Distribution

Patrol Unit Minutes Necessary In The 2:00 a.m. to 4:30 a.m. Time Zone On Tuesday		Minutes Available To A Patrol Unit In Time Zone	Patrol Units Required
Level	Minutes		
95%	733.3	150	4.89
90%	669.5	150	4.46
85%	633.0	150	4.22
80%	580.9	150	3.87

From this subjective analysis, a chart was produced listing the minimum number of patrol units and road personnel required by time zone and by day of the week. (This contained a built-in ratio of single to double units developed from the historical workload.) Figure 4 shows an example of the results obtained.

The minimum number of units and personnel listed in figure 4 is not the *desired* level of units and personnel. Instead, it is the *minimum* level at which supervisors are allowed to operate even to the extent of calling back off-duty officers and paying overtime to maintain specified levels.

Using the described method for each day and time period of the week, the minimum level of units and personnel was developed and the total available patrol force was assigned by time of day and day of the week. Fixed positions, such as vacation and desk officers, were deleted from the total number of officers available and considered as part of the minimum number of personnel to be assigned to each time zone. To create a consistent "cushion" of officers over the minimum and fixed positions, personnel over the minimum were allocated as dictated by the workload analysis. This insured that routine sick calls did not cause overtime, and a reasonable amount of compensatory time could be allowed.

By contract, the Ann Arbor Police Department compensates officers at either time and a half or double time for overtime hours. Compensation may be taken in pay or compensatory time. Personnel are limited to 120 compensatory hours and only may use 80 hours of compensatory time in a fiscal year.

Results of the System

The system was developed in the fall of 1978, and implemented in February 1979. By November 1980, it had been updated twice, each time using the most recent fiscal year's workload data, as well as looking at the overall 2- and 3-year workload trends. Not surprisingly, as sophistication in dealing with the system developed, there were minor changes in the number of units specified as minimum for a specific time and day. For example, one time period was originally scheduled to have 10 units on duty as a minimum. In the first revision, it was cut to nine because of better than satisfactory results, and in the most recent update, it was further reduced to eight units. There are many such examples of both increases and decreases in the number of units specified by time zone as a result of continuous updating of the system.

Retraining sessions for patrol supervisors have recently been conducted to familiarize them with system changes. During the retraining session, an evaluation was made of the measurable results achieved under the manpower allocation system. Figure 5 shows some of those results.

As can be seen, workload is up and response time is down, even though there are now fewer officers and units in the field. On the negative side, sick time is up and the percentage of time all units are busy is up slightly. It was expected that since time off controls were tightened, use of sick time would increase. The increased percentage was believed to be acceptable in light of the positive benefits received.

Overtime to operate the system is estimated at approximately 600–700 hours per year at a cost of $11,000 to $12,000. Overtime costs appear small when compared with the cost of the 4.5% fewer police officers used during the July 1, 1979, to June 30, 1980, period. The cost of using those officers is estimated at $135,000. The department is satisfied that:

Figure 4

7:00 a.m. to 12:00 p.m. Manpower Allocation Chart

	Sun	Mon	Tues	Wed	Thurs	Fri	Sat
Minimum Units	4	6	5	5	5	5	4
Double	1	2	1	1	1	1	1
Single	3	4	4	4	4	4	3
Minimum Personnel	5	8	6	6	6	6	5

1) Assignment and time off decisions are made in the best interests of the organization, with the same guidelines applicable to all subordinate and supervisory personnel;
2) Management's guidelines with regard to the number of units and their level of staffing is based on a solid and defensible position; and
3) Efficiency has increased.

Figure 5

Premanpower Allocation vs. Postmanpower Allocation Results

	Total Number of Patrol Responses During Test Weeks		Percentage of Time Patrol Units Were Available		Response Time	
	Pre	Post	Pre	Post	Pre	Post
7:00 a.m. to 12:00 p.m.	1,342	1,359	97.5%	96.9%	15.2	12.9
12:00 p.m. to 4:30 p.m.	1,628	1,728	97.9%	97.4%	17.1	16.1
4:30 p.m. to 7:00 p.m.	1,214	1,174	97.8%	97.7%	20.8	16.2
7:00 p.m. to 9:30 p.m.	1,141	1,142	99.8%	98.7%	17.7	16.5
9:30 p.m. to 2:00 a.m.	1,913	2,286	99.9%	99.2%	13.8	13.2
2:00 a.m. to 4:30 a.m.	551	736	96.8%	94.6%	11.4	14.7
4:30 a.m. to 7:00 a.m.	208	310	97.2%	95.6%	16.8	11.3
Total	7,997	8,735	98.2%	97.4%	16.3	14.6
Percentage Change	+9.2%		−0.8%		−10.4%	

	Mean Number of Units on Patrol		Mean Number of Patrol Officers Available	Average Sick Hours Used per Officer
	Pre	Post		
7:00 a.m. to 12:00 p.m.	6.7	6.2		
12:00 p.m. to 4:30 p.m.	8.2	8.0	Pre—79.3	Pre—72.9
4:30 p.m. to 7:00 p.m.	8.4	8.3	Post—74.8	Post—78.9
7:00 p.m. to 9:30 p.m.	10.4	8.0		
9:30 p.m. to 2:00 a.m.	11.3	10.1		
2:00 a.m. to 4:30 a.m.	6.1	5.6		
4:30 a.m. to 7:00 a.m.	4.4	3.9		
Percentage Change	−7.4%		−5.7%	+8.2%

Postsystem Adjustments

A patrol audit system was developed to inspect 1.2% of unit assignments. One of the primary objectives is to insure that the amount of time used is in line with how much time is actually taken. Each audit is conducted by a supervisor.

Future Expectations of the System

In November 1980, the Ann Arbor Police Department went on-line on a minicomputer. The department's goal within the next 12–18 months is to computerize the manpower allocation, data gathering, and massaging procedures to allow more frequent overall system updates. The system, however, was developed, implemented, operated, and updated by hand. It has been successful and may well be successful in other law enforcement agencies, particularly those without electronic data processing. FBI

The Ann Arbor Police Department will be pleased to supply any interested agency with further details of the system, such as forms used, data collection methods, etc. Inquiries should be directed to the authors at the Ann Arbor Police Department, 100 N. 4th Avenue, Ann Arbor, Mich., 48107.

Footnotes

[1] Collective Bargaining Agreement, City of Ann Arbor and Ann Arbor Police Officer's Association, p. 36.

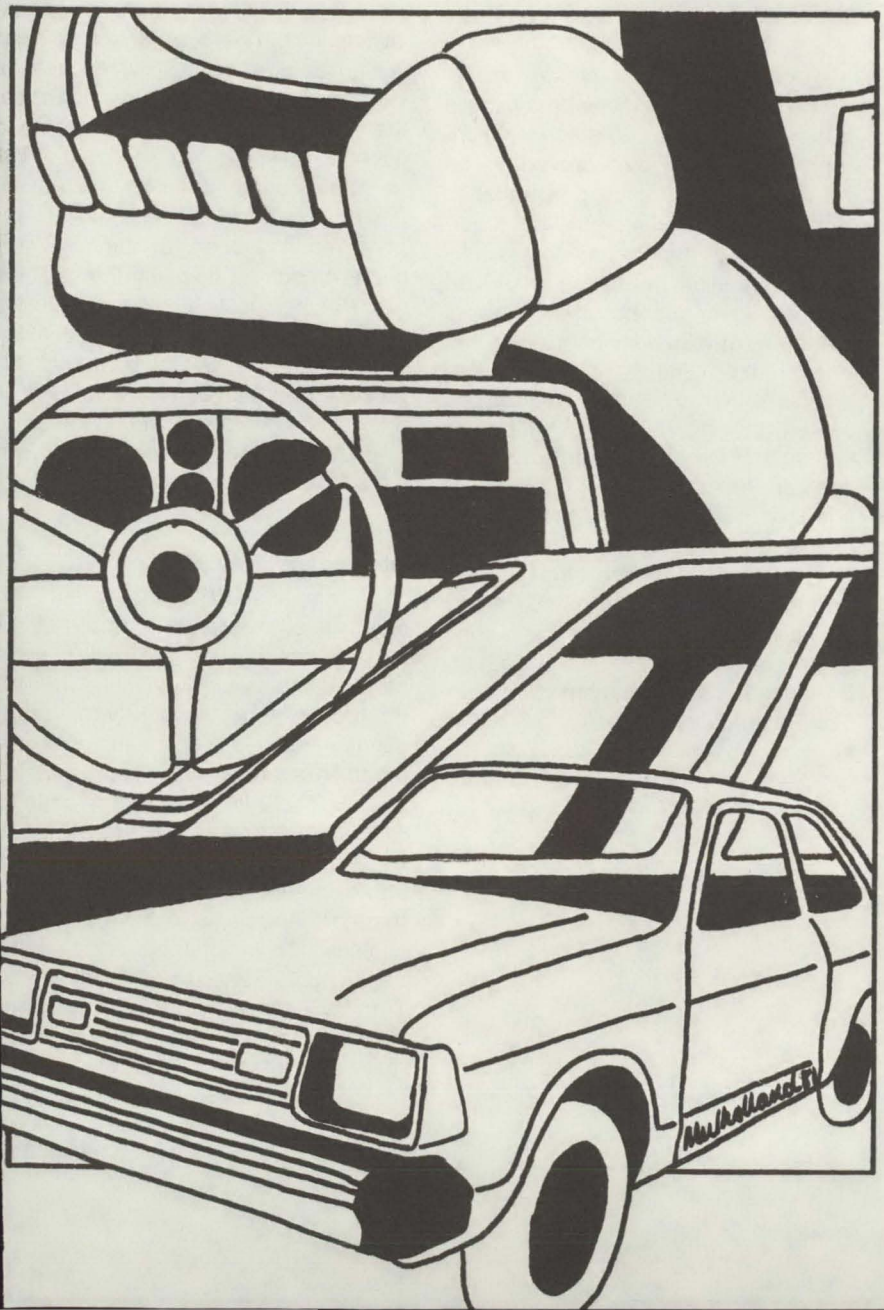
[2] Ibid.

[3] "If a distribution can be approximated closely with a normal curve, about 95% of the cases fall within two standard deviations of the mean . . ." John E. Freund and Frank J. Williams, *Modern Business Statistics*, p. 153. For example, in a normal distribution of Tuesdays between 2:00 a.m. and 4:30 a.m., the number of required patrol unit minutes to handle workload should be less than some number 95% of the time.

[4] Find the mean number of calls for a particular time of day, locate the mean number on the "Poisson probability distribution" chart, and pinpoint the desirable expectation (80, 85, 90, or 95%); take the expectation number times the average number of minutes a call during that time period requires. John R. Stockton and Charles T. Clark, *Business And Economics Statistics*, p. 571.

[5] Freund and Williams, p. 153.

Leasing Economical Unmarked Police Vehicles

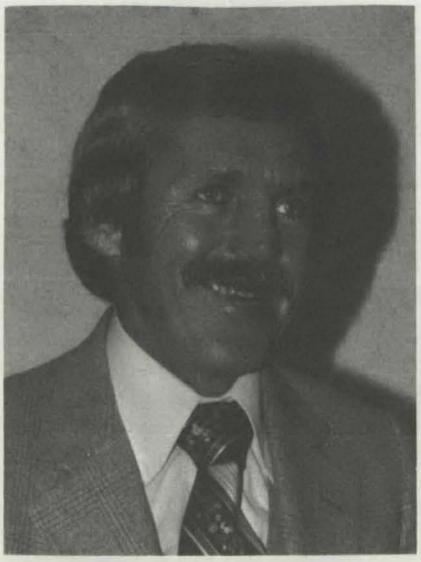


By ROGER M. MOULTON
Chief
Police Department
Montclair, Calif.

Shrinking municipal budgets and escalating energy costs mandate a revised approach to police fleet operations, especially in terms of unmarked police vehicles used primarily for "transportation" to investigate after-the-fact crimes. In an effort to lighten the exorbitant costs of pursuit-type, unmarked automobiles, compounded by continuing increases in fuel expenditures, the Montclair Police Department conducted an experimental leasing program of midsized, economical unmarked police vehicles.

The idea was raised during conversations with a former president of the chamber of commerce who operated a dealership in the community. After a proposal for leasing two cars with a full maintenance package was formulated, it was submitted to the mayor and city council, who approved a 6-month trial program.

During the initial planning stages, several staff members and the proposed user group appeared skeptical of the program's success. This dramatic departure from the traditional approach inspired outcries that detectives would no longer be capable of carrying out effectively their responsibilities of apprehending criminals.



Chief Moulton

PHASE I—Initial Experimental Leasing Program

A trial program was necessary to provide feedback from the user group. In order to increase the probability of success, we selected a vehicle with an attractive appearance and designed for comfort. Equipment on the original vehicles in the pilot program included reclining front bucket seats with adjustable headrests, electric rear window defroster, cut-pile carpeting, AM/FM stereo radio, reminder chime for headlights, remote control trunk release, and air conditioning. Each car also had an overhead cam 4-cylinder engine, CID 120 (1970cc.), with an EPA rating of 25 estimated miles per gallon for regular driving and 34 estimated miles per gallon on the highway.

During the experimental phase, the downsized vehicles were available in the motor pool on a strictly "voluntary" basis. This later proved to be the salient point in gaining acceptance of the leased vehicles. Also, the general condition of the fleet made a significant contribution to acceptance. Fleet vehicles were approximately 5 years old and were experiencing major maintenance difficulties.

Detective personnel readily accepted the new sporty models, although this created some consternation for the management group who normally received newly acquired automotive stock. Conversely, rank and file officers were surprised and pleased with this unprecedented development.

During the testing time frame, only one major complaint surfaced. With the five-speed manual transmission, officers shifted gears constantly while driving in normal city traffic. Furthermore, one of the civilian police service aides could not shuttle the cars for service because of the need to shift gears. This complaint was resolved when two additional vehicles were leased with automatic transmissions.

PHASE II—Extended Testing and Evaluation

After the original 6-month trial period, the testing phase was extended for another 6 months. This provided the opportunity for a more comprehensive evaluation to determine the feasibility of an ongoing vehicle leasing program. At the conclusion of the experimental program, the concept was embraced fully by the user group and city council. The department also received favorable publicity, and public support was apparent on the basis that the police department was engaging in cost effectiveness and energy savings.

Data compiled during testing suggested a 3-year lease package to reduce monthly costs to the city. The present contract involves four sedans at $184 per vehicle per month for 3 years. Another advantage of leasing was avoiding a capital outlay of approximately $8,500 per vehicle for a total of $34,000. These funds remain in the equipment replacement fund drawing substantial interest rates.

Maintenance Factor

From a police management perspective, an outstanding feature of our leasing package is the full maintenance component. Previously, we contracted with a private vendor for maintenance service, and our past monthly average was approximately $2,500 for 20 vehicles (an average of $125 per vehicle per month). It is anticipated this rate will be reduced by approximately $500 per month. Furthermore, the vehicles have been meticulously maintained by the dealership. Servicing transpires on Monday evenings, thereby reducing "down time" for detectives who normally are not deployed at this time. In the past, unmarked vehicles were oftentimes "down" during regular detective hours. A car wash schedule ha

been established on a weekly basis to ensure the vehicles maintain an attractive appearance, and they are detailed (cleaning and waxing) periodically by the dealership.

Cost Effectiveness

Economic considerations are the centerpiece of the vehicle leasing program. With the seemingly unrelenting upward spiral in fuel costs, the number of miles per gallon of fleet vehicles becomes a foremost concern. For example, the California Highway Patrol recently reported that considering the size of their fleet, each additional mile per gallon costs $1 million in fuel costs. Although the EPA rating of our leased vehicles was estimated at 25 miles per gallon for "regular" driving, we were skeptical of the outcome, considering the driving habits of the average police officer and our area covering approximately 5 square miles of surface streets. During the first 6 months of the trial period, an average of 22 miles per gallon per vehicle was recorded, which was beyond our expectations. This was nearly double the miles per gallon of the other fleet vehicles. The implications are overwhelming when the number of miles per gallon is increased so dramatically, especially considering the price paid for gasoline is anticipated to increase. The evidence suggests an annual savings of $2,727 based on the leasing of four vehicles averaging 1,000 miles per month at 22 miles per gallon, compared to the 12 miles per gallon formerly recorded by our detective vehicles. Over the next 10 years, these calculations, irrespective of periodic gas price increases, would result in savings close to $27,000—astronomical potential savings for large fleet operations.

". . . the testing phase . . . provided the opportunity for a more comprehensive evaluation to determine the feasibility of an ongoing vehicle leasing program."

Program and Contract Monitoring

A leased fleet should be monitored carefully to ensure balanced mileage and prevent any violations to the terms of the contract which may invoke a penalty clause. For example, each of our leased vehicles has a maximum of 15,000 miles per year. As a word of caution, the appearance of these vehicles may tempt personnel to use these cars for private use, since it is unlikely they will be identified as police vehicles.

In conjunction with the experimental phase of the leasing program, detailed records are maintained to provide tangible evidence of its success. This was extremely critical when the program was presented to city council for final approval. Also, we are engaged in an ongoing management evaluation program to determine if other enhancements can be made to the terms of the contract.

Unfortunately, the opportunity to employ a comprehensive leasing program may be contingent on having an available car dealership in proximity to the police facility. The dealership we use is approximately 1.5 miles from the station. Other alternatives should be explored to determine the availability for similar leasing packages.

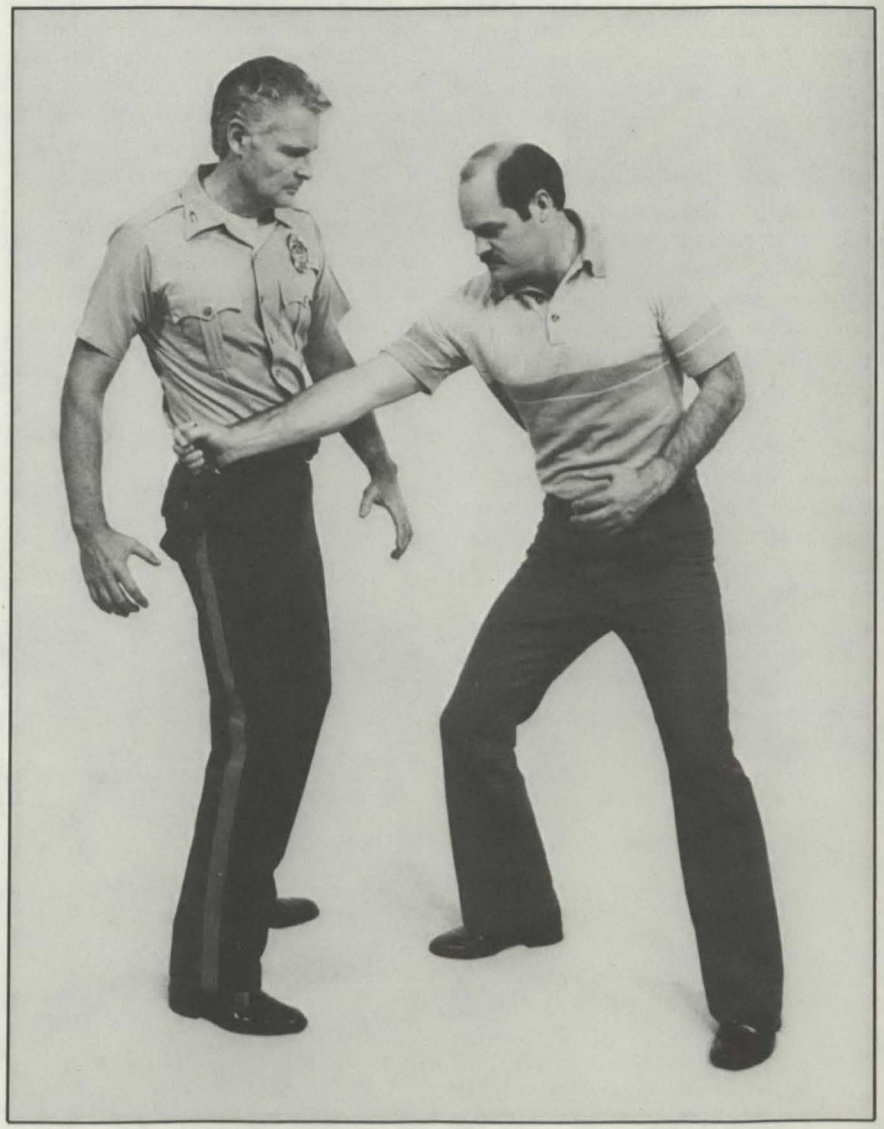
Conclusion

Leasing police vehicles is the wave of the future, and downsized cars are a reality that police administrators will be forced to accept, regardless of preference. The full-sized police vehicle is rapidly becoming a thing of the past. Perhaps the transition will be more palatable in incremental stages, beginning with the scaled-down, unmarked detective vehicles. **FBI**

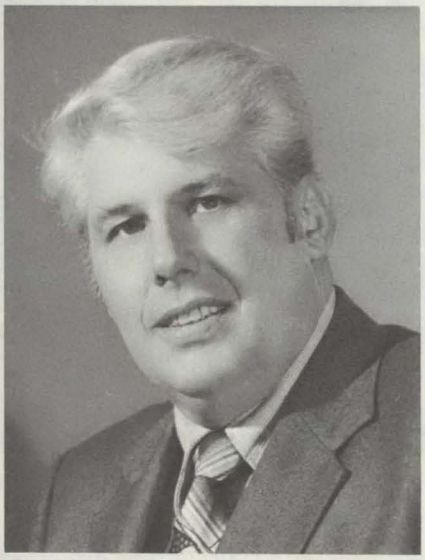
Officer Disarmings and Revolver Retention

5 Years Later

By
JAMES W. LINDELL
Physical Training Supervisor
Regional Training Academy
Penn Valley Community College
Kansas City, Mo.



Mr. Lindell



Chief Norman A. Caron

In August 1976, the Kansas City, Mo., Police Department instituted training in the Revolver Retention System as a response to the alarming increase in the number of officer disarmings. Beginning in January 1976, nine disarmings took place in 18 months; one officer was killed with his own handgun, while several others were wounded.

To determine why officers were being disarmed and what could be done to prevent it, a study was conducted by the KCPD planning unit. Research revealed that there apparently was no existing system of techniques to counter effectively holstered and drawn gun assault attempts.[1]

The Revolver Retention System emerged from trial-and-error experimentation with various defensive and offensive techniques, including wristlocks, blocks, and throws. Revolver retention techniques differ from defensive tactics routinely taught police officers in that the former are gun defense-oriented rather than person defense-oriented. If the techniques are thoroughly learned and properly applied, personal defense becomes a natural consequence of the procedure.

The ultimate goal of revolver retention training is to allow police officers to perform their duties with confidence in their ability to protect themselves and others, whenever necessary, without an undue amount of concern about their ability to defend their sidearm from assault. Since the original system was developed, improvements have been suggested by continuing research, practical training applications, and actual revolver defense situations experienced by the officers in the field. The revised system of revolver retention is proving to be even more effective in training and application.

Handgun Defense

In order to develop a system of handgun defense, certain principles of leverage, speed, force, body movement, and mechanics must be practiced so the officer is always able to generate more force against an assailant than the attacker has the physical ability to withstand. To simplify the Revolver Retention System, a three-step integrated action sequence was devised. Regardless of the kind of attack, the officer's initial response is always appropriate to the situation and provides the best opportunity to defend safely the gun and himself. However, before practicing the techniques, the three principal objectives of the Revolver Retention System should be understood and applied in the proper order as each technique is practiced.

The Three-Step System of Handgun Defense

Secure The Gun Since the attacker is concentrating on grabbing the gun from the holster or hand, an officer must counter the attack by securing the gun in the holster with one hand, while preparing to use the other hand or arm to complete a release. In the event a drawn gun is grabbed, check the attempt to disarm with the free hand and then complete the release. In *every* instance, secure the gun first and then prepare to apply the release technique.

Position As the gun is secured, it now becomes necessary to move in a manner that offers the greatest opportunity to exert maximum leverage and physical stress against the attacker to insure that the release is accomplished, and at the same time, provide body movement that will protect the officer against further assault as he applies the release. The various foot, leg, and body movements serve two purposes as each technique is applied; both position and protect the officer as he moves to apply the release technique.

Figure 1—Rear Gun Hand Grip. Bring right hand up behind holstered gun, with right thumb between gun and holster. The right index finger wraps around and on top of hammer so that palm covers entire trigger guard. The two bottom fingers grasp top front of holster. Now, exert force on gun to prevent it from being drawn or fired in the holster.

Release By the time the trained officer prepares to apply the release technique, approximately one second has elapsed and the attacker is already at a considerable disadvantage, because he has been checked in his attempt to gain control of the gun and has also been restricted from any continued assault on the officer. At this point, as the officer applies the release with the appropriate technique, he will simply be applying more leverage and physical stress against the attacker than the assailant has the ability to withstand, assuring the release of the gun.

Holstered Gun Security Grips

As noted, it is imperative to secure the gun in the holster during an assault to prevent it from being drawn or discharged in the holster. Two methods of gripping the holstered gun accomplish this goal. The right hand grip is referred to as the rear gun hand grip (see fig. 1); the left hand grip is called the front cross grip (see fig. 2). The proper application of these grips will make it impossible for the attacker to pull the gun from the holster or cause it to discharge in the holster should the trigger be pulled during an assault.

When an officer's holstered gun is grabbed and the officer uses the proper grip to keep it in the holster, the gun remains in a relatively fixed position on the hip, which allows for control and sufficient force to be developed against the attacker's hand(s) or arm(s) by the officer's hands, arms, and body to apply a release technique. The holster's tight fit to the gun also helps contain and prevent the gun from being drawn, so long as the gun is being held down with a proper grip and the holster does not tear out in back.

If a holster's design prevents or limits these gripping actions, modify the grip to achieve the same result, i.e., to prevent the gun from being fired in the holster or drawn from the holster by an assailant.

Dominant- and Weak-Hand Grabs

When the attacker grabs the holster or drawn gun with both hands, the hand that grabs first or has the tightest grip on the gun is the dominant hand. Maximum force and leverage can be generated against the dominant hand, because it remains in a fixed position on the gun until the release is applied.

When the dominant-hand grip is broken, the other hand (weak) also simultaneously loses its grip because of the resulting sympathetic nerve action.

Strong-hand (dominant) and weak-hand grabs are present in every two-hand assault situation, because the gun butt or barrel/frame is too small for both attacking hands to get a strong grip on it. With practice, an officer will be able to feel the difference in dominant- and weak-hand gripping power. If he attempts to apply a release against the wrong hand (weak), he must quickly shift his grip to the other hand (dominant) and apply an appropriate release.

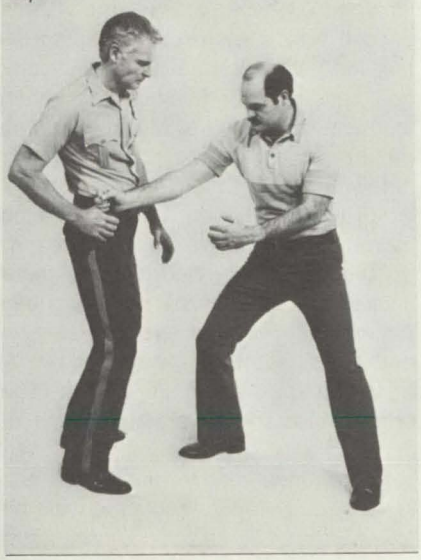
If the attacker has drawn the officer's gun, the dominant hand will be holding the gun butt. To counter this attack, the officer will grab the entire gun barrel with the near hand as he simultaneously reaches for and grabs the same (dominant) hand with his far hand and applies the correct release technique. This action allows the officer to exert superior force and leverage at all times, because both of the officer's hands are dominant hands during each handgun defense, while the assailant is always limited to one dominant gripping hand.

Drawn Gun Control

As the drawn gun in the officer's hand is grabbed, an assailant may attempt to gain possession of it by pushing, pulling, lifting, or forcing down on it with one or both hands. In every such instance, the officer will maintain a one-hand grip on the gun butt and use his other hand to counterattack the assailant's dominant gripping hand or arm to effect a release. By doing so, both of the officer's hands become dominant, while the attacker is always limited to just one dominant gripping hand or arm.

Figure 2—Front Cross Grip. Reach across waist with left hand, palm down, and place palm on hammer, with thumb between gun and holster. Simultaneously insert index finger into the trigger guard behind trigger and middle finger into the trigger guard in front of trigger. Exert pressure on the gun to prevent it from being drawn or fired in the holster.

Step A



Revolver Retention System Techniques

The revised revolver retention training bulletin consists of five holstered-gun retention techniques, four drawn-gun retention techniques, and three disarming techniques. These particular techniques were selected because they form an integrated system of gun defense that provides the most effective and easiest-to-apply techniques for officers, regardless of height, weight, age, or sex. The 12 basic retention techniques are designed to provide protection in a multitude of assault situations from the front, side, or rear.

Step C

For example, the upper forearm strike is a holstered handgun retention technique used against an attempt to grab or draw a holstered gun from the front or side with a straight arm(s). When a frontal attack occurs, the officer is very vulnerable to injury from the attacker's free arm or legs, even his head. Therefore, the officer not only wants to free his seized gun from the attacker's grasp but also to move out of the line of attack quickly, while effecting a release. The purpose of the upper forearm strike is to gain as quick a release as possible, using effective foot and body movement that will enable the officer to maximize force against the attacker's arm(s) (elbow), while minimizing additional assault from the front.

This particular technique is recommended because it's easy to apply and the dynamic force that can be generated against the attacker's elbow by the officer's forearm the instant he is assaulted from the front or side.

In the upper forearm strike, there are four steps which are to be performed simultaneously, or in sequential order, without any hesitation.

Right Hand Grab/Rear Gun Hand Grip

Step A—As the attacker reaches toward the gun with his right hand or both hands or grabs the gun butt, grasp the gun below the butt with the right hand, from the rear, and exert force on it to keep it in the holster. The right index finger should be placed around and on top of the hammer so that the palm covers the entire trigger guard and the two bottom fingers grasp the top front of the holster. The thumb wraps around the opposite side of the gun, making it impossible for the assailant to draw the gun or fire it in the holster.

Step B—While securing the gun with the right hand, step to the left front and pivot toward the attacker, keeping both knees bent. This movement positions an officer to the outside of the attacker's right arm, preventing additional assault by his other arm or legs.

Step B

This action also tends to straighten the attacker's arm(s), weaken his grip, and position the arm(s) for the release strike. Simultaneous with the step to the left front, clench the left hand in a natural position and swing the arm straight back 45° to cock it.

Step C—Maintain a straight locked arm and swing it forward and up, striking the attacker's right elbow as hard as possible with the upper forearm, which causes the elbow joint to hyperextend and effect the release.

Step D—As the strike is delivered, keep the knees bent and feet flat on the ground for maximum power, balance, and leverage.

Step D

If the attacker grabs the gun butt with the left hand, perform a left front cross grip and step to the right front while pivoting toward the attacker. (See fig. 3.) Now swing the right arm back 45° to cock it. With a clenched fist, swing the straight arm upward and strike the attacker's left elbow as hard as possible with the upper right forearm, causing his elbow to hyperextend and effect the release.

If the attacker grabs the gun butt with two hands, secure the gun in the holster with either hand and proceed into the appropriate body movement and strike release position. As the elbow is hyperextended by a hard sharp strike, the other hand will also lose its ability to hold. This sympathetic reaction functions only if pressure is maximized on the nerve at the elbow joint as it is struck. This technique is effective against either dominant or weak two-hand grabs of the gun butt.

It is important to step as far to the right or left front as possible in order to be positioned outside and opposite the attacker's elbow for maximum force and safety as the strike is made.

Figure 3—Left Hand Grab/Front Cross Grip

Instructors stress continuous practice of handgun retention techniques to reinforce comprehension and reflex actions. Yet, while practice is essential, there are several points to note.

1) Do not strike your partner's elbow hard, since it is easy to damage the elbow when it is locked in this position.

2) While practicing each release technique, exert force on the gun with both the rear gun hand grip and the front cross grip to insure that the gun cannot be drawn from the holster during an assault.

3) Practice the right-, left-, and two-hand releases until the hand grips, body movement, and strike release become second nature.

4) In certain attack situations, such as when the assailant grabs the gun butt with a thumb-down grip, causing the arm to rotate so that the elbow is positioned on top of the arm, it may be more effective to cock the striking arm upward and back and deliver a downward forearm strike to the elbow. Practice both release technique methods for maximum effectiveness.

5) It is best to use a practice gun when performing these techniques; however, if a personal handgun is used for practice, be sure to unload the gun before each practice session. Show your practice partner the open cylinder or chamber to insure that the weapon is unloaded.

The Kansas City Experience

Reports of disarmings among KCPD officers who were trained in revolver retention virtually stopped for a period of 52 months. However, during the first year, several officers who had yet to receive the training were disarmed with no serious consequences. There were also a number of reported incidents where assaulted officers used the instructed techniques to retain their weapons. In fact, those officers reported using revolver retention techniques far more often than any other method of defense to retain their revolvers.

The notable reduction in disarming incidents among trained officers may be the result of officers being more aware of the potential for being disarmed, and therefore, avoiding dangerous practices. In either event, well-trained officers are better prepared to protect themselves and their guns at all times.

The most frequently used holstered gun defense technique was the lower forearm block against an attempt to grab the gun from the side or rear. About half the reported handgun defense incidents involved the quick forearm strike and turn into and then away from the attacker in one simultaneous action. A number of officers used the rear wristlock technique to remove the attacker's hands from the gun butt, and one officer employed a nerve and leverage release to retain his drawn gun which had been grabbed by a mentally disturbed person. Also frequently reported was the use of the handgun disarming method to remove guns and other weapons from subjects' hands.

In one instance, a reserve police officer who had yet to be trained in revolver retention reported that he had received a copy of the training text and periodically practiced the techniques with his wife. He was working in uniform at an art gallery when assaulted and disarmed. Following the attack, the officer said that as he struggled with the attacker and had the gun ripped from his holster, the pictures from the handgun disarming method flashed through his mind. He followed the procedure, disarmed the subject, and regained his gun. This, of course, is the kind of response all trainers desire and is directly related to the reason trainers recommend instructed techniques be practiced by officers on their own time.

In contrast to the use of revolver retention techniques to retain sidearms, a smaller number of officers reported a variety of other methods, including fists, feet, elbows, batons, and hand radios. These personal defense tactics have worked and should continue to be used by officers whenever applicable. There should be no reservation in the officer's mind about what he should or can do to protect his handgun. Basically, the Revolver Retention System has replaced personal defensive tactics as the most frequently reported defense of an officer's handgun simply because it is the most practical, easy to apply, and effective handgun defense tactic available to an assaulted officer in many instances. Without exception, those officers who defended their guns with revolver retention techniques reported that their defensive actions were spontaneous, appropriate, and effective.

Officer Disarmed

The first disarming of a Kansas City officer who had been trained in handgun retention techniques occurred after more than 4 years of success with the Revolver Retention System. On December 24, 1980, a probationary officer was disarmed by a burglary suspect as the officer tried to push him into a search position against a wall, while holding a radio in her left hand and a gun in the right. The subject suddenly turned and grabbed for her gun arm, and although she struck him on the head with the gun, it was to no avail. The subject left the scene with the gun, which has not been recovered. Later, while being questioned, the officer admitted not using her revolver retention training in order to retain her gun, noting that she could not use her left hand because it held the radio.

Conclusion

Despite all precautions an officer may take, attempts by assailants to disarm officers will continue to occur. For this reason, no officer can afford to become complacent about the possibility of being assaulted or disarmed.

The success of the Revolver Retention System as a means of protecting officers against disarming attempts is directly related to officers' acceptance and use of the tactics as superior and effective methods of weapon defense, when compared to other defensive actions they might otherwise employ. However, in the final analysis, only one criterion should be used to judge the merits of any system of weapon defense—results!

A growing number of officers have reported the successful defense of their holstered or drawn guns by the quick and effective application of a specific revolver retention technique. Similar results are being reported throughout the country by those agencies that now teach this system of weapon defense as a standard part of defensive tactics, firearms, or officer survival training.

In most weapon assault situations, it is not only what the officer knows about the dangers of being disarmed but also how well he is trained. However, what is most important is that the officer uses the information and training to react positively, correctly, and forcefully to defend his weapon when necessary. No amount of knowledge or training can replace a failure by the officer to react properly when assaulted. When a police officer is disarmed by an assailant, a number of things may happen immediately after the assault, but none will be good as far as he is concerned. The officer or others may be killed or wounded, or the attacker may leave the scene with the gun and use it to rob or kill in the future. A failure by the officer to take appropriate action to defend his weapon when assaulted may only leave others to extend condolences later.

The fact that no KCPD officer who used revolver retention techniques to defend the handgun in 5 years has been disarmed shows that effective training can help determine whether an officer prevents death or injury during such an attack. The end to a deadly trend of escalating officer disarmings by the formulation and implementation of a specific training program has proved to be more successful than expected.

As a result of the KCPD experience, other departments and agencies will now have access to this system of weapon protection for their officers without having to undergo a similar lengthy period of research and development.

The Kansas City, Mo., Police Department's continued commitment to annual revolver retention training and the officers' positive response to this training show that commitment, cooperation, and mutual dedication to officer safety have combined to help protect those who are sworn to protect others. The price the officer must pay for this protection is to be aware that his handgun may be subject to attack at any time and to stay prepared mentally, physically, and technically to prevent an assault from succeeding. **FBI**

For additional information, contact:
James W. Lindell
Physical Training Supervisor
Regional Training Academy
Penn Valley Community College
3201 Southwest Trafficway
Kansas City, Mo. 64111

Footnote

James W. Lindell, "Officer Disarmings—A Response." *FBI Law Enforcement Bulletin*, vol. 47, No. 3, March 1978, pp. 8–13.

FEATHERS ARE NOT LIGHTWEIGHT EVIDENCE

By DOUGLAS W. DEEDRICK
Special Agent
Laboratory Division
and
JOHN P. MULLERY
Writer
Office of Congressional and
Public Affairs
Federal Bureau of Investigation
Washington, D.C.

Evidence submitted to the FBI Laboratory comes in all sizes, shapes, and forms. Yet, the arrival of a bald eagle's carcass, though causing little concern or consternation, was definitely a first. Since its adoption by Congress in 1782 as the national bird of the United States of America, the majestic bald eagle has symbolized the strength and liberty of this great Nation. Today, it is an endangered species.

The young eagle, approximately 2 years old with a wingspread of 6 feet, had been shot and then clubbed to death. A rifle, believed to have been used in the killing, was obtained from the suspect and submitted to the Laboratory along with the carcass.

Subsequent microscopic examinations determined that the piece of down found on the rifle butt had the same characteristics as the down removed from the eagle. Though this finding could not verify that the feather could only have come from this particular bald eagle, it could be considered a strong circumstantial indication, when taken in conjunction with the rare occurrence of a bird of that species being clubbed to death in a particular section of a specific State.

Few investigators are aware of the FBI Laboratory's capability of identifying feathers. Yet, such examinations could provide valuable information, since evidentiary feather materials frequently appear in connection with serious, often violent, crimes. It has been the Laboratory's experience that feather-related examinations are most often made in cases of rape, homicide, burglary, and even a hoax bombing.

While it is common knowledge that only birds have feathers, most people are unaware that there are approximately 8,600 living species, which can be broken down further into approximately 29,000 subspecies. Some species molt and change plumage seasonally, others less frequently. Some migrate thousands of miles annually, while others remain in the same area throughout the year.

Feathers are composed of keratin (a fibrous protein substance) and color pigment. They grow in tracts or areas on most birds, with the intervening skin spaces being bare or covered with down. In addition, a bird has several different types of feathers (contour, semiplumes, down, powder down, filoplumes, and bristles), each having distinct characteristics and purpose (flight capability and control, insulation, plumage flexibility, buoyancy, etc.).

The most common feather material submitted comes from birds most familiar to man—chickens, turkeys, pigeons, crows, starlings, or sparrows—and like hair, fibers, blood, or soils, feathers usually appear as trace evidence. It is also easy to understand why down feathers are most frequently found in the course of an examination, considering the contemporary uses of these feathers in wearing apparel, comforters, sleeping bags, and other common items.

The possibility of identification depends on the examining laboratory's thorough knowledge of feather characteristics and the maintenance of a reference collection of feather samples from as many species of birds as possible. Fortunately, the FBI Laboratory has both, as well as the added dimension of access to the collection at the Smithsonian Institution's Division of Birds. Of course, the quality of the particular specimen received, as to type, color, or size, may limit the extent of the examination and possible identification.

Feather identification may add to the validity of trace evidence or provide more positive proof. Matching feather specimens from the crime scene with debris collected from the suspect's clothing may add weight to evidence gathered against the suspect or diminish his credibility by placing him in the area where the crime was committed.

Not all examinations by the FBI Laboratory are based on a specific "feather" request. Debris submitted for analysis, either from a crime scene or from the clothing of a victim or suspect, may be found to include material microscopically identifiable as feather—an element in the mix which may narrow the search or reinforce the evidence.

Such was the case in an investigation of the abduction, assault, and homicide of an 11-year-old girl. Laboratory comparison established that debris from the suspect's car included chicken down of the same type as used in the victim's mittens. This finding, together with other circumstantial evidence, resulted in a "guilty" verdict.

In an arson investigation of a warehouse, debris collected from the suspects' clothing, who had been apprehended near the scene of the crime, was determined to include turkey down as used in the feather bedding stored in the warehouse.

A more positive finding was established in a case of rape which took place on an Indian reservation. The victim agreed to give a ride to a man she met at a shop in town. When the pickup truck reached a remote desert location, a struggle ensued in the truck, which had been brought to a halt, during which an ornamental feather hanging from the rearview mirror was broken. After the assault took place, the attacker departed, carrying the feather with him. When the suspect was located, he had a feather with a missing segment attached to his belt.

"Feather identification may add to the validity of trace evidence or provide more positive proof."

Further examination by the Laboratory revealed that the feather fragment found in the truck fit exactly the feather with the missing segment.

Foreign matter appearing on feathers may be identifiable and useful. Human blood is distinguishable from animal, and bird blood is identifiable as avian, distinguishable from the blood of other animals though not by the species of bird. Dyed feathers are readily differentiated. Turkey feathers are often dyed to give the "look of eagles," though the feathers are significantly different.

To illustrate further the diversity of practical applications, it may be interesting to mention a purpose served by feather identification not directly related to law enforcement, nor usually with the FBI Laboratory.

A "birdstrike" may occur, for example, when a civilian airliner has a malfunction or serious accident caused by birds being sucked into the engine. Most often, this "strike" happens on takeoff or landing. In such cases, identification of the species would be beneficial in order that appropriate action may be taken to forestall or prevent repetition.

After a "strike," those birds ingested into the engines would require identification through laboratory procedures rather than sight inspections, since accuracy is most important.

Once the species has been pinpointed through feather identification, known data on the species' habits may simplify locating the nesting or roosting areas and taking positive steps to induce the birds to change their locale, if possible. If this cannot be done, it may be necessary to change aircraft takeoff and landing pattens to avoid recurrent "strikes."

One apparent "strike" incident indirectly involving the FBI started when ground examination of an Air France plane arriving at Houston, Tex., from Copenhagen, Denmark, revealed clear traces that it had struck birds while in flight. As usual, an attempt was made to identify the species, preliminary to taking precautionary measures.

On request of the aircraft manufacturer, a Smithsonian consultant determined the feather debris was that of a Laughing Gull, but the finding was questioned since that species was unknown in the Copenhagen vicinity where it was believed the "strike" occurred.

FBI Laboratory examinations disclosed an ear fragment from a bat, an unsuspected victim, which was identified by hair as a Free-tailed Bat, commonly found in the Houston area, as is the Laughing Gull. Corrective action could then be taken at the appropriate location.

The availability of this forensic tool—feather identification—while unlikely to revolutionize the criminal justice process does illustrate the prudence of conscientious attention in gathering trace evidence and the possibility of positive results from examination by qualified technicians in a versatile, well-equipped crime laboratory. **FBI**

CHAINS, WHEELS, AND THE SINGLE CONSPIRACY (Conclusion)

BY
JEROME O. CAMPANE

Special Agent
Legal Counsel Division
Federal Bureau of Investigation
Washington, D.C.

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

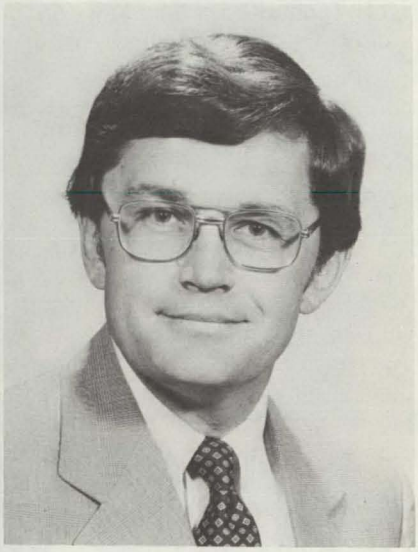
Part I of this article reviewed the historical development of the law of criminal conspiracy and considered some reasons for its pervasive present-day use. Particular attention was given to the single vs. multiple conspiracy problem because it places the prosecutor in a significant constitutional dilemma, for the U.S. Constitution provides guarantees in the 5th, 6th, and 14th amendments that are available to attack and possibly defeat either single or multiple conspiracy prosecutions. The conclusion of the article reviews a number of major cases in which courts have analyzed the "chain" and "wheel" [60] conspiracy configurations and have used them to determine the scope of and membership in one or more conspiracies.

The Party and Object Dimension

One difficulty with analyzing the evidence in conspiracy cases stems from the common law notion that the substance of the offense was the making of an agreement to commit a readily identifiable crime, such as robbery or murder. From this perspective, some courts are inclined to focus on what the individual co-conspirators agreed to. This is known as the "party dimension" [61] or "unilateral" [62] approach and is typified by the case of *United States* v. *Borelli.* [63]

In *Borelli,* numerous defendants participated in narcotics transactions extending over a 9-year period, during the course of which some of the principals and sources of supply had changed. Nevertheless, all the defendants were convicted of participating in a single conspiracy. On appeal, a Federal court reversed, holding that the evidence may have suggested multiple conspiracies rather than the single one charged. The defendants were therefore entitled to an instruction requiring the jury to find what the agreements were as to each defendant. The court recognized that it is much more difficult to infer agreement from a series of drug smuggling operations than from the furnishing of guns to a prospective bank robber. This is especially true, the court noted, with numerous drug co-conspirators, where buyers are indifferent to their sources of supply and suppliers are indifferent to the identities of their customers:

> "Although it is usual and often necessary in conspiracy cases for the agreement to be proved by inferences from acts, the gist of the



Special Agent Campane

offense remains the agreement, and it is therefore essential to determine what kind of agreement or understanding existed as to each defendant. . . . The view that if the evidence warrants the finding that some defendants were parties to a single agreement to sell contraband for a nine-year period, it necessarily does so as to every defendant who has conspired with them at any time for any purpose, is thus a considerable oversimplification." [64]

Most courts are more sympathetic to the threat posed to society by the kinds of crimes, like narcotics conspiracies, that require complex illegal businesses engaging in prolonged unlawful conduct. This more pragmatic point of view deals with the crime as a group of individuals and thus focuses on their overall operation or objectives rather than the individual acts of agreement. This is known as the "object dimension" [65] or "bilateral" approach.[66]

The U.S. Supreme Court recognized the validity of this perspective many years ago in the leading conspiracy case of *Blumenthal* v. *United States*. [67] Five defendants were successfully convicted of participating in a single conspiracy to sell whiskey illegally. In support of the conviction, the Court summarized the bilateral point of view:

"For it is most often true, especially in broad schemes calling for the aid of many persons, that after discovery of enough to show clearly the essence of the scheme and the identity of a number participating, the identity and the fact of participation of others remain undiscovered and undiscoverable. Secrecy and concealment are essential features of successful conspiracy. . . . Hence the law rightly gives room for allowing the conviction of those discovered upon showing sufficiently the essential nature of the plan and their connections with it, without requiring evidence of knowledge of all its details or the participation of others." [68]

The Bilateral Perspective

As a result of these divergent views and the possibility of a *Borelli*-like charge to the jury, a successful conspiracy prosecution may depend on the ability of the prosecutor to fashion the proof in such a way as to shift the court and jury's examination of the evidence away from the agreement of each participant and toward the organization formed to commit the crime. Many courts are willing to accept the bilateral approach and charge the jury to recognize the continuance of a single dominant plan, despite changes in personnel, location, victims, or methods of operation.[69] This shift in focus is often accomplished successfully when the evidence is presented in a form that structures the group's activity as either a chain or wheel conspiracy.

Kotteakos v. *United States*,[70] decided in 1946, and *Blumenthal*, decided a year later, are the two Supreme Court cases which are generally recognized for their acceptance of such structural metaphors to distinguish the single from the multiple conspiracy.

"Complex conspiratorial plans do not easily lend themselves to chain or wheel structures and are oftentimes a combination of both."

The Wheel

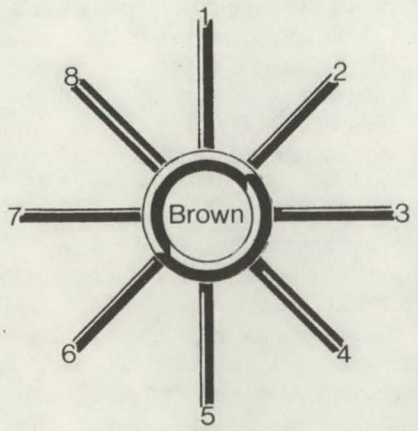
When a number of persons (the spokes) are engaged in a criminal conspiracy with the same individual or group (the hub), a successful single conspiracy prosecution will depend upon whether the spokes can be drawn together (rim around the wheel) into a single agreement.

The hub generally views his dealings with the spokes as part of a single enterprise, but a spoke may be concerned merely with his own actions, unless it can be shown that the existence and cooperation of other spokes were or should have been known to him. Failing such proof, a court will hold that the other spokes remain individual members of multiple conspiracies. Crimes such as bribery,[71] theft,[72] and fraud [73] particularly lend themselves to a wheel analysis.

In *Kotteakos*, the president of a lumber company, one Brown, having experience in obtaining loans under the National Housing Act (NHA), undertook to act as a broker for others who fraudulently applied to various financial institutions for NHA modernization loans. The undisputed proof showed separate and independent unlawful agreements between eight applicants and Brown. The applicants' only connection with each other was their mutual use of the same broker.

Figure 1

The Rimless Wheel
No Single Conspiracy.
(Kotteakos)



The Federal Government claimed the conspiratorial pattern was that of separate spokes meeting at a common center, but the Supreme Court agreed with the Federal appellate court that without the rim of the wheel to enclose the spokes, the proof made out a case of several conspiracies, notwithstanding only one was charged in the indictment.[74] (See fig. 1.)

Kotteakos, therefore, and cases like it suggest that the nature of the crime itself generally precludes a wheel analysis. A year later, explaining its conclusion in *Kotteakos*, the Supreme Court pointed out that no two of the fraudulent loan agreements were tied together as stages in the formation of a larger all-inclusive combination, and no spoke gained from the fact that others were involved. Because each loan was an end in itself, the co-conspirators did not know or need to know of each others existence or involvement:

> "The conspiracies therefore were distinct and disconnected, not parts of a larger general scheme. . . . There was no drawing of all together in a single, overall comprehensive plan." [75]

The Chain

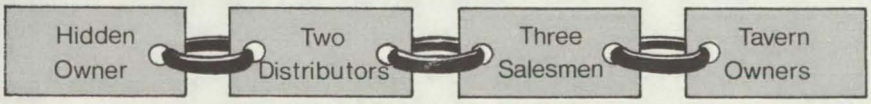
Conspiracies suggested by the chain configuration relate to agreements between sellers, middlemen, wholesalers, retailers, and ultimate purchasers. Whether the purpose of the conspiracy is the sale of such commodities as narcotics,[76] counterfeit money,[77] or liquor,[78] the object is to place the goods into the hands of the paying consumer. No one in the chain profits unless each does his part (connects the links) to supply the buyer.

In *Blumenthal*, two whiskey distributors and three of their salesmen were convicted in a single conspiracy prosecution for selling 2,000 cases of whiskey at prices in excess of the ceiling set by the Federal Office of Price Administration. The two distributors operated the Francisco Company as a front for a hidden owner. The three company salesmen sold the whiskey to tavern owners at a price barely above cost, plus a kickback shared by the salesmen, distributors, and hidden owner. The price for product and kickback combined exceeded the mandated ceiling.

Although evidence at trial proved an unlawful agreement between the hidden owner and distributors, the

Figure 2

The Classic Chain Conspiracy *(Blumenthal)*



three salesmen claimed they did not know of the unknown owner's existence or his part in the plan. The government's case, they argued, proved one conspiracy between the owner and distributors and one between the salesmen and distributors. As such, testimony about the conspiracy between the owner and distributors was inadmissible against them as this was evidence of a conspiracy for which they were not charged.

The Court disagreed, however, and upheld the conviction. It was scarcely conceivable, the Court reasoned, for the salesmen to believe the unknown owner of Francisco Company was giving away his whiskey. It was more appropriate to draw the inference that the salesmen knew an owner, unknown to them, contemplated the entire chain of events:

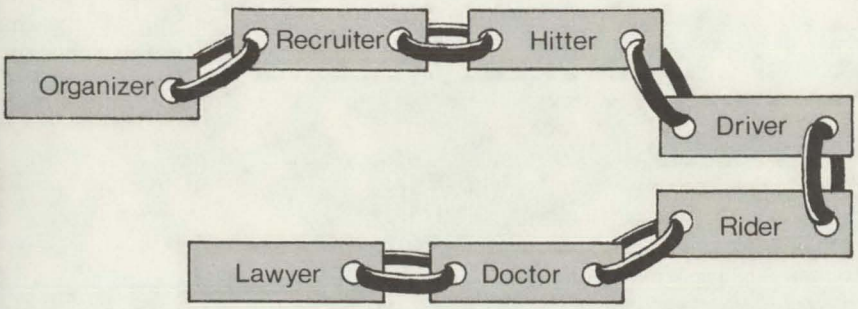
> "All intended to aid the owner, whether Francisco or another, to sell the whiskey unlawfully. . . . All by reason of their knowledge of the plan's general scope, if not its exact limits sought a common end to aid in disposing of the whiskey. True, each salesman aided in selling only his part. But he knew the lot to be sold was larger and thus that he was aiding in a larger plan." [79] (See fig. 2.)

The Chain-Wheel

Complex conspiratorial plans do not easily lend themselves to chain or wheel structures and are oftentimes a combination of both. For example, in *United States* v. *Perez,*[80] a statewide, get-rich-quick scheme involved the staging of fraudulent automobile accidents for the purpose of creating false personal injury claims. Twelve individuals appealed from their convictions in a single mail fraud conspiracy. Each of many phony accidents was organized the same way. "Recruiters" located willing "hitters," who would be liable for a contrived accident with a "target" vehicle. The occupants of the target were "drivers" and "riders" participating in the scheme. The rider would feign injury and be sent to cooperative doctors and lawyers. They, in turn, would contrive to document a bogus medical history in support of a personal injury claim mailed to an insurance company. The rider claimant would then pass the insurance proceeds back through the chain for proportionate disbursement to each cooperating participant. The court held that because each conspirator performed a separate function in a scheme where every participant's cooperation was necessary for the plan to succeed, a classic chain had been drawn.[81] (See fig. 3.)

Figure 3

A Classic Chain *(Perez)*



The defendants conceded this much, but argued against the government's attempt to make spokes of a wheel out of numerous chains, and thus bring all the defendants into a single conspiracy prosecution. Absent, they contended, was a common objective or awareness of the other spokes' existence. But the Federal court took a close look at the nature of the enterprise and believed otherwise.

First, unlike the plan in prolonged narcotics conspiracies, the same exact chain could not continue in existence for more than one accident for fear that the insurance companies would quickly catch on to the identity of the parties. Second, this conspiracy was fundamentally different from the multiple conspiracies found in *Kotteakos* where each scheme to obtain a loan was an

"The nature of the enterprise, its size and volume of business, and the relationship between participants are all key evidentiary factors. . . ."

end in itself from which only separate agreements could be inferred. The nature of the *Perez* agreement contemplated an ongoing scheme that would not persist without the continuing cooperation of numerous conspirators to maintain it. Because various lawyers, doctors, recruiters, and passengers participated in a series of accidents in various combinations, the conspiracy took on the schematic structure of a wheel. At the hub were the organizers, whose contacts with cooperating lawyers and doctors were essential ingredients to make the scheme work. The organizers then sent recruiters out to find the other necessary parties. Third, the court believed that each participant, after cooperating in a second phony accident with a similar modus operandi, rimmed the wheel because each knew or should have known that there had to be someone organizing a larger scheme. And fourth, the court appeared impressed with the identity of certain defendants. It believed the participants in each accident must have known that there had to be a series of additional phony accidents to create rewards high enough to compensate for the risk of loss of professional status for the participating doctors and lawyers.[82]

The court therefore concluded that all the defendants were co-conspirators in a single common scheme to use the mails to defraud the insurance companies. (See fig. 4.) It observed:

> "From an operational sense this was not a series of little concoctions to set up a particular collision. . . . It was one big and hopefully profitable enterprise, which looked toward successful frequent but nonetheless discreet repetitions, and in which each participant was neither innocent nor unrewarded." [83]

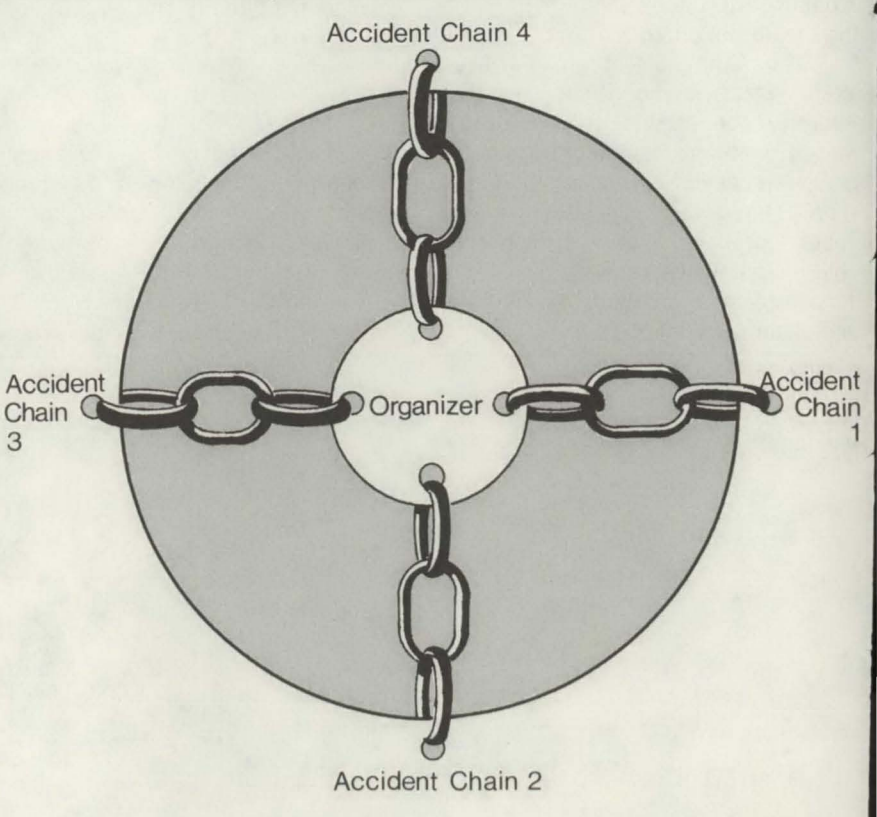
The *Kotteakos, Blumenthal,* and *Perez* cases not only illustrate how chain and wheel structures are analyzed but also suggest the kinds of evidence an investigator should be looking for to enable a court to solidify a bilateral view of conspiracy. The nature of the enterprise, its size and volume of business, and the relationship between participants are all key evidentiary factors in this regard.

Nature of the Enterprise

In *United States* v. *Bruno,*[84] 88 defendants were indicted for a conspiracy to import, sell, and possess narcotics. The smugglers dealt independently with a group of retailers in New York and a group of retailers in Texas and Louisiana. While there was no evidence of cooperation or communication between the diverse groups of retailers, the court held the jury could have found a single large conspiracy:

Figure 4

The Chain-Wheel *(Perez)*
The Chains Form the Spokes of a Wheel Conspiracy



"[A]ll the accused were embarked upon a venture in all parts of which each was a participant, and an abettor in the sense that the success of that part with which he was immediately concerned, was dependent upon the success of the whole. . . . [H]e [retailer] knew that he was a necessary link in a scheme of distribution, and the others, whom he knew to be convenient to its execution, were as much parts of a single undertaking or enterprise as two salesmen in the same shop." [85]

The *Bruno* case is recognized for establishing a "stake in the venture" [86] test that has been particularly successful in chain conspiracies where the sale of goods requires the inference that cooperation between producers, distributors, and retailers is necessary for the venture to pay off.[87]

The nature of criminal activity more easily identifiable with the wheel structure can also be used to show mutual dependence among its participants. In the more recent case of *United States* v. *Morado,*[88] eight individuals were convicted in a single conspiracy to violate Texas election laws. The sheriff of Starr County, who was also a physician, directed others to acquire absentee ballots from elderly, illiterate, and infirm voters who were induced to vote a certain way on ballots that were improperly witnessed. A Federal court did not believe that the individual acts of election fraud were separate conspiracies in themselves, but part of a larger plan in which each fraudulent ballot made sense only insofar as it depended upon the others for ultimate success. The court concluded, "Each constituted a mutually beneficial and successive step toward a single common goal—the stealing of an election." [89]

If a legitimate organization is used to cover and coordinate criminal activity, the defendants' association with the organization may be used to draw an inference of a single conspiracy. In *United States* v. *Kenny,*[90] numerous Jersey City and Hudson County, N.J., politicians were convicted of conspiracy to obstruct justice and affect interstate commerce [91] for accepting kickbacks on city and county construction contracts. All were members of J. V. Kenny's political organization, and all but Kenny held official positions in city or county government. The court believed the evidence reflected a pattern of conduct on the part of an "official family" which repeatedly cooperated closely to achieve the common goal of self-enrichment. The court stated:

"The key to success of all their depravities was their common control over the administration of city and county government under the leadership of J. V. Kenny." [92]

These examples suggest the importance of establishing the nature of the enterprise. An investigator should therefore be prepared to locate witnesses (often immunized co-conspirators) who are willing to testify and are able to explain the complicated or intricate nature of the unlawful activity, and as a consequence, the stake in the venture or mutual dependence each participant has with each other.

Size and Volume of Business

In *United States* v. *Peoni,*[93] a Federal court refused to find a single conspiracy based on evidence of the sale of counterfeit money. Defendant Peoni sold the money to one Regno, who in turn sold it to a third party, Dorsey, who passed it on to innocent persons. The court refused to hold Peoni as a co-conspirator with Dorsey and drew a distinction between knowledge that remote links *must* exist and knowledge that they *may* exist. From Peoni's point of view, the agreement was to sell to Regno. It was of no moment to him what Regno did with the bills. He could have passed them on to innocent purchasers as easily as passing them on to his accomplice Dorsey.

In a later case,[94] the same Federal court, citing *Peoni,* noted that had the prosecution been able to establish more than one sale from Peoni to Regno, the inference that Peoni knew that sales beyond his own would be made and that he thus shared a common purpose with Dorsey, Regno's vendee, might well have been strong enough to warrant submission of the single conspiracy issue to the jury.

The case of *United States* v. *LaVecchia* [95] supports the importance of evidence indicating multiple and voluminous sales. A Federal court upheld a single conspiracy among counterfeiters and distributors because it thought the amount of money printed ($450,000) was so large that the success of the conspiracy must have depended on distribution by others.

"Specialized functions within group activity can also help establish a single conspiracy."

Remote purchasers were also linked to the counterfeiters because the evidence showed: (1) Large ($10,000) purchases suggested a larger operation, (2) the purchasers' negotiations in terms of "points" suggested familiarity with the counterfeit business, and (3) the purchasers' knowledge that additional buys could be made suggested a large-scale operation.[96] In structural form, the counterfeiters should have known they were part of a chain of distribution and the independent remote purchasers should have suspected that additional chains were working with the same distributors. Evidence regarding the volume of sales, however, was the key to pull the rim around these chains and thus create a wheel conspiracy.

In a similar vein, a Federal court upheld the single conspiracy prosecution of eight defendants involved in a large-scale California drug smuggling operation. The court looked at: (1) The size of the smuggling operation, (2) the quantity and frequency of the retailers' purchases, (3) the efficiency of the distribution system to the retailers, and (4) the experience of the retailers in the narcotics sales business. It then concluded that each retailer had reason to know of other retailers' existence even though not aware of each other's identity, numbers, or locations, and that each retailer had reason to believe that his own profits were probably dependent upon the success of the entire venture.[97]

Relationship Between Participants

Specialized functions within group activity can also help establish a single conspiracy. In *United States* v. *Becker*,[98] four defendants were convicted of conspiring to defraud investors by misrepresenting that low-grade ore contained enormous quantities of gold and silver capable of low-cost extraction. The defendants were divided between two groups, one responsible for handling the scientific aspects and another responsible for marketing the contracts and options. The court held:

> "In this case the very structure of the activities supports an inference of an underlying agreement, even if it was unspoken. . . . The division of labor among the various defendants under the supervision of one or two directors supports the existence of a conspiracy." [99]

In *United States* v. *Gleason*,[100] three top officials of the Franklin National Bank were convicted of conspiracy to falsify the bank's operating statement in order to cover up a $7 million loss. The scheme relied on the specific and separate expertise of the defendants to evaluate falsely the value of securities and create fictitious foreign exchange transactions. Although there was apparently no direct evidence that each defendant knew the details of what the others were doing, the Federal court believed each defendant should be held to intend the foreseeable consequences of his actions and that it could infer a common objective to falsify the financial statement.[101]

Proof of mere association among the participants may be a helpful indication of single conspiracy. A single conspiracy conviction to smuggle anticancer drugs was upheld where physical surveillance put all of the defendants together near the automobile used to smuggle the drugs across the Mexican border.[102] Like conclusions were reached where all the defendants worked in close quarters,[103] or were relatives in a family-run marihuana farm.[104] Even informants can be used to bring two otherwise exclusive conspiracies into a mutually dependent wheel conspiracy.[105]

Conclusion

Last month, in Part I of this article, three important conspiracy questions were raised. The answer to the first question identified the constitutional provisions that make it imperative to determine whether the evidence establishes one large conspiracy as opposed to multiple smaller ones. The second question was answered with a suggestion that investigators accurately identify the structure's component parts, and then tie them together. It may mean forging the rim of a wheel, welding the links of a chain, or doing both. The third question, whether jewel thieves, auto thieves, and a fence could be successfully brought to trial for their participation in a single conspiracy, may well depend on whether they can all be enclosed within the rim of a wheel. If the evidence properly presents the nature

of the enterprise, its size and volume of business, and the relationship among the parties, a single conspiracy can be proven.

A conspiracy prosecution can be a devastating law enforcement weapon. Rather than an appendage to an indictment charging a substantive offense, conspiracy in many instances can and should be the primary objective of an investigation. However, the structure of a conspiracy can be as illusive and varied as the criminal mind. The investigator thus has the responsibility to produce the necessary evidence to prove a single conspiracy. The evidence must be sufficient to permit a jury to draw the inference that all the parties knew or should have known they were working together in a concert of action to accomplish a common purpose. If the challenge is met, the crime of conspiracy can also become a darling of the investigator's nursery. **FBI**

Footnotes

[60] *Supra* footnote 2.

[61] *United States* v. *Falcone*, 109 F.2d 579, 581 (2d Cir. 1940), *aff'd. on other grounds*, 311 U.S. 205 (1940). In Judge Learned Hand's well-known phrase, each co-conspirator "must in some sense promote their venture himself, make it his own." *Accord, Grunewald* v. *United States*, 353 U.S. 391, 397 (1957). The scope of the agreement must be proved individually; *United States* v. *Lindsey*, *supra* footnote 28 at 787; *United States* v. *Varelli*, supra footnote 22 at 742–43. Also *see* Notes, *Conspiracy: Statutory Reform Since The Model Penal Code*, *supra* footnote 8 at 1158–64; *Developments In The Law—Criminal Conspiracy*, *supra* footnote 23 at 927–29.

[62] *See* Wechsler, Jones, and Korn, *The Treatment Of Inchoate Crimes In The Model Penal Code Of The American Law Institute: Attempt, Solicitation And Conspiracy*, *supra* footnote 23 at 965–67.

[63] *Supra* footnote 43.

[64] *Id.* at 383–84.

[65] *See* Notes, *Conspiracy: Statutory Reform Since The Model Penal Code*, *supra* footnote 8 at 1158–64; *Developments In The Law—Criminal Conspiracy*, *supra* footnote 23 at 929–33.

[66] *Supra* footnote 62

[67] *Supra* footnote 30.

[68] *Supra* footnote 30 at 556–57.

[69] Even in States with unilateral criminal conspiracy statutes, each participant's agreement may be inferred from chain and wheel configurations. *See United States* v. *Borelli*, *supra* footnote 43 at 383 n.2; *State* v. *McLaughlin*, 44 A.2d 116 (Conn. 1945) (Single conspiracy upheld where profitability of an illegal horse racing wire service depended on numerous subscribers); Wechsler, Jones and Korn, *The Treatment Of Inchoate Crimes In The Model Penal Code Of The American Law Institute: Attempt, Solicitation And Conspiracy*, *supra* footnote 23 at 984–88.

[70] *Supra* footnote 28.

[71] *See, e.g., Williams* v. *United States*, 218 F.2d 276 (4th Cir. 1954) (Police officers part of a single conspiracy to provide protection to bootleggers); *United States* v. *Kenny*, 462 F.2d 1205 (3d Cir. 1972), *cert. denied sub nom. Murphy* v. *United States*, 409 U.S. 914 (1973) (Conspiracy by public officials to obstruct interstate commerce by accepting kickbacks on government construction contracts).

[72] *See, e.g., United States* v. *Morado*, *supra* footnote 56 (Conspiracy to steal an election through misuse of absentee ballots); *United States* v. *Lindsey*, *supra* footnote 28 (auto theft conspiracy).

[73] *See, e.g., United States* v. *Netterville* 553 F.2d 903 (5th Cir. 1977), *cert. denied*, 434 U.S. 861 (1978) (Mail fraud conspiracy to induce purchases of oil products dealerships); *United States* v. *Gleason*, 616 F.2d (2d Cir. 1979), *cert. denied*, 100 S.Ct. 1320 (1980) (Franklin National Bank Fraud and embezzlement conspiracy).

[74] *United States* v. *Kotteakos*, *supra* footnote 28 at 753.

[75] *Blumenthal* v. *United States*, *supra* footnote 30 at 558.

[76] *See, e.g., United States* v. *Bruno*, 105 F.2d 921 (2d Cir. 1939), *rev'd on other grounds*, 308 U.S. 287 (1939).

[77] *See, e.g., United States* v. *Peoni*, 100 F.2d 401 (2d Cir. 1938).

[78] *See, e.g., Blumenthal* v. *United States*, *supra* footnote 30.

[79] *Id.* at 559.

[80] *Supra* footnote 1.

[81] *United States* v. *Perez*, *supra* footnote 1 at 58.

[82] *Id.* at 58–64.

[83] *Id.* at 64; *contra, Bernard* v. *United States*, 342 F.2d 309 (9th Cir. 1965), *cert. denied*, 382 U.S. 948 (1966) (Phony accidents in an insurance fraud scheme held to be multiple conspiracies).

[84] *Supra* footnote 76.

[85] *United States* v. *Bruno*, *supra* footnote 76 at 922–23.

[86] *United States* v. *Falcone*, *supra* footnote 61 at 581; *accord, Direct Sales Co.* v. *United States*, 319 U.S. 703, 710 (1942).

[87] *See, e.g., United States* v. *Agueci*, 310 F.2d 817 (2d Cir. 1962), *cert. denied*, 372 U.S. 959 (1963) (Single narcotics smuggling conspiracy); *United States* v. *Morrow*, 537 F.2d 120 (5th Cir. 1976) (International conspiracy to distribute stolen and counterfeit securities); *United States* v. *Miley*, *supra* footnote 38 (Drug conspiracy).

[88] *Supra* footnote 56.

[89] *United States* v. *Morado*, *supra* footnote 56 at 171; *see, e.g., State* v. *McLaughlin*, *supra* footnote 69 (Nature of horse racing wire service depended upon numerous subscribers); *United States* v. *Anderson*, 101 F.2d 325 (7th Cir. 1939) (Statewide attempt to unionize coal fields depended upon an effective strike at numerous locations); *People* v. *Quintana*, *supra* footnote 6 (Success of each witness's perjury depended upon the similar perjury of others); *United States* v. *Rosenberg*, 195 F.2d 583 (2d Cir. 1952), *cert. denied*, 384 U.S. 838 (1952) (Benefit to Russia depended upon the success of the espionage activities of many agents).

[90] *Supra* footnote 71.

[91] In addition to the conviction on the Hobbs Act conspiracy (Title 18 U.S.C. § 1951) count, defendants were also convicted on a general conspiracy count (Title 18 U.S.C. § 371). On appeal, they raised a double jeopardy claim, arguing a double conviction for the same criminal activity. The court held, at 1215, that since each count required proof of a fact not essential to the other, the defendants could be convicted on both conspiracy counts. *See Blockburger* v. *United States*, 284 U.S. 299, 304 (1932): "The applicable rule is that where the same act or transaction constitutes a violation of two distinct statutory provisions, the test to be applied to determine whether there are two offenses or only one, is whether each provision requires proof of a fact which the other does not." *Accord, Albernaz* v. *United States*, 67 L. Ed.2d 275 (1981).

[92] *United States* v. *Kenny*, *supra* footnote 71 at 1216; *see, e.g., Williams* v. *United States*, *supra* footnote 71 (Police department used to coordinate bribes by bootleggers).

[93] *Supra* footnote 77.

[94] *United States* v. *Agueci*, *supra* footnote 87.

[95] 513 F.2d 1210 (2d Cir. 1975).

[96] *Id.* at 1218–19.

[97] *United States* v. *Baxter*, 492 F.2d 150, 160–62 (9th Cir. 1973), *cert. denied*, 416 U.S. 940 (1974). For other decisions where the volume of sales was a key evidentiary factor, *see United States* v. *DeNoia*, 451 F.2d 979 (2d Cir. 1971) (Drug conspiracy); *United States* v. *Sperling*, *supra* footnote 40 (Drug conspiracy); *United States* v. *Perry*, 550 F.2d 524 (9th Cir. 1977), *cert. denied*, 434 U.S. 827 (1977) (Drug conspiracy); *United States* v. *Berman*, 584 F.2d 1354 (4th Cir. 1978), *cert. denied*, 439 U.S. 1118 (1979) (Drug conspiracy); *United States* v. *Nassee*, 432 F.2d 1293 (7th Cir. 1970), *cert. denied sub nom. Tocco* v. *United States*, 401 U.S. 938 (1971) (Auto theft conspiracy).

[98] 569 F.2d 951 (5th Cir. 1978), *cert. denied*, 439 U.S. 865 (1979).

[99] *Id.* at 959.

[100] *Supra* footnote 73.

[101] *United States* v. *Gleason*, footnote 73 at 19; *see, e.g., United States* v. *Netterville*, *supra* footnote 73.

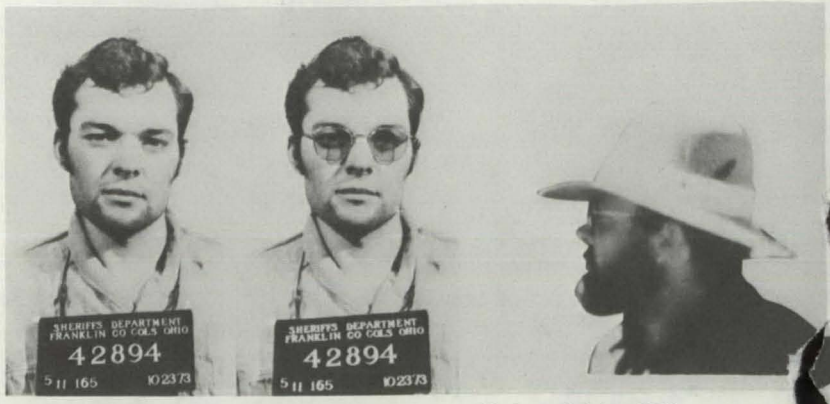
[102] *United States* v. *Westover*, 511 F.2d 1154 (9th Cir. 1975), *cert. denied*, 422 U.S. 1009 (1976).

[103] *United States* v. *O'Connell*, 165 F.2d 697 (2d Cir. 1948), *cert. denied*, 68 S.Ct. 744 (1948).

[104] *United States* v. *Carter*, 613 F.2d 256 (10th Cir. 1979), *cert. denied*, 101 S.Ct. 81 (1980).

[105] *Sigers* v. *United States*, 321 F.2d 843 (5th Cir. 1963).

WANTED BY THE FBI



Photographs taken 1973. *Photograph taken 1980.*

Claude Lafayette Dallas, Jr.

Claude Lafayette Dallas, Jr., also known as Claude Dallas, Claude S. Dallas, Jr., Claude L. Dallas, and Claude L. Dalles.

Wanted for:

Interstate Flight-Murder

The Crime

Dallas is being sought in connection with the murders of two Idaho wildlife officers, wherein both officers were shot at close range and then summarily executed by shots through the head.

A Federal warrant was issued for Dallas' arrest on January 7, 1981, at Boise, Idaho.

Description

Age	31, born March 11, 1950, Winchester, Va.
Height	5'10".
Weight	180 to 190 pounds.
Build	Medium.
Hair	Brown (collar length, worn in ponytail).
Eyes	Brown.
Complexion	Medium-ruddy.
Race	White.
Nationality	American.
Occupations	Cowboy, farmhand, general laborer, gunsmith, logger, ranchhand, trapper, and truck driver.
Social Security Number Used	270-48-0246.
Remarks	Reportedly a loner and outdoorsman; neat and meticulous in attire, usually wears western outdoor wear and wire-rimmed glasses.
FBI No.	208 406 M 1.

Caution

Dallas, who is always armed, has claimed he will not be taken alive. He should be considered armed, extremely dangerous, and an escape risk.

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.

Classification Data:

NCIC Classification:

12AA0807041652081308

Fingerprint Classification:

12 M 1 A II 4

M 1 R III

Left index fingerprint.

U.S. GOVERNMENT PRINTING OFFICE : 1981 O - 350-894

Change of Address

Not an order form

FBI LAW ENFORCEMENT BULLETIN

Complete this form and return to:

Director
Federal Bureau of
Investigation
Washington, D.C. 20535

Name

Title

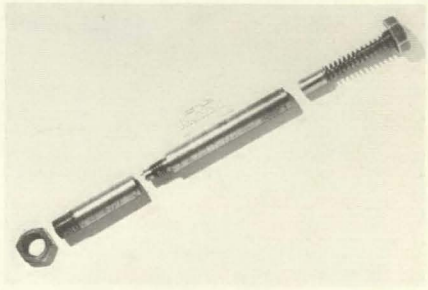
Address

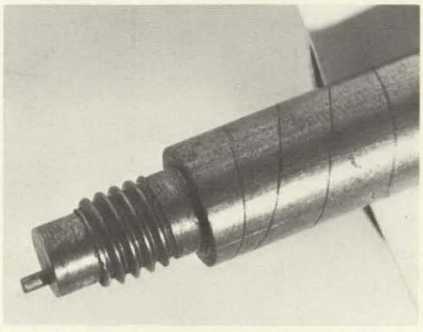
City State Zip

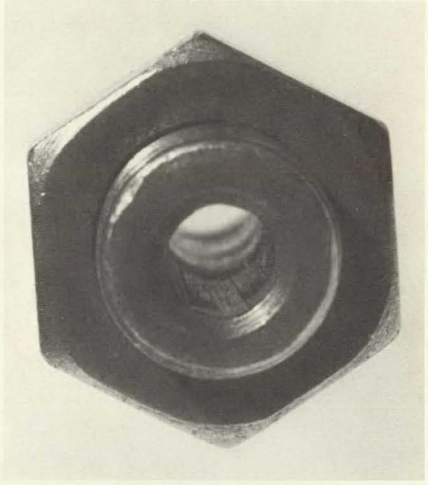
Spring-Loaded Stove Bolt

Confiscated during a drug-related arrest, this weapon initially appeared to be a ¾-inch stove bolt, 5⅜ inches long. Closer inspection revealed the weapon to be a spring-loaded .22-caliber weapon with rifling in the barrel. The weapon is fired by pulling and releasing the top of the bolt. The spring causes the top of the bolt to travel downward, striking a firing pin. The top of the bolt is locked by twisting either to the right or left after it has been completely extended. A twist then allows the weapon to be fired.

(Submitted by the Indiana State Police)







U.S. Department of Justice
Federal Bureau of Investigation

Official Business
Penalty for Private Use $300
Address Correction Requested

Postage and Fees Paid
Federal Bureau of Investigation
JUS-432

Second Class

Washington, D.C. 20535

Interesting Pattern

The interesting aspect of this impression is the letter "E" in the center of the pattern. The impression is a very unusual formation. It is classified as a loop with 10 ridge counts. However, on closer examination, it is noted this pattern possesses two possible deltas or an obstruction at right angles to the line of flow. The line of flow of a central pocket loop is determined by drawing an imaginary line from the inner delta to the center of the innermost recurving ridge, i.e., using the letter "E" as the obstruction. A reference search would be given as a central pocket loop whorl with outer tracing.