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# FBI Law Enforcement Bulletin

**Addressing  
School  
Violence**





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# FBI Law Enforcement Bulletin

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# *Addressing School Violence*

By BRANDI BOOTH, Ph.D., VINCENT B. VAN HASSELT, Ph.D.,  
and GREGORY M. VECCHI, Ph.D.

A photograph of a person with long blonde hair, wearing a dark blue puffer jacket and blue jeans, sitting on the floor of a school hallway. They are leaning against a wall of lockers, with their head buried in their arms. A tan backpack is on the floor next to them. The hallway is long and brightly lit, with a red door visible in the distance. The entire scene is framed by a large, dark, irregular shape that looks like a hole or a shadow, creating a sense of isolation and vulnerability.

**I**ncidents, such as the recent ones at Columbine, Virginia Tech, and Northern Illinois University, produce horrifying, enduring images. Members of the mass media publicize and inadvertently glorify these events to capture the attention of viewers and readers. Unfortunately, many of the portrayals have led to faulty assumptions and stereotypes of the school violence perpetrator.

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Further, researchers have devoted much attention to generating a working profile of these offenders and describing many typical characteristics.

However, it is important to caution against the use of a profile because many apparent warning signs may be irrelevant and restrictive and even could unfairly categorize a student who may not pose danger.<sup>1</sup> Therefore, an awareness of the potential warning signs empirically based in making accurate threat assessments in the school setting proves critical.

### CURRENT STATISTICS

Homicides in schools have decreased since 1994 despite periods of copycat shootings during the late 1990s and 2007

to 2008.<sup>2</sup> However, simple and aggravated assaults, as well as drug/narcotic and weapon violations, increased between 2000 and 2004.<sup>3</sup> Bullying remains one of the largest problems in schools, with the percentage of students reportedly bullied at least once per week steadily increasing since 1999.<sup>4</sup> According to the FBI's Uniform Crime Reporting Program, school offenders typically are Caucasian males between the ages of 13 and 18. However, the number of girls involved in school crime has increased from over 12,000 incidents in 2000 to approximately 25,000 occurrences in 2005.<sup>5</sup> This included crimes ranging from those against property and society (e.g., criminal mischief, burglary,

and drug/narcotic violations) to offenses against persons (e.g., assault, manslaughter, and murder).

### WARNING SIGNS

Many factors can contribute to the development of a violent school offender. These include family, school, and social dynamics, as well as the personality of the child.<sup>6</sup>

### Family Dynamics

Family dynamics include the thinking, traditions, beliefs, and behavior patterns within the home. These play a vital role in the social development of a young child. It is important to question how these dynamics affect and are perceived by the student.<sup>7</sup> For example, an



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abusive marriage or a particularly hostile divorce can have damaging effects on children. An adolescent who lives in a chaotic and neglectful home environment may develop poor coping and social skills and behavior problems primarily due to exposure to violence and inadequate parenting.<sup>8</sup> Not surprisingly, research has shown that in terms of the child's long-term social and emotional development, having one nurturing, attentive, and caring parent is better than two in a relationship characterized by discord or abuse.<sup>9</sup>

Although negative family dynamics play a role in the development of violent tendencies, many high-profile cases of school violence seem to have involved children from a positive home environment. For instance, Kip Kinkel, an individual who murdered both of his parents before killing two students and wounding 25 others in Oregon, appeared to come from an ideal family (two parents, upper-middle-class home, successful older sibling). However, a closer examination revealed a highly critical father and a child who perceived himself as inadequate, was physically awkward, and had a fascination with guns and bombs. In fact, to support Kip's interest, his father bought him firearms.

### Four Main Areas of Examination

- 1) Family Dynamics: Family's thinking, traditions, beliefs, and patterns of behavior
- 2) School Dynamics: Schools's customs, beliefs, and behavioral patterns (e.g., bullying, treatment of students, some individuals receiving more/less attention, school activities)
- 3) Social Dynamics: Student's beliefs and attitudes toward drugs, friends, weapons, entertainment, and other activities (e.g., violent video games)
- 4) Characteristics/Personality: Leakage, depression, verbal expressions, bizarre actions, thoughts/obsessions, and physical behaviors

Several of the larger, more publicized school shootings took place in middle-class neighborhoods. People have raised many questions as to why these homicides occur in such areas. Experts have suggested that overly permissive or uninvolved parents of these children bear some responsibility.<sup>10</sup>

#### School Dynamics

School dynamics are the customs, beliefs, and patterns of behavior that comprise the campus culture.<sup>11</sup> A student's role in these dynamics offers insight into the individual's behavior and self-perception. Knowing a school's dynamics sheds light on what students value, which adolescents more likely will gain approval or be bullied, and

which receive attention from authorities.<sup>12</sup> Bullying is a major factor and has a strong impact on a child or adolescent. In a study of 15 school shootings between 1995 and 2001, rejection (e.g., bullying, ostracism, and romantic rejection) contributed to the violent behavior.<sup>13</sup> Peer victimization and poor quality of interpersonal and romantic relationships can contribute to student depression.<sup>14</sup> Once these individuals feel rejected, they may begin to identify with others who feel socially shunned or who belong to a deviant peer group. This may contribute to the proliferation and acceptance of violence.<sup>15</sup>

Cyber bullying also is on the rise, with students engaging in verbally aggressive behavior

## Personality Characteristics and Behaviors

- Leakage: boasts, predictions, and subtle threats; stories, essays, poems, and pictures; violent fantasies; and interest in violent video games, movies, and books
- Depression, anger, impulsive and uncontrollable behavior
- Poor coping skills
- Low frustration tolerance
- Grudges, lack of resiliency
- “Us against them” mentality, narcissism
- Boastfulness about weapons, abusive language
- Suicidal ideation, wishes of death, desire to kill others
- Delusions, hallucinations, bizarre thoughts
- History of physical assault
- Perpetrator or victim of bullying
- Substance abuse
- Rebellion against authority
- Isolated, withdrawn
- Fatigue

on social networking sites, such as MySpace and Facebook, and instant-messenger services.<sup>16</sup> Adolescents are extremely sensitive to rejection and the opinions of peers, both of which can serve as catalysts for revenge. Any bullying should be seriously assessed as it can be indicative of more serious problems, such as fighting and weapon carrying.<sup>17</sup>

### Social Dynamics

Social dynamics of the community provide information on a child’s preferred lifestyle. They also influence attitudes and beliefs toward drugs, friends, weapons, and entertainment.<sup>18</sup> The diaries of the Columbine shooters, Dylan Klebold and Eric Harris, suggest addictive behavior with first-person-shooter video

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games.<sup>19</sup> Although the level of their influence is controversial, violent video games can have a detrimental impact on vulnerable adolescents and even college-age students. For example, one study found that girls often will become more verbally aggressive after exposure to violent video games.<sup>20</sup> While this does not mean that playing such games leads to homicidal acts, doing so can serve as a facilitator for impressionable adolescents who may not see any other outlet for their psychological pain.

### Personality Characteristics

The personality of the student proves critical in assessing the potential for violence. Certain traits of a child or adolescent raise concern. In particular, individuals who eventually commit school homicides exhibit behavior “leakage.”<sup>21</sup> This refers to a student’s intentional or unintentional disclosure of thoughts, fantasies, feelings, and possible intentions. Examples include boasts, predictions, subtle threats, stories, essays, poems, and drawings. Leakage also can take the form of a fascination with violence and violent entertainment (e.g., video games and movies). It appears that nearly 50 percent of school homicide perpetrators exhibit some type of warning sign, including leaving notes or making a verbal threat.<sup>22</sup>

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A student also may show signs of depression, often manifested in adolescents by anger and irritability. Additionally, the individual could display low frustration tolerance, poor coping skills, and a lack of resiliency when faced with stressful situations or conflicts (e.g., end of a romantic relationship). This becomes compounded by bullying at school or hostility at home. Consequently, the student may blame others, demonstrate a lack of empathy, and exhibit an exaggerated sense of entitlement. An “us against them” mentality reflects the latter. The individual even may criticize previous school shooters for their failures (e.g., not getting a high enough body count).<sup>23</sup>

### **Intrapersonal Variables**

An examination of intrapersonal variables includes verbal communication, thoughts, and behaviors.<sup>24</sup> These tend to be more salient, easier to observe, and often deemed leakage prior to more offensive and violent behavior.

#### *Verbal Communication*

Verbal warning signs include a student’s oral and written communication.<sup>25</sup> A common misconception holds that violent people just “snap.” In fact, in over 75 percent of school shooting incidents, students knew beforehand about the troubled adolescent and the

planned event.<sup>26</sup> This is because the shooter may make direct threats, brag about bringing weapons to school, use abusive language, or verbalize a wish to kill others and even to be killed.

#### *Cognitions*

The student may exhibit bizarre thoughts, such as delusions, hallucinations, paranoia, or other disrupted mental processes. Further, the individual

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”

may write with profanity and abusive language, which tends to be extreme and contextually inappropriate; this suggests a deteriorating mental capacity and a deficiency of emotional control.

Eric Harris and Seung-Hui Cho, the Virginia Tech perpetrator, serve as good examples of this behavior. Their disjointed and violent rants were both written and oral. Such bizarre thoughts (as determined by

individuals’ verbalizations), may indicate a serious mental health condition, especially because schizophrenia and other major psychiatric disorders have their initial onset in the late teens and early 20s. Thoughts of suicide or dying in the process of their planned actions often accompany violent adolescents.

### **Behaviors**

Behavioral and physical warning signs indicative of a violent student include a prior history of physical assault, being both a bully and a victim of bullying, and possession of weapons and violent literature. The individual also may have a history of substance use, rebelliousness against authority, and socially isolated and withdrawn behavior.<sup>27</sup> The latter may point to depression, often manifested as irritability and anger in children and youths.

## **EFFECTIVE MEASURES**

### **Threat Assessment**

Threat assessment in the campus setting involves law enforcement and school officials working collaboratively to determine risk.<sup>28</sup> It consists of evaluating a threat, reaching a conclusion regarding threat level, and determining an effective response.<sup>29</sup> This approach, developed by the U.S. Secret Service, is based on six key principles.

- 1) Violence is not unpredictable or spontaneous; therefore, information about the student, as well as the pupil's behavior, can prevent violence.
- 2) Information should include knowledge about the student, environment, specific situation, and target of the violence.
- 3) All information should be verifiable and reliable.
- 4) Authorities should leave out assumptions or subjective impressions about the student's personality or other characteristics and instead base evaluations on facts and observable behaviors. The warning signs should be used more as guidelines than absolutes.

- 5) Multiple sources of information (e.g., other students, teachers, faculty, and parents) should be obtained.
- 6) Conclusions should support the facts as to whether the student poses a threat, not necessarily whether the individual made a threat. Also, assessments should include considerations of whether the subject has the means and intent to carry it out.<sup>30</sup>

### Prevention Programs

School resource officer (SRO) programs serve an integral role in threat assessment.<sup>31</sup> In times of crisis, having an SRO based in the school decreases response time and increases student and staff perceptions of safety.<sup>32</sup> The SRO also can educate students about the

consequences of their behavior and identify peer conflicts.<sup>33</sup> The value of SROs further can be enhanced by their heightened awareness of warning signs and cues relevant in accurate threat assessment.

Over the past several years, police agencies have established a positive working relationship with school districts and students through SRO and Drug Abuse Resistance Education (DARE) programs. Law enforcement officers can contribute to violence prevention in several ways. First, they must have an ongoing collaboration with teachers and administrators. Second, they must be capable of conducting their own assessments of bullying and related problems in their schools. Third, law enforcement personnel in schools should become well acquainted with students and staff and make themselves accessible for reporting of information; an anonymous reporting system is advisable to encourage students to come forward with important tips.<sup>34</sup>

The National School Safety Center has offered suggestions for decreasing campus violence and strengthening the relationship between law enforcement and school districts. For example, an understanding and written agreement should exist about how the school and police agency will work together to promote violence prevention





## CASE EXAMPLE

The case of Kip Kinkel demonstrates a family life that appeared pleasant and nurturing.<sup>35</sup> However, other warning signs indicate a bullied and troubled child who had difficulties in academics, feelings of alienation, arrest and psychiatric histories, and suicidal tendencies.

Kip Kinkel was born in 1982. His parents both taught Spanish, his father at a community college and his mother at a local high school. Kip's older sister by approximately 6 years excelled in both academics and athletics.

His family moved to Spain for 1 year when Kip was 6 years old. He attended a non-English speaking school and had difficulty adapting; however, his sister performed well. During his schooling in Spain, Kip frequently faced bullying and felt alienated. When the family returned to the United States, Kip's teachers noticed that he was developmentally immature and behind in school. As a result, he repeated first grade. In fourth grade, he was diagnosed with dyslexia.

Kip showed an interest in explosives and firearms in the seventh grade, when he purchased books on how to build a bomb. In eighth grade, he was arrested for shoplifting and suspended for kicking another student. As a result, he was referred for a psychological evaluation, diagnosed with depression, and placed on antidepressant medication. During his court-ordered psychiatric treatment, authorities considered Kip to have early onset schizophrenia, but he initially denied any thought disorder (e.g., hallucinations, delusions). In fact, months before the shooting, his sister reported a pleasant family vacation. However, in 1998, he exploded in an English class, screaming, "Damn these voices in my head." He stated that in sixth grade he began hearing them tell him that he was not worth anything. Kip also was noted to have strange delusions, including ideas that the Chinese planned to invade America, Disney would take over the world, and that microchips were planted in his head. He also made several morbid and cryptic drawings, including one that stated, "Killers start sad and crazy."

He received psychiatric treatment until approximately July 1997 and maintained his antidepressant regimen. During that time, without his parents knowledge, he bought his first sawed-off shotgun from a friend. However, his father bought him a 9-millimeter Glock and, later, a .22-caliber semiautomatic rifle. It is speculated that his parents were concerned about his interest, but wanted to educate him about gun safety. In an interview, Kip's sister indicated that his parents had tried everything to help him. He expressed to his family his interest in how bombs and guns work, as well as his desire to enter law enforcement after college. In fact, Kip's sister noted that violence did not occur in the family; rather, she perceived a positive family environment. However, Kip's feelings of inadequacy were apparent.

Later that fall, Kip's psychiatrist discontinued his antidepressant medication. During this time, Kip made a speech in class about how to make a bomb. Throughout the school year of 1997 to 1998, several school shootings occurred in the nation, including those in Pearl, Mississippi; West Paducah, Kentucky; and Jonesboro, Arkansas. In May 1998, Kip, at age 15, arranged to buy a .32-caliber pistol from a friend. When the friend's father reported it missing, Kip was expelled for bringing it to school. His father picked him up from the police station; reports indicated that Kip was upset for disappointing his parents. In her interview, his sister stated that disappointing their parents was the biggest offense in the family. That afternoon and early evening, Kip killed both of his parents. The next day, he dressed in a trench coat, carried three guns, and taped a hunting knife to his leg. He shot 27 students; 2 died, and 25 were injured. Some students tackled him and held him down until police arrived. Once in police custody, he charged an officer with the knife and shouted that he wanted to be killed. In his confession, Kip exclaimed that he was hearing voices and once again shouted, "Damn these voices in my head."

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and respond to crises. An Officer Friendly program can be established whereby SROs provide instruction on a variety of topics, such as drug abuse, juvenile justice, and child safety. Students can be encouraged to go on ride-alongs with officers, and a Big Brother/Big Sister program also can be implemented, pairing students with law enforcement personnel. The Police Athletic League historically has had success in forging such relationships as well. These strategies will increase the cohesiveness between police officers and students and facilitate communication and information flow between the two.<sup>36</sup> The International Association of Campus Law Enforcement Administrators and the National Association of School Safety and Law Enforcement Officers provide information on how officers should become involved and respond to threats and crises and collaborate with local school districts.

### **School Safety Plan**

Each school should have a safety plan. Law enforcement must have an active role in the plan's development and implementation. The plan should outline prevention programs, including the SRO's role within the school community, and bullying prevention programs. Further, it should indicate that

a threat assessment team (TAT) will form and activate upon determination of a threat. If the threat has been assessed as real and imminent, steps in formulating a response must be outlined. Each school must have an established policy of contingency management that includes detention, suspension, and expulsion.

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Authorities should make parents aware of initiatives to prevent violence and the intervention plan upon identifying a threat. Officials also must notify parents when someone has been threatened, keeping in mind privacy and defamation-of-character laws.<sup>37</sup> Also, search-and-seizure laws must be considered when assessing a threat. Authorities should conduct interviews with the individual who made the threat, as well as any witnesses and potential targets. The TAT should

convene to discuss the results of the interview, determine whether a threat is imminent and formulate a response plan if necessary.<sup>38</sup> Mental health officials should be consulted in cases when hospitalization due to a possible psychiatric disorder (e.g., depression, suicide, psychosis) is required.<sup>39</sup>

### **CONCLUSION**

Despite the decline in the rates of homicides committed by adolescents over the past decade, the potential for violent behavior among students remains. However, school and law enforcement officials can work together to reduce the threat of such violence.

Understanding the warning signs—including family, school, and social dynamics, as well as personality characteristics—proves important for threat assessment. An analysis of a student's verbal communications, cognitions, and overt behaviors should be part of the threat assessment strategy. A positive and collaborative relationship between law enforcement personnel and students can increase information flow and enhance the accuracy and effectiveness of threat assessments. Also essential are close working relationships between law enforcement personnel and school administrators, teachers, and parents. ♦

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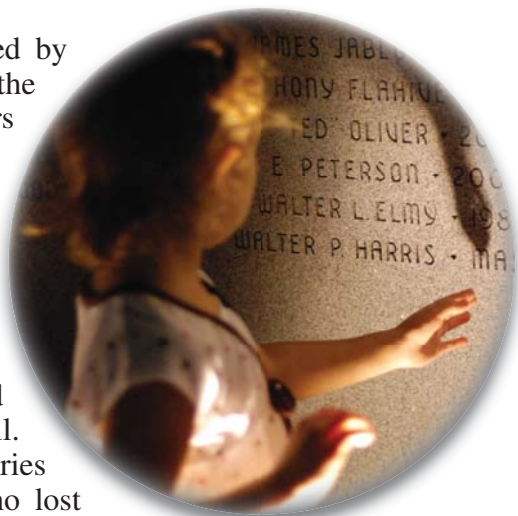
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# Bulletin Honors

## Michigan Fallen Heroes Memorial

The Michigan Fallen Heroes Memorial, initiated by the Oakland County, Michigan, Sheriff's Office, is the state's only monument that honors both police officers and firefighters who lost their lives in the line of duty. The first phase of the project, the bronze statue, was unveiled in 2002, and the second phase, the granite wall that displays the names of the fallen heroes, followed in November 2005. The oldest names on the wall date back to 1864, and new names are added and unveiled at an annual ceremony held every September 11th. Currently, 787 names from all police and fire departments across Michigan reside on the wall. The memorial honors the lives, service, and memories of all law enforcement officers and firefighters who lost their lives in the line of duty. The site itself serves as a place where loved ones and the general public may visit, remember, and pay respect to these honorable men and women. For more information, please visit [www.michiganfallenheroesmemorial.com](http://www.michiganfallenheroesmemorial.com).



# *Police Corruption*

## *An Analytical Look into Police Ethics*

By RICH MARTIN, M.S.



INTEGRITY  
RESPONSIBILITY

COURAGE  
PRUDENCE

TRUST

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**A**lthough studied and researched, the topic of police corruption, in large part, remains a mystery. Sir Robert Peel was credited with the concept that the police depend on citizen cooperation in providing services in a democratic society. As such, the detrimental aspects of police misconduct cannot be overstated. In terms of public trust for law enforcement, recent polls show

that only 56 percent of people rated the police as having a high or very high ethical standard as compared with 84 percent for nurses.<sup>1</sup>

Over the past few decades, great strides have occurred in the law enforcement profession. To begin with, many police agencies have avoided hiring candidates who have low ethical standards and have identified those onboard employees

early in their careers who might compromise the department's integrity. In addition, research has discovered new methods of testing candidates for their psychological propensity to act ethically. However, unethical conduct by the nation's police officers continues to occur in departments large and small.

Research into police corruption offers some understanding of the phenomenon in the hope

of rooting out this behavior that serves to undermine the overall legitimacy of law enforcement. Theories on the role of society in law enforcement, the negative influence of an officer's department, and a person's own natural tendency to engage in unethical behavior have been offered as explanations of police corruption.<sup>2</sup> So, the author poses the question: Is this noble goal to rid our nation's police organizations of unethical behavior possible and plausible?

### Integrity

First of all, the discussion of ethics as related to law enforcement must begin with a definition of the word *integrity*. One researcher has said that it is "the sum of the virtues required to bring about the general goals of protection and service to the public."<sup>3</sup> He created a list of

characteristics that he feels officers must possess to have integrity.

1. Prudence: the ability to discern between conflicting virtues and decide the best action to take
2. Trust: loyalty and truthfulness in relationships between officers and citizens, fellow officers, and supervisors
3. Effacement of self-interests: without this, officers may exploit their authority to further themselves
4. Courage: the mean between cowardice and foolhardiness
5. Intellectual honesty: not knowing something and being humble and courageous enough to admit it

6. Justice: not in its normal context, but, rather, adjusting what is owed to a particular citizen even when it may contradict what is strictly owed
7. Responsibility: intending to do the right thing, clearly understanding what the right thing is, and being fully aware of other alternatives that may exist; taking responsibility, rather than finding excuses for mistakes or poor judgment

### Leadership

Leadership constitutes an integral part of police work, and the head of an organization holds the ultimate responsibility for its shortcomings. Conversely, this individual greatly can influence the success of an agency. As such, leaders have a significant impact in preventing corruption.

In working toward the goals of a department, the top executives play a primary role in forming the organizational climate. Those who strive to maintain a high standard of ethical conduct can serve as the key to prevent corruption and maintain the public's trust.<sup>4</sup> As one researcher explained, principled leaders do not act to protect their own egos, try to put on a good appearance without substance in their decisions or efforts, or attempt to intimidate those under them. Instead,



**“  
In working  
toward the goals  
of a department, the  
top executives play a  
primary role in forming  
the organizational  
climate.  
”**

*Officer Martin serves with the Rochester, New York, Police Department and is an adjunct instructor of criminal justice at Keuka College and Finger Lakes Community College.*

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principle-based executives who work with their subordinates can take an important step toward creating an ethical climate by developing an agenda that explains the moral purposes of the department.

But, leaders bent on taking on the task of stopping corrupt behavior in their departments must use care. Unless a thorough understanding as to the nature, extent, and organization of corruption exists, efforts to combat it may be counterproductive. Without gaining the necessary understanding of the department's climate, administrators actually may lower morale among members and strengthen the solidarity of those who will start to doubt the ability of these people to effectively lead the agency. Moreover, such actions can waste valuable department resources.

While leaders certainly play an integral part in forming the overall climate of the organization, they alone cannot ensure that high levels of integrity are maintained. During a national symposium on police integrity, one speaker noted that it still is "our sergeants, lieutenants, and captains who have the daily and ongoing responsibility to ensure that the appropriate workplace standards are maintained."<sup>5</sup> But, while ethical supervisors help maintain an ethical workplace,

the opposite also remains true: uncaring and incompetent officials actually can promote misconduct.

The possibility exists that no matter how conscientious they are and how thoroughly they do their jobs, first- and second-level commanders cannot keep an officer inclined to act unethically from doing so.<sup>6</sup> The ratio of officers to supervisors is too high to allow for close enough

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***First of all, the discussion of ethics as related to law enforcement must begin with a definition of the word integrity.***

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oversight. However, in police work, leadership is not solely defined by rank. Instead, all officers need to exude some leadership skills because they operate, for the most part, without direct supervision.

Officers receive training and a large quantity of rules and regulations and are entrusted to perform their normal day-to-day duties within those guidelines. Supervisors generally are not involved unless a complaint against an officer or a serious incident requires

their response. So, while it is incumbent upon the leaders to create an atmosphere that promotes ethical conduct, it falls to each member of the organization to ensure that this standard of integrity is carried out.

Finally, mentoring younger officers can allow corruption to spread. Once a void is created by the lack of strong or cohesive leadership, it will fill with substandard or unethical officers looking to bolster their ranks. Therefore, it becomes imperative that effective leaders—who share the same goals—be in place to set the standard for subordinates to see and emulate.

### **Work Environment**

Law enforcement professionals completely understand that their typical work environment may be less than ideal at best and life threatening at worst. Within minutes, officers must solve problems that have taken days, months, or sometimes years to develop. In this environment, excellence is a necessity. A single incident in law enforcement can have devastating effects felt throughout the country; this serves to illustrate the intolerance of police misconduct in American society.

“The major cause in the lack of integrity in American police officers is mediocrity.”<sup>7</sup> Leadership that allows for mediocrity to first exist and then

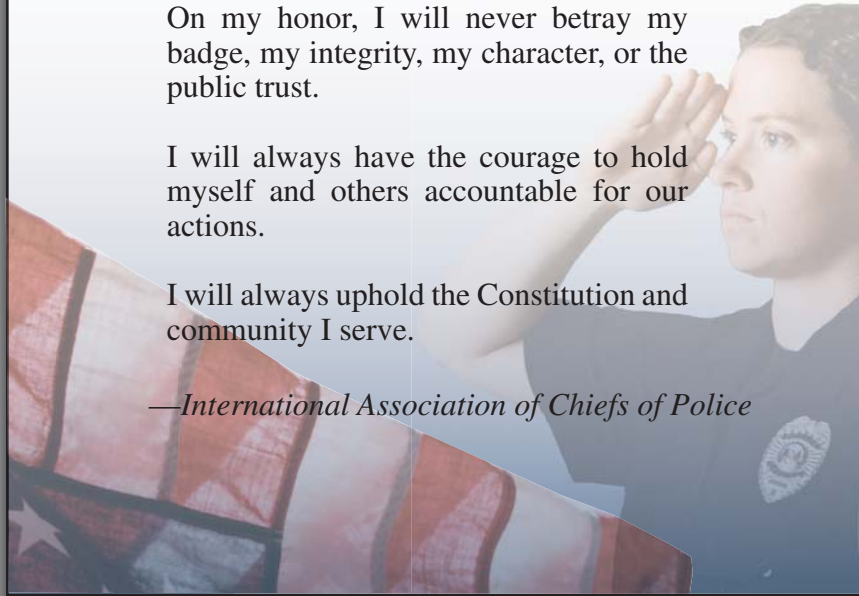
## Law Enforcement Oath of Honor

On my honor, I will never betray my badge, my integrity, my character, or the public trust.

I will always have the courage to hold myself and others accountable for our actions.

I will always uphold the Constitution and community I serve.

—*International Association of Chiefs of Police*



remain, rather than demanding the highest level of conduct within a department, can create a climate ripe for misconduct. However, a high degree of ethics that will prevent leaders from compromising their integrity in lieu of expediency or personal profit can stifle potential misconduct.<sup>8</sup>

In police work, results are measured in such terms as the number of arrests and the amount of weapons and drugs recovered. This being the case, officers will find ways to accomplish these tasks or risk being passed over for promotions or specialized assignments. As a result, some officers may choose to “cut corners” or violate the law and not even consider their conduct unethical. In an interview following his conviction and subsequent incarceration for his activities, one officer explained, “The

pressure is to produce, to show activity, to get the collars. It’s all about numbers, like the body count in Vietnam. The rest of the system determines if you got the right guy or not.”<sup>9</sup>

It is this push for results by administrators that some officers can interpret as their agencies not caring or wanting to know how those results are obtained. These officers may see it as a license to get results at all costs. Because policing often is equated to war (e.g., the “war on drugs”), this war mentality can produce many of today’s integrity issues.

Such a work environment causes officers to feel that they are doing what is wanted by their organizations and the public. However, when their conduct becomes illegal or unethical, their departments impose punishment. Then, afterwards, the officers may continue with

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the behavior because the pressure to produce results is greater than that to follow the rules. Further, the fear of punishment usually is not enough to change unwanted behavior.<sup>10</sup>

So, while no law enforcement agencies should tolerate mediocrity, another aspect of the moral makeup needs to be patience. Those who engage in criminal conduct do so as a matter of business. Rarely are they committing such an act for the first time. It is this notion that needs to be instilled in the psyche of today’s police officers. The fact that an offender is known is the key. If officers cannot arrest that subject on one occasion, other opportunities will arise, thereby removing the imperative need to compromise their integrity to get the “bad guy” now.

### Police Subculture

The profession of policing, as well as many others, has a subculture unto itself. The morbid sense of humor perhaps illustrates one of the most widely known characteristics. In relation to corruption, however, the police subculture either can prevent the existence of it or be a vehicle to spread it throughout a department. This subculture may be the most difficult aspect to address.

A subculture is a group of individuals who generally share attitudes, perceptions, assumptions, values, beliefs,



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ways of living, and traditions. Because police work entails so many experiences unique to the field, the subculture almost can become stronger than the officer's family ties. Additionally, work schedules outside the normal realm can lead to feelings of isolation that further strengthen the bond of the subculture.

Senior officers may test new members of the law enforcement profession. For example, they may see how amiable recruits are to accepting gratuities. It long has been believed that this practice can be a gateway to more serious corruption as it provides the opportunity for corrupt intent.<sup>11</sup> Accepting the free cup of coffee is the example most often used, and it is held that once officers engage in minor illegal or corrupt behavior, they find it easier to do more.

But, accepting small gratuities is a test of loyalty. In the corrupt subculture, fidelity becomes more important than integrity, and officers learn that their peers frown upon morality and independence.<sup>12</sup> Research into this process of inculcating recruits into the group found that newer officers were more willing to admit to seeing unethical acts (e.g., accepting free food) committed by other officers than were those with more time on the job. One conclusion would be

that the length of time an officer is exposed to this socialization process, the greater its impact.

When this loyalty to the subculture becomes too strong, the solidarity that follows can adversely affect the ethical values of the officers. The typical "us versus them" mentality creates an allegiance to the members stronger than that

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***...while ethical supervisors help maintain an ethical workplace,... uncaring and incompetent officials actually can promote misconduct.***

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to the mission of the department or even the profession. And, the "them" may include not just nonpolice but also their organization when officers feel a disconnect and animosity between themselves and administrative policies. Thus, conflicts can and will arise when personnel face a choice between what may be ethically right and their devotion to the other members. Such a strong fidelity toward their fellow officers over commitment to do what is right causes members

to trade their integrity for that loyalty.

A distinct line exists between constructive dedication that results in team cohesiveness and misguided allegiance that pits a group or an individual against the overall law enforcement mission. It is important that leaders have a means of gauging the atmosphere of their agency. Every police organization will (and probably should) take pride in doing difficult and dangerous tasks. In addition, a certain cohesiveness likely will occur between those who share job experiences. This probably exists more in units considered elite because of the greater dangers and difficulties in those assignments.

In such units, pride can evolve into a general feeling of superiority among its members. This, in turn, can lead to a type of separation from the rest of the agency. When this occurs, these units may develop their own conduct, which may not align with departmental policy and procedure. The "this is the way we do it in this unit" mentality begins to set in. If left unchecked, it can lead to a feeling of being untouchable, especially when coupled with a lack of strong leadership. In monitoring this cohesiveness, effective leaders can detect when the pride that members feel toward doing their difficult and dangerous job and

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the closeness of sharing that experience with their coworkers crosses into an unhealthy misdirection of loyalty.

### **Corruption Prevention**

The obvious sought-after result of all of the research into police corruption is the eradication of that malady. Each topic discussed so far plays an integral role in determining the ethical standard. As such, it becomes crucially important to focus efforts toward these specific elements.

A major consideration in rooting out misconduct is not hiring unethical individuals. Agencies adequately must screen candidates and hire the most conscientious ones because they have a higher degree of integrity. Conscientiousness can be assessed through conduct because, as one researcher states, an incorruptible person “is truthful in word and deed just because truthfulness has become second nature with him.”<sup>13</sup>

Once new hires are on the job, their leaders must continue to work toward creating an atmosphere of ethics and integrity. Fostering such a climate is an integral part of reducing unethical behavior. In a study conducted by the International Association of Chiefs of Police, 7 of the top 10 issues determined as critically important to officers actively working in the

field of law enforcement involved ethics and integrity. Positively, the research concluded that a majority of the agencies surveyed (80.3 percent) commit resources to train instructors to teach ethics courses, and 72 percent of the organizations said that they provide some ethics-related training beyond the basic academy experience. But, while almost all of the agencies (83.3 percent) taught ethics to

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Leadership that allows for mediocrity to first exist and then remain, rather than demand the highest level of conduct within a department, can create a climate ripe for misconduct.  
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recruits in the academy, only a surprising minority (34.4 percent) had ethics as a rated category on their field training reports for those new officers.<sup>14</sup>

An apparent recognized demand exists for expanded training hours, more quality training resources, and greater involvement with ethics training at all levels of the organization, but the number of hours dedicated

to this training remains rather insignificant in the face of such a need. “Strategies for accepting the fact that officers do not control their police role, but do have absolute control over their integrity and professionalism have to be taught and practiced.”<sup>15</sup>

### **Conclusion**

Policing requires perfection and unyielding ethics and ultimately depends on each employee’s own level of knowledge, rationality, and devotion to moral excellence. Anything less than perfect ethical conduct can be disastrous for a department, a community, and an entire nation. While officers are only human and will continue to make mistakes, ethical misconduct cannot be tolerated.

To ensure the ethical behavior of their officers, agencies must possess three basic tenets. First, they must have a policy in existence that spells out their ethical mission and sets standards that officers must live up to. Second, strong and ethical leadership must exist and be in place. These executives set the tone for the department and lead by example, never choosing the easy route in lieu of the ethical one. Third, agencies must ensure that they hire ethical people and appropriately deal with those onboard who are not. In short,

an ethical police organization “will require the scrupulous adherence to existing policies and standards, the ability to detect an individual or collective pattern of performance which falls short of that expectation, and the courage to deal with those who are responsible for those failures.”<sup>16</sup> ♦

#### Endnotes

<sup>1</sup> Gallup Poll News, “Nurses Shine, Bankers Slump in Ethics Ratings,” November 24, 2008, <http://www.gallup.com/poll/112264/nurses-shine-while-bankers-slump-ethics-ratings.aspx> (accessed April 16, 2010).

<sup>2</sup> B. Arrigo and N. Claussen, “Police Corruption and Psychological Testing: A Strategy for Preemployment Screening,” *International Journal of Offender*

*Therapy and Comparative Criminology* 47 (2003): 272-290.

<sup>3</sup> Stephen Vicchio, “Ethics and Police Integrity,” *FBI Law Enforcement Bulletin*, July 1997, 8-12.

<sup>4</sup> For additional information, see J. Conditt, Jr., “Institutional Integrity,” *FBI Law Enforcement Bulletin*, November 2001, 18-23; and R. Hunter, “Officer Opinion on Police Misconduct,” *Journal of Contemporary Criminal Justice* 15, no. 2 (1999): 155-170.

<sup>5</sup> Los Angeles Police Department, *Board of Inquiry into the Rampart Area Corruption Incident* (Los Angeles, CA, 2000), i.

<sup>6</sup> Vicchio, “Ethics and Police Integrity.”

<sup>7</sup> Los Angeles Police Department, i.

<sup>8</sup> E. Meese III and P. Ortmeier, *Leadership, Ethics, and Policing: Challenges for the 21st Century* (Saddle River, NJ: Prentice Hall, 2004).

<sup>9</sup> M. Kramer, “How Cops Go Bad,” *Time*, December 15, 1997, 81.

<sup>10</sup> *Ibid.*, 82.

<sup>11</sup> J. Ruiz and C. Bono, “At What Price a ‘Freebie’? The Real Cost of Police Gratuities,” *Criminal Justice Ethics*, January 2004, 44-53.

<sup>12</sup> Meese and Ortmeier, *Leadership, Ethics, and Policing: Challenges for the 21st Century*.

<sup>13</sup> J.E. Delatore, *Character and Cops* (Washington, DC: American Enterprise Institute of Public Policy Research, 1989), 65.

<sup>14</sup> International Association of Chiefs of Police (IACP), “Ethics Training in Law Enforcement: A Report by the Ethics Training Subcommittee of the IACP Ad Hoc Committee on Police Image and Ethics,” <http://web.archive.org/web/20010620062511/http://theiacp.org/pubinfo/Pubs/ethictrain.htm> (accessed April 14, 2010).

<sup>15</sup> K. Gilmartin and J. Harris, “Law Enforcement Ethics: The Continuum of Compromise,” *Police Chief*, January 1998, 5.

<sup>16</sup> Los Angeles Police Department, ii.

## Wanted: Notable Speeches

**T**he *FBI Law Enforcement Bulletin* seeks transcripts of presentations made by criminal justice professionals for its Notable Speech department. Anyone who has delivered a speech recently and would like to share the information with a wider audience may submit a transcript of the presentation to the *Bulletin* for consideration.

As with article submissions, the *Bulletin* staff will edit the speech for length and clarity, but, realizing that the information was presented orally, maintain as much of the original flavor as possible. Presenters should submit their transcripts typed and double-spaced on 8 1/2- by 11-inch white paper with all pages numbered, along with an electronic version of the transcript saved on computer disk, or e-mail them. Send the material to: Editor, *FBI Law Enforcement Bulletin*, FBI Academy, Outreach and Communications Unit, Quantico, VA 22135, or to [leb@fbiacademy.edu](mailto:leb@fbiacademy.edu).

# Perspective



## **Accountability** *Prerequisites Required*

By Scott Bieber, M.P.A.

**R**emember your college days, scouring the course catalog for a class to fill an open elective spot? Just when you thought you found the right course, you saw that dreaded notation: “prerequisites required.” Fast forward some years, and prerequisites remain a concern. Most managerial jobs demand them. One of a manager’s most important responsibilities, holding employees accountable for their performance, falls into this category.

As organizations struggle to function with fewer resources, managers must hold their employees accountable for their responsibility to improve efficiency. Unfortunately, many supervisors fail to meet the prerequisites that accountability demands: capability and responsibility.

*Commander Bieber serves with the Vancouver, Washington, Police Department, and also as president/CEO of an employment investigations company.*



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Accountability comprises only one point of the personnel management triangle.

Supervisors and managers must view all three points of this triangle in concert. Before increased accountability improves productivity, employees must possess the capabilities and responsibilities for their assigned tasks. Because of this process, the prerequisites of capability and responsibility play a vital role in an organization's success.

## THE PREREQUISITES

### Capability

How can employers hold personnel responsible for their duties if these employees simply are incapable of completing their tasks? Whether at the hiring, training, or development stage, the organization needs to ensure that personnel truly qualify for their job. To meet the capability prerequisite, organizational leaders must hire candidates with the necessary skills, provide them with proper training, and develop them as they progress in the organization. If supervisors accomplish this, they more likely will employ workers who contribute meaningfully to the agency's mission.

During the hiring stage, employers must identify the necessary knowledge, skills, and abilities for a particular position and honestly communicate these criteria to job candidates. When an organization hires an incapable candidate, the hiring authority remains accountable when that employee fails to meet job expectations. The agency can, of course, terminate the individual and refill the position, but this process wastes time and resources.

Even when employers hire only fully qualified candidates, they still must design a new

employee-training program to introduce new hires to the specific tasks and procedures of their jobs. When employees lack proper training, supervisors cannot hold them fully accountable for their shortcomings. If, however, organizations provide personnel with the appropriate training and they still fail to perform their duties, then only the employees remain accountable for their lack of performance.

Next, for personnel to maintain and improve their capabilities throughout their tenure, organizations must commit time and resources to career development. If employees never receive formal instruction beyond entry-level training, their skills will not progress past this point. If agencies expect their employees to complete more challenging tasks, supervisors and managers must mentor and guide them in

their career development. Managers also should encourage qualified employees from inside the organization to transition into roles with greater responsibility. When supervisors promote from within, the internal hire seldom surprises the team the way a lateral hire might.

### Responsibility

As with capability, how can supervisors hold employees accountable for their performance if they fail to give personnel ownership over their work? Supervisors can gauge performance adequately only after they give employees responsibility over their jobs, empower them with the appropriate authority, and provide them with the necessary resources. Then, it is up to employees to execute their jobs and supervisors to expect a certain level of competency.

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**As organizations struggle to function with fewer resources, managers must hold their employees accountable for their responsibility to improve efficiency.**

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Too often, however, managers feel insecure when their employees operate without constant direction and oversight. Micromanagers do not expect their personnel to accomplish tasks without specific direction; in other words, they feel troubled when subordinates take their own initiative. These managers only want their employees to perform the tasks they dictate so they can specify how and when they want them completed. While micromanagers may praise self-initiated activity in theory, they frown on it in reality.

Employees who operate beneath a micromanager feel they are not required to accomplish any tasks until they receive an edict from above. Because of this attitude, micromanagement fosters inefficiency the same way that empowerment drives efficiency. Even the most competent supervisors cannot involve themselves in all of their employees' responsibilities; managers need to feel sufficiently confident in their personnel to not only delegate specific tasks but truly relinquish some control.

Additionally, as employees develop, they can and should wield responsibilities that match their skills and experience. People respond to challenging, meaningful work, and supervisors and managers need to provide that challenge. If employees do not receive progressively more demanding work even as their experience deepens, their development stagnates. This limits employees' capabilities and promotes organizational inefficiencies.

### **THE ULTIMATE GOAL: ACCOUNTABILITY**

Once supervisors firmly ingrain accountability's prerequisites into the work environment, they can concern themselves with accountability. Many managers think of accountability as synonymous with discipline, or they use accountability to point the finger at employees and blame them if something goes wrong. Accountability, however, functions quite differently from discipline or blame.

Accountability relates to expectation. Supervisors can and should expect that if they delegate

a task to a capable employee, that employee will complete it satisfactorily. Further, when employees receive more challenging work, they gradually adjust to these external expectations, and their internal expectations for themselves creep higher without any formal action from their boss. Supervisors must ensure that their employees do not define accountability as blame or discipline, but, rather, an opportunity for recognition and growth.

### **Recognition**

Accountability should hold positive connotations for employees; it presents an opportunity to act independently and receive recognition for a job well done. Supervisors also should emphasize that they only will recognize efforts that *exceed* expectations, not just meet them. Recognizing employees who only meet minimal expectations weakens performance standards and cheapens formal recognition. Also, organizational expectations naturally should increase over time as the exceptional performance of one year sets the bar for the next.

Despite the negative perceptions of accountability, in reality, positive reinforcement figures prominently in a culture of accountability. Recognizing employees for their exceptional efforts and accomplishments enhances their sense of pride, worth, and contribution to the organization, which drives them to work harder. Not only does the quantity of their work grow but the quality improves. When employees feel that their work contributes to the success of their organization, they naturally strive to contribute more and, thus, improve with each task they complete.

Conversely, when personnel receive only seemingly menial assignments with no explanation as to their importance, they gain the impression that their supervisors hold only minimal expectations for them. Thus, these employees never feel challenged to accomplish more, and they apply only minimal effort to these tasks. The most effective managers garner the best results from their employees; this proves that when a supervisor

provides meaningful work for their employees and rewards exceptional performance, personnel rise to the challenge and work to the best of their abilities.

Despite an organization's best efforts, there always will be employees who meet expectations but never exceed them. These "bell curve" employees perform at less-than-exceptional, but nonetheless acceptable, levels. Instead of disciplining personnel who fall in this range, managers should strive to move the bell curve higher through their own management techniques. Managers should reserve discipline for those employees who truly fail to meet performance standards.

### Discipline

Positive reinforcement tactics may not cure every case of underperformance. Some personnel never may meet performance expectations even in a culture of accountability and positive reinforcement. Once the employer establishes the prerequisites of capability and responsibility, only the employees have ownership of their own failures; at this point, accountability should take the form of disciplinary action.

In their zeal to enforce accountability, however, managers occasionally lose sight of the difference between honest mistakes and intentional misconduct. They hinder productivity when they discipline employees who unintentionally fumble a task. To resolve this in a productive way, personnel should correct their errors (perhaps with the assistance of others) and demonstrate that they learned from the mistake. If an employee repeatedly commits the same errors and refuses to remedy them, then the disciplinary process begins.



Intentional misconduct requires vastly different remediation than mistakes. Misconduct is not about capability, responsibility, accountability, or accidental missteps. Instead, misconduct describes a situation in which an employee knowingly behaves incorrectly and, therefore, requires immediate discipline.

Supervisors and personnel alike should not view the disciplinary process as entirely negative; by design, effective discipline positively modifies behavior. If the manager disciplines successfully, employees will alter their behavior and improve their performance without further action. In rare cases, employees behave egregiously enough to deserve immediate termination; more often, however, productive discipline changes their behavior and aligns them with the organization's expectations.

To ensure that the disciplinary process is as painless as possible, managers and supervisors always should build the proper foundation for their decisions. If managers punish personnel without proper justification, the employees likely will appeal; if the organization repeatedly invalidates managers' disciplinary actions, the decisions quickly lose their potency.

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Managers may need guidance to determine when to use formal discipline, how to keep the process fair, and how to justify their decisions. Originally written in 1966, the “Seven Tests of Just Cause” by arbitrator Carroll Daugherty remains a fantastic guide for supervisors who want to develop an effective disciplinary process. Daugherty developed seven necessary criteria for fair disciplinary action.

- 1) Did the company give to the employee forewarning or foreknowledge of the possible or probable disciplinary consequences of the employee’s conduct?
- 2) Was the company’s rule or managerial order reasonably related to the orderly, efficient, and safe operation of the company’s business, as well as the performance that the company properly might expect of the employee?
- 3) Did the company, before administering discipline to an employee, make an effort to discover whether the individual did, in fact, violate or disobey a rule or order of management?
- 4) Was the company’s investigation conducted fairly and objectively?
- 5) At the investigation, did the “judge” obtain substantial evidence or proof that the employee was guilty as charged?
- 6) Has the company applied its rules, orders, and penalties evenhandedly and without discrimination to all employees?
- 7) Was the degree of discipline administered by the company in a particular case reasonably related to the seriousness of the employee’s

proven offense and the record of the employee’s service with the company?<sup>1</sup>

Supervisors should apply these criteria to build the proper foundation for disciplinary action. If managers establish “just cause” through these seven tests, then they mitigate the risk that they will discipline someone without sufficient groundwork and, consequently, see their decisions overturned.

## CONCLUSION

Putting the right people in the right places and letting them do their jobs seems simple, but, in reality, it demands that employers, supervisors, managers, and organizational leaders complete crucial prerequisites. These leaders must identify, hire, and develop capable employees; display the courage to give those employees responsibility and authority for their tasks; and expect a minimum standard of performance. Additionally,

employees should receive positive reinforcement when they exceed those expectations, and supervisors should react appropriately when their personnel fall short.

Capability, responsibility, and accountability are mutually inclusive—it is impossible to enforce one or two without the other, yet many supervisors make the fatal flaw of only focusing on the ultimate goal of accountability. When it comes to accountability, there is no easy elective; it demands the prerequisites of capability and responsibility. ♦

**“ Supervisors must ensure that their employees do not define accountability as blame or discipline, but, rather, an opportunity for recognition and growth. ”**

## Endnotes

<sup>1</sup> [http://www.goiam.org/uploadedFiles/TCUnion/Reps\\_Corner/seventests.pdf](http://www.goiam.org/uploadedFiles/TCUnion/Reps_Corner/seventests.pdf)



# Leadership Spotlight

## Seasons

*"There is a time for everything, and a season for every activity under heaven...."*  
Ecclesiastes 3:1

In *Band of Brothers*, Stephen A. Ambrose recounts the story of what happened when the recently promoted Dick Winters saw his previous command, Easy Company, imperiled from a lack of leadership in the heat of battle. Ambrose noted, "Winters grabbed an M-1 and started to run across the field, headed for the stationary company and its pinned-down 1st platoon. He intended to take command, get those men moving. But as he ran down, he thought, 'Geez, I can't do this. I'm running this battalion. I can't commit myself.' He turned and raced back." Upon his return, Winters quickly located a capable subordinate and ordered him to take charge of the company.

Like Dick Winters, after a promotion, many law enforcement leaders find it difficult to adjust their passion for and perspective on the subordinate units they previously led or comprised a part of prior to their elevation in rank or responsibility. This holds especially true for those newly knighted front-line leaders who only recently were "just one of the troops." Larger agencies may address this challenge by reassigning the newly elevated leader to a completely different geographical or functional area. In most agencies, however, this not always is an option, and the new leader still has a level of responsibility for the previous unit. And, such a move does not always address the challenge individual leaders face in adjusting their mind-set to more quickly and successfully handle their expanded roles in the organization. Without such an internal adjustment to see the "bigger picture," effectiveness is jeopardized, and leaders cannot sufficiently fulfill their broader mandate.

One way to mentally prepare or adjust to a position of increased responsibility is to view it in terms of a new season of life. As in the natural

world, a new season of leadership brings irrevocable changes. The previous season prepares the way for the new one. Yet, although the landscape still may be familiar, new challenges and opportunities come with the change, and new responses are required. The most successful leaders continually expand their horizons while never forgetting the lessons learned in those previous seasons.

One critical caveat differentiates law enforcement leaders from individuals advancing in a similar manner outside of the criminal justice world. As long as they carry a badge and a gun, leaders at all levels in law enforcement continually must maintain a high level of tactical readiness and technical proficiency with their equipment. Neither the citizens protected by the leaders nor the "bad guys" readily differentiate among the recent academy graduate, chief, sheriff, or bureau commander during an in extremis moment.

In the young and eager years of their career, most sworn members of a law enforcement agency frequently prepare for and seek "doors" to go through and bad guys to catch. In their later seasons, leaders find that, frequently, their focus moves away from directly seeking those situations to leading and supporting others who do. However, the obligation of law enforcement leaders to remain prepared and ready for encounters with such a door or bad guy remains. Throughout their career, every law enforcement leader should be prepared to respond in a tactical manner when duty requires it. The need for such readiness transcends all seasons. ♦

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*Special Agent Jeffrey C. Lindsey, chief of the Law Enforcement National Data Exchange Unit at the FBI's Criminal Justice Information Services Division in Clarksburg, West Virginia, prepared this Leadership Spotlight.*

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# The Current Status of GSR Examinations

By MICHAEL TRIMPE



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**R**esearch and advancements in technology have brought changes to gunshot residue (GSR) examinations over the past several years. While the *Final Report on Particle Analysis for Gunshot Residue Detection*, released in 1977, still stands as an excellent comprehensive report on the analysis and interpretation

of primer GSR, additional research and development have led to improvements and refinements in how authorities detect GSR.<sup>1</sup> Particle analysis by scanning electron microscopy/energy dispersive x-ray spectrometry (SEM/EDS) has become the preferred method of analysis over bulk techniques, such as atomic absorption, because

SEM/EDS provides increased specificity, as well as the ability to conduct analysis without chemicals. Recently, technological advances have made particle analysis quicker and easier, but most current research involves the interpretation of results.

Communication among SEM gunshot residue analysts

has inspired research and studies that, in turn, have brought about enhanced understanding and increased confidence in GSR interpretation. Conversely, media coverage of specific cases involving GSR, as well as articles in nonpeer-reviewed publications, have led to confusion about the meaning of GSR findings.<sup>2</sup> Reputable scientists always have reported that the finding of GSR cannot indicate the shooter, yet members of the media usually seem surprised to learn that. Nevertheless, GSR findings continue to add value simply because numerous population studies have shown that GSR is not normally found on the average person.<sup>3</sup> In addition, exhaustive study into the search for false positive results has strengthened the opinion that SEM/EDS particle analysis can attribute the source of certain particles to the discharge of a firearm.

### Primer GSR

A discussion of the collection, analysis, interpretation, and reporting of GSR requires an understanding of the formation of primer residue particles. Most residue originating from the barrel of a gun is burned, unburned, or partially burned propellant (gunpowder) and contains metal particulates, such as lead, copper, brass, or nickel from jacketing material.

Firearms examiners use this type of GSR to determine the distance between the muzzle of a gun and a target. When forensic trace evidence examiners receive a request to look for GSR on the hands or clothing of a suspected shooter, they search for residue from the primer.

The firing pin of a gun hits the back of the cartridge, activating the shock-sensitive primer, which ignites the gunpowder, forcing the bullet down the barrel of the gun and on its path. The heat and pressure within the cartridge vaporize the metals from the primer. Vapors escape from any area of the weapon not gas tight, like the breach area and muzzle. The heat of this explosive reaction and subsequent cooling results in the condensation and

formation of tiny metal-containing particles. These particles fall on anything in the vicinity of the fired weapon, including the hands of the shooter, and typically measure 1 to 10 microns ( $10^{-6}$  m) in size (for comparison, a typical human hair is approximately 100 microns in diameter). Finding and viewing primer GSR particles require a high-powered microscope, such as an SEM.

Gunshot residue particles can be removed easily from the surfaces they land on. Regular activities, such as putting hands in pockets, rubbing hands together, or handling items, can wipe them away.<sup>4</sup> The washing of hands can remove most, if not all, particles. Rates of loss vary widely with the activity of the subject. Depending on

**“ Research and advancements in technology have brought changes to GSR examinations over the past several years. ”**



*Mr. Trimpe, a trace evidence examiner with the Hamilton County Coroner's Office in Cincinnati, Ohio, is the chairman of the Scientific Working Group on Gunshot Residue.*

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conditions and activity, particles may be removed from a shooter's hands within 4 to 5 hours after a shooting event.<sup>5</sup> They also can transfer from a surface or person to another individual; the amount depends on the number of GSR particles on the contaminated surface (e.g., a person's clothing or hands) and likely will be a small percentage of the total number of particles present. Tests show that people standing within 3 feet to the side of a shooter may have GSR on their hands, whereas those standing 10 or more feet in the same direction typically will not.<sup>6</sup> This can vary with the type of gun and ammunition, number of shots fired, and the environment of the shooting. Gunshot primer residue also can travel downrange with each firing of a weapon.<sup>7</sup> Long guns, like rifles and shotguns, tend to leave less GSR on shooters than handguns.<sup>8</sup>

### GSR Samples

Investigators collect primer GSR with adhesive lifters, sometimes referred to in supply catalogs as dabs or stubs. Several companies sell them, usually as a kit with gloves, instructions, an information form, and tape to seal the kit when finished. The adhesive contains carbon, which colors it black and makes it able to conduct electrons in the SEM. Analysts also can use clear adhesive

lifters; however, these require an extra step of carbon coating to prevent charging from the electron beam hitting the sample during analysis.

The adhesive is located on an aluminum stub fixed into the cap of a plastic container. Removing the cap exposes the tape, and the sample collection official can press the adhesive—without ever touching it—to the

***When submitting evidence, investigators must realize that forensic testing laboratories can have different case-acceptance criteria.***

sampling surface. The submitting officer completes the information form, which provides collection-site data (e.g., condition of the subject's hands, known activity prior to collection, estimated time of shooting, and exact time of collection), as well as the type of gun and ammunition used in the event, if known.

Investigators should use one lifter per collection site. Some kits contain two (left hand and right hand), and others feature

four (left back, left palm, right back, and right palm). One lifter can suffice when sampling an entire hand, front and back.<sup>9</sup> Lifters from separate hands can be considered and analyzed as one subject's sample at the lab. Finding particles on the left hand versus the right hand or back versus palm holds no significance because analysts do not know the activity of the hands between the time of the shooting and the time of collection and because both hands likely are in the vicinity of the fired weapon. Investigators can press lifters to the face, hair, or clothing if they suspect that the hands have been cleaned between shooting and collection or covered at the time of the event.

For sampling inanimate objects, like clothing, investigators employ the same type of adhesive lifters. The areas of the garment for sampling depend on whether the person wearing the clothes was believed to be firing a gun, carrying one in a specific location, or trying to conceal a gun in a particular manner. Analysts usually avoid excessively soiled or bloody areas of clothing as these materials can inhibit the ability to find GSR particles. Laboratory tests have shown that GSR on clothing will last considerably longer than on hands, but exactly how long remains unknown and greatly depends on the activity of the clothing and the type

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of fabric.<sup>10</sup> Similar to hands, however, washing will remove most, if not all, residue from the clothing.<sup>11</sup>

When submitting evidence, investigators must realize that forensic testing laboratories can have different case-acceptance criteria. For instance, some may not test victims, kits unsuitable for SEM analysis, or samples collected past a specified time limit. Each facility must assess the needs of the community it serves, the importance of the testing, and the cost of analysis. In addition, laboratories must consider the personnel, instrumentation, and time available for the work involved. As one example, the FBI Laboratory no longer accepts GSR cases because of a decision that its resources would serve its community, the United States, better when directed toward fighting terrorism.<sup>12</sup>

Case acceptance criteria applies to all forensic examinations, including those involving GSR, fingerprints, hairs, soils, DNA, and drugs. Therefore, it is common for one GSR testing laboratory to accept victim, back and palm, clothing, and face samples, as well as those collected beyond 5 hours, while another facility does not. Correspondingly, one laboratory might reject DNA samples for lesser crimes while another may accept them. A drug laboratory may not accept syringe or

currency samples and might test only enough samples to reach maximum charge in its jurisdiction. A firearms testing facility may not analyze clothing for distance determinations, perform function tests on firearms, or compare unfired ammunition. Investigators best can maximize the use of GSR analysis results by knowing the laboratory's case acceptance policy and the reasoning behind it.<sup>13</sup>

### **Contamination**

Police officers are trained to collect samples as soon as possible after apprehending, a suspect—preferably, before transportation to the police station—and to clean their

hands and wear gloves when sampling suspects to prevent contamination. While law enforcement personnel could be a potential source of GSR because they carry guns, studies have shown that few of them have particles on their hands because they clean their hands much more often than they touch their weapons.<sup>14</sup> Nevertheless, police officers should avoid contact with a subject's hands before sampling. If armed officers collect the samples, a disposable lab coat, along with proper hand washing and glove use, can minimize the risk of contamination. As police vehicles and interrogation rooms are potential sources of



*Hamilton County Coroner's Office SEM/EDS system*

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contamination, investigators should collect GSR samples before transporting subjects in a police car or questioning them at the station. Studies have indicated a low potential for secondary transfer in these areas and that testing them occasionally may help prove the low risk of contamination.<sup>15</sup>

During examination, safeguards can ensure that GSR samples remain uncontaminated in the laboratory. Samples for GSR testing never should be exposed to the firearms area of the facility. Sample stubs are exposed only to the air immediately before and after placement in the SEM vacuum chamber. A positive control (e.g., a stub containing GSR) and a blank (e.g., an unused stub from the submitted sample collection kit or one free of GSR) in each analysis ensure that contamination has not occurred and that the instrument functions properly. To monitor the examination area, personnel place a blank adhesive lifter in the laboratory where clothing is tested for GSR. The examination area and the SEM instrument area should be located far from the firearms section of a laboratory. Additionally, no armed personnel or persons who made contact with the firearms section on the day of analysis should have access to those areas.

### Analysis

Analysis of the adhesive stub is performed with an SEM/EDS. At least 140 SEMs used for GSR analysis exist in crime laboratories throughout the world.<sup>16</sup> Usually, such facilities use a sophisticated software program to automatically search adhesive stubs for GSR particles. As the instrument detects particles of suspected GSR, a



***During examination, safeguards can ensure that GSR samples remain uncontaminated in the laboratory.***



computer stores the coordinates of each one for manual confirmation by trained laboratory personnel upon completion of the automated analysis. Analyst-controlled setup and manual confirmation of results is tedious and time-consuming; the actual automated search of one blank stub can take 2 to 6 hours, depending on the instrument and chosen parameters. If a sample contains a large number of detected particles, the duration of analysis could increase greatly. Once the instrument

finds suspected GSR particles, the analyst relocates and manually confirms a sufficient number of them. The examiner documents and reports confirmed GSR particles.

A particle must meet certain criteria to become characterized as GSR. Three specifications, in particular, determine if a particle originates from the primer of a discharged firearm.<sup>17</sup> The elemental composition of the particle is the most diagnostic criterion. Most primers used in North America consist of lead styphnate (Pb) as an initiating explosive, barium nitrate (Ba) as an oxidizer, and antimony sulfide (Sb) as a fuel; therefore, a combination of these elements in a single particle proves very significant. *ASTM 1588 Standard Guide for Gunshot Residue Analysis by Scanning Electron Microscopy/Energy Dispersive X-ray Spectrometry (SEM/EDS)* contains a complete list of elemental compositions allowed in primer GSR determinations. Second, the morphology of the tiny condensed primer residue particles typically is spheroid or shows shape characteristics of having been molten.<sup>18</sup>

Finally, how the particle relates to the population of particles in the sample is important in determining its source. Studies have shown that certain detonated fireworks, used brake pads, and exploded air bags can

## Scientific Working Group on Gunshot Residue

The advancements in GSR examinations over the past 40 years have led to improved analysis and more reliable results. Further, communication among GSR analysts, especially via the Internet, is making difficult interpretation easier to understand by instantly sharing research and developments. This open communication has led to the recent formation of the Scientific Working Group on Gunshot Residue (SWGSR). Consensus among scientists performing GSR analysis is becoming a global reality. The SWGSR consists of an international conglomerate of experienced scientists who conduct research and issue guidelines for GSR investigations, examinations, reporting, and quality assurance to help GSR analyses and results become better understood and more reliable.



*Scientific Working Group on Gunshot Residue (SWGSR) logo*

have particles with GSR-like elemental composition or morphology.<sup>19</sup> But, each of those materials contains additional elements inconsistent with GSR identification. Therefore, a comprehensive analysis of the sample can eliminate false positives, leaving GSR as the only possible source. In this area, recent research and studies in the search for false positives have only brought about increased confidence in characterizing particles as GSR.

### Reporting

A forensic laboratory will issue a report of the findings and, possibly, an opinion in certain cases. No universal

reporting format exists because each jurisdiction abides by the rules and practices governing its court system. A section pertaining to findings, results, or conclusions contains the substance of a forensic report. These results must be not only scientifically accurate but written in terms understandable to a layperson.

In a GSR case, the submitting agency, attorneys, judge, and jury all want to know if the suspect fired a gun. Unfortunately, the presence or absence of GSR on a person's hands cannot answer that question. Rather, as the accepted practice, all positive gunshot residue reports include a qualifier, such

as "The presence of primer residue on a person's hand is consistent with that person having discharged a firearm, having been in the vicinity of a firearm when it was discharged, or having handled an item with primer residue on it." Conversely, negative GSR reports often contain a qualifying statement, such as "The absence of gunshot residue on a person's hands does not eliminate that individual from having discharged a firearm." And, when GSR is found on an inanimate object, like clothing, a qualifier could be, "The presence of primer residue on an item is consistent with that item sometime having been in the vicinity of a firearm

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when it was discharged or having come in contact with primer residue on another item.” A forensic GSR report also may list the instrumentation used (e.g., SEM/EDS) and the criteria employed to define the gunshot residue (e.g., elemental composition and morphology).

A laboratory report may reference three- or two-component particles. Most primers produce particles containing lead, barium, and antimony, including any combination of those three components. While two-component particles commonly form upon discharge of a gun, they also are more likely than three-component particles to be found in sources other than primer residue, like fireworks and brake pads.<sup>20</sup> When examiners find relevant particles, they should not include the word *unique* in the GSR report. Even though analysts may eliminate all other sources in a particular case, three-component particles containing Pb, Ba, and Sb have been proven not to be unique to gunshot residue.<sup>21</sup> Also, some types of ammunition contain primers without one or more of those elements. During a routine analysis, examiners also search for the components of these more rare ammunition types. Therefore, a laboratory report occasionally may list other elements found, and analysts perform a comparison of

the fired-cartridge casing in that particular case.

When forensic laboratory personnel find GSR in response to a request, they must report it. While experts expect to find numerous particles on the hands of a shooter immediately after the subject fired a weapon, discovering just one particle with the correct elemental composition and morphology nevertheless constitutes GSR and should

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***A particle must meet certain criteria to become characterized as GSR.***

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be reported. Few forensic laboratories use a scientifically established threshold for reporting gunshot residue results. In those cases, if the number of GSR particles does not meet the established level, examiners should report those particles. Further, the threshold (e.g., three GSR particles) must be specified. Having a threshold of significance may be helpful in isolated cases. For instance, the U.S. Army must consider that all of its cases involve personnel who carry guns.

## Testimony

GSR testimony can be challenging because of the difficulty in interpreting the results. An expert assumes the role of teacher when describing gunshot residue and its analysis. After instructing the court on the definition, production, collection, preservation, and analysis of GSR, the examiner then must present the results in a simple, truthful, and unbiased manner. The difficulty lies in the fact that while analysts can report that the particles came from a fired weapon, they cannot describe how they were deposited on the item. Examiners called to testify on GSR results cannot identify the person who discharged a firearm in the commission of a criminal act. A positive GSR finding is most probative in cases where a suspect denies proximity to a discharged firearm because GSR is not common to the average person’s daily environment. A negative finding does not imply that the subject was not in the vicinity of a recently discharged firearm; it only indicates that no evidence of primer residue was found on the items tested.

Often, defense attorneys will raise questions at trial as to why GSR was not collected, under the guise that negative results would have been vital to the defense’s strategy and



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ultimately exonerated the suspect. Investigators and prosecutors should not let this potential argument serve as a driving force in requesting GSR examinations that might raise more questions than can be answered effectively.

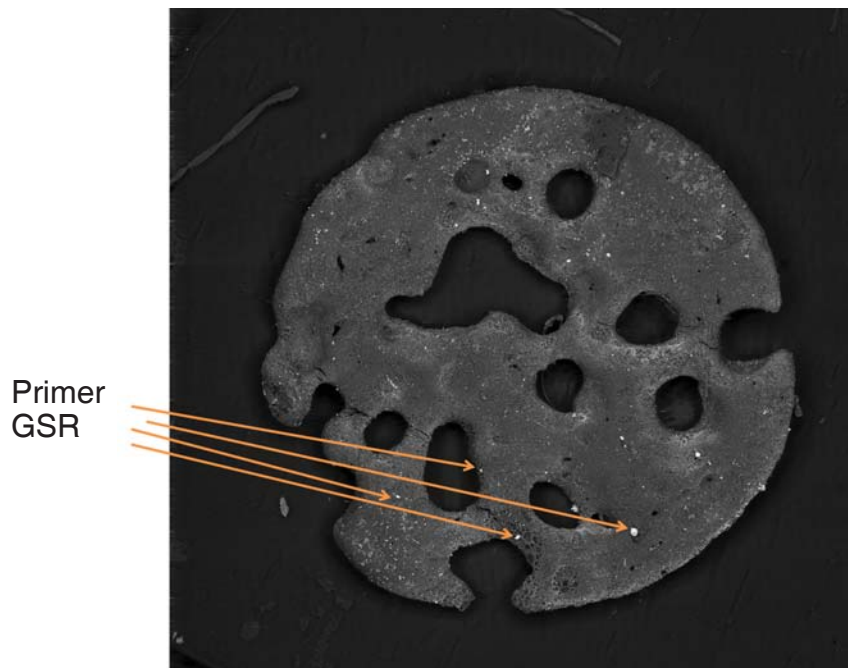
So, the question arises, “Why analyze for GSR?” First, the technology behind the analysis of gunshot residue is unquestionably scientifically sound. SEM/EDS analysis has existed for a long time and been used in GSR analysis since the 1970s. Second, studies have shown that average people do not have gunshot residue on their hands, but someone who fires a gun most likely will for a period of time. Despite efforts by forensic scientists to disprove the uniqueness of GSR to firearms, research only has strengthened the position of naming spheroid Pb, Ba, and Sb particles as having come from a fired weapon. While studies of contamination issues continue, the likelihood of transfer from another source remains small in most cases. The reason for analyzing for GSR lies in the fact that most trace evidence is not conclusive but supportive and circumstantial. Glass, hair, fiber, paint, soil, and, sometimes, shoeprint analyses cannot conclusively identify a common source between a known and an unknown sample. The fact, however, that authorities

located evidence with a possible common source is worth noting for the court. Correspondingly, GSR found on the hands of a suspected shooter is significant and worthy of consideration by the jury. For a court to understand the significance of the findings, experts must discuss all aspects of the sample collection, analysis, and interpretation at trial. Sources of contamination and an explanation as to whether the analyst could account for any anomalies in the findings also should be included in the testimony. In some cases, the sample collection officer should give testimony first to provide context for the results that an analyst may report.

## Conclusion

Gunshot residue examinations continue to improve through research, advancements, and more integrated communication among analysts. Further, technology has made GSR analysis quicker and easier. And, understanding of and confidence in GSR interpretation have increased. In light of the importance of GSR analysis to many investigations, these improvements are encouraging to the law enforcement community and the justice system.

To facilitate the best use of resources, field investigators should have a clear understanding of the utility and shortcomings of an examination, such as GSR. Communication with



*Primer GSR on a smokeless powder disk*

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the laboratory analyst prior to collection may serve as the best gauge as to whether the analysis of GSR will clarify or muddy an investigative path. ♦

#### Endnotes

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<sup>7</sup> Lindsey et al.; and Exline and Schwoeble.

<sup>8</sup> Calloway, Jones, Loper, Nesbitt, and Wolten, 73.

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**For a court to understand the significance of the findings, experts must discuss all aspects of the sample collection, analysis, and interpretation at trial.**

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## Bulletin Notes

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



Officer Buttitta

On December 5, 2009, Officer Dean Buttitta of the Bradenton, Florida, Police Department was on patrol when a female motorist alerted him that her infant daughter was not breathing and was gasping for air. The officer entered the woman's car, examined the choking infant, and called for emergency medical assistance. The child's condition, however, required immediate attention; a prolonged lack of oxygen could leave her permanently injured or dead in a short period of time. Officer Buttitta recognized the urgency of the situation and acted swiftly to save the infant's life. He repositioned her on the seat and cleared her airways, successfully allowing the infant to breathe once again. Eventually, emergency medical services arrived and transported the child to a local hospital where she stabilized and sustained no permanent injuries.



Officer DeMatteo

On a frigid January morning, Suffolk County, New York, Police Department Patrol Officer Matthew DeMatteo responded to a call that a young girl and her dog had fallen through the ice into the bitterly cold water of the bay. Officer DeMatteo arrived at the scene and observed the 11-year-old girl about 50 yards from the shore, submerged up to her neck. He immediately acquired a life ring from his patrol car and crawled on his stomach across the ice. When Officer DeMatteo reached the girl, he determined that she had been submerged for too long and was unable to move. He removed her from the water and pulled her back across the ice. As they neared the shore, both the officer and the girl fell through the ice again, but Officer DeMatteo managed to heave them both out of the water. Once within reach of the shore, emergency response personnel assisted them out of the water and transported them to a local hospital for hypothermia treatment.

Nominations for the *Bulletin Notes* should be based on either the rescue of one or more citizens or arrest(s) made at unusual risk to an officer's safety. Submissions should include a short write-up (maximum of 250 words), a separate photograph of each nominee, and a letter from the department's ranking officer endorsing the nomination. Submissions can be mailed to the Editor, *FBI Law Enforcement Bulletin*, FBI Academy, Outreach and Communications Unit, Quantico, VA 22135 or e-mailed to [leb@fbiacademy.edu](mailto:leb@fbiacademy.edu).

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## Patch Call



The Clinton, Connecticut, Police Department patch prominently displays the town's official seal, which includes an eagle, an anchor, two flintlock rifles, and a military drum. In the center of the seal, two small images highlight the industries that first supported the town's early population: a plow, symbolizing agriculture, and a fish, illustrating the fishing community. The year 1939 indicates the date when the Connecticut General Assembly passed legislation to establish the town's police department.



The patch of the Hoonah, Alaska, Police Department honors many natural wonders of the city and surrounding areas. Hoonah and nearby Chigof Island have the highest per-capita grizzly bear population of any city in the world, hence the one in the center. Eagle and raven totem poles honor the Tlingit and Haida Indian Tribes. The snow-capped mountains capture the scenic landscape of Chigof Island, and the water beneath them depicts the inland passage to the Pacific Ocean. The fishing boat at the bottom recognizes the importance of the local fishing industry.