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LETTER FROM THE EXECUTIVE DIRECTOR

A Holiday Greeting

We Have a Message . . .

Not like the brazen giant of Greek fame,
With conquering limbs astride from land to land;
Here at our sea-washed, sunset gates shall stand
A mighty woman with a torch, whose flame
Is the imprisoned lightning, and her name
MOTHER OF EXILES. From her beacon-hand
Glows world-wide welcome; her mild eyes command
The air-bridged harbor that twin cities frame.

“Keep, ancient lands, your storied pomp!” cries she
With silent lips. “Give me your tired, your poor,
Your huddled masses yearning to breathe free,
The wretched refuse of your teeming shore.
Send these, the homeless, tempest-tossed to me,
I lift my lamp beside the golden door!”

Emma Lazarus, “The New Colossus” (1883)

As we approach the holiday season, we, as a nation “of the people,
by the people, for the people,” as described by President Abraham
Lincoln, pause to remember our history, our story, and therefore, our
message to mankind.

It is a message of hope.
It is a message of opportunity.
It is a message borne on the back of freedom, equality, and justice.

As peace officers we exemplify and embody the message and the
light of the torch. That is our responsibility — it is our privilege. In
this time of thanksgiving and offering of hope, may we all renew our
commitment and dedication to the Task. And may each and every one
of you have the most blessed of holiday seasons.

Thank you for who you are and what you do!

David Bradford,  
Executive Director,  
Northwestern Center for Public Safety

Cover Photo: Northwestern’s Alice Millar Chapel, 1870 Sheridan Rd, was built in 1962 and features bold, abstract stained glass images. The chapel offers services in a broad Christian tradition and welcomes all, regardless of sexual orientation, ethnicity, race, age, or gender. Alice Millar Chapel hosts the popular Holiday Baroque music concert.  

| Photo credit: Northwestern Magazine, Peter Kiar. |
Successfully Utilizing a Soft Systems Methodology for Project Implementation

by Joseph Fitzgerald, PhD

Law enforcement agencies have traditionally followed the concept of treating issues in a polarized manner. The concept of a top-down command model with little feedback from lower ranks was, and still is, generally applied in public sector entities. The following article discusses how agency leaders can utilize the Soft Systems Methodology to deal with change when implementing projects within their agency through a team-based approach.

Opening lines of communication with frontline employees can be a veritable way to foster new adaptive ideas, identify stakeholders, and subsequently generate buy-in for both internal and external projects.

This article uses the issue of a transition to an innovative team-based approach to agency operations as an example for illustrating how Peter Checkland’s Soft Systems Methodology can encourage learning, understanding, agreed change, and problem resolution. (Warwick)

Essential Points of the SSM Model

The Soft Systems Methodology (SSM) is an approach for tackling real-world problematic issues. (Checkland & Poulter) SSM provides the process for viewing issues from a perspective that can differ according to circumstances surrounding each particular situation.

Business processes include both soft and hard issues. Hard issues are those in which a process is linear and results in a quantifiable outcome. One might envision computer programming or an assembly line when conceptualizing a hard idea.

SSM specifically focuses on the notion of a soft system, where the question at hand is nebulous or intangible and outcomes may be contingent on a number of different variables introduced into the process. Examples of soft systems include human interactivity when dealing with such issues as crime reduction or departmental productivity costs. In these scenarios, multiple ways to address the issues are available, and various solutions may involve several different perspectives associated with participants, each vying for a particular outcome. SSM takes these situations into consideration and offers a means to mentally construct potential solutions for complex problems.

Checkland, a British management scientist and professor emeritus at Lancaster University, developed the SSM approach for dealing with soft issues and divided the following concepts into seven stages: (Checkland 1991, 1998)

1. Identifying (entering) the problem situation;
2. Expressing the problem situation;
3. Formulating root definitions of relevant systems of behavior;
4. Building conceptual models of human activity systems;
5. Comparing the models with the real world;
6. Defining desirable and feasible changes; and,
7. Taking action to improve the situation.

The utilization of these concepts allows for dialogue and debate to occur. Once these ideas are initially brought to the table, they can be digested and then formulated into a plan that essentially can be implemented for change in one’s environment.

Application of the Soft Systems Method

STAGE 1: The initial step in this process is the identification of an issue that needs to be rectified. As mentioned in the introduction, the issue is the transformation of a top-down command model to a team-based approach.

STAGE 2: This particular step is not confined to structured processes but induces stakeholders to
view and communicate their thoughts on the processes, climates, people, issues, and conflicts in potentially novel perspectives through rich pictures. (Checkland, 1999) Rich pictures are such visualization tools as sketches and drawings that participants create to communicate a perspective of the issue, (Checkland & Scholes) in this case the transition from an individual, top-down method to a team-oriented method. This stage can foster open dialogue to determine whether, for instance, the transition to a team approach would be beneficial, and it can help identify potential flaws and recognize opportunities that may synergize operations.

**STAGE 3:** The formulation of a root definition is considered to be the most complicated component of SSM because it stimulates and encourages participants to conceptualize plausible perspectives, which the methodology calls holons. (Checkland & Scholes, 1991) The stakeholders' formulation of holons provides a different set of standards, which are commensurate to each particular position and allow one to continually re-evaluate issues as intricacies are added or subtracted to the situation.

**STAGE 4:** The goal within stage four is to make the plan identified in the previous steps more concrete. This particular issue revolves around the transition from a traditional, individual work environment to a more dynamic and flexible team-based model of work. A conversion such as this has a number of complexities and potential outcomes associated with it, so defining the situation and exploring it deeper is needed in order to accomplish any measurable success. Visually articulating multifaceted ideas then reducing them into a summarization that is easier to grasp and comprehend is a vital step in the SSM process. The need for open dialogue between employees and administrators during this stage can help foster ideas that can be implemented on a short-term basis. As these changes are implemented, organizational stakeholders can analyze the modifications to see if any adjustments are necessary.

**STAGE 5:** During this portion of the SSM process administrators attempt to compare their model to the real world in order to arrive at conclusions as to whether their ideals would be successful if they were implemented. A key component during this portion of SSM is the utilization of effective managerial techniques in order to lead the plan in a definable direction and ensure its success.

**STAGE 6:** This portion of SSM agrees on — and defines — the changes that participants consider both feasible and desirable for issue resolution. For example, placing project ownership in the hands of team members whom the administration has empowered as key decision makers in implementing the transition can lead to desired organizational goals. These team members may have a stronger situational awareness of their environment and can be trusted to make the best decisions regarding
change. In transitioning to team-based operation, bottom-up communication should be in place so that recognition of potential problems is conveyed to key decision makers before they become actual problems. Staying proactive instead of reactive is vital to circumvent underlying issues that generally are ignored.

**Stage 7:** Finally, stage seven induces stakeholders, especially administrators, to carefully incorporate the agreed changes into their culture and environment. Holding a group meeting to communicate intentions and changes is a good initial step.

Internal and external changes will always be present, and the need for an organization to be flexible and adaptable is necessary for continued success. A team model can be used to cultivate a more efficient and effective work environment that balances strengths and weaknesses while continually cultivating employees to perform at higher standards.

**Team Problem Solving & SSM**

By deciding to approach situations using the seven stages of SSM, stakeholders automatically have a map leading to the accomplishment of planned purposes and the creation of structure that defines complex issues in a digestible manner. Breaking the process down into different portions allows participants to gain a bearing on their accomplishments and confidently move forward toward their objectives.

SSM provides a methodology to deal with a complex issue that can be argued from multiple perspectives and is a good model to utilize when dealing with complicated issues — especially ones that have no baseline with which to compare past issues. Police agencies generally are very dynamic in nature and being able to match a situation to its involved actors and stakeholders can be a daunting task. Transitioning to a team-based model allows for a greater range of problem solving that actively draws off of the cumulative knowledge of the group.

Working in a team-based environment provides the opportunity to balance strengths and weaknesses among the group and can lead to individuals taking on leadership roles as particular situations present themselves. Another important attribute associated with the implementation of a team-based model is that it provides for more adaptability to the organization, which is an important element common to SSM.

A team-based approach offers the opportunity to amplify group strengths through active feedback and criticism for the purpose of critical discussion. This approach also provides the ability for multiple members of a group to recognize critical nuances that could positively or negatively affect the continued internal functionality of the team. SSM lends a structure to these different paths, which could potentially lead to various outcomes. Being able to control the chaotic nature of a dynamic environment is a goal that many organizations strive to achieve.

Going about this issue in a manner that leads credence to the situation helps stakeholders see matters in different, relevant frameworks that can be manifested visually through lists and charts or orally through open discussion and continued dialogue. Coalescing the collective knowledge of these various perspectives allows teams to continually adapt to situations in order to arrive at defined objectives in a more efficient and effective manner.

Law enforcement can utilize SSM to identify an issue and subsequently integrate a concept, such as a transition from an individualistic culture to a team-based model, in a rational and reasonable manner. Providing a means to tackle certain issues generally falls high on the priority scale of organizational entities. Thus, the effective implementation of SSM — when situations have undefined limitations and various outcomes may occur with the inclusion of new characteristics — can be key in regards to strategically gaining long-term control of an issue.

**Sources:**
Problem

Commerce City is located in the central area of Colorado, northeast of Denver. It is home to 55,923 residents. (US Census Bureau) The Commerce City Police Department (CCPD) is responsible for supplying police services to Commerce City. The police agency is comprised of 140 employees, of which 112 are commissioned officers. (ANNEX A)

Although Commerce City is relatively small in comparison to many other cities, it recently has been challenged with an increase in serious crimes. According to a 2018 survey, Commerce City has a crime rate which is 28% higher than the national average. (AreaVibes) The widespread use of drugs nationally, regionally, and locally has not only contributed to the crime rate but also has been attributed to the increase of people experiencing mental health crises.

The increases in crime, drug-related mental-health crises, and nondrug-induced mental illnesses have caused a dramatic increase in the number of callouts to which the CCPD’s Special Weapons and Tactics (SWAT) team and Crisis Negotiation Team (CNT) have responded. In 2015, the CCPD’s SWAT team and CNT responded to 16 callouts. Within the first seven months of 2018, the callout requests to these specialized teams already total 23, an increase of 44% since 2015. (ANNEX B, see p. 7)

At present, the CCPD CNT is comprised of six members and supervised by a team leader. The team’s function is to respond to these events to negotiate a peaceful resolution. While each team member has received specialized training, none of them, nor any other employee of the CCPD, is a licensed mental health professional.

With CNT’s drastic increase in callouts, should a mental health professional be added to the team to assist them in the goal of obtaining peaceful resolutions? If so, CCPD and the community would most certainly benefit.

Assumptions

- Most CNT and SWAT team callouts involve hostage situations.
- Callouts for the CCPD’s CNT and SWAT team will continue to increase.
- SWAT / CNT callouts will remain low-frequency, high-risk events that can result in civil litigation.
- Addition of a paid mental health professional as a CNT consultant will not result in a financial burden to the department.

Facts

- According to the FBI’s Hostage Barricade Database System only 4% of the callouts to which hostage or crisis negotiators respond actually involve a hostage. (Thompson)
- The callout rate for the CCPD CNT and SWAT team has increased steadily since 2015. From 2015 through August 2018, the callout volume has risen 44%. (ANNEX B, see p. 7)
- The average tenure of CCPD CNT members is 1.83 years. (ANNEX C)
- More than 39% of nationwide CNTs currently use a mental health professional. (Butler)
- The average billable rate for a psychologist in the Denver area is $43.70 per hour. (ANNEX D) The cost is negligible compared to the added benefit of an on-scene licensed mental health professional providing guidance.
- The budget for the CNT is included with the SWAT budget (formerly known as SSU). The SWAT/CNT yearly budget is $12,000. (ANNEX E)
Discussion

Background

Commerce City, CO, is spread over 35 square miles. Although its physical size has not changed, the number of people moving into Commerce City has nearly tripled since 2010, with nearly 56,000 residents now calling it their home. (World Population Review).

A contributing factor to the population increase has been the 2012 legalization of the recreational use of marijuana. (CMLIA) While the legalization of marijuana has generated tremendous revenues for both Commerce City and the State of Colorado, it has also brought some unwelcomed consequences, including an increase in crime, quadrupled hospital rates for marijuana users, and an increase of persons with mental health issues from chronic marijuana usage. (AAP) Many marijuana users believe in its therapeutic properties, but in a paper produced by the National Center for Biotechnology Information of the US National Library of Medicine, researchers opined, “Tetrahydrocannabinol (THC) is associated with psychosis, anxiety, and depression symptoms, making exacerbation of underlying psychiatric disorders inevitable.” (Monte)

The CCPD is responsible for policing Commerce City. Staffed with only 112 sworn officers, enforcing the various daily criminal violations can be a challenge. (ANNEX A) Most events to which the officers respond are handled without incident. Unfortunately, an increase in events involving armed, barricaded, or suicidal individuals has required the response of the CCPD CNT and SWAT team. Some of these incidents have involved individuals who used marijuana or other drugs while other events also were attributed to the dramatic increase of crime. (AreaVibes)

CCPD Crisis Negotiation Team (CNT) Makeup

The CCPD CNT is comprised of six members and supervised by a non-operational team leader. The officers on the team also are assigned to various sections of the police department, with CNT membership an ancillary duty.

Officers assigned to the CNT have all received a basic level of instruction in crisis negotiation. None of the team members have an advanced education in mental health, and no mental health professional is assigned to the team. Two of the CNT members have more than three years of experience on the team. The remaining four members only possess one year of experience each. (ANNEX C)

An interesting trend that the CNT has lately experienced is the frequency with which the team is requested. In 2015, the CNT was called out 16 times, and those numbers have increased each year. As of mid-August 2018, the team has been requested 23 times — a 44% increase since 2015 — with four months of the year remaining. (ANNEX B)

Mental Health Professional as Part of the CNT

As previously mentioned, increased marijuana use is suspected of causing mental health issues. But chronic marijuana usage is not the only mental health concern. According to an article published in Psychiatric Times, nearly 50% of all suspects involved in a police hostage/barricade situation suffer from a form of mental illness. (Feldman)

To further illustrate the prevalence of mentally
ill criminals, one must look no further than jail and prison populations. In a June 2017 article published by the Bureau of Justice Statistics, 26% of jail inmates “met the threshold for serious psychological distress” in the preceding 30 days. (Bronson) Even more alarming was a report from Kaiser Health News indicating “In state prisons, 73% of women and 55% of men have at least one mental health problem.” (Varney)

The documented pervasiveness of suspects suffering from a mental health issue with which hostage and crisis negotiators are forced to deal, coupled with the lack of advanced mental health education by any CNT member, should cause CCPD leadership to explore adding a mental health professional to the CNT.

Data on CNTs currently utilizing mental health professionals on their teams are limited. An article published in Behavioral Sciences and the Law in 1993 included details from a survey of 300 law enforcement agencies. The survey reported that 39% of those agencies used a mental health professional as part of their CNT. Given the passage of 25 years since this publication and the documented prevalence of suspects with mental health issues, it stands to reason that the percentage of mental health professionals included on CNTs is now much higher.

Roles & Best Practices for CNT-Assigned Mental Health Professionals

The National Council of Negotiation Associations was established in 2001 and is widely considered to be one of the leading authorities on best practices related to hostage / crisis negotiations. Part of its mission statement is “to provide a collective voice on a national level regarding crisis negotiations.” (NCNA) In its “Recommended Guidelines and Policies,” the organization states that “Negotiation teams should consider establishing a consultative relationship with a mental health professional(s).” (NCNA)

In researching various publications, websites, and best practices, the general consensus is that the mental health professional assigned to the CNT does not conduct the negotiation. (Fagan) If they are not actively negotiating, what function does the mental health professional serve?

The strength of mental health professionals lays not in what they say to the suspect but in the support they provide to the CNT. Licensed professionals are used to educate CNTs on suspects’ potential mental health conditions and to provide strategies that CNTs can utilize to help bring incidents to peaceful resolutions. They also have the ability to access medical records, including mental health records, that HIPPA prevents police from accessing.

In addition to providing communication ideas, these professionals can provide assessments on suspects’ potential risk for violence or suicide. They also can help monitor the CNT members’ stress levels and give a critical-incident stress debriefing at the conclusion of the event. (Young)

Another tremendous benefit of having a mental health professional assigned to the CNT is that their expertise and perceived neutrality is valuable should the negotiation turn negative or result in an officer-involved shooting. When such an incident is publicly reviewed, the presence of a licensed professional to offer an expert opinion is often given more consideration by the general public over statements made by police spokespeople.

Mental Health Professional Salaries

Some mental health professionals may consider serving as a consultant for a police department on Continued →
a pro bono basis. The Las Vegas Metropolitan Police Department has used four different psychologists as consultants on their CNT for more than 10 years. None of them charged for their services. Each indicated that the experience and exposure they received by donating their time on these callouts was a personal and professional benefit.

In the event a mental health professional, whether a psychologist or licensed clinical social worker (LCSW), can not be located on a pro bono basis, the salaries for local psychologists in the area were examined. A review of three major organizations revealed the average hourly rate currently is $43.70. (ANNEX D) This is less than the overtime callout rate of an event CCPD CNT member.

Possible Solutions

Based upon the research obtained in this study the consideration for adding a mental health professional to the CCPD CNT should be reviewed. Three possible solutions will be discussed.

OPTION I
Maintain the status quo.

Pros:
• No changes are necessary.
• No impact is made to the budget.
• No changes to the team structure are needed.

Cons:
• Prevents the addition of a licensed mental health professional.
• Inhibits the professionalism of the CNT.
• Increases the potential for agency liability.

Costs:
• No additional cost to the department.

OPTION II
Attempt to locate a psychologist or LCSW who is willing to provide pro bono services for the CCPD CNT. They would respond to callouts, provide consultation, and assist the team with training.

Pros:
• The addition of a licensed mental health professional would add to the resources available to the team, enhance the team’s professionalism, and increase the team’s credibility.
• Receiving pro bono services would allow for the addition of the licensed professional without the agency spending money.
• The mental health professional can provide needed training and monitor CNT members, without the agency paying additional funds.

Cons:
• The number of mental health professionals willing to provide services for free will certainly be lower than those who have the desire to be paid.
• Many times, the adage “you get what you pay for” is sound advice. To obtain the services of quality mental health professionals will likely result in paying a fee for their services.
• By simply advertising for pro bono work, often “beggars cannot be choosers”, as we can only select from those who apply.

Costs:
• No additional cost to the department.

OPTION III
Advertise the position on several professional websites, including Indeed.com.

Pros:
• The pool of prospective mental health professionals interested in the position will expand.
• By making the mental health professional a paid consultant, the agency has more control of their activities at the scene.
• The addition of a licensed professional would add to the resources available to the team, to its professionalism, and to its credibility.
• A mental health professional can provide needed training and monitor CNT members, details of which can be written into a contract.

Cons:
• An added expense to the police department.
• Potential of the public viewing the mental health consultant as a police employee.

Costs:
• This option is the only one which would impact the agency’s budget. With the average hourly rate for Denver, CO, psychologists at $43.70, it...
would be reasonable to advertise the position to start at $50 per hour. With the average time of a callout being four hours, it would equate to $200 per callout to add the mental health professional to the team.

Conclusion

Based upon the research presented in this study, it is in the best interest of the CCPD to advertise and recruit for a mental health professional for the CNT. This study has presented three possible alternatives for consideration. Option 1 is to maintain the status quo. This alternative will not address any of the issues facing the CCPD CNT nor will it allow for the team to receive the documented benefits. Option 2 is to attempt to locate a mental health professional who is willing to serve as a pro bono consultant. This is a viable option as it has worked for other agencies. The difficulty with Option 2 is that it limits the number of prospective candidates. Given the importance of this role, along with the relatively low cost involved ($50 per hour), Option 3 provides for more, and potentially better, candidates.

Option 3 is the best option for the CCPD. Although it has associated costs, it allows for the position to be advertised, opening it up to more candidates. The costs associated with the position are relatively low: $50 per hour x 4-hours per average callout = $200. $200 per callout x 30 callouts = $6,000 per year.

Recommendation

The implementation of Option 3 will allow for the addition of a mental health professional to be added as a paid consultant to the CCPD CNT. The addition of this position will increase the resources available to CNT members and increase the professionalism and credibility of the team. A proposed implementation plan has been included. (Annex E)

Sources:

Law enforcement agencies continue to seek better programs and tools for successful interactions with — and outcomes for — the severely mentally ill, in order to ensure the safety of officers and civilians, to reduce strains on police resources, and to help divert the mentally ill away from the criminal justice system and toward medical treatment.

**Barriers to Care & the Criminal Justice Cycle**

While only 4% of the US adult population struggle with a severe mental health illness — more than 25% of all fatal law enforcement interactions involve a portion of this small group. (Maciag) When medicated, those suffering from these serious illnesses are no more violent than the general population; however, when not treated, these individuals can become more violent than the population, a violence that only increases when drugs or alcohol are added to the mix. (MHA)

Due primarily to poor access to mental health care, federal and state prisons and local jails have become treatment centers for those whose serious mental illnesses have resulted in violent or illegal behavior. “Jails are the largest mental health facilities in the US. The cost of incarcerating mentally ill citizens is three to five times what community health treatment would cost. . . . The total cost of mental illness being handled by our emergency rooms and jails each year is around $45 billion.” (Ramsey)

Mental Health America’s (MHA) “2017 State of Mental Health in America: Access to Care Data” reports that the most common barriers to treatment include:

1. no insurance or inadequate insurance,
2. shortage of available in-network treatment providers,
3. lack of — or wait lists for — appropriate treatment (e.g., inpatient treatment, intensive community services), and
4. inability to pay such costs as copays, uncovered treatment, or providers who don’t take insurance.

In fact, according to the National Alliance for Mental Illness (NAMI), 60% of the US population who suffer from any mental illness did not receive health care services in the past 12 months; and, 17% were uninsured. (MHA) *Even among those with health care insurance, coverage restrictions and limited in-plan mental health providers precluded 56.5% of adults with a mental illness from receiving treatment.*

For the incarcerated, treatment is free, available, and utilized by the population. A DOJ report reveals that 44% of jail inmates and 37% of state or federal prison inmates have been diagnosed at some point in the past with such conditions as schizophrenia, bipolar disorder, PTSD, major depression, or severe anxiety disorders. (Bronson) In both jail and prison groups, about 37% were receiving some type of treatment while incarcerated, and 30% of both inmate populations were taking prescription medication. (MHA)

Once released from jail or prison, without easy access to continued care, those with mental illnesses commonly relapse and end up back in prison. As MHA states, “Reliance on the criminal justice system continues to cost millions of dollars each year, while paying for costly hospitalization and longer-term care.”

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1 Throughout this article, severe or serious mental illness refers to schizophrenia and other psychotic disorders, bipolar disorder, and psychopathic personality disorders, unless otherwise noted.
2 This group also accounts for a disproportionate percent of homeless persons and suicides. (MHA)
to provide treatment . . . is almost certainly counter-productive. Adding the stigma of criminal charges and conviction makes it even harder for persons burdened with the substantial stigma of mental illness to find or maintain meaningful employment, find decent housing, and pursue meaningful recovery.” These issues are significant not only for former inmates but for their families, communities, and law enforcement.

CIT Diversion Programs

I tell them to look for the pin, because if you ever get in a situation, look for that pin. I tell them to ask for a CIT officer, and that they’ll be advocates for people who also have other cognitive disabilities, or any other disabilities.” — Drew Gurley, a young adult who attends a center for people with mental health or developmental disabilities and whose mother, Teresa Gurley, is a Wake Forest (NC) CIT officer. (Hoban)

Crisis Intervention Teams (CIT) are considered pre-booking diversion programs that are meant to “increase safety in encounters and when appropriate, divert persons with mental illnesses from the criminal justice system to mental health treatment,” as stated by Amy Watson, PhD, and Anjali J. Fulambarker, MSW, in their research report for the National Institutes of Health.

The CIT concept was conceived 30 years ago, following the fatal shooting of a mentally ill substance abuser by a Memphis, TN, police officer. The ensuing work of the Memphis community task force — law enforcement professionals, mental health and addiction professionals, and mental health advocates — resulted in the Memphis CIT Model. (Watson) After three decades of international success, NAMI, the US Departments of Justice and of Health and Human Services, the White House Conference on Mental Health, and others, have named the Memphis CIT Model as a best practice. (Dupont) Although their numbers are rising, fewer than 3,000 US agencies have CITs. According to the University of Memphis, each state in the US presently has at least one local, county, or regional CIT program, with the exceptions of West Virginia, Rhode Island, Arkansas, Alabama, and the District of Columbia. (CIT Center)

Among the measurable advantages of CITs:

- reduced injuries and use of force at mental health-related calls;
- lower arrest rates;
- increased mental health referrals; and,
- faster mental health-related response rates.

According to Randolph Dupont, PhD, of the Department of Criminology and Criminal Justice at the University of Memphis, other advantages of the CIT approach include a positive change in “attitudes/
perception” and in the “nature of intervention,” as well as “clarifie[d] lines of responsibility.”

Watson’s research shows that CIT programs also are associated with an increase in voluntary transport to hospitals. A 2008 study, published in *Psychiatric Services* and cited by Watson, found that CIT officers used force in only 15% of interactions deemed “high violence risk.” Within that 15%, the force was “low-lethal.” Watson revealed that “CIT officers used less force as subject resistance increased than officers that were not CIT trained. . . . [O]fficers reported that application of their CIT skills reduces the risk of injury to officers and persons with mental illness.”

The development of the Memphis model was not without difficulties arising among its stakeholders. Some CIT stakeholders still struggle with the same trust issues that the Memphis task force faced. According to Watson, while structuring the program “it became abundantly clear that law enforcement and mental health providers . . . did not trust each other. Providers felt that police officers lacked understanding of mental illness and would often exacerbate crisis situations. Police officers were frustrated that hospitals often would not provide care for people that they transported who were clearly symptomatic.” By continuing to work together, each obtained an understanding of the other, which helped lead to the model’s success.

At the core of a CIT program are 40 hours of specialized training for officers who have volunteered and are then selected to become CIT officers. According to Watson’s NIH report the imperative is not how many CIT-trained officers an agency staffs; instead, the key is to train the right officers for the program. Some people have a “particular disposition and interest in handling mental health calls. This better prepares them to use CIT training to become effective,” stated Watson.

CIT training is provided by clinical social workers or other mental health clinicians, law enforcement trainers, and advocates in classroom and experiential settings. For example, the Illinois Law Enforcement Training and Standards Board has offered state-certified CIT training since 2003 and instructs on topics common to all CIT training: (ILETSB)

- mental illness signs and symptoms,
- risk assessment and crisis intervention skills,
- verbal de-escalation and tactical response,
- child, adolescent and geriatric issues,
- returning veterans and PTSD,
- autism and intellectual/developmental disabilities,
- co-occurring disorders (substance abuse),
- medical conditions and psychotropic medications,
- law enforcement response and legal issues, and
- community resources.

CIT training may also feature panel discussions with clinicians, family, and mentally ill people. Once trained, CIT officers perform regular patrol duties but are always available for immediate dispatch to a mental health call. (Watson)

Only one discoverable study is available on the results of CIT beyond the initial encounter. That 2004 study in *Behavior Science & the Law* found “diversion from arrest by pre-booking programs, such as CIT, increased mental health service utilization in the subsequent 12 months for persons with serious mental illnesses.” (Broner)

### Court-Ordered Diversion Programs

While law enforcement officers are directly involved in the implementation of CIT programs, such diversionary programs as Mental Health Courts
(MHC) and Assisted Outpatient Treatment (AOT) are managed in the criminal and civil courts, respectively. However, all officers and agencies benefit from understanding how these programs work and their records of success — and from advocating both for their use in their jurisdictions or regions and for individuals who may benefit. In October 2014, the IACP endorsed AOT programs, following the National Sheriffs’ Association endorsement. (TAC)

**Mental Health Courts**

The purpose of a MHC is to direct the severely mentally ill toward community-based treatment by “targeting frequent users of local jails and prisons. [MHCs] are voluntary and use therapeutic jurisprudence to encourage treatment engagement.” (Munetz) “If a prosecutor or DA believes a person who has been charged with a low-level crime has a mental illness, they may divert him or her to a mental health court,” explains DJ Jaffe, author of *Insane Consequences: How the Mental Health Industry Fails the Mentally Ill*. “The mental health court will say, if you accept treatment for X amount of time, we will drop your charges, and the person comes back every week to see if he's still complying. Basically, you have somebody who has committed a crime — often because the mental health system didn’t treat them — deferred to a court, which then tells the mental health system to treat them.” (Rodriguez)

An example can be found in Alleghany County, PA. In a study conducted by the RAND Corporation, the Allegheny MHC was “a success in achieving its mission to divert nonviolent offenders with serious mental illnesses out of the penal system and into community-based health treatment and other services.” The program “did not result in substantial incremental costs.” Treatment costs were offset by a decrease in inmate costs. (Psychiatric Times) RAND reported that the county’s MHC team meets to review each case — including circumstances, diagnosis, and need for treatment and supervision — before making an offer to the offender. The team is comprised of the MHC judge, assistant district attorney, public defender, program monitor, MHC forensics specialist, and probation liaison. An offer includes help obtaining treatment, housing, and public assistance in return for regular compliance hearings. (Psychiatric Times) Jaffe says, “It’s a long, unnecessary round trip. The mental health system should just treat them.” (Rodriguez)

Program eligibility, length, and components may vary but many include program components similar to those of Cobb County, GA (see Figure 2). Program graduations are common celebrations. And there is much to celebrate: (McNiel)

- MHC graduates benefit from improved mental health;
- They are 26% less likely to be charged with any new crimes as late as 18 months out of the program, compared to those not in a MHC; and,
- MHC graduates are 55% less likely to be charged with a new violent crime, compared to those not in a program.

**Assisted Outpatient Treatment**

AOT is a promising diversion tool administered through civil courts for those who are frequently hospitalized and respond well to treatment but discontinue treatment when released, relapse, and then become a danger to themselves or others. (Munetz) Depending on their jurisdictions, officers may be evaluators for AOT candidates. Other law enforcement AOT stakeholders include CIT officers, chiefs, and jail liaisons to mental health centers. (Esposito)

One common myth is that AOT involves in-hospital treatment. However, the truth is the opposite: AOTs are designed to help the mentally ill function outside of the hospital. (TAC) As Jaffe
explains, “Basically, [it is] the same thing as MHC, except it happens before the crime is committed, after the person already has a history of multiple instances of homelessness, arrest, incarceration, or hospitalization due to being off medication... [T]he court, with all due-process, can order the person to...mandated and monitored treatment while he or she continues to live in the community. It doesn’t involve locking someone up or in-patient commitment—it’s less expensive, less restrictive.” (Rodriguez)

There’s the person who put the TV in a cart at Walmart, didn’t try to hide that fact, and walked straight out the door with the TV. When the sales clerk caught up with him, he said, ‘I’m receiving satellite communications from God. This TV doesn’t belong to you.’ In the past, we threw that person in jail. We focused on the criminal component... He’s got an active diagnosis of schizophrenia and bipolar disorder. And it used to be that after we arrested that person, and then let that person out of jail, we’d say just ‘Good luck.’” — Lt. Robert Henry, Harris County (TX) Sheriff’s Office (Gray)

AOTs nationwide report significant, quantifiable success rates. The Treatment Advocacy Center (TAC) cites a study that found when long-term AOT is combined with routine outpatient services4, the number of hospital admissions is reduced by 57% and length of hospital stays decrease by 20 days, compared to individuals not in an AOT program. For individuals with schizophrenia and other psychotic disorders, long-term AOT resulted in 72% less hospital admissions and an average 28-day reduction in length of hospital stay compared to those not in an AOT. (TAC)

The TAC also cites results with the following success rates among those who have participated in New York’s AOT program5:

- 77% decrease in rehospitalization,
- 74% decrease in homelessness,
- 83% decrease in arrests, and
- 87% decrease in incarcerations.

At the time of the IACP endorsement, Michael Biasoti, past president of the New York Association of Chiefs of Police and nationally recognized expert in the intersection of severe mental illness and the criminal justice system said, “We expect AOT to reduce the burden of untreated severe mental illness on law enforcement. . . This tool will help increase law enforcement capacity and return the care of the most severely ill to the mental illness treatment system.” (TAC, 2014)

Sources:
- McAleer, Kelly, PsyD. (n.d.). Mental Health Court: The

READ Part 1 Improving Interactions with the Mentally Ill: Successful Social Worker Partnerships.

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4 three-plus visits per month.
5 compared to the three years prior to program participation.
Despite dire statistics, though, the process of developing much-needed agency wellness programs has been slow. **Compared to 2017, on-duty fatal heart attacks are up 20% in 2018.** (ODMP) As the year comes to a close, now is a good time for police department executive teams to consider how they can begin leading their agencies to increased wellness in the new year.

**Reversible Statistics**

Cardiac events consistently rank in the annual top three causes of line-of-duty deaths, generally surpassed only by automobile crashes and gun-fire deaths.¹ A 2014 study led by researchers from the Harvard School of Public Health found that **out of 4,500 line-of-duty deaths between 1984 to 2010, 441 were caused by sudden cardiac death.** (Varvarigou) According to Dr. Jonathan Sheinberg, a board-certified cardiologist and a sworn officer in Cedar Park, Texas, the average age of an officer’s first heart attack is 49, compared to age 67 in the general US population. In fact, the 2011-12 fatal heart attack rate of 15 to 16 officers per 100,000 was about 3 to 5 times higher than the national average among private sector employees. (Varvarigou)

The Harvard study also reported that while physically **restraining a suspect or being involved in a physical altercation involve about 1% to 2% of an officer’s annual work time, these events accounted
for 25% of on-duty sudden cardiac deaths. Therefore, restraints and altercations are associated with a sudden cardiac death risk about 30 to 50 times higher than routine/non-emergency duties. (Varvarigou) Foot pursuits of suspects comprise less than 2% of on-duty time but are associated with 12% of sudden cardiac deaths as well as risks that are 30 to 50 times higher than routine / non-emergency duties. The most likely explanation for these findings is “a sudden increase in cardiovascular demand due to a combination of physical exertion and psychological stress, consistent with ‘fight or flight’ physiology,” (Varvarigou) that triggers a heart attack or cardiac arrest.

Police training programs also can include intense physical activity, which also involves higher cardiac risks. The Harvard study found that out of the 441 sudden cardiac deaths, 20% occurred during physical training. (Varvarigou) However, during the first nine months of 2018, 66% of on-duty sudden cardiac deaths occurred during training or certification courses. (ODMP)

Jurisdiction size matters: population seems to correlate with cardiac statistics. Officers in agencies serving populations of less than 10,000 people are at a substantially higher risk of sudden cardiac death while restraining a suspect or in a physical altercation than officers in agencies serving more than 100,000 people, when compared to routine/non-emergency duties. (Varvarigou)

Law Enforcement & Cardiovascular Risk Factors

General risk factors for cardiovascular disease are well known but worth repeating. They include: (Zimmerman)

- high blood pressure,
- high overall cholesterol — or high LDL cholesterol and low HDL cholesterol,
- type 2 diabetes,
- smoking,
- obesity,
- metabolic syndrome,
- sedentary lifestyle.

Among these risk factors, police officers have a significantly lower rate of blood sugar-related risk factors. Only 3% of officers Type 2 diabetes, compared to 11% of the US population. (Zimmerman) In fact, only 23.6% of law enforcement tests positive for glucose intolerance, compared to 32.4% of civilians. (Hartley)

Unfortunately, officers struggle with a greater rate of obesity and metabolic syndrome. (Hartley)

- More than 40% of US officers have a BMI ≥ 30, compared to 32% of the US adult population.
- 26.7% of officers suffer from metabolic syndrome, compared to 18.7% of the general population.

Police officers also are exposed to occupation-specific cardiac risk factors, including: (Zimmerman)

- sudden intense physical activity that may occur during an otherwise sedentary shift;
- acute and chronic stress from such sources as sudden peril, trauma, agency pressures, chronic fatigue, and shift work; and,
- shift work itself, which may increase insomnia and chronic fatigue, family stress, obesity, and poor eating habits.

Law enforcement officers also tend to lead more sedentary lifestyles compared to the civilian population. According to a paper published in Cardiology in Review, more than 66% of police officers demonstrate a “low or moderate physical fitness” level, and a “significant percentage” fail to exercise regularly. The paper cited a study that found that only 55% of tested officers could fully perform an occupation-specific fitness test. Three separate studies found that “officers were below average in fitness compared with civilians of similar age.” (Zimmerman) More than 50% of early

2 Sudden cardiac death (aka cardiac arrest) is the abrupt loss of heart function in a person who may or may not have been known to have heart disease. Cardiac arrest can follow a heart attack but is not the same as a heart attack. (Varvarigou)

3 10 out of 15 on-duty sudden cardiac deaths, as of October 5, 2018.

4 According to the report, an average of relative risk of 93.7 - 373.8 in a small agency versus 27.4 to 98.3 in a large agency. (Varvarigou)

5 Metabolic syndrome is a combination of abdominal obesity, high blood sugar, and high cholesterol or triglyceride levels or low HDL cholesterol.

6 A BMI of ≥ 30 kg/m² is considered obese.

7 In a statement that underlines the risk of sudden cardiac death during pursuit and restraint, one research paper stated that “criminal offenders were likely to be more fit than the law enforcement personnel charged with policing them.” (Zimmerman)
retirements can be attributed to back problems and cardiovascular issues. (Chism) Sheinberg notes that “an out-of-shape officer may resort to deadly force more quickly than his or her physically fit counterpart, as the ability to go ‘hands on’ becomes less effective.”

In a 2016 research study on law enforcement wellness programs conducted in Chicago’s northern suburbs, most of the participants had known an area officer who suffered a fatal heart attack while in pursuit of a suspect. These officers all agreed that cardiovascular strength is important to the job. One officer explained: (Chism)

Your body is about to go from zero to 100. [Cardiovascular wellness helps] you adapt easier to different situations. You’re not getting worn out, and you’re just able to handle the physical demand of sitting and then going to being active.”

Wellness Program Basics & Benefits

Coronary artery disease is not only detectable — but when treated, it may be reversible. “The key,” Dr. Sheinberg says, “is the development of a cardiovascular screening program and an overall wellness program.” He recommends developing agency programs using a collaborative approach that includes command staff, department physicians, union representatives, fitness professionals, and police training directors. Nutritionists or dieticians should also be consulted, as well as representative patrol officers.

The benefits of voluntary department-based wellness programs that incorporate nutritional counseling, exercise, and medical screening result in fewer reported injuries, shorter recovery times, reduced use-of-force cases, less absenteeism, fewer workers’ compensation claims, and increased productivity. (Chism) In fact, wellness programs positively affect an agency’s financial bottom line, with a return on investment of two to five dollars for every one dollar spent. (Quigley)

Medical screenings are important to wellness programs because they can identify coronary artery disease before symptoms appear and before they culminate in a heart attack or cardiac arrest. Like exercise and nutritional counseling, screening reduces agency expenses before conditions escalate to costs associated with short-term disability payments and increased insurance expenses. (Sheinberg)

PROGRAM PERCEPTION & PARTICIPATION

While literature abounds on the details of developing wellness programs, a significant lack of resources exist on law enforcement perceptions
of agency wellness programs, with the exception of Ellen Chism’s 2016 research study, “Police Officer Perception of Wellness Programs.” The officers who participated in this study generally welcomed voluntary wellness programs and felt that agencies “should be more active in providing nutrition and exercise assistance throughout an officer’s career.”

Ninety-five percent of the study’s participants expressed an interest in a voluntary wellness program based on personal goals. In addition to understanding the physical benefits, 20% also understood that such a program would help alleviate stress. All of the officers in the study “commented on the importance of fitness throughout an officer’s career, not just when they are young and naturally in shape.” They also all agreed that fitness helps prevent injuries. “I’ve experienced when you don’t stretch, you’re tight. . . . You end up pulling a muscle. You end up injuring yourself on duty,” said one officer.

Military personnel are expected to remain in excellent physical condition, and fitness is built into their schedules. However, most US first-responders are expected to self-motivate their fitness routines. Chism’s research revealed an overall concern about time constraints. “I would participate if it was done the right way, and they allowed you some time to work out,” said one participant. Another noted that “there is always something else to do with family and overtime details.”

One officer in Chism’s study stated that if there were no incentives involved in a wellness program, “the time and effort put forward is not worth it.” Incentives can help increase program participation. In 2001, the Chicago Police Department (CPD) implemented an annual opportunity for officers to take a physical ability test and offered a pin and a complimentary letter to those who passed. Only 200 officers participated. In 2002, CPD offered $250 for passing the test, and more than 2,000 officers participated. (Chism)

Like the CPD fitness testing, wellness programs also can make use of financial or other incentives to promote early adaptation among staff and to recognize the personal commitment required both to participate and to replace unhealthy habits with healthy ones. One 10-week study revealed that participation in a law enforcement wellness program dedicated to changing habits in relation to key barriers (lack of time and energy) resulted in improved fitness. (Chism)

The officers in Chism’s study all believed they were doing “some type of fitness activity” on their own and felt that they should be held accountable with an annual test. Yet, 50% admitted they were out of shape, and 30% felt their level of fitness was only “average or good.” §

The responsibility for officer wellness and screening lies within the training academy, the agency, and the individual officer or agent. . . . [It is] absolutely vital that law enforcement agencies recognize this risk and develop wellness and screening programs to keep their officers healthy, effective, and safe.” — Dr. Jonathan Sheinberg

Sources:
Holidays in Blue: Recognizing Emotional Distress in Fellow Officers

As joyful as the holiday season may be for many, it can be a time of devastating depression for others. This is as true for law enforcement professionals as civilians.

NUCPS instructor Rick Peterson wrote in the Sept/Oct 2018 issue of The Key that officers are not immune from depression and PTSD yet hesitate to seek help due to stigma and for fear of losing their jobs. Unfortunately, this reluctance to obtain help may have contributed to the loss of an estimated 140 officers who took their own lives in 2017 — a statistic that surpassed the year’s 128 line-of-duty deaths. (Gomori)

Dr. Laurence Miller wrote in PoliceOne that many officers develop a self-confidence that relies on the respect they garner from their communities, family and friends, and their colleagues. “An officer’s brittle shell of self-esteem may shatter if barraged by professional or family stresses, especially in combination.” Dr. Miller compares the self-perceived loss of respect that comes from seeking help for depression or the “inability to suck it up or snap out of it” to the loss of a limb, which, he writes, “alienates an officer from potential sources of support which in turn only confirms his sense of isolation and abandonment. Add to this volatile mixture the ready access to a lethal firearm, stir in liberal amounts of alcohol, and this creates the perfect recipe for a suicidal explosion.”

Warning Signs
With experience and training on crisis calls, many law enforcement professionals recognize the signs of severe depression or suicidal ideation: (Gomori, Miller)

- acting withdrawn or agitated, angry or hostile;
- a change in behavior or not enjoying the same things they used to enjoy;
- verbal self threats or verbalizing thoughts of suicide;
- expressing being overwhelmed by life;
- drinking more alcohol than normal;
- problems sleeping;
- not wanting to go home;
- new or increased family issues; and,
- making final plans, paying off debt, or giving away possessions.

Law enforcement also has its own unique set of warning signs, including: (Miller)
- a nothing-to-lose attitude (“what are they gonna do — fire me?”)
- not being as sharp as usual while on duty; and,
- weapon surrender or weapon overkill: Dr. Miller notes that either an officer might fear his own impulses and ask to lock his gun away while performing paperwork or he may begin carrying more than one backup weapon.

Dr. Miller emphasizes that police agencies should have a non-disciplinary, non-stigmatized process for guiding distressed officers to non-disciplinary, confidential psychological help. If a colleague is in crisis, he suggests helping him or her in a manner similar to a mental health crisis call. Do not leave the officer alone until he or she has obtained medical care. (Miller)

IMMEDIATE HELP
If you or a colleague need help or support, please call:

COPLINE: (800) 267-5463. 24 hours / 7 days a week.
This free national hotline is 100% confidential and safe. It is the first law enforcement hotline in the US to be manned by trained, retired law enforcement officers who understand the stress that officers experience on and off the job.

Sources:
NUCPS Alumni, Staff Network at Reception in Orlando

In October, Northwestern Center for Public Safety hosted our Annual Reception in Orlando, Instructors, staff, alumni, and students had the opportunity to celebrate another successful year, visit with old friends, and make new connections. In addition to Maggiano’s delicious food, event highlights included free NUCPS event t-shirts for all attendees and a complimentary caricature artist.

Attendees enjoyed the talents of a caricature artist.

Opportunities for new connections and seeing old friendships abounded.

Executive Director David Bradford talks with attendees.

Deputy Executive Director Shelly Camden and Daniel Godfrey of Bedford Park (IL) PD pose together in a selfie.

Continued →
Steve Weatherford of the Illinois Commerce Commission PD, Bradford, and Senior Instructor Ron Fisher have a little fun with chocolate challenge coins.

Operations Manager Deb Magyar and Schaumburg PD’s Kurt Metzger

Fisher and Camden took advantage of the artist.

We hope to see you in Chicago in October 2019!
The Key   Dec 2018

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TRAFFIC ENGINEERING & CRASH INVESTIGATION

The Human Hurdle: Human Error as a Roadblock to Early ADS Adaptation.

by Victor Beecher

AUTOMATED DRIVING SYSTEMS (ADS) are expected to result in the greatest sea change in transportation since the invention of the automobile. Reaching a point of mass adaptation, though, is akin to a long-distance, high-hurdle steeplechase. One of the highest hurdles for ADS to clear is the human driver itself.

ADS innovations that have reached SAE’s Level 2, Partial Automation (see Sidebar, page 26), include adaptive cruise control, automated lane departure warnings, and automated parking, all of which are now standard or optional features in a wide range of vehicles manufactured since 2017. (Lucke) These advancements still rely on a driver to monitor the driving environment and “perform all remaining aspects of the dynamic driving task.” (SAE) For instance, while auto-parking a 2017 Ford Fusion, the driver must brake and be aware of traffic, even though the ADS is steering. According to SAE Chief Product Officer Frank Menchaca, “Right now, cars are accelerating, turning, and braking on their own, but they still require human attention and intervention. The literature suggests that when people aren’t fully responsible, their reaction times tend to get longer.” (Horaczek)

In Levels 3 and up, the ADS monitors the driving environment as related to a specific automated driving mode, and a driver may or may not be requested to intervene. (SAE) Among these are the many vehicles now being tested by such companies as Ford, Toyota, Apple, Google, Waymo, and GM. In response to a fatal Tesla-involved collision in September 2017, the NTSB issued a release that summarize the human driver–related problems, including: (NTSB)

• “The Tesla driver’s pattern of use of the Autopilot system indicated an over-reliance on the automation and a lack of understanding of the system limitations.
• “If automated vehicle control systems do not automatically restrict their own operation to conditions for which they were designed . . . the risk of driver misuse remains.
• “[H]ow the Tesla Autopilot system monitored and responded to the driver’s interaction with the steering wheel was not an effective method of ensuring driver engagement.
• “[E]vidence revealed the Tesla driver was not attentive to the driving task.”

In the NTSB release, Chairman Robert L. Sumwalt III stated, “Smart people around the world are hard at work to automate driving, but systems . . . like Tesla’s Autopilot are designed to assist drivers . . . These systems require the driver to pay attention all the time and to be able to take over immediately when something goes wrong.”

Most on-road testing is conducted in Arizona, California, Michigan, Nevada, and Pennsylvania — and these public, real-life tests show that human drivers of traditional vehicles now are the cause of most of the collisions involving an ADS vehicle. Since 2014, 104 incidents in California have involved ADS vehicles — 49 of those have occurred in 2018, to date. (Stewart) Of these incidents, 57% involved the ADS vehicle being rear-ended. In 29% of the incidents, the ADS vehicle was sideswiped. The causes at the root of most of these collisions include traditional driver frustration or distraction.

Kyle Vogt, cofounder and CEO at Cruise, notes that human drivers expect other drivers to “bend or break traffic rules, rolling through four-way intersec-

1 California is the only state that requires ADS-related companies to submit an annual report to the DMV.
TRAFFIC ENGINEERING & CRASH INVESTIGATION

tions, accelerating to make a yellow light, or cruising over the speed limit.” But automated cars won’t break the rules. In the case of sideswipes, drivers of traditional vehicles have become frustrated, for instance, following behind an ADS car going 30 mph, where most traffic is pushing 40 mph. In attempts to squeeze around the ADS vehicle, traditional cars have sideswiped the ADS. As for the rear-end collisions, drivers following ADS vehicles don’t realize that they need to be much more attentive to the ADS cars’ making full stops at stop signs, stopping at crosswalks, and otherwise following the letter of the traffic law. (Stewart).

Chris Urmson, the head of Google’s self-driving car program (now called Waymo), has personal experience. In July 2015, he was in a Google self-driving car that was hit from behind by a traditionally driven vehicle. “Our self-driving cars are being hit surprisingly often by other drivers who are distracted and not paying attention to the road,” he wrote in his blog. “Other drivers have hit us 14 times since the start of our project in 2009 (including 11 rear-ends), and not once has the self-driving car been the cause of the collision. Instead, the clear theme is human error and inattention.” (Urmson)

One suggestion to improve the traditional vehicle vs ADS vehicle collision rate is to label the ADS vehicles, similarly to how some parents put “New Driver” signs in their rear windows when teaching their teenagers to drive. (Stewart).

Sumwalt stated, “While automation in highway transportation has the potential to save tens of thousands of lives, until that potential is fully realized, people still need to safely drive their vehicles.” (NTSB) The term **fully realized** is significant. ADS developers acknowledge that true automated driving will not be possible until all motorized vehicles are automated. §

### Sources:
Calvin Goddard & the Northwestern Scientific Crime Detection Laboratory

NORTHWESTERN UNIVERSITY Center for Public Safety founder Franklin Kremmel (1907 - 1998) was a nationally recognized transportation and traffic safety authority. Kremmel, though, is not the only Northwestern figure to make an indelible impression on modern law enforcement.

In 1929, Calvin H. Goddard (1891 - 1955), the “father of forensic ballistics,” developed the nation’s first “Scientific Crime Detection Laboratory” at Northwestern’s School of Law. He is credited with perfecting the comparison microscope for bullet and cartridge case examinations. A medical doctor and military veteran, Goddard had already earned a national reputation for his research into forensic ballistics when Cook County coroner Herman Bundesen convinced him to relocate to Chicago.

As the founder of the Bureau of Forensic Ballistics in New York City, Goddard made national headlines when he testified during the 1927 Massachusetts appeals trial of anarchists and convicted murderers Nicola Sacco and Bartolomeo Vanzetti. His scientific testimony — that one fatal bullet matched the rifling marks from Sacco’s .32 Colt and that scratches from the gun’s firing pin on test-fired shell casings from Sacco’s gun all matched spent shell casings from the crime scene — was of such high quality that it held up in much later examinations, one as late as 1983.

When the FBI established its own forensic lab in 1932, it used Goddard’s lab at Northwestern as its model. (Yount) Under Goddard, the lab published the American Journal of Police Science, which later merged with the School of Law’s Journal of Criminal Law and Criminology, a publication that continues through today. Goddard served as the lab’s director and as a Northwestern political science professor until 1934. His replacement director was none other than Leonarde Keeler, the key inventor of the polygraph test. (Ball & Gillespie)

By the end of the 1930s, most large cities had incorporated a ballistic lab into their police agencies.

Continued →
In 1938, the City of Chicago bought the Scientific Crime Detection Laboratory from Northwestern and integrated it into the Chicago Police Department. (Yount)

Goddard completed his text *History of Firearms Identification* in 1936. In 1941, he reenlisted in the Army. Too old for combat, he was named the Ordnance Department’s chief historian, then the assistant chief for the historical branch of the Far East Command in Tokyo. In 1948, he established and commanded the US Army Far East Criminal Investigation Laboratory, also in Tokyo, and was promoted to Colonel. (Yount) Throughout his career, he continued researching and teaching ballistics testing. (CJLI)

Goddard’s legacy from the Northwestern Scientific Crime Detection Laboratory is reflected in NUCPS’ offerings. The range of available forensic science and crime scene investigation courses would have met with Goddard’s enthusiastic approval. §

Sources:


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**Holiday Fugitive Sought in Multiple States**

**NAME: EVANS THE ELF**

**AGE:** 105 YEARS  
**SEX:** M  
**HEIGHT:** 13”  
**WEIGHT:** A few ounces  
**HAIR:** Brown  
**EYES:** Blue  
**DISTINGUISHING FEATURES:**  
Said to have a high-pitched, maniacal laugh; permanent grin & rosy cheeks. Scares children & dogs. Do not touch.

**LAST KNOWN ADDRESS:**  
Cupboard #1,993,011,006, Santa Claus Workshop, North Pole.

Wanted in connection with a string of international criminal activities perpetrated by a gang of Elfin infiltrators originating from the North Pole:
- Gingerbread house invasions;  
- Stalking & peeping-tom activities;  
- Loitering & trespassing;  
- Gross criminal misconduct; and,  
- Acting as an unlicensed private investigator per state privacy acts.
MANAGEMENT & LEADERSHIP

SCHOOL OF POLICE STAFF & COMMAND

- Jan 7 – Mar 22. Nampa, ID.
- Jan 7 – May 10. Plainfield, IL.
- Jan 7 – May 24. Marana, AZ.
- Jan 7 – May 24. Troy, MI.
- Jan 14 – May 10. West Lafayette, IN.
- Jan 28 – Apr 12. Ft Worth, TX.
- Jan 28 – May 24. Weyers Cave, VA.
- Jan 28 – Apr 5. Rio Rancho, NM.
- Feb 4 – Jun 14. Rockford, IL.
- Apr 1 – Jun 7. Tempe, AZ.
- Apr 8 – Jun 21. West Allis, WI.
- May 20 – Aug 9. Iowa City, IA.
- Jan 7 – Jun 9. ONLINE.
- Mar 11 – Aug 11. ONLINE.

SUPERVISION OF POLICE PERSONNEL

- Feb 25 – Mar 8, Evanston.
- May 6 – 17. South Milwaukee, WI.
- Jan 1 – Mar 3. ONLINE.
- Mar 11 – May 5. ONLINE.
- Jan 7 – May 24. Marana, AZ.
- Jan 7 – May 10. Plainfield, IL.
- Jan 7 – May 24. Marana, AZ.
- Jan 7 – May 24. Troy, MI.
- Jan 14 – May 10. West Lafayette, IN.
- Jan 28 – Apr 12. Ft Worth, TX.
- Jan 28 – May 24. Weyers Cave, VA.
- Jan 28 – Apr 5. Rio Rancho, NM.
- Feb 4 – Jun 14. Rockford, IL.
- Apr 1 – Jun 7. Tempe, AZ.
- Apr 8 – Jun 21. West Allis, WI.
- May 20 – Aug 9. Iowa City, IA.
- Jan 7 – Jun 9. ONLINE.
- Mar 11 – Aug 11. ONLINE.

TRAFFIC ENGINEERING & CRASH INVESTIGATION

(All classes are in Evanston unless otherwise noted.)

- CDR Data Analyst. Apr 1 – 5.
- Crash Investigation 1: Mar 18 – 29.
- Crash Investigation 2: Apr 1 – 12.
- Traffic Crash Reconstruction 1 (73 ACTARs): Apr 22 – May 3.

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POLICE MOTORCYCLE
NUCPS INSTRUCTOR RECERTIFICATION
• Jan 8. Baton Rouge, LA.
• Feb 5. Niceville, FL.
• Apr 9. Charleston, WV.
• May 7. Omaha, NE.

NUCPS POLICE MOTORCYCLE INSTRUCTOR TRAINING
• Jan 7 – 25. Baton Rouge, LA.
• Feb 4 – 22. Niceville, FL.
• Apr 8 – 26. Charleston, WV.
• May 6 – 24. Omaha, NE.

POLICE MOTORCYCLE OPERATOR TRAINING
• Jan 14 – 25. Baton Rouge, LA.
• Feb 11 – 22. Niceville, FL.
• Apr 15 – 26. Charleston, WV.
• May 13 – 24. Omaha, NE.

CRIME SCENE INVESTIGATION & FORENSIC SCIENCE
(All classes are in Evanston unless otherwise noted.)
• Bloodstain Evidence 1. Apr 29 – May 3.
• Crime Scene Technology 1. Apr 8 – 12
• Crime Scene Technology 2. Apr 15 – 19.

NEW or REVISED POLICE TRAINING
• Field Training Officer. Jan 7 – 9. Evanston.

Host a NUCPS Course

Each year, agencies across the US host NUCPS courses, creating opportunities for local and regional law enforcement professionals to enhance their education closer to home, saving time and money.

BENEFITS
The host agency can receive a specific number of free seats, determined by the number of paying students in the course.

COSTS
No out-of-pocket costs are due to Northwestern. NUCPS handles registration and tuition billing.

WE PROVIDE
• Instructors & all course materials;
• Brochures, fliers, and examples of course announcements; and,
• Course listing on the NUCPS website, in advertising on policetraining.net, and in our journal, The Key.

HOST AGENCY PROVIDES
• Course promotion to local agencies. This may include mailings, e-mailings, presentations, phone calls, social media, advertising, and PR;
• Suitable classroom in terms of size, internet access, and general course requirements; and,
• Contact person to assist instructors during the course.

LENGTH OF COURSE
Courses vary in length. NUCPS can work with hosts to determine the number of days and class hours.

PLAN AHEAD
NUCPS recommends planning at least 9 – 12 months in advance. This lead time will help the host agency promote the course and allow potential participants to secure funding.

FOR MORE INFORMATION
Learn more by emailing nucps@northwestern.edu or call (800) 323-4011.
Police Interactions with the Mentally Ill, continued from page 15


Contributors to this issue

Victor Beecher, Director, Police Training, NUCPS. A 26-year veteran of the Milwaukee Police Department, Beecher is a graduate of SPSC Class #255. He rose through patrol and investigative ranks and retired in 2016 as a captain. In addition to his responsibilities for all police operations at District Four, Beecher implemented data-driven, community-engaged, proactive strategies to reduce crime, fear, and disorder.

David Bradford, Executive Director, NUCPS. Bradford is the former chief of police of the Glen Carbon (IL) Police Department. During his tenure at NUCPS, he has helped enhance the center’s reputation as a global leader in law enforcement professional development and education. He is the current chair for the Accreditation Council of ILEAP and is an active member of several professional associations. He is a former IACP executive board member and a past president of the Illinois Association of Chiefs of Police and of the Southern Illinois Police Chiefs Association. His articles have been published in Police Quarterly and Public Personnel Management. He earned his Master’s of Public Administration from Southern Illinois University.

Joseph Fitzgerald, PhD, Adjunct Instructor, NUCPS. Fitzgerald is an expert in the field of organizational leadership within the context of leadership alignment and change management within law enforcement agencies. He is a sergeant with the Berwyn (IL) Police Department and is a graduate of SPSC Class #360. He received his BS in Criminal Justice from Kaplan University, his MA in Public Policy & Administration from Northwestern University, and his PhD in organizational leadership from the Chicago School of Professional Psychology.

Dennis Flynn, Commerce City (CO) Police Department. Flynn is a member of SPSC Class #443. His staff study was selected for publication in this issue and published with his permission.

Caroline Paulison Andrew, Key Editor / NUCPS Alumni Relations. Andrew is editor and staff writer for The Key, NUCPS’ social media manager, and point person for NUCPS Alumni Relations. She brings more than 25 years of communications expertise to her position, including significant experience in the association, publishing, and legal industries. She earned her BA in Philosophy from Northwestern University and her MBA in Marketing from Loyola University Chicago.

Thank you to this year’s contributors!

- David Bradford (May, Sept/Oct, Nov/Dec)
- Mike Ditallo (May)
- Gretchen Dolan (Sep/Oct)
- Joseph Fitzgerald (Nov/Dec)
- Dennis Flynn (Nov/Dec)
- John Furcon (Feb)
- Adam Hyde (Feb)
- Roy Lucke (Feb)
- Don Ostermeyer (Feb, May, Sept/Oct)
- Rick Peterson (Sept/Oct)
- Scott Robertson (May)
- Robert K. Seyfried, PE, PTOE (Feb, Sept/Oct)
- Tamara Smith (Feb)

We welcome new contributors! If you would like to contribute an article to The Key — or wish to see an article on a specific topic — please contact the editor, Caroline Paulison Andrew, at nucps-alumni@northwestern.edu.