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INTRODUCTION

In 2010, the National Law Enforcement and Corrections Technology Center (NLECTC) System “hit the reset button.” It was a transformational year for the System, and staff rededicated themselves to reaching out to law enforcement and corrections professionals by providing the latest in research and knowledge through the Internet, local conferences and technology institutes. It was not change simply for change’s sake: It was done with the criminal justice professional in mind, to have a powerful and positive effect.

As part of this process, the National Institute of Justice (NIJ) made an adjustment to the way the centers provide services to the criminal justice community. Police and corrections officers and the tools of their trade have changed over the years. Therefore, it was only fitting for NLECTC to adjust and sharpen its focus on bringing them the latest information on technological advances in areas including:

- Body armor.
- Aviation.
- Biometrics.
- School safety.
- Forensics.
- Digital evidence.
- Advanced audio and video communications.
- Sensors and surveillance.
Old ways of doing things were replaced by what works — better. JUSTNET, the Center System website, was enhanced and now includes social media components to get information out in a timelier manner, with delivery mechanisms that are convenient and efficient. TechBeat is now an interactive e-publication. NLECTC reorganized its Centers of Excellence to promote ongoing research and development to assist professionals in the field. Finally, duplicative services provided by several centers were streamlined for the new realities of the economy and the workplace.

All of this was done so the NLECTC System could better carry out its core mission to serve criminal justice practitioners in the field. It is with pride and gratitude that NLECTC hits the reset button and renews its focus on service.

The New Face of NLECTC

The National Law Enforcement and Corrections Technology Center (NLECTC) reorganization will better enable the system to carry out its critical mission to assist state, major city and county, small, rural, tribal and border agencies, as well as federal law enforcement, corrections and other criminal justice agencies in addressing their technology needs and challenges.

Originally created in 1994 as a program of the National Institute of Justice’s (NIJ’s) Office of Science and Technology, the NLECTC System has realigned its outreach efforts into three new centers: the States, Major Cities and Counties Regional Center; the Small, Rural, Tribal and Border Regional Center; and the Alaska Regional Center.

The States, Major Cities and Counties Regional Center offers a resource and outreach mechanism for state, major city and county criminal justice system partners, with a mission of ensuring that larger criminal justice agencies (those having 50 or more sworn personnel) have unbiased access to a full range of relevant scientific and technology-related information. The Small, Rural, Tribal and Border Regional Center offers its programs and services to small, rural, tribal and border agencies across the country. The Alaska Regional Center serves as a conduit for agencies in Alaska.
The reorganized NLECTC system is poised to carry out its critical mission to assist the criminal justice community.

The efforts of these centers complement those of NLECTC-National, which coordinates NIJ’s Compliance Testing Program and the development of standards for a variety of equipment used in the public safety arena, and the Centers of Excellence (CoEs), which support NIJ’s research, development, testing and evaluation (RDT&E) efforts in specific portfolio areas. The CoEs focus on the following topic areas: communications technology; corrections technology; electronic crime technology; forensic science; information and geospatial technology; sensor, surveillance and biometric technologies; and weapons and protective systems technology. The National Institute of Standards and Technology’s Office of Law Enforcement Standards provides scientific and research support to these efforts.

As a whole, the NLECTC System provides:

- Scientific and technical support to NIJ’s RDT&E projects.
Support for the transfer and adoption of technology into practice by law enforcement and corrections agencies, courts and crime laboratories.

Assistance in developing and disseminating equipment performance standards and technology guides.

Assistance in the demonstration, testing and evaluation of criminal justice tools and technologies.

Technology information, and general and specialized technology assistance.

Assistance in setting NIJ’s research agenda by convening practitioner-based advisory groups to help identify criminal justice technology needs and gaps in services.

The NLECTC System supports NIJ’s RDT&E process and goal of setting research priorities based on practitioner needs by sponsoring a series of Technology Working Groups and Constituent Advisory Groups, which provide input to the Law Enforcement and Corrections Technology Advisory Council. Together, these groups form a bridge between the criminal justice community and NIJ’s Office of Science and Technology.

WHAT DOES NLECTC DO?

At the very core of NLECTC is the notion of translational criminology. We link research with practice. It works in other fields, such as medicine. It also works in criminal justice. NLECTC, through NIJ, is the conduit. Researchers find facts and interpret them. Federal workers and private companies take these facts and develop ideas, practices and products that assist law enforcement and corrections officials. NLECTC tests them and provides reports to NIJ. It’s the perfect pairing of academia and the real world. Breakthroughs in ballistic-resistant and stab-resistant body armor, less-than-lethal apprehension devices and rehabilitation programs in prisons would not have been possible without this partnership.

But, don’t take their word for it. Talk to the cop on the beat or the corrections officer in the penitentiary. They will tell you that the products and strategies developed by NIJ and made available by NLECTC have saved lives — theirs and the lives of people in peril, pursuit or custody. They might not use these words. After all, they are a bit busy. They just got a call and they need to respond. Fortunately the radio frequency they are using is accessible to nearby jurisdictions who can offer assistance. That is because interoperability was researched and addressed by NIJ and reported to the field by NLECTC.

NLECTC and NIJ are engaged in translational criminology. They figure out how to put research into practice. It’s a great partnership that leads to a safer world.
Body Armor Follow-Up and Inspection Testing Program Launched

Employees came to work at a major body armor manufacturer on a summer morning thinking it was just another workday. They didn’t know that a significant event in company history would occur that afternoon: The facility would receive its first unscheduled visit from an inspector contracted to the National Institute of Justice (NIJ) Body Armor Compliance Testing Program (CTP).

Administered by the National Law Enforcement and Corrections Technology Center (NLECTC)-National for NIJ, the follow-up CTP testing process began in August 2010. The focus is on an abbreviated form of the initial ballistic testing (fewer tests, on two samples only), and a construction comparison between production samples and the current and original manufacturers’ build sheets.

The onset of follow-up inspection and testing (FIT program) marks the final step in an extensive revision to the NIJ CTP, triggered by a June 23, 2003, shooting in Forest Hills, Pa., in which an officer was seriously injured by a shot that penetrated his body armor by a threat it was intended to stop. The incident, which involved an armor constructed primarily of a fiber called Zylon®, touched off five years of intensive
research, focus group meetings and intense scrutiny of the entire testing program and the standard behind it. The end result, officially launched in December 2008, included a revision to the standard (*Ballistic Resistance of Body Armor, NIJ Standard-0101.06*) and a complete restructuring of the entire program, including the addition of follow-up inspection and testing.

Under this new process, inspections and testing of collected samples occur approximately every 10 months; however, the frequency may be reduced to every 20 months if the manufacturing location’s quality management system is certified to BA 9000. BA 9000 mirrors ISO 9001:2008, a standard for quality management from the International Organization for Standardization (ISO), and provides for the implementation of ISO 9001 requirements specific to body armor. Implementation of BA 9000 provides greater confidence that the manufacturer consistently produces armor meeting the design specifications of body armor initially type tested by the CTP. Manufacturers’ compliance with BA 9000 requirements will be certified by ANAB-accredited certification bodies (ANAB is the national accreditation board of ANSI-ASQ). For more information, visit http://www.anab.org/.

“The introduction of the follow-up testing process is the next phase in the evolutionary development of the CTP,” says Lance Miller, NLECTC-National director. “The test process itself has been redesigned with the idea that it is no longer ‘once and done.’ We have been testing armor to this version of the standard for more than a year now, and we have a sufficient number of compliant models on our Compliant Products List to begin the next step in the process. This next step will ensure that the ongoing production of these compliant models is consistent with what the manufacturer originally submitted to the CTP and was tested and approved.”

More than 3,000 law enforcement officers’ lives have been saved by body armor since the mid-1970s, when NIJ began testing body armor and developing international performance standards. During that time, the NIJ standard and its testing program have gained worldwide recognition as the benchmark for ballistic-resistant armor performance. The addition of the follow-up testing component ensures that NIJ will continue to raise the bar when it comes to testing body armor performance.
“Implementing follow-up testing will increase the confidence that law enforcement has in body armor performance because we will no longer rely entirely on initial testing, inspection and evaluation,” says Jamie Phillips, conformity assessment coordinator for NLECTC-National. “Most manufacturers realize the importance of maintaining production armor consistency and will not introduce untested variations. Some, however, may underestimate the impact of minor changes and the associated risks.”

Phillips explains that in many cases, manufacturers may change a product because of issues with their suppliers, and they don’t realize the effect that the change might have on product performance. For some products, this might not cause major consequences; however, for body armor, he says, “There could potentially be a significant impact on human life if the substitution fails to perform appropriately.”

Because of the potential impact on human life and the complexity of launching the new CTP component, the start of follow-up testing did not closely follow the January 2009 switch to testing new armor models under the 0101.06 revision to NIJ’s Ballistic Resistance of Body Armor standard. Although other conformity assessment programs

<table>
<thead>
<tr>
<th></th>
<th>2010 Number Received</th>
<th>2010 Number Passed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ballistic-Resistant Body Armor</td>
<td>137</td>
<td>71</td>
</tr>
<tr>
<td>Stab-Resistant Body Armor</td>
<td>22</td>
<td>10</td>
</tr>
<tr>
<td>Pistols</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Handcuffs</td>
<td>8</td>
<td>8</td>
</tr>
</tbody>
</table>
with follow-up inspections exist, body armor has some unique aspects that required additional thought to provide confidence without inflicting significant costs that would eventually be paid by practitioners. This included the selection of Underwriters Laboratories to provide independent and certified inspectors. In addition to selecting samples for submission to the test laboratories, field inspectors review documentation to ensure that material traceability is maintained and also collect purchasing documentation for the ballistic material used in armor construction for review by the CTP.

“Officers want to know that the armor they put on every day provides the protection it should,” says Alex Sundstrom, NLECTC-National compliance testing program coordinator and former law enforcement officer. “They want to feel confident that it will perform as specified, and the careful planning that went into creating the follow-up testing component will increase that confidence.”

CTP staff expect that the first year of follow-up testing will be a pilot year in which issues will be addressed and resolved as they arise. The CTP started with the first models that received compliance status in early 2009; it is working to eliminate the backlog and establish a 10- or 20-month cycle for follow-up testing.

In the event of a failure after testing, the manufacturer will let the CTP know which agencies have purchased that armor. The CTP will then work with the manufacturer to determine why the armor failed and whether the failure presents any officer safety concerns. As a result of this review, the CTP will determine what actions the manufacturer must take to ensure the continued safety of officers in the field.

For more information on follow-up testing and the Compliance Testing Program, visit http://www.justnet.org/Pages/ctp.aspx or contact Debra Stoe, NIJ Program Manager for Standards and Testing, at Debra.Stoe@usdoj.gov.
Highlights

As the hub of the NLECTC System, NLECTC-National provides law enforcement and corrections professionals with an entry portal into the system and its component centers. NIJ has charged the National Center with two principal missions: (1) offer the criminal justice community a variety of ways in which to obtain information about relevant technology and related matters of interest and (2) support NIJ’s standards and compliance testing program (which ensures the safety and effectiveness of equipment used by the law enforcement and corrections communities). As the focal point for information dissemination, NLECTC-National ensures that requests for information and assistance are channeled to the regional centers or Centers of Excellence (CoEs), as appropriate.

Highlighted activities include:

- Redesigned TechBeat, the award-winning quarterly newsletter for the NLECTC System, and created an interactive online version with audio, video and flash elements. The new e-TechBeat and redesigned print version debuted in fall 2010.

INTRODUCING E-TECHBEAT

NLECTC needed to redesign TechBeat and include an online interactive version to engage more constituents and make the publication more contemporary. A new size (8.5”x11” landscape) was selected for the print and online version to lower both printing and development costs. An interactive PDF format was chosen for the online publication, mirroring the print edition to reduce development time/cost, with the addition of some video and sound files. Overall print costs for the fall edition were reduced by nearly 30 percent. It is anticipated that further cost savings will be achieved as more subscribers “opt-out” of the print version and elect to receive the online version.
Through the CTP, provided oversight and administration for the testing of 137 models of ballistic-resistant body armor, 22 models of stab-resistant armor, eight restraints and two autoloading pistols.

Implemented new features for JUSTNET, the NLECTC System website, including a technology needs form, a Really Simple Syndication (RSS) feed, JUSTNETNews alerts and a video player featuring NLECTC Minutes (http://www.justnet.org).

*Hits: Each file requested by a visitor registers as a hit. There can be several hits on each page. While the volume of hits reflects the amount of server traffic, it is not an accurate reflection of the number of pages viewed.

**Visits: Number of visits to a site during the specified time interval. A visit is a series of actions that begins when a visitor views their first page from the server, and ends when the visitor leaves the site or remains idle beyond the idle-time limit. The default idle-time limit is 30 minutes. This time limit can be changed by the system administrator.
- Provided meeting coordination, subject-matter expert and technical writing/editing support for 33 Technology Working Group and Special Technical Committee meetings, including those for body armor, offender tracking, ballistic helmets, stab-resistant armor, duty holsters and restraints.

- As a result of increased outreach/marketing efforts, realized a 15-percent increase in hits to the JUSTNET website and a 19-percent increase in the number of visits to the website.

- Exhibited at 12 national law enforcement and corrections conferences.

- Conducted a one-day technical workshop for body armor manufacturers (May) and a one-day technical workshop for agencies that perform conformity assessments/inspections (December).

- In conjunction with the Michigan State Police, conducted brake pad and 2011 model year police vehicle testing.

FIGURE 3. JUSTNET PAGE VIEWS JANUARY-DECEMBER 2010

- Ballistics CPL: 28,599
- TechBeat: 15,236
- NIJ Standard-0101.06: 7,259
- 1033 Program: 6,259
- About NLECTC: 9,877
- Subscribe: 7,629
- Field Search: 5,398
- CommTech CoE site: 7,364
- 2010 Innovative Technologies for Corrections Conference: 7,364
- Handled approximately 900 requests for information and publications.

- Continued to expand and build online collaboration tools for the component centers.

For more information on NLECTC-National, contact Program Manager Mike O’Shea at (202) 305-7954 or by e-mail at michael.oshea@usdoj.gov.
The Law Enforcement and Corrections Technology Advisory Council (LECTAC) serves as a bridge between the NLECTC System and the criminal justice community. LECTAC is composed of leaders from law enforcement, corrections, forensic science and criminal justice professional associations. Members are appointed by the National Law Enforcement and Corrections Technology Center (NLECTC)-National, with NIJ approval, based on their records of distinguished service. The council provides an executive-level review of the high-priority needs identified each year by NIJ’s Technology Working Groups (TWGs) and recommends research and development priorities based on those needs.

The council also advises NLECTC on equipment testing, creation of standards, user guidelines and technical reports; it then relays
information about NIJ’s technology programs and products to the criminal justice community.

The TWGs identify technology priorities. LECTAC reviews the priorities and recommends those that are most important for research and possible funding. Through this process, LECTAC seeks to further the identification, development and implementation of new technologies that advance the operations of criminal justice agencies and ensure the safety of criminal justice personnel.

In 2010, LECTAC members reviewed 160 high-priority technology needs that the TWGs identified and selected the following top 10 priorities for recommendation to NIJ.

**2010 Top 10 Priorities**

Needs and requirements are presented alphabetically by priority areas; LECTAC views all 10 requirements as being equal in importance/priority.

- **Biometrics.** Biometric and information technology-based tools to confirm the identity of individuals.

- **Communications.** Interoperable standards-based computer-aided dispatch systems.

- **Communications/Corrections/Sensors and Surveillance.** Wireless communication detection/defeat technologies.

- **Community Corrections.** Technology to locate, track and communicate the location of offenders.
- **Corrections/Sensors and Surveillance.** Improved contraband detection and concealed weapon detection technologies.

- **DNA Forensics.** Tools for mixture interpretation of casework samples.

- **Electronic Crime.** Improved tools to detect electronic crime and to collect and process digital evidence.

- **Explosives.** Tools to detect and neutralize improvised explosive devices.

- **Less-Lethal Technologies.** Reliable, medically safe and effective less-lethal devices for law enforcement and corrections personnel to control combative/noncooperative individuals.

- **Pursuit Management.** Technology to remotely stop vehicles in pursuit situations.

For more information on the Law Enforcement and Corrections Technology Advisory Council, contact Program Manager Mike O’Shea at (202) 305-7954 or by e-mail at michael.oshea@usdoj.gov.
Larger criminal justice agencies (those with 50 or more sworn personnel) can access a full range of relevant scientific and technology-related information, including results from National Institute of Justice (NIJ) research, development, testing and evaluation through the services of the States, Major Cities and Counties (SMCC) Regional Center. This segment of the law enforcement population represents more than 73 percent of the officers serving in the United States (73.6 percent, according to the 2007 Census of State and Local Law Enforcement Agencies). The SMCC Regional Center provides a resource and outreach mechanism for these larger agencies, ensuring access to information concerning the resources and technology assistance activities of the entire National Law Enforcement and Corrections Technology Center (NLECTC) System.

Highlighted activities include:

- Hosted a symposium for State Association Directors of Chiefs of Police/Sheriffs in Annapolis, Md., in December, which 40 executive directors of state associations attended. The event included briefings from NIJ, SMCC and Centers of Excellence (CoE) staff
members; a mini tech fair highlighting SMCC and CoE projects; and a town hall meeting discussion between participants and NIJ Deputy Director Ellen Scrivner.

- Established a working relationship with the Major Cities Chiefs of Police Association (MCCPA). The SMCC Director attended a meeting of the MCCPA technology sub-committee in Kansas City, Mo., in June, and presented on the restructured NLECTC System to obtain the support of the group. He also presented at the MCCPA annual meeting at the International Association of Chiefs of Police conference in Orlando, Fla., in October.

- Developed standardized guidelines for conferencing and outreach for use by all component centers and drew up an overarching marketing/communications plan for the NLECTC System.

- Designed a new conference/exhibit display booth specifically for SMCC use.

- Developed and began prototype testing of a new customer relations management tool that will allow for better recording, tracking and reporting of assistance and outreach. Implementation is anticipated by spring 2011.

- Attended 14 regional outreach events, touching audiences varying in size from 46 to 1,700 practitioners.

For more information on the States, Major Cities and Counties Regional Center, contact Program Manager Mike O’Shea at (202) 305-7954 or by e-mail at michael.oshea@usdoj.gov.
THE NIJ AVIATION TECHNOLOGY PROGRAM

Giving Law Enforcement a Cost-Effective “Eye in the Sky”

The National Institute of Justice (NIJ) Law Enforcement Aviation Technology Program identifies and evaluates cost-effective, safe aviation alternatives for small, rural and tribal law enforcement agencies across the United States. The program, initiated in 2005, comprises a partnership between NIJ, the Sheriffs’ Association of Texas and the Center for Rural Development to identify and evaluate smaller aircraft that fit the surveillance, patrol and search-and-rescue operational needs of law enforcement agencies in a cost-effective way.

There are approximately 19,000 law enforcement agencies across the United States; roughly 80 percent are classified as small, rural, tribal and border agencies. Helicopters and larger aircraft, which can cost at least $3 million to purchase and thousands of dollars per hour to fuel and maintain, are not viable options for the majority of U.S. law enforcement agencies. The Aviation Technology Program seeks to help smaller agencies find and acquire aviation technology that best meets their needs. Small and rural law enforcement agencies have always faced the challenge of working within limited budgets, and the current post-recession budget climate is stretching the resources of smaller
agencies even further. Working with the aviation technology program, law enforcement in several neighboring jurisdictions have teamed up to pool their resources and share the costs of these aircraft for the common good.

Since 2006, the program has purchased 13 aircraft for less than $800,000; these aircraft support 136 law enforcement agencies. The program fleet consists of powered parachutes, fixed-wing light sport aircraft and gyroplanes. Each type of aircraft has distinct advantages and limitations (e.g., powered parachutes, while highly effective in surveillance missions, cannot fly in strong winds), and the Aviation Technology Program is committed to helping small law enforcement agencies find the type of aircraft that meets their specific needs.

The program also informs law enforcement agencies about the available options for low-cost aviation assets through its annual Aviation Technology Working Group (TWG) meeting, its partnership with the Airborne Law Enforcement Association and its attendance at a variety of conferences. In addition, the program has hosted “demonstration days” that manufacturers and interested law enforcement personnel attend as a way to showcase available low-cost technology.

**FIGURE 4. MEDIAN ACQUISITION COSTS**

*Note: The maintenance and fuel costs for the light sport aircraft were determined by using the average monthly costs experienced to date.*
During 2009 and 2010, the use of small aircraft by agencies across the country has yielded exceptional results:

- In August 2010, light sport aircraft loaned to Kentucky law enforcement through the Aviation Technology Program helped investigators locate and seize a marijuana crop valued at roughly $44,000.

- In September 2009, a 62-year-old woman and her grandson were rafting on the Stanislaus River in Ripon, Calif., when they became disoriented and fatigued. They called the police from a cell phone, and officials quickly dispatched a rescue boat and ground crew. Authorities were unable to determine the rafters’ exact location so they requested an aerial search using a powered parachute acquired with assistance from NIJ. The pilot quickly located the rafters and directed ground crews to their rescue.

- Aided the Guilford County (N.C.) sheriff’s Office with $26 million in narcotics recovery.
More information about these and other success stories is available at http://www.justnet.org/aviation.

To ensure best results, the Aviation Technology Program has assembled a TWG to help guide the program and identify and define aviation technology needs and operational requirements for the field. The TWG recently tasked the program with examining the potential benefits of using unmanned aircraft systems, which are easy to fly, relatively inexpensive to acquire and give law enforcement agencies a crucial “eye in the sky” capability.

Through partnerships with the Department of Homeland Security’s System Assessment and Validation for Emergency Responders Program, the Aviation Technology Program has acquired several small, unmanned aircraft systems that are currently being evaluated. Although the program provides for technical evaluation of these systems, it is also working closely with the Federal Aviation Administration to better understand and implement guidelines for public entities to launch these aircraft into the national airspace when a public safety situation warrants.

The program is currently completing work on a guidebook for the acquisition and implementation of low-cost aviation assets; the guidebook will be available in 2011.

For more information on the NIJ Aviation Technology Program, contact Program Manager Mike O’Shea at (202) 305-7954 or by e-mail at michael.oshea@usdoj.gov.
Following are some comments from individuals who participated in the National Institute of Justice’s (NIJ’s) 2010 technology institutes:

“This is the best money NIJ has spent. Great ideas, well organized, well done. This is the best training I have attended.”

“Finding out what worked or didn’t work for other agencies and why is invaluable.”

“Outstanding presentations by participants, very relevant.”

“The international speakers were extremely interesting and useful. It was helpful to hear how other countries are using technologies and the challenges they have experienced.”

“The participant presentations were excellent. They allowed others to see the inner workings of other agencies, allowing for using new technology and releases.”

“You have an excellent platform in which to distribute, share, collaborate and gather information. Continue the excellence.”

“The Institute was great. Thanks NIJ for all you do.”
Each year since 1998, through the National Law Enforcement and Corrections Technology Center (NLECTC) System, NIJ sponsors technology institutes that give law enforcement and corrections practitioners the opportunity to exchange valuable technical knowledge and share perspectives on how to solve problems. The first institutes targeted law enforcement officers, and those peer-to-peer interactive training sessions were so well received that the program expanded to add two more series of institutes that specifically target officers from small and rural agencies and those working in the corrections field. The additional series have been equally well received, as all three series generate post-institute survey feedback that is overwhelmingly positive. In fact, many participants often state it is by far the best training experience they have ever had. Networking extends from session to session as “alumni” from previous years often present at a current year’s institute, and NLECTC has established listservs that allow participants to keep in touch and continue networking and sharing ideas long after the institute ends.

The institutes immerse participants in a week-long learning experience by exploring current and emerging technologies and exchanging information on technology issues that affect the law enforcement and corrections communities. The institutes also allow NIJ to enhance its technology development programs based on participants’ experience and comments.

Institute participants have the benefit of learning from presentations and must themselves present on technology issues. At the end of each institute, participants are asked to complete a survey to evaluate its technological usefulness and suggest ways to enhance future meetings.

**Joint Law Enforcement Technology Institute**

The institutes are usually held in the United States and include speakers from other countries; in 2010, NIJ extended the institutes’ reach and visibility. In March, NIJ and the UK Home Office Scientific Development Branch jointly hosted a law enforcement technology institute in England, with support from the Small, Rural, Tribal and Border Regional Center and the States, Major Cities and Counties Regional Center. Law
enforcement practitioners from the United States and the UK were invited to discuss technology initiatives and issues with NIJ and NLECTC representatives, providing participants with different perspectives on how to solve similar technology problems and fostering professional collaboration and networking relationships. Discussion topics included technology implementation in rural and urban law enforcement environments, U.S. body armor efforts, license plate recognition systems and border security.

Technology Institute for Law Enforcement

The 2010 Technology Institute for Law Enforcement took place in Annapolis, Md., in August. Topics included officer-worn cameras, intelligence-led policing, video surveillance for traffic enforcement, school safety technology and demonstrations of various Aviation Technology Program aircraft that can be used for surveillance and other law enforcement operations.

Technology Institute for Corrections

The 2010 Technology Institute for Corrections took place in Baltimore, Md., in September. Participants learned about institutional and community corrections technology and issues, including facial recognition, unauthorized cell phone use in prisons and electronic monitoring with GPS. Tours of correctional facilities in Maryland were also conducted.

Technology Institute for Rural Law Enforcement

The SRTB Regional Center hosted two technology institutes for small and rural law enforcement practitioners in 2010 (one in May and one in October) in Coronado, Calif. Topics included innovative approaches to delivering police services when agencies are facing financial shortages. Technologies discussed included officer-worn cameras, the challenges of managing technology in small departments and proactive planning for active shooter situations.
For more information on NIJ’s law enforcement technology institutes, contact Program Manager Mike O’Shea at (202) 305-7954 or by e-mail at michael.oshea@usdoj.gov. For more information on NIJ’s corrections technology institutes, contact Program Manager Jack Harne at (202) 616-2911 or by e-mail at Jack.Harne@usdoj.gov.
Many Agencies, One Voice

If a speaker stands in front of a crowd and many people shout their questions, no individual concern stands out. If, however, the audience members confer and realize that many of them want to ask the same question and appoint one person to ask it, there is a much greater likelihood that the speaker will hear the question and answer it.

The 2010 National Summit for Small Law Enforcement Agencies took place in Ft. Myers, Fla., on Aug. 3-5, 2010, targeting small and rural law enforcement agencies with fewer than 50 sworn officers. Thirty-nine chiefs and sheriffs representing 27 states shared their ideas regarding the top issues facing small agencies.

The National Law Enforcement and Corrections Technology Center (NLECTC) System’s Small, Rural, Tribal and Border (SRTB) Regional Center hosted the event. The National Institute of Justice (NIJ) and SRTB selected the participants, who attended at no cost, based primarily on their recognized roles as leaders in the small and rural law enforcement community.

Participants identified their primary concern as the lack of a unified voice at the national level to present the concerns of small and rural
agencies. Attendees agreed that this concern must be addressed in order to attain their other important goals (see sidebar, “Top Concerns From the 2010 National Summit for Small Law Enforcement Agencies”) and developed a working plan to meet this goal.

“What we consistently heard is, ‘we just want one voice,’ ” says Scott Barker, then-director of the SRTB Regional Center. “Quite often, when the national organizations form committees and working groups, they typically select representatives from major cities. It isn’t that they have a hidden agenda, they just don’t realize that policing is different in rural areas. They’ve been asked in the past to have small agency tracks at conferences, and they’re willing, but they don’t know what to include. We’ve prepared a list of suggested topics that will help them with that.”

To respond to these concerns, NIJ and SRTB invited representatives from the International Association of Chiefs of Police (IACP), the National Sheriffs’ Association (NSA), the Federal Law Enforcement Training Center’s rural training institute and other major players to attend the event. This allowed all of the stakeholders to convene to learn about each others’ priorities.

**TOP CONCERNS FROM 2010 NATIONAL SUMMIT**

At the three-day summit, participants formed working groups that identified the top five issues facing small and rural agencies, as follows:

- **Representation.** Small agencies need to be represented in larger national organizations such as the International Association of Chiefs of Police and the National Sheriffs Association. Although the majority of agencies are considered small (50 or fewer sworn officers), neither organization recognizes them with a formal branch.

- **Funding.** There is a perception that the vast majority of funding goes to agencies with more than 50 officers.

- **Training.** Departments often cannot afford to pay overtime to cover staff positions while other officers are being trained. Also, nontraditional, computer-based, online training needs to be explored. Lastly, basic training needs to be standardized and subsequently adopted and accepted by all states.

- **Communications.** Federal “unfunded” mandates place undue hardships on small agencies. Also, there is a need to take control of standards for communications and not to allow product manufacturers to dictate what the criminal justice community needs to ensure safety.

- **Technology.** Law enforcement needs user-driven technology standards. Also, life-cycle management is critical to prevent vendors from making technology obsolete to force new equipment purchases.
The summit began by examining law enforcement’s specific needs; the participants soon realized that input from small and rural agencies outweighed all other goals. Participants agreed to try to work within the existing national organization framework, with a backup plan of starting their own association for small and rural agencies. As part of the existing framework, participants agreed to work through their state agencies to promote the “one voice” goal for small, rural, tribal and border agencies (see sidebar, “Results From the 2010 National Summit for Small Law Enforcement Agencies”).

Kim Wallace, chief of a six-officer police force in Dover, Tenn., says her state association has made plans to start a Rural Law Enforcement Committee, on which she will serve. “I was very pleased with the way the summit progressed,” Wallace says. “It seemed like we were all on the same page in feeling that small law enforcement agencies are under-represented.”

She adds, “I think that training is definitely an issue and it should be a priority for all agencies. A lot of smaller departments focus on in-house training due to budget restraints and it’s just not the same quality of training. I believe there is need for more funding in training specifically for smaller agencies, and this will allow smaller departments to seek out affordable opportunities for training that will benefit them.”

Chief Jeff Sale of the 14-officer Cheney (Wash.) Police Department, who played a key role in organizing the summit from the participant perspective, agrees that the event was a success and that, compared to the first summit held in 2009, participants came away with a better action plan.

“Yes, the number one issue is the sense that we, as small and rural agencies, don’t play a part in national policy issues,” Sale says. “Our needs differ from those of major metropolitan areas and we want a say in how law enforcement works in this country. The kind of feedback that I’m getting from around the country is this has been a long time coming. The perception has always been there, but the need to be heard has never been brought to the forefront and no one has said ‘Let’s do something about it.’ Now, we’re going to do something.”
Sheriff Lee Foster from Newberry County, S.C., noted that many participants returned to their respective local organizations to promote summit goals, a much-needed step.

“The number one item that came out of the meeting was the lack of representation,” said Foster, who leads a department of 47 sworn officers. “Ninety percent of law enforcement is rural, yet in front of Congress, a rural sheriff would not pull the same weight

RESULTS FROM 2010 NATIONAL SUMMIT

In the closing months of 2010, the individuals involved in the 2010 National Summit for Small Law Enforcement Agencies saw their efforts begin to pay off in numerous ways.

The following activities took place at the national level:

- Chief Jeff Sale of Cheney, Wash., and staff from the Small, Rural, Tribal and Border (SRTB) Regional Center presented on the summit at the Symposium for State Association Directors hosted by the States, Major Cities and Counties Regional Center. More than 40 executive directors from state-level sheriffs’ and chiefs’ associations attended the December event. Also, SRTB has received numerous invitations to present on the summit at state association meetings in 2011.

- Sheriff Ed Brady from Henderson County, Ky., and Chief Sale presented at the National Sheriffs’ Association (NSA) winter conference, and SRTB presented at the annual NSA conference in July 2011.

- Chief Sale and former SRTB director Scott Barker presented to the State Association of Chiefs of Police Branch at the International Association of Chiefs of Police (IACP) annual conference in October. IACP plans to explore the creation of a branch to address the needs of small and rural agencies; Chief Sale will attend a follow-up meeting.

The following activities took place at the state level:

- On Nov. 17, Chief Sale presented to the small agency committee of the Washington Association of Sheriffs and Chiefs. The committee moved to direct Chief Sale to send a survey to all association members detailing the priorities developed at the summit to generate feedback from the general membership. The members who were present supported a planned motion at the spring conference to send one chief and one sheriff from small agencies to annual or biannual meetings of the small agency groups at the IACP and NSA conferences.

- Chief Dan Weaver (ret.) of the Moscow (Idaho) Police Department presented on resources available through SRTB and Program Manager Danny Ball reported on the summit at a meeting of the Idaho Chiefs Association.

- Sheriff Randy Rogers of Coffey County, Kan., reported that both the Kansas Sheriffs’ Association and the Kansas Peace Officers’ Association have formed rural law enforcement committees. The Kansas Association of Chiefs of Police had taken the recommendation under consideration as of the end of 2010.


- Sheriff Ron Pierini of Douglas County, Nev., reported that the Nevada Sheriffs’ and Chiefs’ Association voted to approve the concept that NSA and IACP will provide more active committees as a voice for rural and small law enforcement agencies in the United States.
as a chief from a major city like Los Angeles or New York, or even a smaller one like Columbia (S.C.). We just don’t have the pull that the larger agencies have."

“The national organizations don’t have any special programs for small agencies, but they do for larger ones,” he added. “Rural areas are sparsely populated and spread out. In somewhere like Alaska, Montana or the Dakotas, a sheriff may have to cover thousands of square miles with just a few deputies. That’s a completely different picture and different needs than those of larger agencies. We need to make that known at the national level.”

**Highlights**

Small criminal justice agencies with fewer than 50 sworn officers, along with rural, tribal and border agencies, represent the largest number of criminal justice agencies in the United States (11,372 agencies, according to the 2004 Census of State and Local Law Enforcement Agencies). The SRTB Regional Center publicizes NIJ and NLECTC System programs and services to this historically underserved segment of the criminal justice agency.

Highlighted activities include:

- Released the Forensic and Crime Scene Tool Set (FACTS) program in beta form to agencies across the country. FACTS assists officers in the documentation and packaging of on-scene evidence through a step-by-step process based on the type of evidence encountered. The application was featured in the summer 2010 issue of TechBeat ([http://www.justnet.org/TechBeat%20Files/Process%20the%20CrimeScenewithFACTS.pdf](http://www.justnet.org/TechBeat%20Files/Process%20the%20CrimeScenewithFACTS.pdf)).

- Coordinated an evaluation of GPS-enabled emergency communications devices. These devices allow users to send periodic updates to a secure website so that others can track their locations. In the event of an injury or involvement in an incident, the wearer can push a “911 button” that will notify an emergency call center about the event and the user’s location. These devices use satellite communications
and do not depend on a particular cellular technology. This project was featured in the fall 2010 issue of TechBeat (http://www.justnet.org/TechBeat%20Files/GPS%20Device%20Hits%20the%20Spot.pdf).

- Distributed 8,056 informational DVDs/CDs on topics that include less-lethal technology, school safety, forensic and crime scene tools, and SWAT standards. In addition to receiving hard copies sent out by SRTB-RC, agencies across the United States also downloaded 4,764 videos from the SRTBRC.org website.

- Hosted, exhibited at, presented at or otherwise participated in 23 national conferences, including the NIJ Technologies for Critical Incident Preparedness Conference, Predictive Policing Symposium, Innovative Technologies for Corrections Conference and Annual Conference; the FBI National Academy Partners Fair and Associates Conference; and the National Native American Law Enforcement Association Conference.

- Conducted an evaluation of officer-worn video cameras, which many departments are using to augment their in-car video systems. Results were published in the fall 2010 issue of TechBeat (http://www.justnet.org/TechBeat%20Files/Officer%20Worn%20Cameras%20Expand%20Point%20of%20View.pdf).

- From June to December, when the position of liaison to the Federal Surplus Property Program was created, responded to 183 requests for assistance in using this program.

- Conducted 63 site visits to small, rural, tribal and border agencies along the Southwest border and in the Northwest.

- Initiated an evaluation of low-cost firearms simulation training systems; initial feedback indicates that this type of training is invaluable to small and rural agencies. Two systems are available for demonstration at conferences and technology events as space permits. An article on this project was included in the November 2010 issue of Law Officer (http://www.lawofficer.com/magazines/2010/november).
Hosted, exhibited at, presented at or otherwise participated in six state association or other conferences.

For more information on the Small, Rural, Tribal and Border Regional Center, contact Program Manager Mike O’Shea at (202) 305-7954 or by e-mail at michael.oshea@usdoj.gov.
“Keeping Track” Under Adverse Conditions

A trooper sets out across the Alaska wilderness, searching for signs of the illegal hunting reported in the area. Miles away from his starting point, his snow machine hits a buried rock and he is thrown from his vehicle, knocked unconscious by the fall. When he fails to report in to his colleagues, his personal tracking device tells them exactly where to look for him.

The tracking device mentioned in the scenario above probably sounds like every law enforcement commander’s dream come true. Thanks to the efforts of an extensive technology team (see sidebar, “A Team Effort”) and assistance from various Alaska law enforcement agencies coordinated by the Alaska Regional Center, that dream has moved closer to reality.

In July and October 2010, the Alaska Regional Center and Savannah River National Laboratory (SRNL) worked together to coordinate an advanced wireless tagging, tracking and location technology demonstration in Seward and the surrounding area. Funded in part by the National Institute of Justice (NIJ) and the U.S. Department of Energy, this developing technology could have applications for community corrections,
special response teams and SWAT teams, in addition to its potential use for seamless remote tracking of personnel. The technical team put it through its paces in locations as varied as a six-floor parking garage in Anchorage, the highway between Anchorage and Seward, a simulated avalanche and a small boat off the state's coast. The results from these various scenarios far surpassed those of existing commercial tracking technologies.

Major Matt Leveque of the Alaska State Troopers, who helped coordinate his agency’s assistance, says the ability to carry a device that would provide near real-time, highly accurate data in Alaska and in the nation’s other remote areas would be “spectacular.”

“Many law enforcement agencies have automatic location devices in their vehicles, but these require robust cellular or radio systems that cover an entire area. In Alaska, that’s just not physically possible. When the Alaska Regional Center asked us to help test this technology, we knew it would offer us many advantages,” Leveque says. “Currently, we try to maintain contact with satellite phones, but a trooper who is injured may not be able to get out the satellite phone. All we can do is hope we can follow their tracks. In Alaska, we’ve simply accepted that this is the way things work, so having this technology available would be a tremendous advantage.”

With those possibilities in mind, Leveque was quick to respond when Alaska Regional Center Director Bob Griffiths started to put together a law enforcement team to participate in the technology demonstration.

“Their jobs are often way out in remote areas, providing primary law enforcement and enforcing commercial fishing and hunting regulations. They work in some very rural areas,” Griffiths says. “We knew there were issues surrounding the need to track officers in remote areas and to track commercial fishing vessels and suspected rogue hunters. When SRNL approached us for assistance, we knew this project was a perfect fit. Todd Coleman and the rest of the SRNL team worked very closely with our task force to carefully define operational requirements for the different disciplines, then worked with their technology partners to integrate all these needs into one device that could potentially resolve these challenges.”
He adds, “We were totally blown away by where it would work. We’ve been strapped by relying on existing technology for so long. Alaska is an interesting place because high mountains and other geography block signals, but the same problems exist in the rural areas of the Lower 48.”

Those signal-blocking mountains and other aspects of a difficult terrain led the SRNL team to select Alaska for this initial testing effort, which began by using the technology to conduct a number of scenarios in the relatively good weather of July. The next step was to send the technology to the lab for revisions, then send it back to Alaska in October for more rigorous testing. Representatives of the various federal partners that funded the project viewed the October demonstration and were impressed, according to both Griffiths and Coleman. Depending on continued funding support, Coleman says he expects a prototype device to be available for field testing in the near future.

“At this point, we were only concerned with performance, not with packaging, so what we had was rather bulky and not portable. We need to get this into a small portable device that an officer can easily carry,” Coleman says. “We also plan to convene a focus group that will include not only representatives from our partner agencies in Alaska but also professionals from other parts of the country to help refine needs and requirements.”

In addition to the Alaska State Troopers, partner agencies include the Alaska Wildlife Troopers, the Alaska Department of Corrections and the Seward Police Department, jail system, harbor master and city administration. Representatives from those agencies, including Sgt. Marc Cloward of the Alaska Wildlife Troopers, who piloted both aircraft and watercraft in several of the scenarios, provided technical expertise and knowledge of local terrain.

“They wanted to test in both a snow cave and one surrounded by rock. In Alaska you’d think both were fairly easy to locate, but in reality, the geology/geography within the testing area did not provide for many cave options and the long days and warm weather in July did not make it that easy to find a snow cave either,” Cloward says, adding, “Aside from that, I simply flew a Piper Super Cub for them on floats and Bushwheels. We also
The technology used in the demonstration in Seward, Alaska, and coordinated by the Alaska Regional Center, is “a marriage of a lot of agencies’ efforts coming together to make a product,” says Todd Coleman of Savannah River National Laboratory. “We have highly leveraged other efforts.”

The technology’s basic requirements include the ability to:

- Operate independently of GPS as needed.
- Function without access to cell towers.
- Work without access to WiFi.
- Operate indoors, underground, in parking garages, in heavily wooded areas, in urban canyons and in other areas in which GPS signals often become lost.

The device uses Iridium satellites, which achieve higher signal strength than GPS satellites. New satellites come into range every four minutes and encrypted data points are downloaded to a ground station and placed on a server; its routers cover areas of approximately 17 miles in circumference.

“The important thing is that it does not rely solely on GPS, and it could communicate from remote areas and inside of buildings. Information was then tracked from a central location. Those were key,” says Bob Griffiths, Alaska Regional Center director.

Technology partners for the project included:

- Boeing, which supplied the Iridium-based tracking technology and satellite uplink modem with software.
- Argon ST/Boeing, which supplied an inertial measurement unit for three-dimensional indoor tracking.
- Cubic Defense Systems, which provided GPS trackers and software.
- Trimble, which provided a three-dimensional indoor tracking system based on radio frequency identification.
- On Ramp, which provided the short-range communication link for the Boeing, Argon ST, Cubic and Trimble devices.
- Fortress, which provided the ultra secure 802.11 communication link for data, voice and video.

Partners providing service and assistance included:

- Alaska State Troopers.
- Alaska Wildlife Troopers.
- Seward Police Department.
- City of Seward.
- Seward Harbor Master.
- U.S. Coast Guard Auxiliary.
- Alaska Association of Chiefs of Police.

Collaborating federal agencies included:

- U.S. Department of Energy, Office of Intelligence and Counterintelligence and Office of Packaging and Transportation.
- U.S. Department of Justice, Office of Justice Programs, National Institute of Justice.
- National Security Agency.
took my State Trooper patrol vessel out on Resurrection Bay. I had the local knowledge and equipment they needed, but the technical team folks are the ones that did all the relevant work,” Cloward says, adding, “I was pleasantly surprised by how well it performed and I could certainly see its potential for us. We have multiple outposts and we constantly deal with geographic challenges and unforgiving weather. When a trooper takes off in an airplane, vessel, ATV or snow machine for patrol and doesn’t show up when expected, it would be nice to pinpoint his exact location and whether he is stationary or moving. It would be awfully handy for a supervisor like myself to know where all of my troopers are at any given time when out of radio contact.”

**Highlights**

Located in the country’s largest state in terms of land area, Alaska’s criminal justice agencies serve nearly 700,000 residents and cover 586,412 square miles. Public safety professionals in Alaska face unique challenges to crime prevention, investigation and rehabilitation efforts. The Alaska Regional Center serves as a conduit to ensure that these widely scattered agencies in remote areas have complete access to the services of the National Law Enforcement and Corrections Technology Center (NLECTC) System.

Highlighted activities include:

- Provided technical assistance and support to a number of Alaska law enforcement agencies, including the Juneau Police Department, Wasilla Police Department, Nome Police Department, Hoonah Police Department and St. Paul Island Police Department.

- Supported Alaska in the implementation of its automated traffic reporting system, TraCS.

- Conducted outreach to Alaska criminal justice agencies through active participation in regular meetings and events of statewide associations, including the Alaska

- Implemented a statewide pawn shop data repository.

- Supported training for 10 agencies to participate in the Alaska Law Enforcement Agency Accreditation Commission.

- Exhibited at the Alaska Peace Officers Association annual training conference.

- Represented NIJ and NLECTC at two State Associations of Chiefs of Police meetings held by the International Association of Chiefs of Police (IACP).

- Conducted outreach activities to a number of criminal justice agencies, including the Alaska Department of Public Safety, Alaska Department of Corrections, Wasilla Police Department, Juneau Police Department, Anchorage Police Department, Seward Police Department, Hoonah Police Department, Fairbanks Police Department, North Pole Police Department and Soldotna Police Department.

- Participated in panel presentations at the IACP annual conference, NIJ Critical Incident Preparedness conference and NIJ Technology Institute for Law Enforcement.

For more information on the Alaska Regional Center, contact Program Manager Mike O’Shea at (202) 305-7954 or by e-mail at michael.oshea@usdoj.gov.
COMMUNICATIONS TECHNOLOGY CENTER OF EXCELLENCE

Highlights

The NLECTC Communications Technology Center of Excellence (CTCoE) assists NIJ in providing scientific and technology support to the public safety community by initiating and supporting public safety technology research, development and evaluations nationwide. The CTCoE’s primary mission includes:

- Supporting the demonstration, evaluation and adoption of communications technology by law enforcement, corrections and other public safety agencies
- Assisting in the development and dissemination of technology guidelines, operational standards and evaluation criteria.
- Providing and disseminating specialized technology assistance support to criminal justice agencies.

The current CTCoE was established in 2010 through the NIJ competitive award process. Since that time, the CTCoE has initiated the following projects designed to meet national public safety technology and evaluation needs:
- **Technology Integration.** Created a technology demonstration and integration lab to support the NIJ Technology Integration Pilot Project (TIPP). The NIJ TIPP focuses on the development of software-defined radio, cognitive radio, network bonding and antenna technology. NIJ’s TIPP lab supports the development and demonstration of recently funded public safety technology research and will aid in the integration and evolution of a single research architecture and platform for integrated field evaluations.

- **Operational Evaluation.** Established a Technology Operational Evaluation Program (TOEP) designed to foster comprehensive evaluation of public safety technologies. Under this program, the CTCoe has initiated an evaluation of the pioneering deployment of wireless broadband data network access technology in the 4.9GHz licensed public safety band in Brookline, Mass. Unlike standard technical evaluations, this study will include an operational evaluation examining business model issues, implementation and policy development, and the operational impact of the technology on the provision of specific law enforcement services. In cooperation with NIJ, the CTCoe is designing operational evaluations to assess the impact of other emerging technologies.

- **Public and Private Collaboration.** In support of the Associate Attorney General’s office and the Nationwide Public Safety Broadband Network, participated in the U.S. Department of Commerce Public Safety Communications Research (PSCR) program stakeholders’ meetings. CTCoE staff also participated in the Wireless Innovation Forum Public Safety Special Interest Group.

- **Research Dissemination.** Facilitated the NIJ Communications Technology Demonstration Project (NIJ CTDP) held in Sterling, Va. The NIJ CTDP included demonstrations of NIJ-funded wireless technologies designed by researchers from the Stevens Institute of Technology, University of California at Irvine, Utah State University and Virginia Tech. NIJ CTDP attendees included local, state and federal law enforcement officials.
**Frequency Planning and Management.** Continues to support ongoing operation and maintenance of the web-based Computer Assisted Pre-coordination Resource and Database (CAPRAD) system. The CAPRAD system provides tools and coordination for public safety frequency management. In addition, the CTCoE established logistical and technical support for members of the 700 MHz and 800 MHz Public Safety Regional Planning Committees (RPC) and the National Regional Planning Council (NRPC).

For more information on the Communications Technology Center of Excellence, contact Joe Heaps, policy adviser, communications and radio frequency spectrum issues at (202) 305-1554 or e-mail joseph.heaps@usdoj.gov.
Spreading the Word About Field Search

Field Search, a suite of software products developed by the National Law Enforcement and Corrections Technology Center (NLECTC,) is well known in the criminal justice community for being easy to use and available at no charge. This suite of products has another distinguishing characteristic: it has its own group of “ambassadors.”

NLECTC-Rocky Mountain originally offered classes to train individuals on the use of Field Search; however, in 2009, the Center switched to a wider approach, offering train-the-trainer classes from which Certified Field Search Instructors (CFSIs) graduate. These CFSIs in turn teach classes designed for other criminal justice professionals. As part of the NLECTC System’s recent reorganization, Field Search maintenance now falls under the Corrections Technology Center of Excellence (CoE), which continues to offer CFSI training.

“Basically the idea is that this growing group has become our ambassadors, or our training arm. NIJ gets more ‘bang for their buck’ using this approach,” says Joe Russo, Corrections Technology CoE director.
Field Search was designed specifically to be used in the field by criminal justice professionals who are not trained in the discipline of computer forensics. It enables them to quickly and efficiently search target computers and creates a detailed report of findings. The software rapidly locates and reports on Internet histories, images, multimedia files and results from text searches. Although Field Search was originally designed to assist probation and parole officers with sex offender management, criminal justice professionals (including law enforcement officers) have found it to be effective when examining computers for evidence of other crimes. Versions for both Macintosh and Windows are available for download from the NLECTC System website, JUSTNET (http://www.justnet.org).

According to Russo, when the NLECTC System moved away from classes to train individuals on the use of Field Search, it implemented a two-pronged approach that includes a one-hour video training component available through JUSTNET along with the CFSI program: “We select experienced power users for a two-day training session. They must pass a pretest to ensure they have skills needed during the CFSI training and they must agree to become the designated trainer for Field Search at their agency. Many of them also offer training classes to staff from other agencies as well.”

Individuals who complete the training receive a sample curriculum and test cases they can use when they teach training classes. The CoE offers two CFSI sessions each year, with up to 20 students per session; more details can be found on JUSTNET. The training is free, but students must pay their own travel and lodging expenses. Russo notes that some individuals are so eager to take the training that they pay the expenses themselves and even use personal leave time if their agencies are unable to fund the training.

“Implementing CFSI training allowed us to far exceed what we could have accomplished in the same timeframe by continuing the previous approach. Many of these individuals have trained hundreds of other users,” he adds.

One such individual is Erik McCauley of the Orange County (Calif.) Probation and Parole Department, who estimates he has trained 1,000 criminal justice professionals in the use of Field Search since December 2009 (this includes 193 Orange County probation
officers and private classes for other probation, parole and law enforcement officers throughout California). In one year, he taught 25 sessions. Although McCauley’s job requires him to perform more thorough computer forensics in a laboratory setting, he became interested in Field Search because he recognized the need for a tool that officers could use in the field. “Nothing else compares to Field Search for ease of use,” he says, and he has been able to expand its use to searching cell phones, digital cameras and even GPS navigation systems.

**SUCCESS COMES FAST WITH FIELD SEARCH**

Erik McCauley of the Orange County Probation and Parole Department shared an “immediate” success story with Corrections Technology CoE Director Joe Russo in the following e-mail:

“[In December 2010] I taught a Field Search class at LA Clear in Los Angeles to a group of about 20 students: Many different folks, Federal Port Police, Riverside Sheriff, LA school police, Seal Beach PD and Federal Pre-trial Probation, who has been very active of late in pursuing our cyber criminals…anyway, the class was good, very engaged and most everyone got 95 or 100 on the test, again a great class. So I just got a call from a student who was in the class and is a Federal Probation PO. THIS IS LESS THAN THREE HOURS AFTER THE COURSE. He had one of his sex offenders in custody after going to his home and discovering he was in violation.

“The student said that when he walked into the home, the probationer already had wiping software running on the computer. The officer noticed it and stopped the application, but then the computer “spontaneously” shut down. The probationer was reluctant to provide the username and password, and after providing multiple false possibilities, he offered that perhaps he could “do it better” by himself. So he entered the password and voila, it worked (strange eh?). So they got into the machine and noticed the guy had a detailed Internet history including various purchases of “cyber books” for the Kindle from Amazon. The officer then used a play straight from the …playbook to question the probationer based on the material he discovered. The probationer was not evasive when asked if he owned a Kindle, and when asked if he had read any good books lately, he said he had and named them. The names corresponded with Internet artifacts the officer had also obtained, indicating the probationer had accessed the Internet to purchase the e-books only a few days ago, in direct violation of the terms of his probation.

“When my student called I could hear the excitement in his voice. The thrill of being able to hone one’s professional skills while holding people accountable for their deviant and illegal behavior…again, only three hours after the class. Very cool.

“Gentlemen, I cannot thank you enough for being part of this project. I’ve trained more than 100 good men and women who now take that technology into the field to protect our communities….what an honor. I can only dream of the future as this technology continues to roll out across the nation. I just thought you would get a kick out of this story.”
“This has been all-consuming for me for the past year. I create custom thumb drives for my students, put together handouts, and I give them a small laminated reference card for quick refreshes so they don’t have to go back through the whole manual,” McCauley says. “I constantly get creative and useful ideas from the students in my class too, they say ‘I used it for this’ or ‘Have you tried that?’ Everyone benefits.”

For more information on Field Search, visit http://www.justnet.org/Pages/fieldsearch.aspx.

**Highlights**

The University of Denver operates the Corrections Technology CoE, which serves as the authoritative resource in the NLECTC System for both practitioners and developers with respect to technologies that support institutional and community corrections. The CoE’s position at the University of Denver allows it to leverage a wide array of multidisciplinary research units to accomplish its mission.

In its primary role, the CoE assists in the transition of technology from the laboratory into practice by first adopters in the correctional community. Specifically, the CoE supports the National Institute of Justice’s (NIJ’s) research, development, test and evaluation activities by:

- Helping NIJ identify practitioner technology requirements by coordinating and conducting Technology Working Groups.

- Supporting NIJ research and development programs by assisting with the definition and refinement of program objectives, assessing ongoing NIJ projects, scouting relevant technology efforts and participating in national and regional groups.

- Testing, evaluating and demonstrating technologies by conducting and coordinating operational evaluations and by conducting, facilitating and coordinating demonstrations with corrections agencies.
Supporting the adoption of new technologies by introducing these tools to practitioners, ensuring that developers are aware of practitioner requirements, assisting developers in commercialization and supporting first adopters in evaluating effectiveness.

Coordinating and developing technology guidelines for planning, selecting and implementing technology solutions.

Providing technology assistance and support to all U.S. corrections agencies; this includes giving advice about science and engineering matters and assisting first adopters with new tools and methods.

Highlighted activities include:

- Managed the Offender Tracking Standard Special Technical Committee, which met 10 times and is working to complete its needs and requirements statements and a selection and application guide.

- Planned and executed the first Innovative Technologies for Corrections conference, held in June in Fort Lauderdale, Fla. This event included 24 workshops in two tracks — institutional corrections and community corrections. A total of 228 individuals from the United States, Canada, U.K., Australia, Turkey and Chile participated in this conference.

- Managed the distribution of Field Search software. In 2010, criminal justice agencies submitted 1,103 requests for the software, which was downloaded 1,739 times. Law enforcement and corrections agencies from several other countries also requested the Field Search software. As of Dec. 31, 2010, the NLECTC System has received 3,853 requests and the software has been downloaded a total of 7,088 times.

- Managed a project to help New Orleans determine the optimal capacity for a new jail. Specifically, helped conduct a study that examined historical trends (crime,
incarceration, population, etc.) to make a base 10-year projection analysis of future jail-bed needs.

- At the invitation of the Secretary of the California Department of Corrections and Rehabilitation, participated as a member of the Sex Offender Supervision and GPS Monitoring Task Force. The state created the task force in response to a number of high-profile crimes committed by sex offenders who were tracked via GPS. The Secretary received a report containing recommendations for strategies that will lead to the most effective use of GPS as part of a sex offender treatment and supervision plan.

- Managed the Rocky Mountain Technology Assessment Committee (RMTAC), made up of representatives from Departments of Correction in Colorado, Kansas, Montana, Nebraska, New Mexico, North Dakota, Oklahoma, South Dakota, Texas and Wyoming, along with representatives from the Federal Bureau of Prisons and a number of local sheriff’s departments. RMTAC evaluates new correctional technologies and makes recommendations to NIJ for further research, development, testing or evaluation.

- Managed the Institutional Corrections Technology Working Group and the Community Corrections Technology Working Group, gathering and analyzing practitioners’ technology requirements and forwarding them to NIJ to inform its research, development, testing and evaluation process.

- Managed the Electronic Monitoring Resource Center, an online resource containing material related to electronic monitoring of offenders in the community. In 2010, 73 new users registered for the site and staff added 27 new documents. The site has a total of 835 registered users and 437 documents.

- Presented at a number of conferences, including the Corrections Technology Association Conference, NIJ Conference, NIJ's Corrections Technology Institute, the Warden's Peer Interaction Group Training conference and the American Correctional Association (ACA) Conference.
Supports professional associations such as the American Probation and Parole Association (APPA), ACA and the American Jail Association.

Contributed content for articles appearing in TechBeat, Colorado Law Enforcement Officers Association’s Journal, Corrections Today (ACA) and Perspectives (APPA).

For more information on the Center of Excellence for Corrections Technology, contact Program Manager Jack Harne at (202) 616-2911 or by e-mail at Jack.Harne@usdoj.gov.
CRIMINAL JUSTICE ELECTRONIC CRIME TECHNOLOGY CENTER OF EXCELLENCE

Highlights

In 2010, the National Institute of Justice (NIJ) established the Electronic Crime Technology Center of Excellence (ECTCoE) to help build the capacity of state and local law enforcement to handle electronic crime prevention and investigation as well as digital evidence collection and examination. ECTCoE staff members work with NIJ’s Office of Science and Technology electronic crime portfolio and colleagues in law enforcement, academia and the private sector to provide state and local law enforcement with the tools, technology and training they need.

Highlighted activities include:

- Launched the ECTCoE website at http://www.justnet.org/ect_coe/Pages/Home.aspx to provide the criminal justice community with the tools, technology and reference resources needed to build their capacity to serve the public. The website includes a keyword searchable database of all available electronic crime and digital evidence training; a searchable database of electronic crime investigation, digital evidence and cell phone tools and technologies; and a technology transfer capability to disseminate electronic crime, digital evidence and cell phone tools and technologies developed through NIJ funding.
Conducted a meeting to identify criminal justice electronic crime, digital evidence and cell phone needs, and developed recommendations and expected results of NIJ grant funding solicitations.

Performed electronic crime and digital evidence tool and technology testing and evaluations on a number of developing technologies, including CrowBar, Mobile Phone Seizure Guide, TrueCrypt, EnCase Portable, RF Blocking Tent, Redlight Pornography Scanner, Lantern, SAFEBoot and Adroit Photo Forensics. Submitted four testing and evaluation reports for NIJ approval and publication; six additional reports are being developed.

Conducted a review and evaluation of current and recently completed projects supported by NIJ funds.


For more information on the Criminal Justice Electronic Crime Technology Center of Excellence, contact Electronic Crimes Program Manager Martin Novak at (202) 641-8823 or by e-mail at Martin.Novak@ojp.usdoj.gov.
NamUs Helps Identify the Missing

Paula Davis, 21, of Kansas City, Mo., missing for 22 years. Luis Fernandez, 20, of Omaha, Neb., missing for two years. David Brennesholtz, 49, out of touch with his family in Islip, N.Y., for several years. Leland Torrey, 41, of Maricopa County, Ariz., missing for more than a year. A common thread unites these four people across geography and time: all of their families finally know what happened to their loved ones. They are among the 41 individuals as of Dec. 31, 2010, whose remains have been identified and whose missing person cases have been closed due to the existence of the National Missing and Unidentified Persons System (NamUs).

According to its website, NamUs is “a clearinghouse for missing persons and unidentified decedent records.” “It sounds so simple, but it’s a tremendously powerful tool for law enforcement and families of missing persons,” according to senior NamUs coordinator Billy Young. “Before, there wasn’t a whole lot families could do,” Young says. “Law enforcement is overburdened and families are always trying to help. This is a way they can work together.”

NamUs, developed with funding from the National Institute of Justice (NIJ), consists of two databases—one for Unidentified Persons/
Remains and one for Missing Persons. Medical examiners and coroners provide information for the Unidentified Persons/Remains database; it includes characteristics ranging from basic descriptors of gender and race to detailed descriptions of scars, tattoos and dental records. The level of detail provided depends on the condition of the person’s remains.

Anyone who registers to use the site can create an entry for the Missing Persons database; family members in particular are encouraged to include every detail they can recall, no matter how trivial. Law enforcement agencies are also encouraged to enter their missing persons cases into the database. Certain information is restricted and is available to law enforcement users only.

NamUs staff verify entries in the Missing Persons database before they are published; once posted, the system immediately cross-checks new entries against the Unidentified Persons/Remains database and posts alerts about possible matches to the case manager. Users can also manually search the database for potential matches.

The Bureau of Justice Statistics estimates that, in a typical year, medical examiners and coroners handle approximately 4,400 unidentified human decedent cases, 1,000 of which remain unidentified after one year (Medical Examiners and Coroners’ Offices,

### WHY USE NAMUS?

Some of the benefits that law enforcement officers can realize from using NamUs include:

- Restricting sensitive case information.
- Transmitting dental records and radiographs via e-mail to permit immediate comparisons by expert odontologists.
- Printing comprehensive case reports from the system.
- Using the system’s extensive search capabilities. Investigators can modify search parameters to broaden or narrow searches based on case-specific information such as date last seen, demographics, dental information and distinct body features.
- Accessing subject-matter experts such as anthropologists, odontologists, fingerprint experts and DNA analysts at no cost.
- Using automated searches of missing persons records in side-by-side comparisons with unidentified persons records. Cases with similarities are automatically presented to the investigator, allowing the performance of exclusions (with justification).
HELP FROM FAMILIES AND STRANGERS

Paula Davis. In early 2010, the family of Paula Davis, who had been missing since 1987, announced that her remains had been positively identified thanks to NamUs. Her body had been found in Montgomery, Ohio, only 14 hours after her family reported her missing from Kansas City, Mo., but had not been identified. She was positively identified when her sister, Stephanie Clack, saw a NamUs public service announcement and began searching the database. Clack identified her sister from descriptions of her unique tattoos—a unicorn and a red rose—that the NamUs record contained. Family DNA reference samples from Davis’ father led to the positive identification. More information about this case is available at http://www.firstcoastnews.com/news/local/news-article.aspx?storyid=155837&catid=6.

Luis Fernandez. Officer Jim Shields of the Omaha (Neb.) Police Department learned about NamUs at a conference held at the University of North Texas Center for Human Identification in March 2009. He entered the Luis Fernandez case into the database immediately on his return from the conference. A civilian located a possible match with remains found in Iowa only one month later; an inconclusive search with dental records was conducted and finally a DNA test confirmed Fernandez’ identity on Jan. 11, 2010. To read more about this case, visit http://www.omaha.com/article/20100513/NEWS01/705139864/.

David Brennesholtz. On March 8, 2008, police in Clearwater, Fla., found the body of an unidentified male and entered a record into NamUs in July 2008. In November 2009, Sue D’Agostino from Islip, N.Y., saw a NamUs public service announcement and began searching the Unidentified Persons/Remains database for information about her brother, David Brennesholtz. Her family had not heard from him in several years. After locating a potential match, D’Agostino contacted the Pinellas County Medical Examiner’s office and told officials she thought she had found her brother. Family DNA reference samples from D’Agostino and her mother positively identified Brennesholtz on May 10, 2010. For more information about this case, visit http://www.policeone.com/police-products/communications/articles/2775084-Online-database-and-notification-system-aids-in-resolution-of- Fla-case/.

Leland Torrey. Leland Torrey left his home in Maricopa County, Ariz., on July 27, 2009, taking his handgun with him in his vehicle. The Phoenix Police Department entered him into the NamUs database on Dec. 12, 2009. Those records were used to help positively identify Torrey’s remains, which were found by a hunter in the Woolsey Peak Wilderness in late October 2010.

As of December 2010, NamUs included 5,672 missing persons entries and 7,407 unidentified remains entries. Registered users totaled 8,095, including 6,141 members of the public, 1,922 law enforcement professionals and 32 coroners.

“Before NamUs, several local and state agencies had websites similar in concept to NamUs in place, most notably Clark County in Nevada and Fulton County in Georgia,” Young says. “They put out information about their unidentified decedents and it was

2004, http://bjs.ojp.usdoj.gov/index.cfm?ty=pbdetail&iid=782). As of 2004, more than half of the nation’s medical examiners’ offices did not have a policy for retaining records of unidentified human remains, including x-rays, DNA or fingerprints. This makes it very difficult to compare records across jurisdictions. As of December 2010, NamUs included 5,672 missing persons entries and 7,407 unidentified remains entries. Registered users totaled 8,095, including 6,141 members of the public, 1,922 law enforcement professionals and 32 coroners.

“Before NamUs, several local and state agencies had websites similar in concept to NamUs in place, most notably Clark County in Nevada and Fulton County in Georgia,” Young says. “They put out information about their unidentified decedents and it was
successful. NamUs takes this to a national level. People travel all over the country and this way the whole country is helping you search.”

Clark County Coroner Michael Murphy welcomes the opportunity that NamUs provides for nationwide search capability and he hopes the effort may someday expand to the international level. “The real key is that this provides an opportunity for the different disciplines involved in missing persons cases, especially for families, to be involved,” Murphy says. “This is monumentally important to these families. When we talk to families, one of their greatest concerns is that they feel they are set aside. This lets them be involved in the resolution of their own pain and anguish.”

Both Murphy and Young emphasized that the key to NamUs’ continued success is making law enforcement and the public aware of what the system can do. As Murphy states, “The more we can get people to be aware, the more entries they will put into the system, and the higher the probability of solving more cases. That’s what it’s all about. It isn’t about anybody getting credit. I have a friend who says if everyone would stop worrying about credit, more would get done. That’s what happened with NamUs, people in the community just rolled up their sleeves and this is the result.”

The Forensic Technologies Center of Excellence (CoE) has played a key role in the maintenance and promotion of NamUs since its launch. Links and additional information can be found on the National Center for Forensic Science’s (NCFS’s) website (http://www.ncfs.org); NCFS is the main host agency for the CoE.

**Highlights**

The National Forensic Science Technology Center hosts the Forensic Technology CoE, which supports NIJ research, development, testing and evaluation activities within the DNA and general forensics portfolios and related areas by:

- Identifying technology requirements.
- Supporting NIJ’s research and development programs.
Testing, evaluating and demonstrating technologies.

Supporting the adoption of new technology.

Developing technology guidelines.

Providing specialized technology assistance and support to U.S. criminal justice agencies.

Highlighted activities include:

- Held a series of Tech Transition Workshops designed to help facilitate the transition of novel technologies into practice by operational crime laboratories. These workshops highlight technologies developed under NIJ's forensic science research and development programs. For more information, visit http://projects.nfstc.org/tech_transition/.

- Through the DNA Audit and Grant Progress Assessment Program, audited 99 DNA laboratories, including 93 government labs and six private vendor labs, and reviewed 323 NIJ forensic science grants, representing more than $149 million in funding to 142 agencies in 33 states.

- Held the Impression and Pattern Evidence symposium on Aug. 2-5, 2010, in Clearwater Beach, Fla., which 350 practitioners and researchers attended. The event enhanced information sharing and promoted collaboration among the impression and pattern evidence, law enforcement and legal communities. For more information, visit http://projects.nfstc.org/ipes/.

- Evaluated and presented on the results of evaluations of various technologies, including PHAZIR™ Near Infrared, MMC Presumptive Test Kits, four Raman handheld instruments (comparison), new amplification kits (assessment), a quantitation study to assess standards, application of new semiconductor lasers to new and existing fingerprint detection chemistry and monochromatic light source and banded light source for detection of evidence.
Held the Forensic Death Investigation symposium in Scottsdale, Ariz., on June 7-9, 2010, with approximately 170 participants. Attendees explored new technologies and tools (such as NamUs) and discussed standards, training, certification, accreditation and potential solutions to enhancing policy and practice in the criminal justice system.

Expanded the collection (to 2,453 titles) maintained by the National Clearinghouse for Science, Technology and the Law (NCSTL) at Stetson University College of Law, a Forensic Technologies CoE partner. NCSTL provides an online resource with a national scope that includes information about law, science and technology.

Hosted the Y-STR National Database through the National Center for Forensic Science, a partner agency located on the campus of the University of Central Florida in Orlando.

Finalized 13 process maps and reports for seven laboratories through partner agency Midwest Forensic Resource Center, a support and research facility in the U.S. Department of Energy’s Ames Laboratory on the campus of Iowa State University. Throughout the year, the team mapped and identified opportunities for improvement in DNA analysis and receipt of evidence.

Hosted NIJ’s Expert System Testbed (NEST) Project through partner agency Marshall University Forensic Science Center. Expert systems are software programs or a suite of software programs used to rapidly process DNA data and generate final DNA results. The NEST Project evaluates commercially available expert systems for DNA mixture analysis as well as innovative technologies that are currently in the developmental stages. For more information, visit http://forensics.marshall.edu/NEST/default.html.

For more information on the Forensic Technology Center of Excellence, contact Office of Investigative and Forensic Sciences Director Mike Sheppo at (202) 353-3756 or by e-mail at Mike.Sheppo@usdoj.gov.
Highlights

In October 2010, NIJ implemented a new Center of Excellence to provide strategic planning, evaluation and outreach support to its four portfolios related to information technology and analytics:

- Information-led policing.
- Geospatial technologies.
- Operations research.
- Modeling and simulation.

CoE staff are conducting an initial strategic assessment of the four portfolios, including:

- Identifying gaps between the current state of technology in each portfolio and what is needed to support desired future technological capabilities. These needs range from general issues such as affordability to requirements for specific tools.
Identifying the desired capabilities for technology in each portfolio and assessing how technologies can enhance specific criminal justice functions.

Examining the current state of technology and research and development.

Generating and assessing options for new technology research and development initiatives and determining which options are most promising or offer the potential for significantly improving agencies’ abilities to carry out their missions while being affordable and reasonably low-risk.

The assessment will capture and analyze practitioners’ technology needs, provide recommendations to NIJ on research, development, testing and evaluation investments over the next five years and provide developers with recommendations on the types of solutions that would best address practitioners’ needs. Key to the strategic assessment is a robust liaison and outreach program with both practitioners and technology developers. To that end, CoE staff:

Meet with representatives from more than two dozen criminal justice agencies of different sizes and attend multiple conferences to learn about current technologies, needs for improvement and possible solutions.

Coordinate efforts for four NIJ Technology Working Groups (TWGs), one for each portfolio, to obtain expert opinion on technology needs and feedback on current IT and analytics research for criminal justice.

Visit a number of ongoing NIJ-funded projects to assess the state of current research on criminal justice IT and analytics.

Meet with both government and commercial technology providers to assess the state of current products for criminal justice IT and analytics.
The CoE also sponsors the Crime Mapping and Analysis Program (CMAP), which provides crime mapping classes for criminal justice personnel.

For more information on the Information and Geospatial Technologies Center of Excellence, contact NIJ Program Manager Steve Schuetz at (202) 514-7663 or by e-mail at Steve.Schuetz@usdoj.gov.
Highlights

In October 2010, NIJ launched a new Center of Excellence dedicated to supporting sensor, surveillance and biometric technology projects. Areas of focus include concealed weapons detection, through-the-wall surveillance, novel sensors, video surveillance, handheld biometric devices and biometric information technologies. The primary role of the Center is to assist in the transition of law enforcement technology from the laboratory into practice by first adopters.

The Sensor, Surveillance, and Biometrics Technologies Center of Excellence (SSBT CoE) provides scientific engineering advice and support, research and development program support, and outreach and networking to law enforcement and corrections agencies nationwide. The Center offers the following services:

- Identifying technology and operational requirements.
- Supporting NIJ’s research and development programs.
- Testing, evaluating and demonstrating technologies.
- Supporting the adoption of new technology.
Developing technology guidelines and standards.

Providing technology assistance and support to criminal justice agencies nationwide.

SSBT CoE staff spent the closing months of 2010 planning activities for 2011, which will include:

- Biometric device test and evaluation consisting of independent test, evaluation and application analysis of biometric devices to improve ongoing research and development and provide an operational context for use by law enforcement.

- Evaluation of the performance of mobile fingerprint capture devices in laboratory and operational environments, conduct of research analysis into the comparison of contact and contactless activities and technologies, and investigation of the operational use of contactless fingerprint capabilities in law enforcement.

- Evaluation of the performance of a portable long-range 3D Facial Recognition Binocular prototype in laboratory and operational environments, and investigation of the operational use of facial recognition at a distance capability in law enforcement.

- Evaluation of software tools developed to improve the match accuracy of latent fingerprints. The FBI Biometric Center of Excellence will support these test and evaluation activities by providing access to a robust testbed database of rolled fingerprints and corresponding latent prints on surfaces that would be collected using conventional forensic methods. The software tools will then be applied to the latent prints and compared to the test database to determine match accuracy and speed.

- Investigation of the interoperability of biometric databases (e.g., fingerprint, face) at the federal, state, local and tribal levels, including development of an assessment of horizontal and vertical searches across fingerprint and facial databases. Investigation will focus on database architecture, software tools, data formats, standards and requirements at a high summary level to determine the state of interoperability and general operational performance, and identify existing challenges/deficiencies.
Investigation of field deployment of body-worn camera systems by law enforcement practitioners, particularly SWAT and other tactical responders. These cameras offer significant advantages in keeping officers safe, enabling situational awareness to support leadership personnel and providing evidence for trial. A major issue surrounding the use of these body-worn systems is a lack of technical standards for selecting equipment and operational standards for protocols and procedures. The Center plans to perform an assessment and develop lessons learned and best practices.

Conduct research analysis of emerging and state-of-the-art sensor research and development, including commercial products, to provide NIJ with an updated perspective on relevant sensor technologies. Priority technology topics connected to real-world law enforcement needs will be investigated to develop a snapshot of currently available devices, sensors and systems within specific topic areas. The Center will assist NIJ in determining if commercially available devices exist to meet law enforcement needs or if additional research and development efforts are needed to bridge technology gaps. Possible topics of focus include tactical cell phone management, or the ability to acquire and manage access to a specific telephone in a tactical situation (e.g., hostage or other SWAT type operations) in order to safeguard operational security and ensure officer and public safety, and a small, portable HazMat sensor detector that will warn a first responder of multiple types of chemical hazards on arrival at an accident or disaster scene.

For more information on the Sensor, Surveillance, and Biometric Technologies Center of Excellence, contact NIJ Program Manager Mark Greene at (202) 307-3384 or by e-mail at Mark.Greene2@usdoj.gov.
“It Can Happen Here”

The Ohio School Resource Officers Association, the Boise (Idaho) Police Department and every Pennsylvania school district are just a few of the organizations that account for the countless downloads and more than 3,000 copies distributed of “It Can Happen Here,” an admired school safety documentary video. The video was filmed in high definition and produced by the Weapons and Protective Systems Technologies Center of Excellence (WPSTC). No money was spent to market or advertise “It Can Happen Here”; all requests for the video were generated through the Center’s extensive national and international law enforcement and educational network.

According to Drs. Timothy Brungart and John Leathers, co-producers of “It Can Happen Here,” the documentary is designed to put a “face” on school safety by informing and encouraging stakeholders in school safety to prepare for emergencies. The video is also being used by the Royal Canadian Mounted Police and members of Pennsylvania State University’s (PSU’s) International Law Enforcement Forum, which includes the United Kingdom Association of Chiefs of Police.
The video, released in spring 2010, focuses on the Columbine and Platte Canyon school shootings in Colorado and the valuable lessons that communities can learn from these tragedies. Produced by the WPSTC at PSU, its host agency, the 60-minute video includes interviews with victims’ parents, school administrators and local law enforcement. It emphasizes the Colorado School Safety Center’s efforts to lead the nation in school safety preparation by implementing school safety plans, SWAT team drills, student exercises and other mitigation efforts.

It also examines shootings at the West Nickel Mines Amish school, other U.S. schools and schools in other countries. The video discusses technology solutions that can help law enforcement, including less-lethal technologies, metal detectors and enhanced use of surveillance cameras. In addition, it includes an interview with the senior Israeli police and public security attaché for North America about successful school safety strategies used in that country’s ongoing struggle with terrorism. “It Can Happen Here” also offers a list of resources such as websites, reference materials and contacts for help with writing and implementing school safety plans.

After PSU President Graham Spanier saw the video, he sent a copy along with a personal letter to each of the 501 Pennsylvania public school superintendents, all 23 PSU campuses and the members of the Pennsylvania House and Senate Education Committee. His endorsement spawned other orders throughout the state, from agencies such as Non-Public Schools and Student Support Services and from other individuals and law enforcement agencies who viewed one of the copies sent out to the public schools.
The positive feedback on the video started even before Spanier’s letter was sent, from members of the National Institute of Justice’s (NIJ’s) School Safety Technology Working Group (TWG), which advocated increased education as a top priority for NIJ’s School Safety Program for several years.

“They identified the need for education as a high-priority focus. Education can take a lot of different forms, but we thought a video would be more effective than a manual. We felt it would offer more and better opportunities to disseminate the message,” says Brungart. “We wanted to take advantage of some of the contacts that were developed by the TWG members and use the actual voices of real people to not only educate viewers, but also to instill a sense of urgency into the audience,” he adds.

The WPSTC team obtained contacts from the TWG members and began working with schools that had taken an active role in planning for school safety. Subsequently, they made several trips to Colorado to speak to officers, parents and school administrators who were involved in the Columbine and Platte Canyon incidents, and also worked with the Pennsylvania State Police and two of the officers who were among the first responders at the West Nickel Mines Amish school shooting.

“When we approached our TWG members about putting a face on school safety and we wanted someone to talk about contraband detection, video surveillance, SWAT tactics and so on, they invited us to come and visit their schools. One of them heads the school safety program in Alabama, another is the coordinator of internal security at a school district in Kentucky. From there we went on to schools in Chicago and in Oregon, and finally to Denver,” Brungart says. “We had a firm agreement that everyone who participated could do a prescreening and anything they wanted to be removed would be taken out. This helped everyone to feel more comfortable. Once they saw we were trying to let them tell their stories, to talk about what they think is important, then they really opened up.”

The resulting video reaches out to viewers through the “faces” that the WPSTC team put on the tragedies and it also provides practical and invaluable information. “Its purpose was to allow others to provide advice based on their experiences and to act as a
springboard for discussion for those involved in school safety nationally and internationally. We also provide resources to generate a school safety plan if one doesn’t exist or to help schools make improvements to an existing plan,” Brungart says.

Leathers concludes: “If you were a film critic you might cite redundancies in the video because those individuals who have been involved in a school shooting—parents, students, police—individually emphasized the same key points.” These points include, he says, preparation counts; schools, police, firefighters and other school safety stakeholders must take collaborative actions and continuously train together to respond to specific types of threats; and technologies can enhance school safety programs, but only in situations where specific needs, objectives and operational details are well defined, and they should never be used as a substitute for personal interactions.

“It Can Happen Here” is available at http://www.prod.justnet.org/Pages/RecordView.aspx?itemid=2519. According to WPSTC policy, the video may be used in any setting, provided it is used to further school safety and credit is given to the Center.

**Highlights**

PSU operates the WPSTC as part of the National Law Enforcement and Corrections Technology Center System, supporting NIJ’s efforts related to the safety and effectiveness of protective equipment tools and technologies intended for use by criminal justice professionals. The WPSTC includes programs and projects within PSU’s Applied Research Laboratory, Institute for Non-Lethal Defense Technologies and Pennsylvania Transportation Institute. It also includes a partnership with the Denver Research Institute at the University of Denver.

The WPSTC supports NIJ research, development, test and evaluation activities within the areas of improvised explosive device defeat, less-lethal devices, officer safety equipment and pursuit management.
Highlighted activities include:

- Coordinated the completion of Special Technical Committee efforts to revise the NIJ standards for restraints and develop a new NIJ standard for duty holsters. These committees, composed of practitioners and technical experts, each created a standard, a certification program requirements document and a selection and application guide (the latter for practitioner use). These documents are expected to be published in 2011 or 2012.

- Created a “new equipment” page on the National Bomb Squad Commanders Advisory Board website, which will ultimately allow the bomb squad community to swap bomb squad-specific equipment through the U.S. Department of Defense Redistribution Program.


- Completed research on tire deflation devices and presented the results to the NIJ Pursuit Management Technology Working Group at its fall 2010 meeting.

- Completed the report Practitioner Perspectives on School Safety.

- Completed a study of performance variability in Tasers™, which found apparent purchase-year trends in pulse statistics for total charge, pulse energy and pulse rate.

For more information on the Weapons and Protective Systems Technology Center of Excellence, contact NIJ Program Manager Brian Montgomery at (202) 353-9786 or by e-mail at Brian.Montgomery@usdoj.gov.
Each year in May since 1997, the Mock Prison Riot™ is held at the former state penitentiary in Moundsville, W. Va. Hosted by NIJ and the West Virginia High Technology Consortium Foundation, the riot is used to showcase and evaluate emerging and existing law enforcement and corrections technologies. The event has grown from a one-day event to a four-day, comprehensive law enforcement and corrections tactical and technology experience that includes more than 40,000 square feet of exhibit space, training scenarios, technology demonstrations, technology assessments and evaluations, certification workshops and a skills competition.

Law enforcement and corrections practitioners can touch, see and actually deploy new and emerging technologies under simulated “real-world” conditions. Practitioners can also wander through a technology showcase of exhibits and learn more about the technologies used in the numerous training scenarios. The event draws corrections and law enforcement practitioners from across the United States and around the world. In 2010, more than 1,800 tactical officers representing agencies from as far away as Singapore and Eastern Europe met to train on,
and evaluate the viability of technologies offered by more than 100 vendors. NLECTC-National staffed a booth in the vendors’ exhibit hall to spread information about the services offered by NIJ and the NLECTC System.

Participants provide feedback on technology through formal assessment reports and through conversations in the showcase area and on the grounds after training events. On-the-spot feedback and question-and-answer sessions are encouraged. All technologies are carefully evaluated by staff, with special emphasis placed on those technologies identified as high priority by NIJ, ensuring that the Mock Prison Riot™ offers the chance to experience and evaluate the most appropriate technologies under realistic conditions.

In 2010, participants had a new tool at their disposal to assist teams in planning and executing technology training scenarios. Planners could download and install a three-dimensional model of the penitentiary to their computers from http://www.mockprisonriot.org. This new ability to virtually coordinate and select the most appropriate technologies and locations for scenarios, demonstrations and assessments ahead of time ensured the most accurate practitioner feedback, which is critical to the technology development process.

For more information on the Mock Prison Riot, contact Corrections Program Manager Jack Harne at (202) 616-2911 or by e-mail at Jack.Harne@usdoj.gov.