TECHBeat

Dedicated to Reporting Developments in Technology for Law Enforcement, Corrections, and Forensic Sciences

VISIT OUR NEW INTERACTIVE PUBLICATION ONLINE AT WWW.JUSTNET.ORG

SUPPORTING NIJ IN THE FIGHT AGAINST ELECTRONIC CRIME P. 8

MAPPING PAROLE CASELOADS P. 10

NIJ'S FORENSIC TECHNOLOGIES CENTER OF EXCELLENCE OFFERS FREE LAB AUDITS P. 12

GPS DEVICE HITS THE SPOT P. 3

OFFICER-WORN CAMERAS EXPAND POINT OF VIEW P. 6

BODY ARMOR

FOLLOW-UP TESTING COMPONENT LAUNCHED P. 4

NLECTC
National Law Enforcement and Corrections Technology Center

A Program of the National Institute of Justice NIJ

FALL 2010 WWW.JUSTNET.ORG

ABOUT TECHBEAT

TechBeat is the quarterly newsmagazine of the National Law Enforcement and Corrections Technology Center System. Our goal is to keep you up to date on technologies for the public safety community and research efforts in government and private industry.

Subscriptions: *TechBeat* is free. To subscribe, call (800) 248-2742, fax (301) 519-5149, e-mail asknlectc@nlectc.org or go to www.justnet.org and click on subscribe. Agencies needing a large number of copies should send an e-mail to asknlectc@nlectc.org for drop ship instructions. Existing subscribers should call, fax or e-mail with address corrections.

Photo Credits: Photos used in this issue copyright © 2010 VIEVU LLC, SPOT LLC, Shutterstock, iStock, Veer, Arresting Images, Getty Images, Corbis and Bigstock.

Staff: Managing Editor, Lance Miller; Editor, Michele Coppola; Lead Writer, Becky Lewis; Graphic Designers, Tina Kramer and John Graziano.

Now Available

Interactive TechBeat

TechBeat is now available online

Visit the new interactive *TechBeat* for

Slide Shows

Video

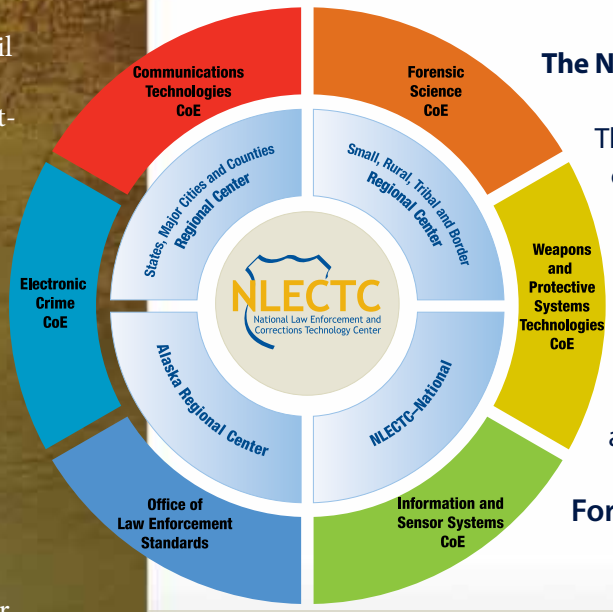
Audio

Flash

Look for these icons within the articles. Then visit us online and view the interactive media for more information.

Find us online at

www.JUSTNET.org



The NLECTC System

The National Law Enforcement and Corrections Technology Center (NLECTC) System is critical to the National Institute of Justice's mission to assist state, local, tribal and federal law enforcement, corrections and other criminal justice agencies address technology needs and challenges.

The NLECTC System is an integrated network of centers and Centers of Excellence that offer free criminal justice technology outreach, demonstration, testing and evaluation assistance to law enforcement, corrections, courts, crime laboratories and other criminal justice agencies.

For information, visit www.justnet.org or contact (800) 248-2742.

NCJRS
National Criminal Justice Reference Service

NCJRS is a federally funded resource offering justice and substance abuse information to support research, policy and program development worldwide.

For information, visit www.ncjrs.gov.

GPS DEVICE HITS THE SPOT

For rural law enforcement agencies, communication in isolated areas can be challenging. Radio coverage can be spotty and cell phone signals nonexistent. A Nebraska sheriff's office is finding that a device developed to help outdoor enthusiasts communicate from remote areas also has a place in law enforcement.

Kimball County encompasses 950 square miles in the extreme southwest corner of the Nebraska panhandle. The county sheriff's office, composed of three deputies and the sheriff, can be called on to handle anything from plane crashes to range fires. The surrounding area also contains 168 live Minuteman 3 nuclear missile silos, and the sheriff's office provides escort assistance when the U.S. Air Force moves the missiles from site to site.

To aid communication, the agency uses the SPOT Satellite GPS Messenger™. The sheriff's office began using the device in 2009, after the sheriff attended the fall 2009 Office of Justice Programs' National Institute of Justice (NIJ) Technology Institute for Rural Law Enforcement, where it was discussed, according to Chief Deputy Dwain Murdoch. The sheriff did some research and bought one to try it out, then obtained the funds to buy more, according to Murdoch. Murdoch gave a presentation about his agency's use of the device at the spring 2010 rural law enforcement technology institute.

"The main reason we chose to go with these devices is because we have areas in the county with no radio or cell phone reception and if a deputy gets into a situation where he needs help, these devices will work anywhere as long as they have a clear shot at the sky," Murdoch says.

Murdoch says the devices each cost about $150, with an additional cost of $100 per year for service on each unit. They attach to a vehicle's dashboard with Velcro® and can be clipped onto a deputy's belt when he is out of the vehicle.

"They are cost-effective, virtually indestructible, water proof and impact resistant," he says. "They need to be in a position where you have a clean shot to the GPS satellite, so the device has to be on the dashboard or on your belt when you are outside."

SPOT sends coordinates and messages via satellite to inform others of the user's status. The unit is about 4 inches high and weighs less than 6 ounces. Features include:

- Real-time Internet tracking. This feature allows users to send and save their location to allow contacts to track their progress using Google Maps.
- Location detection to within 10 feet.
- Satellite tracking update every 10 minutes.
- A check-in Okay button for status checks.
- A Help button for nonemergency help requests.
- An SOS/911 button for critical emergencies.
- Automatic text and e-mail messaging to send mass HELP call that includes GPS coordinates.

"The neat things about the messages is that once you set up the account and a message list, whenever you send a message, no matter what kind of message it is, it will send it to every person on your list and give the GPS coordinates," Murdoch says.

The county's emergency management director also uses a SPOT and eventually the county's severe weather spotters will have them as well. The devices are readily accessible and can be purchased at sporting goods stores.

For more information, contact Chief Deputy Dwain Murdoch at (308) 235-3615 or dwain.murdoch@leo.gov. For more information on NIJ efforts in position location technologies, contact Dr. John Kaplan at (202) 305-4503 or john.kaplan@usdoj.gov.

BODY ARMOR

Follow-Up Testing Component Launched

Employees came to work at ABC Body Armor Manufacturing 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 Office of Justice Programs' 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), construction comparison between production samples and the samples submitted for initial compliance testing, and comparison of current and original manufacturer build sheets.

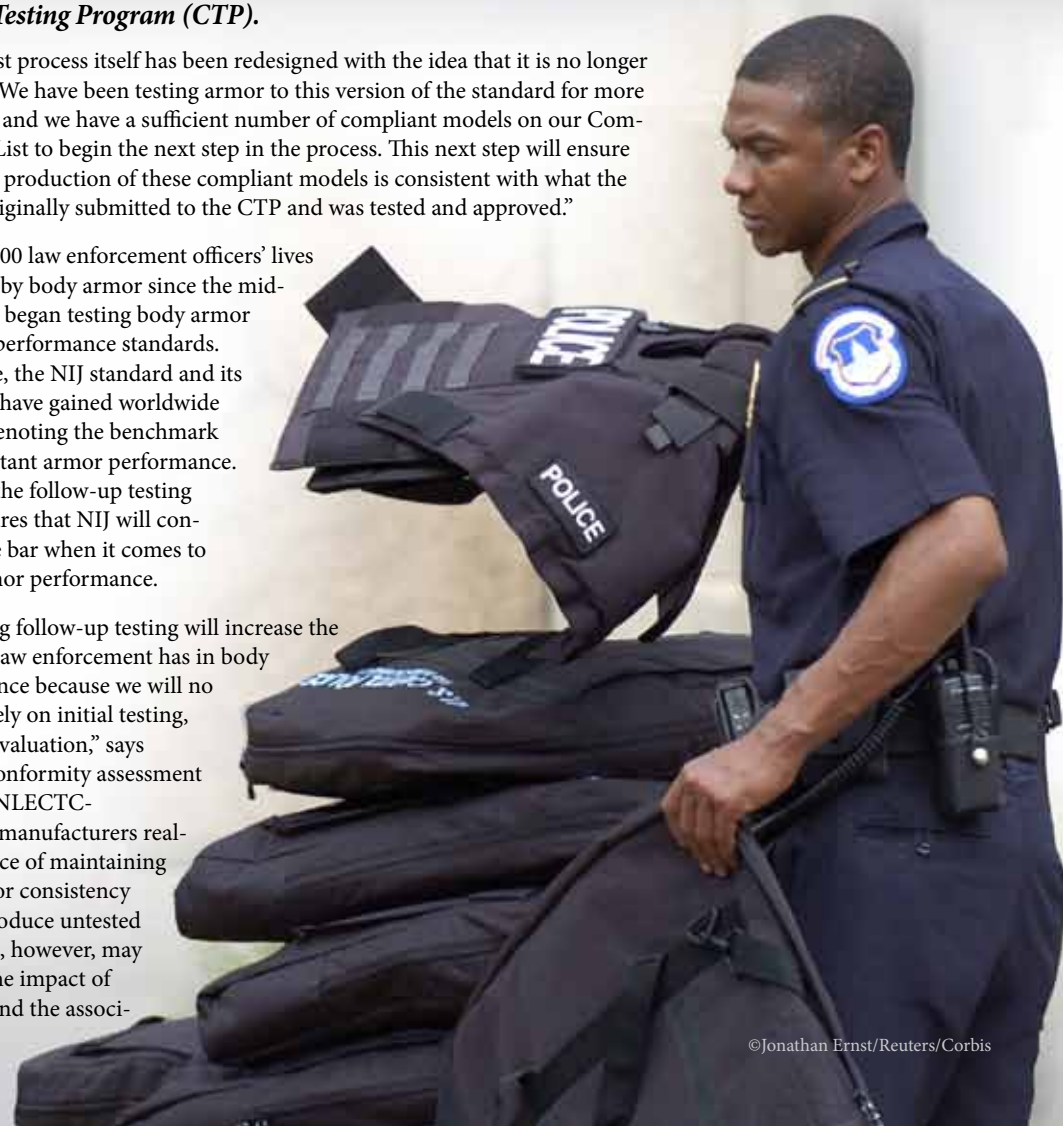
The onset of follow-up testing marks the final step in an extensive revision to the NIJ Body Armor Compliance Testing program triggered by a June 23, 2003, shooting in Forest Hills, Pa., in which Officer Edward Limbacher was seriously injured by a suspect's shot that penetrated his body armor. The incident, 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. (For more details, see a series of related articles in *TechBeat* Spring 2009, http://www.justnet.org/Pages/TechBeatIssue.aspx?issue=Spring+2009.)

Under this new process, inspections and testing of collected samples occur every 10 months, but 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, 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 inspected by ANAB, 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 performance standards. During that time, the NIJ standard and its testing program have gained worldwide recognition as denoting 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."



©Jonathan Ernst/Reuters/Corbis

Video Transcript

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

> **"Officers want to know that the armor they put on every day provides the protection it should."**
>
> *–Alex Sundstrom, NLECTC-National Compliance Testing Program Coordinator.*
>
> *audio online*

Because of that potential impact on life and the complexity of launching this 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 with follow-up inspections exist, body armor has certain 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 Verification Services to provide independent and certified inspectors. In addition to pulling samples to go to the test laboratories, these inspectors will also collect purchasing documentation for the ballistic material used in armor construction for review by the NIJ 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. "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 the first year of follow-up testing to be somewhat of a pilot year with issues being addressed and resolved as they arise. The CTP started with the first models to receive compliance status in early 2009, and is working to eliminate the backlog and get products on the 10- or 20-month cycle.

In the event that there is a failure, the manufacturer will need to supply the CTP with information on which agencies have purchased that armor. The CTP will then work with the manufacturer to determine the root cause of 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 in general, visit http://www.justnet.org/Pages/ctp.aspx. Debra Stoe is the NIJ program manager for Standards and Testing; contact her at Debra.Stoe@usdoj.gov.

Q A Follow-Up TESTING

The questions and answers below are adapted from those asked at a body armor manufacturers' workshop sponsored by NIJ and facilitated by NLECTC in 2010. Although many of their questions focused on issues that interest only manufacturers, a few touched on issues that may impact areas of concern to law enforcement officers, such as the impact of implementing follow-up testing on procurement and whether the samples tested will truly represent production armor.

Q: If the inspectors find a minor change that does not impact ballistic capability, such as a color change, will the manufacturer be required to submit this for testing as a new model? Many manufacturers have long-term contracts with law enforcement agencies and they might be impacted if a model has to be resubmitted.

A: It would only have to be resubmitted if the change impacts the ballistic capability. In that case, it would have to go through the entire process again.

Q: How will the inspectors select the samples that will be pulled?

A: We would like to be able to select samples that represent what is going out the door. We don't want samples that were prepared just for the inspectors. The only way to accomplish this is to essentially do unscheduled inspections.

Q: Pulling a production sample could impact ability to make a delivery, since armor is built to order.

A: Unfortunately, to accomplish what we really need, that may have to happen. We had talked about other ideas, such as taking a vest from an officer on the street, and we do not feel this is appropriate.

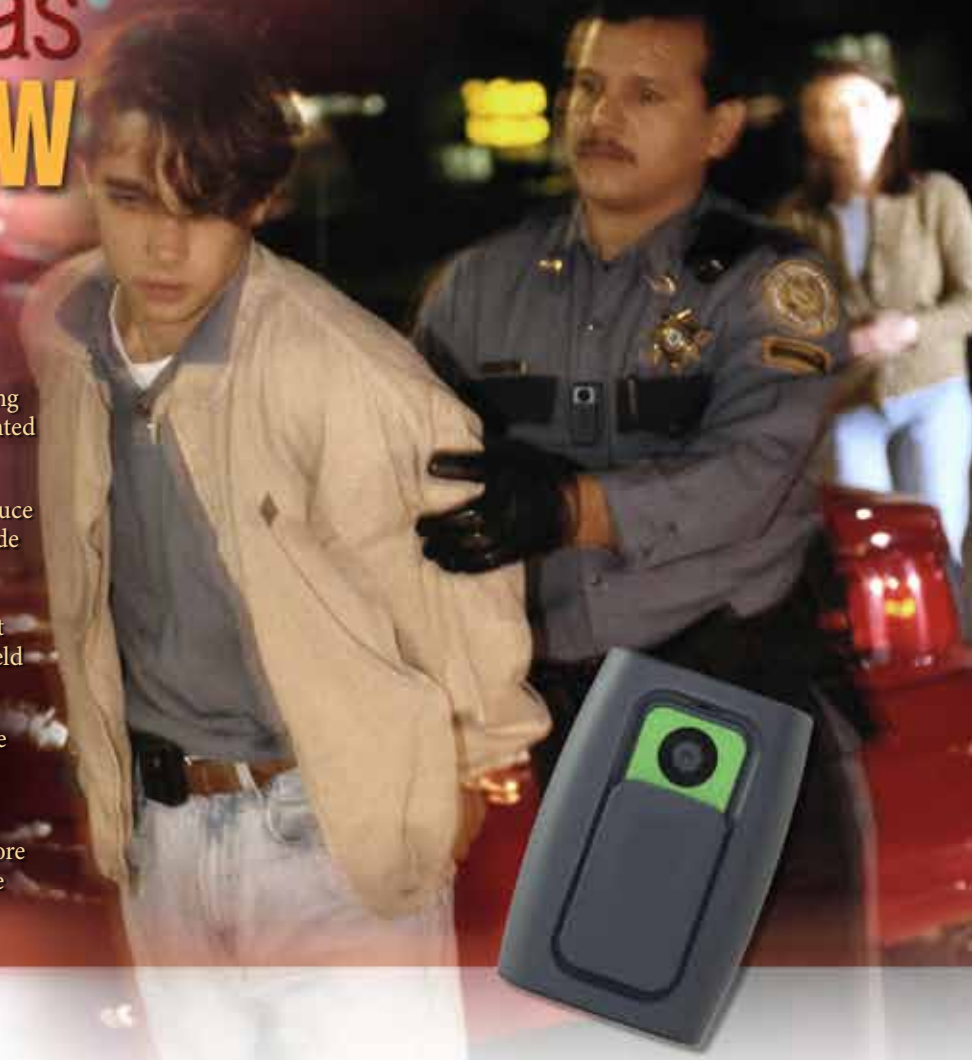
Q: How will a test lab be selected? If an inspector pulls several models, will they all go to the same lab at the same time?

A: When we send inspectors out, we will identify the lab that did the initial compliance testing, and send them to a different lab for the follow-up testing if possible.

Q: Are there any further developments regarding testing of used armor?

A: We are just beginning to look at a test methodology for used armor. It's a long-term effort; you're looking at five to 10 years. It's a tough nut to crack. We are trying to schedule a meeting later this year to bring together some experts.

Officer-Worn Cameras EXPAND POINT OF VIEW



Seeking to keep costs down and reduce liability while improving officer safety, some law enforcement departments are turning to officer-worn video cameras as an additional crime-fighting tool.

While police departments have been using in-car cameras for years, body-worn cameras are gaining in popularity, either as an additional crime-fighting device or as a replacement for in-car, dash-mounted cameras, especially among departments trying to cut costs.

Proponents of body-worn video cameras say they can increase transparency of operations and reduce litigation while resulting in cost-savings for cash-strapped departments. Officer-worn cameras provide advantages similar to in-car cameras, including protecting officers from false accusations, collecting evidence for trial and improving community relations. The difference is the body-worn cameras can go wherever the patrol officer goes when he steps away from the patrol car, such as into an apartment building or a house, and record what the officer sees and hears. Detectives can use the cameras for field interviews and victim interviews.

Depending on the type of camera, recording can be activated by voice command or by pressing the record button. Some can be worn like a cell phone earpiece; others are clipped to an officer's pocket. Features and quality vary among vendors.

Some police departments have conducted their own evaluations of the body-worn technology before deciding to purchase, including the Erlanger Police Department in Kentucky and the Lafayette Police Department in Colorado.

Erlanger, Ky.

The city of Erlanger is located approximated 10 miles south of Cincinnati, Ohio, and the police department serves a population of 23,000, including Crescent Springs, Ky.

The cameras used by Erlanger's 41 officers are very small; only 2 inches tall and worn on the officer's front-shirt pocket to record all contacts with the public and calls for service on 8 GB microSD memory cards. The device has approximately four hours of storage time; battery life is between two and three hours.

Erlanger began its program with a six-month evaluation period. "After that, we had a good handle on how to use them and developed policies and procedures for their use, which have been in place for a year," says Capt. Robert Arens.

The department's policies include that officers must turn on the camera when responding to a call or during any contact with the public, such as a traffic stop. Officers share the cameras. Ten officers are on a shift at one time, and each is assigned a camera at the beginning of a shift. Officers cannot download, erase or edit the video, and turn in the cameras at shift's end. Designated individuals in the department download the information and reformat the cameras to make them available for the next officer. After wearing a camera for the first time, officers view the results to determine if the placement of the camera in the front shirt pocket needs adjusting to obtain the best possible video next time.

Erlanger's switch to body-worn cameras was driven by financial concerns. "We had to find more economical ways of doing business," Arens says.

Erlanger's cameras cost about $70 each, compared to $5,000 for an in-car, dash-mounted camera. Several years ago, every cruiser in the department had an in-car camera system. Arens said the department has stopped purchasing in-car cameras with city money and is switching to body-worn cameras. The department will purchase an in-car system only if it receives a grant.

"The in-car video has its purpose, but it has its limitations, such as when an officer responds to a domestic dispute in an apartment," he says. "We found that officer-worn cameras are more practical for us, and we get a great audio sound."

He said the limited battery life is usually not a problem because two or three hours during an eight-hour shift is often enough to cover encounters requiring recording. Arens says officers initially were reluctant to use the cameras but have since found them useful.

"At first officers were leery, but I think they have bought into the program and realize it's not the department watching over them, it's to protect them," he says. "Ninety percent of the time, it's a complaint that an officer was rude, and when you can pull up the audio and listen, it's fine, there is no rudeness. And if there is, or another problem, we take care of it. It dispels complaints against officers that aren't true."

Lafayette, Colo.

The police department in Lafayette has 40 sworn officers in a city with a population of 25,000, just north of Denver. The department conducted a 30-day evaluation of three types of body-worn cameras in late 2009, and as a result decided to purchase, according to Sgt. John Sellers.

"While the in-car cameras are useful, they are expensive at $5,000 per unit, and they only capture what the patrol car is pointing at so once the event moves away from in front of the car, the important video isn't captured," Sellers says. "It's more important and better for our officers to have the worn cameras so they can capture anything they encounter.

"Reasons to use officer-worn cameras are to increase officer safety, reduce agency liability, reduce officer complaints and improve the public perception of police."

The cameras tested ranged in cost from $99 to $899. Officers were told to deploy the cameras throughout the day while on duty, and evaluated the cameras for quality of audio and video recording, comfort and usability.

The department stopped purchasing in-car video systems for new patrol cars in 2008. Sellers says the department decided to buy the most expensive of the three body-worn cameras evaluated because although all three worked well, it was the easiest to use. The company was also offering a "buy one, get four more at 50 percent off" deal. The department conducted the evaluation with loaned cameras and returned them once the evaluation was over. Currently, no officers have cameras on patrol. The department planned to purchase a camera for each of its officers by the end of 2010.

Sellers says the only disadvantage is that the cameras have two to four hours of recording capability, so if an officer forgets to turn the camera off between incidents during a shift, the available recording space fills up and the officer will have to come back into the office and download the video to free up additional space.

"Once an officer got used to wearing the camera, the four-hour time period was fine; it's a matter of getting used to and remembering to turn the camera on and off," he says.

For more information, contact Capt. Robert Arens of the Erlanger Police Department at rlarens@ci.erlanger.ky.us or (958) 727-7581, or Sgt. John Sellers of the Lafayette Police Department at johns@cityoflafayette.com or (303) 665-5571. For more information on the National Institute of Justice's Sensor and Surveillance portfolio, contact Dr. Frances Scott at frances.scott@usdoj.gov or (202) 305-9950.

PRO's | CON's

NLECTC Camera Evaluation

The National Law Enforcement and Corrections Technology Center System's Small, Rural, Tribal and Border Regional Center is collecting information on two types of officer-worn cameras.

"The idea is not to evaluate a specific camera, but whether personal-worn video cameras are worthwhile to law enforcement," says Kevin Vermillion, a technology systems analyst with the center.

Since October 2008, the center has distributed cameras to approximately 20 law enforcement agencies in various parts of the country, including Tennessee, North Dakota, Nebraska, California, Washington, Kansas, Georgia, Michigan, South Dakota, Kentucky, Illinois, Idaho and Florida.

Agencies are asked to fill out an evaluation sheet, but not asked to provide feedback by a certain date. Once enough information is received, the center will produce a report on the pros and cons of the cameras and include information received from the various departments.

Supporting NIJ in the FIGHT AGAINST ELECTRONIC CRIME

On Sept. 23, 2009, the Office of Justice Programs' National Institute of Justice (NIJ) made an award that established the Electronic Crime Technology Center of Excellence, which is part of the National Law Enforcement and Corrections Technology Center (NLECTC) System and is designed to help build up the electronic crime investigation and digital forensic evidence examination capacity of the criminal justice community.

The new center of excellence, under director Robert O'Leary, is already off and running with a number of projects and publications, in addition to hosting the Electronic Crimes Technology Working Group and overseeing that group in its mission to help NIJ identify and prioritize electronic crime and digital evidence needs and requirements for the criminal justice community. ECPI, LLC, located in Phillipsburg, N.J., operates the Electronic Crime Technology Center of Excellence.

"We've also been conducting tool and technology evaluations here at the center and through our partners, which include the National Computer Forensics Institute, the University of Rhode Island, Wetstone Technologies and Cyanline," O'Leary says.

The Electronic Crime Technology Center of Excellence has collaborated with the University of Rhode Island to catalog available training on digital evidence and electronic crime, and created a website that will be accessible through JUSTNET, the website of the NLECTC System (http://www.justnet.org), and the CyberCop Portal (http://www.nc4.us/cybercop.php). Law enforcement officers and agencies will have a searchable resource to identify training targeted to their areas of interest. The site will be administered by center staff and University of Rhode Island personnel.

In addition to compiling training information, the Electronic Crime Technology Center of Excellence is compiling criteria that will provide law enforcement agencies with a solid baseline for establishing digital evidence labs, electronic crime units, and labs and resources for performing self-evaluations.

"We're looking at units from a variety of demographic and geographic areas, from small and rural, from large cities, from federal departments and from states," O'Leary says. "Every type of agency has its own unique criteria for operation, policy and procedures. We want to make these criteria available so that agencies can pick those that match their needs."

O'Leary says the target date for initial completion of the task is early 2011, but it will be an ongoing process with frequent updates.

Other Electronic Crime Technology Center of Excellence activities already underway include:

- Evaluating tools and technologies, both at the center and through partners. As evaluations conclude, the center will submit

reports to NIJ for eventual posting on JUSTNET, CyberCop and the National Criminal Justice Reference Service.

- Convening working groups from the criminal justice community, including state, county and municipal detectives, prosecutors, administrators, first responders and others to review technology and provide feedback. These working groups provide networking opportunities to participants and assist with the tool and technology evaluations.
- Developing field guides on topics such as forensic evidence collection and examination for first responders.
- Developing an on-scene forensic evaluation tool on a CD-ROM that will allow an investigator to preview a computer in a forensically sound manner using the Microsoft® Windows environment.
- Technology transfer of tools from the developer to law enforcement such as the NIJ-funded Live Acquisition Triage Tool (LATT), which captures volatile data that would have been lost when a computer, seized by law enforcement, has to be shut down. Examples of captured information include open chat windows, screen captures and remote connections. The LATT tool is provided to law enforcement free of charge.
- Hosting and evaluating electronic crime investigation and digital evidence examination training programs.
- Attending meetings and conferences to promote awareness of the NLECTC System in general and the Electronic Crime Technology Center of Excellence in particular.

"Our goal is to be a valuable resource and actively promote the tools, technologies and training that NIJ has funded to benefit the criminal justice community," O'Leary says. "In order to accomplish that goal, we are working on several projects simultaneously. We've got a really good team of staff and partners and the expertise that will allow us to take the lead in some areas and provide support in others."

To contact the Electronic Crime Technology Center of Excellence, visit http://www.ectcoe.org or call (800) 540-3352. For additional information about the NIJ electronic crime portfolio, please contact Martin Novak at (202) 616-0630 or martin.novak@usdoj.gov.

"Our goal is to be a valuable resource and actively promote the tools, technologies and training that NIJ has funded to benefit the criminal justice community."

– Robert O'Leary, Director, Electronic Crime Technology Center of Excellence.

MAPPING PAROLE CASELOADS

Corrections departments in Colorado and Rhode Island are finding that mapping software is making their jobs much easier and efficient as well as allowing better supervision of offenders.

Rhode Island Mapper

Rhode Island, the nation's smallest state, has a large probation and parole caseload, with approximately 27,000 individuals on probation or parole. To make tracking of officers' caseloads and offenders more efficient, the Department of Corrections is using the Community Supervision Mapping System.

The Web-based computer software system was developed by the Providence Plan, a nonprofit community organization, and the Urban Institute with funding from the Office of Justice Programs' National Institute of Justice (NIJ). The Providence Plan developed the system using open source software and the Urban Institute conducted an evaluation. The aim of the program is to enable corrections, public safety and social service agencies to better supervise and assist offenders returning to or already in the community.

The system allows users to query locations of released prisoners and map the results at the street level using Google Maps. Users can click on an address and pull up a photo, name, date of birth and case information of the probationer. The system automatically updates the database each night with changes of address and with new offenders on probation or parole.

Christine Imbriglio, supervisor of probation and parole in Kent County, says in addition to helping organize workloads, when probation and parole officers are planning home visits, the system will alert them about offenders living in the same area, so visits can be better coordinated.

"The mapper figures out who lives where and figures out logistics. It really makes it more efficient for an officer," Imbriglio says.

The Probation and Parole division has about 76 officers. System users can search by name, city, assigned caseload, supervision level, offense type, distance from a particular address or for individuals recently released into a specific community, and obtain probation and parole officer contact information.

In addition, the system enables officers to plan and conduct compressed, targeted visits in one area in a short period of time. In conjunction with the police department, officers identify communities that have had a recent spate of crime. Two-person teams of probation and police officers map locations of parolees and probationers and spread out, covering 100 home visits in four hours.

In addition, the mapper has been an excellent tool for sex offender supervision by providing users the ability to layer the offender's address in relation to school locations. Rhode Island law currently prohibits any sex offender who is required to register from residing within 300 feet of school.

"Rhode Island has some of the largest caseloads in the country so it is difficult to plan home visits without a tool such as the mapper," Imbrigilo says, adding that the present sentencing system in the state does not provide the courts with many sentencing alternatives besides probation.

The system makes it easier for Imbriglio to track the cases of the officers she supervises. She can also query the system to find out who has been released back into a specific community within the past week, month or year and share discharge planning information with law enforcement as well as community support agencies.

"It automates what people were trying to do manually," says Jim Lucht, information group director for the Providence Plan. "Their existing system is extensive but they have to dig through multiple screens to get information. Our system contains a subset of the most important elements and allows users to rapidly query. It also adds geographic capability."

The system currently has about 700 users, including police officers, according to Lucht. The system also can help social service agencies such as the Family

Life Center of Rhode Island better coordinate services to offenders and their families.

For more information on the Community Supervision Mapping System, contact Jim Lucht of the Providence Plan at (401) 455-8880 or jlucht@provplan.org. For more information on NIJ's Geospatial Technology Program, contact Steve Schuetz at (202) 514-7663 or steve.schuetz@usdoj.gov.

Colorado C-WISE

Colorado parole officers have a tool to map caseloads and plan home visits more efficiently. The capability comes through an addition to the existing Colorado Web-Based Integrated Support Environment (C-WISE) system used by the Colorado Department of Corrections, Division of Adult Parole, Community Corrections and Youthful Offender System.

C-WISE is a system for electronically entering case contact, surveillance and supervision information. It provides more accurate, quicker access to information and easier statistical tracking. It uses geographic information system (GIS) technology to map officer caseloads, prepare for home visits and provide outside agencies with the locations of offenders living near a crime location.

The division wanted to expand its current GIS technology to allow parole officers to produce maps independently and set up a routing system for planning visits to offenders' homes.

Elisa DiTrolio, division crime analyst, says equipment, software and programming costs to add the mapping and routing component were funded by a U.S. Department of Justice Anti-Gang Initiative grant.

"It presents the officer with a way to view their caseloads in real time instead of just on paper," says DiTrolio. "We have about 300 officers statewide and all have access and all have been trained on the system."

Before the addition of the C-WISE mapping program, when planning home visits, parole officers would manually map each address at a time via the Internet. Using the C-WISE mapping program, officers can simply look up their caseload and, using a pull down menu, check each parolee they plan to visit. The system provides best route directions. The officer does not have to type in an address. Caseload searches can be refined using different parameters, for example, gang members, type of crime or sex offender status.

"It's geographic representation that they did not have previously," DiTrolio says. "It helps officers manage their caseloads. It can also allow officers to determine, for example, if a sex offender is living too close to a school."

Officers can create their own maps within minutes based on their needs at that moment, rather than waiting for an analyst to create a map. They can see landmarks, schools, parks and what the offender's house looks like by overlaying an aerial map.

Also, if a parole officer receives a request from a law enforcement agency for a list of offenders who live in a neighborhood where a rash of burglaries have occurred, the officer can create a map of parolees in the area.

For more information on the C-WISE system, contact Elisa DiTrolio at (303) 426-6198, ext. 4135, or e-mail elisa.ditrolio@doc.state.co.us. For more information on NIJ's Geospatial Technology Program, contact Steve Schuetz at (202) 514-7663 or steve.schuetz@usdoj.gov.

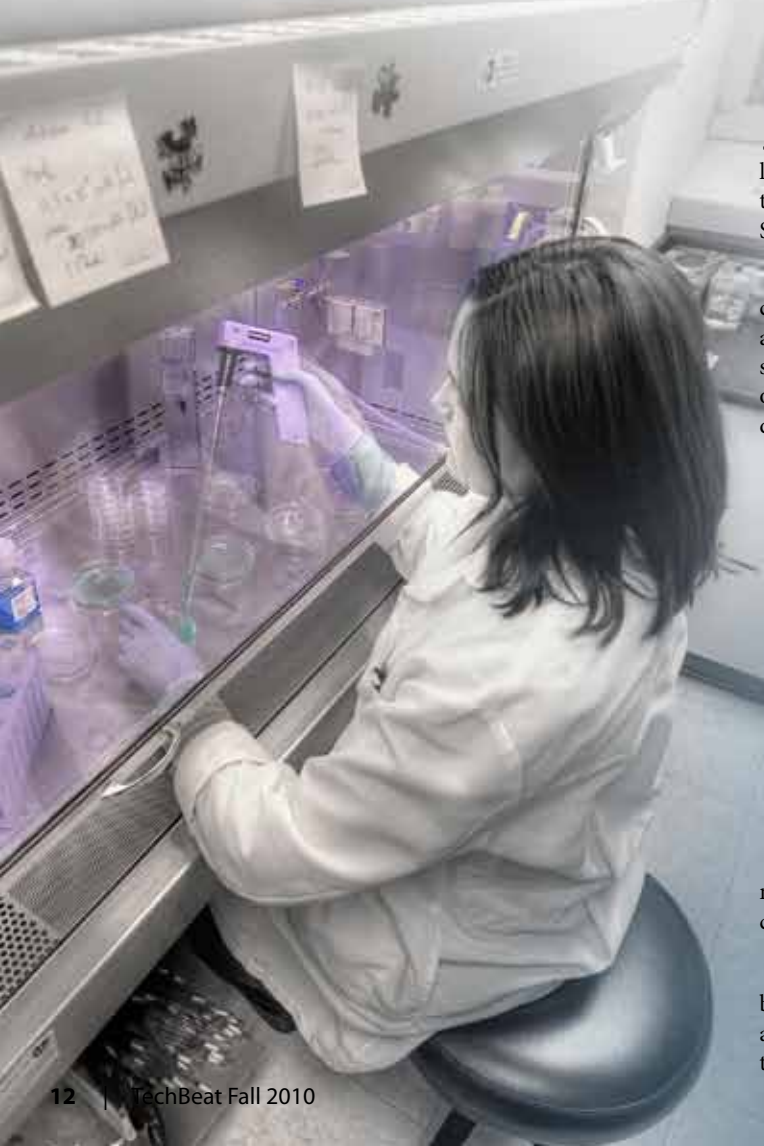
"It's geographic representation that they did not have previously. It helps officers manage their caseloads. It can also allow officers to determine, for example, if a sex offender is living too close to a school."

–Elisa DiTrolio, Crime Analyst.

NIJ'S FORENSIC TECHNOLOGIES

Center of Excellence Offers Free Lab Audits

Since 2002, the National Forensic Science Technology Center (NFSTC) has provided no-cost DNA program audits with funding from the Office of Justice Programs' National Institute of Justice (NIJ). Beginning in 2006, under the direction of NIJ, NFSTC added a grant progress assessment (GPA) option to the program, offering laboratories the opportunity to have both types of audits done at once.



Dale Heideman, assessments technical manager at NFSTC (the host agency for NIJ's Forensic Technologies Center of Excellence), explains that the FBI requires DNA laboratories to undergo an external audit every other year in order to remain eligible to enter data into the Combined DNA Index System (CODIS).

"To meet this requirement some agencies had developed consortia, that is, they will enter into an agreement with another agency, agreeing that 'I'll do yours, you do mine,' " Heideman says. "Some of them found that it takes a lot of time and effort, often taking three or four staff members away from their regular duties. More and more, they're using our free audits instead."

The DNA audit process includes use of:

- Audit documents approved by the FBI.
- Checklists completed in compliance with National DNA Index System (NDIS) requirements.
- Auditors who have successfully completed the FBI-sponsored DNA Auditor Training class.
- Experienced lead auditors and technical auditors who are all qualified DNA analysts.
- Three-person review of audit reports prior to issuance.

Finalized audit documents are provided to laboratory management only after the NIJ-approved NFSTC review process has been completed. The laboratory then forwards the report to the FBI.

NFSTC has divided states into two groups, with each group being audited in alternating years, and develops a schedule well in advance that includes visits to specified states each month. With the DNA audit program well established, adding the assessment of open NIJ forensic science grants seemed like a logical extension of resources.

NFSTC sends two teams of auditors/assessors to each site, one team to perform the DNA audit and one team to assess all open grants. Grants reviewed under this program include NIJ DNA Backlog Reduction, Solving Cold Cases with DNA, Convicted Offender DNA Backlog Reduction and the National Forensic Science Improvement Act, also known as the Paul Coverdell program. A lab with a DNA program could also have eight or nine open grants, Heideman says, so NFSTC performs many more GPA assessments than DNA audits.

The GPA assessment process accomplishes the following:

- Strengthens NIJ program management and oversight.
- Assists NIJ in performing required grant funding due diligence.
- Educates grantees regarding grant program requirements and special conditions.
- Identifies challenges faced by grantees in achieving grant program objectives.
- Identifies successful grantee achievements and/or grant programs.
- Provides the opportunity to assess the impact of grant funds.
- Ensures that federal grant funds are being used for the purpose of achieving the goals and objectives set forth by Congress.

"For the most part, the teams go at the same time, because there is some overlap in the preparation process. It makes it easier for the labs to do all of the prep work at once," Heideman says.

NFSTC offers detailed information and instructions on its website to help agencies prepare for the process. Generally, the audits and/or assessments last anywhere from two to five working days and involve teams of varying sizes, depending on the size of the laboratory.

"GPA assessments are not solely financial in nature, although they do have a financial component, but rather provide a comprehensive overview to NIJ while at the same time helping grantees gain better understanding of program requirements and conditions," Heideman says. "They also identify success stories and any issues that may need to be resolved."

Regardless of the type of audit or assessment, Heideman says that NFSTC asks participating labs to do an online assessment of the audit/assessment process to help improve the program.

For detailed information about the program and preparing for an audit/assessment, visit http://www.nfstc.org/.

Labs, Auditors Benefit From NIJ/NFSTC Program

One lab that decided to take advantage of NFSTC's free audits for the first time in 2010, the Pennsylvania State Police DNA Laboratory in Greensburg, has no plans to return to the "I'll do yours, you do mine" approach cited by Dale Heideman (see main article). Forensic DNA manager/technical leader Beth Ann Marne says that since 1990, the laboratory had worked cooperatively with other agencies to audit each other annually, but the positive experience with NIJ's NFSTC program has changed that for good.

"Using NFSTC is easier in that we did not need to have our own personnel take time away from their regular duties to prepare for and perform the audit. Our lab, like so many others, is backlogged and busy, and we chose this approach to save time and resources," Marne says.

Marne was pleased by the thoroughness and experience of the NFSTC auditors and with the detailed instructions and information made available by NFSTC on its website, which she found friendly and easy to use.

"I was initially very cautious about choosing to go another route, but the NFSTC auditors conducted themselves very professionally and were very respectful of our time," Marne says.

Now, she says she plans to continue to remain on the NFSTC schedule and let their experienced auditors handle the process rather than continuing the annual audit exchange.

One of those experienced auditors, Anthony Tambasco of the Mansfield (Ohio) Police Department, says that his agency has realized a different sort of benefit from his involvement in the program.

"It's great to see what other people are doing with the funding, to see the creativity associated with what they can accomplish," Tambasco says. "The labs I most recently visited had just completed renovations, and since we're in the middle of a renovation ourselves, I got a lot of great ideas. A lot of people think audits are about what you're doing wrong, not what you're doing well, but I've come back with lots of very creative ideas about how other labs are addressing backlogs. I'm really amazed at what they come up with."

Tambasco became involved in the NIJ/NFSTC program at its onset in 2002, first as a DNA auditor, now as an auditor/assessor for both DNA audits and grant progress assessments. He serves as a member of a core group of 180 contract auditors/assessors that have received extensive and thorough training from NFSTC. NFSTC mixes and matches from this pool to create teams individualized to each laboratory's needs. Teams include a minimum of two auditors/assessors, and always include technical leads that are experienced in hands-on work with the instruments and processes involved.

"It's nice because I get to work with a variety of different people. Sometimes I'm placed on a team with someone I've worked with in the past, or I may need a picture to recognize them at the airport," says Tambasco, who takes vacation time from his "day job" to serve on the teams. He says the biggest investment of time is preparing for the site visit and actually writing the report, which undergoes a thorough three-person review and may come back for revision.

"The idea is to ensure the report is put simply, in language that everyone can understand," he says. "Labs use it to report to the FBI and NIJ program managers may relay it to Congress to show where funding is going and what is being done for constituents in a particular area."

TECH shorts
Technology News Summary

TECHshorts is a sampling of the technology projects, programs and initiatives being conducted by the Office of Justice Programs' National Institute of Justice (NIJ) and the centers and criminal justice technology Centers of Excellence (CoEs) that constitute its National Law Enforcement and Corrections Technology Center (NLECTC) System. If you would like additional information concerning any of the following TECHshorts, please refer to the specific point-of-contact information that is included at the end of each entry.

In addition to TECHshorts, an online, biweekly technology news summary containing articles relating to technology developments in public safety that have appeared in newspapers, newsmagazines and trade and professional journals is available through the NLECTC System's website, JUSTNET, at http://www.justnet.org. This service, the Law Enforcement and Corrections Technology News Summary, also is available through an electronic e-mail list, JUSTNETNews. Every other week, subscribers to JUSTNETNews receive the news summary directly via e-mail. To subscribe to JUSTNETNews, e-mail your request to asknlectc@nlectc.org or call (800) 248-2742.

Note: The mentioning of specific manufacturers or products in TECHshorts does not constitute the endorsement of the U.S. Department of Justice, NIJ or the NLECTC System.

Technology Institute Fosters Body Armor Donation

Small, Rural, Tribal and Border Regional Center

A chance encounter at an NIJ Technology Institute for Rural Law Enforcement has resulted in a body armor windfall for Oklahoma law officers.

Sgt. John Osbourn of the Marysville (Ca.) Police Department and Chief Tom Linn of the Blanchard (Okla.) Police Department met at the institute held in spring 2010, where Linn mentioned that 30 percent of Oklahoma peace officers perform their duties without body armor because of financial constraints.

Osbourn did some research and found that his department could donate about 40 vests to Linn for distribution to Blanchard and other Oklahoma law enforcement departments. About half of the vests are new, and half have been previously worn but are in good condition.

The Marysville department provides its officers with new vests at the end of the manufacturer's warranty, which is generally five years, Osbourn explains.

"Even though some of the vests are outside of warranty, it gives an officer an extra chance of making it through a traumatic incident," Osbourn says.

"Small communities with limited funding create a need to solve problems differently and more cost effectively," he says. "I had no previous contact with the technology institutes or the center, and I was relieved when I walked into a room of guys making hard decisions like me to get by every day. Tom and I established a connection to solve the problem."

For more information, contact Sgt. John Osbourn of the Marysville Police Department at (530) 749-3952 or josbourn@marysvillepd.org, or Chief Tom Linn of the Blanchard Police Department at (405) 485-9391 or tom.linn@blanchardpd.com.

NLECTC Minutes

NLECTC-National

Visit http://www.justnet.org/Pages/MediaGallery.aspx to view "NLECTC Minutes," an always expanding new video series highlighting law enforcement and corrections technology, NIJ standards and news about the NLECTC System.

Each video is no more than a few minutes in length and can be launched directly from the above URL using a built-in media player. New topics are continually in development, so check the site often to see the latest updates.

Report Examines DNA Backlogs

National Institute of Justice

Published as an NIJ Special Report in June 2010, *Making Sense of DNA Backlogs — Myth vs. Reality,* examines reasons for DNA testing backlogs at a time of increased federal funding and laboratory processing capability.

Demand for DNA testing is rising due to increased awareness of its potential to solve cases, and all states and the federal government require that DNA be collected from convicted offenders. Crime laboratories expanded testing capacity has not been able to meet the increased demand.

Measuring the number of backlogged cases at a given time is flexible because definitions of what constitutes a backlog vary. NIJ defines a backlogged case as one that has not been tested 30 days after submission to the crime laboratory. Many crime laboratories consider a case backlogged if a final report has not been submitted to the requesting agency.

Federal funds have been used by laboratories to purchase automated workstations and hire new personnel, but backlogs will continue until labs' ability to process samples is greater than the demand.

To view the report, go to http://www.ncjrs.gov/pdffiles1/nij/230183.pdf.

National Law Enforcement and Corrections Technology Center
c/o ISTG Annapolis Junction Warehouse
9015 Junction Drive
Annapolis Junction, MD 20701

PRESORTED STANDARD
U.S. POSTAGE PAID
SOUTHERN, MD
PERMIT NO. 2538

TECHBeat

Fall 2010

www justnet.org

Online News Summary. Online News Summary includes article abstracts on law enforcement, corrections and forensics technologies that have appeared in major newspapers, magazines and periodicals and on national and international wire services and websites.

Testing Results. Up-to-date listing of public safety equipment evaluated through NIJ's testing program. Includes ballistic- and stab-resistant armor, patrol vehicles and tires, protection gloves, handcuffs and more.

Publications. Publications from NIJ and NLECTC that you can view or download to your system, including printer-friendly versions of *TechBeat* articles and features.

Calendar of Events. Calendar of Events lists upcoming meetings, seminars and training.

Links. Links takes you to other important law enforcement and corrections websites.

The National Law Enforcement and Corrections Technology Center is supported by Cooperative Agreement #2009–MU–MU–K261 awarded by the U.S. Department of Justice, National Institute of Justice. Analyses of test results do not represent product approval or endorsement by the National Institute of Justice, U.S. Department of Justice; the National Institute of Standards and Technology, U.S. Department of Commerce; or Lockheed Martin. Points of view or opinions contained within this document are those of the authors and do not necessarily represent the official position or policies of the U.S. Department of Justice.

The National Institute of Justice is a component of the Office of Justice Programs, which also includes the Bureau of Justice Assistance; the Bureau of Justice Statistics; the Community Capacity Development Office; the Office for Victims of Crime; the Office of Juvenile Justice and Delinquency Prevention; and the Office of Sex Offender Sentencing, Monitoring, Apprehending, Registering, and Tracking (SMART).