TechBeat

Dedicated to Reporting Developments in Technology for Law Enforcement, Corrections and Forensic Sciences
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New Offender Tracking System Standard Provides Much-Needed Guidance to Agencies University of Central Florida Leads Development of Bomb Threat Training Video Electric Motorcycles Can Offer Advantages for Law Enforcement

TechBeat is the monthly 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.

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Publisher/Federal Program Manager:

Michael O'Shea, (202) 305-7954, michael.oshea@usdoj.gov.

Staff:

Managing Editors, Lance Miller and Ron Pierce; Editor, Michele Coppola; Lead Writer, Becky Lewis; Graphic Designers and Multimedia, Tina Kramer, Amy Ahrens and Christian Baker.

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JTIC is part of the realignment of the NLECTC System, which includes the Justice Innovation Center for Small, Rural, Tribal, and Border Criminal Justice Agencies, which focuses on the unique law enforcement challenges faced by those types of agencies; the National Criminal Justice Technology Research, Test and Evaluation Center, which provides technology-related research and testing and operational evaluations of technologies; and the Forensic Technology Center of Excellence, which supports technology research, development, testing and evaluation

efforts in forensic science. In addition, a Priority Criminal Justice Needs Initiative exists to assess and prioritize technology needs across the criminal justice community.

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New Offender Tracking System Standard Provides Much-Needed Guidance to Agencies By Becky Lewis

Will the battery hold a charge for more than a few hours? Are the tracking points accurate? What happens when someone tries to stretch the strap and pull off the device? How do we know if we're buying something that will meet our needs?

With the July 2016 release of the National Institute of Justice's *Criminal Justice Offender Tracking System Standard NIJ Standard-1004.00*, criminal justice agencies faced with procuring and selecting offender tracking technology finally have some help with answering those questions.

Some six years in development, the OTS standard defines both minimum voluntary performance requirements and the methods used to test performance. Documents defining the associated certification program requirements for both new and refurbished OTS are still in development and will be released in the future, along with a Selection and Application Guide (users' guide) that will provide additional procurement and program implementation assistance.

A certification program provides administrative oversight to laboratories that test devices to ensure that they meet or exceed the requirements of the standard. Until the certification program documents are released, agencies can use the criteria outlined in the standard as benchmarks in writing their procurement documents. (They should be aware that until the certification program is in place, vendor claims to meet or exceed requirements have not been independently verified.)

Two additional documents, Offender Tracking Record Transfer Service Specification, Version 1.0 and Market Survey of Location-Based Offender Tracking Technologies, Version 1.1 (see sidebars, "Service Specification Package Addresses Automatic Data Transfer" and "A Look at What's Out There"), offer information on how agencies can ensure that important data can be

transferred from one type of system to another and make a side-by-side comparison of commercially available devices, respectively.

"It was a long process, and it took so long because of the complexity of the technology," says NIJ Corrections Program Manager Jack Harne. "NIJ has standards for body armor, restraints, helmets and so on, all of which are just one unit. This is an electronic system where different components, all of which have different capacities and capabilities, come together to track and monitor people under supervision in the community. We had top subject-matter experts come in and explain the various technologies so we could write accurate specs and test methods. We were methodical in our approach and I think we were successful in what we did."

Joe Russo, Justice Technology Information Center corrections subject-matter expert, served as director of the former NIJ Corrections Technology Center of Excellence during the development of the standard. He explains that legislative mandates to monitor specific types of offenders have played a key role in the rapidly increasing use of the technology, which is still evolving and not well understood.

"This situation created a great need for a standard and for the capability to compare products across common metrics," says Russo, who played a key role in facilitating the Special Technical Committee (STC) of laboratory representatives, practitioners and other subject-matter experts that developed the standard. The OTS standard, like all other NIJ standards, is a minimum performance document that sets a bar for vendors to meet and ideally, exceed. "The standard has to be a living document and change with the times. We all saw how much the technology advanced just during the time we were developing the standard."

For example, battery technology changed and improved during the development period; some of these changes aren't included in the just-released standard, but may be addressed in the future: "Technology innovations can come very quickly, and we need to be agile in our response to that. We'll need to issue clarifications quickly whenever a new approach makes sense," Russo says.

The OTS standard establishes performance criteria and test methods for a number of characteristics; key among them are battery life, circumvention detection and accuracy. Although he acknowledges that every criteria in the standard plays an important role in ensuring performance, Russo says that these are key issues for agencies, and indeed were among the main factors driving NIJ's decision to establish the STC.

"The unpredictability of how batteries perform in the field is a continuous issue for agencies and impacts participant compliance," he says. "And accuracy and system integrity are always important points. If you don't have confidence that an alert will unfailingly be issued if the participant removes the device or whether your data points are reliable and accurate — everything else kinds of falls by the wayside."

Another key factor and another way in which OTS technology differs from static devices such as restraints is that the majority of systems are leased, with vendors sometimes providing monitoring support as well. If a device develops problems, agencies return it to the vendor for

refurbishment, and the device that an agency receives in return may not be the same one that went in for repair.

"It's important that we have specific criteria to address this practice, which is very different from the conformity assessment programs for other standards. We have to come up with a different approach, and we're still working on the details," Harne says.

In the interim, Harne encourages agencies to use the standard and NIJ's other offender tracking publications for guidance in making procurement decisions, and to provide NIJ with feedback on how well the technology exceeds, meets or fails to meet the criteria.

"It's important that we maintain open communication not only with the field, but also with the vendors. If we've set the bar too low and devices easily surpass it, we need to know that. If practitioners learn about new circumvention techniques that we need to test for, we need to hear about them," Russo says. "It's a living document and has to evolve continuously. NIJ can best serve the field if we hear about changes from the users as they take place."

Criminal Justice Offender Tracking System Standard NIJ Standard-1004.00 can be downloaded from https://www.ncjrs.gov/pdffiles1/nij/249810.pdf. To provide feedback on whether the technology meets the standard, or for more information on NIJ's Corrections Programs in general, contact Jack Harne at (202) 598-9412, or email jack.Harne@usdoj.gov.

Service Specification Package Addresses Automatic Data Transfer

When agencies switch vendors to save money or gain access to different technology, they often lose access to valuable historical information on demographics, locations, violations and alerts due to vendors' storing data in a proprietary manner. Early in the Offender Tracking Standard Special Technical Committee (STC) discussions, the committee made the decision to develop a Service Specification Package (SSP) that would address that need, and the March 2016 publication of *Offender Tracking Record Transfer Service Specification, Version 1.0* became the first product from the STC to reach the field.

Approved by the Global Standards Council, the SSP defines the manner of electronic transmission of information from one computer system to another. Gaining approval from the Global Standards Council places the SSP in the Bureau of Justice Assistance Global Information Sharing Toolkit, and agencies can now include it as a requirement in requests for proposals. Vendors' meeting of this requirement will allow agencies to switch vendors and retain historical data, as well as more easily move clients from one system to another.

After the STC brought this need to NIJ's attention, NIJ funded the Corrections Technology Center of Excellence to address the issue. The Center of Excellence contracted with SEARCH and worked with the organization to convene a working group of subject-matter experts to provide input on the data (e.g., demographics, location data points, alerts, etc.) contained in their current vendors' offender tracking systems. Based on this foundation, SEARCH developed schemas for exchanging this data from one vendor system to another. These schemas were further developed into a Service Specification Package.

The SSP and an associated Service Description Document, available as a 10 MB zip file, can be downloaded from http://it.ojp.gov/GIST/186/Offender-Tracking-Record-Transfer-Service-Specification--Version-1-0.

A Look at What's Out There

Battery life and alarm audibility. Programming inclusion and exclusion zones. Policies and procedures on how to monitor offenders and how to deal with noncompliance. All of those factors and more go into selecting an offender tracking system, and even an administrator who has experience with the technology can find it bewildering.

A May 2016 document produced by the National Institute of Justice's National Criminal Justice Technology Research, Test, and Evaluation Center, *Market Survey of Location-Based Offender Tracking Technologies, Version 1.1*, can help administrators who are struggling to pick the right technology to meet their agency's needs.

The document lays out information on 13 commercially available offender tracking technologies provided by 10 different vendors in three different ways: in a side-by-side comparison table, in a series of standardized profiles and in a full-text vendor response appendix. *Market Survey* includes information in five broad categories:

- 1. Vendor Information.
- 2. Product Information.
- 3. Usability.
- 4. Features and Functions.
- 5. Performance and Security.

Key observations include:

- Considerable consolidation of the marketplace has occurred within the past few years as a number of vendors have been acquired or combined.
- Many vendors in the market are resellers that package OTS devices from other manufacturers and provide a monitoring service.
- The market seems to be migrating toward a one-piece model (*Market Survey*, p. 4-3).

The report also looks at future trends in both hardware and software development, including a movement toward smaller and lighter units; use of lightweight, more durable plastics and metal alloys; improved battery efficiency; the capability to replace batteries in the field; and improved mapping capabilities. It includes historical background on the use of offender tracking systems from the 1960s to the present, an overview of how the technology works and background information on previous market surveys conducted by *The Journal of Offender Monitoring* in 2001 and 2008.

Market Survey of Location-Based Offender Tracking Technologies, Version 1.1 provides an overview of commercially available technology at the time of publication; it cautions agencies to

solicit additional information from vendors before making any decisions. The full document can be downloaded from https://www.ncjrs.gov/pdffiles1/nij/grants/249889.pdf.

University of Central Florida Leads Development of Bomb Threat Training Video By Becky Lewis

Around the country, it seemed the headlines were the same: Bomb threats strike school systems and postsecondary institutions in California. In New York. In Massachusetts. In New Jersey.

At the University of Central Florida, Department of Security and Emergency Management staff knew that the U.S. Department of Homeland Security (DHS) provided the "go to" site for information on handling bomb threats, so the university immediately turned there to look for video training on how to handle a bomb threat call. Surprisingly, the extensive DHS resources lacked a video component. So UCF partnered with the DHS Office for Bombing Prevention to make one for everyone's use.

And now, it's become the standard not only for the university, but also for DHS, the International Association of Chiefs of Police (IACP) and numerous other institutions of higher education around the country.

Jeff Morgan, the UCF department's director, says UCF worked with the Office for Bombing Prevention, part of the National Protection and Programs Directorate's Office of Infrastructure Protection, to ensure that the script stayed on message and the resulting video would be useful to not only colleges and universities, but also to any type of organization, ranging from a hospital to a "mom and pop" store, from an elementary school to a bank. The result, "What You Can Do When There Is a Bomb Threat," can be viewed at

https://www.youtube.com/watch?v=pg7yVTBciWg, as well as on the DHS What To Do When There Is a Bomb Threat resource page (https://www.dhs.gov/what-to-do-bomb-threat), and on the websites of a number of other universities and police departments across the country.

"In the past couple of years, there has been a rash of automated bomb threats to not only schools and universities, but also to airports, hospitals and large organizations," says Morgan. "Universities are required to notify the campus community within minutes of receiving a potential threat. Because UCF is the second largest university in the country with more than 60,000 students, we're just as vulnerable to these threats as any other organization."

That realization led to revamping the UCF policy on how to deal with a bomb threat, and Morgan says he understood that most people didn't know how to handle a bomb threat phone call.

"Let's face it, we now live in a visual world and it's a preferred method of learning," says UCF Police Chief Richard Beary, who was serving as IACP president at the time of the video's production. "By creating the video, we've provided a new resource for the DHS tool kit. At the same time, IACP also realized the need and helped with promotion."

"The beauty of it is how well it applies to a vast realm of organizations that could receive bomb threats. Our main focus was to fill a void, and we've heard from other departments around the country how useful they find it as a resource," he adds.

In four minutes, 12 seconds, "What You Can Do When There Is a Bomb Threat" uses a generic workplace scenario to walk viewers through the steps listed on the DHS Bomb Threat Checklist (https://www.dhs.gov/sites/default/files/publications/dhs-bomb-threat-checklist-2014-508.pdf), and suggests keeping printed copies on hand for use should a bomb threat call come in. Tips include attracting a co-worker's attention to initiate 911 contact, listening for clues in the caller's voice and in background noise, and leaving the line open after the call ends. On the DHS website, it joins such resources as the checklist, a brochure that provides guidance on pre-threat preparation, evacuation and shelter-in-place considerations, and more.

Once the university completed production of "What You Can Do When There Is a Bomb Threat," in addition to promotion through DHS and IACP, the Department of Security and Emergency Management pushed it out to emergency managers from every university in the country via a listery, and to the UCF community via the university website.

"We wanted to make something that could be used anywhere in the country. If you just look through the news headlines, bomb threats are happening all the time at universities and schools," Morgan says. "The video promotes a message on how you should train so that if something happens, you can provide law enforcement with the information they need to do their job. And of course we want you to do it safely and minimize the threat as well. We hope others will post the video on their websites and utilize this as a standard training tool for their organization."

For more information on the project, contact Jeff Morgan at (407) 882-7111 or email Jeff.Morgan@ucf.edu.

Electric Motorcycles Can Offer Advantages for Law Enforcement By Michele Coppola

Some law enforcement agencies are using cost-effective electric powered motorcycles that can patrol areas where police cars can't reach.

The Santa Rosa Police Department in California purchased two electric motorcycles in November 2015 for a total of \$29,311 using grant money from the U.S. Department of Justice's Edward Byrne Memorial Justice Assistance Grant Program.

The department's Downtown Enforcement Team uses the vehicles to traverse terrain such as creek paths, parks and railroad tracks, increasing response times to areas patrol cars cannot get to.

"The purpose is to get to areas that are hard to reach, either in response to a call or for follow-up investigation," says Sgt. Ryan Corcoran, who is in charge of the team.

The vehicles also allow officers to approach situations with quiet efficiency, providing a tactical advantage. The vehicles use an electric motor driven by batteries that are plugged in for recharging.

"One of the best benefits is the stealth factor and how silent the motorcycles are and how they provide the ability to sneak up on people involved in criminal activity and catch them in the act," Corcoran says. "The stealth approach, or silent approach, in areas where people don't expect to be approached is an advantage. On a regular motorcycle people can hear it coming from far enough away that they can get away. We've had people tell us that approaching on the electric motorcycle was unfair because, 'We didn't know you were coming.'"

For example, he says, two officers were on patrol, riding a paved creek path and happened upon a person spraying graffiti. "The guy did not know they were approaching until they were off the bikes and next to him."

The team also has two patrol cars and five mountain bicycles. "On a bicycle, which we also use and which are helpful, we are limited on how fast we can respond to incidents."

Other advantages of the electric vehicles, cited in the department's 2015 annual report, include that they are exhaust free, produce minimal heat and are highly maneuverable. It cites a plug-in cost of about a penny per mile and a maintenance-free powertrain.

The Santa Rosa Police Department has a motorcycle traffic enforcement team that uses traditional motorcycles. Corcoran says his unit spent about a year researching gas-powered and electric motorcycles before deciding on what type to buy.

Santa Rosa sits about 55 miles north of San Francisco. The police department has about 256 total employees serving an estimated population of 174,972, according to a U.S. Census estimate for 2015.

The department expanded the Downtown Enforcement Team from four to six officers in July 2016 and will be applying for another grant to purchase two additional electric motorcycles.

"My team has nothing but good things to say. They love the electric motorcycles," Corcoran says.

For more information, contact Sgt. Ryan Corcoran at <u>RCorcoran@srcity.org</u>.

TECHShorts September 2016

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 National Law Enforcement and Corrections Technology Center (NLECTC) System, as well as other agencies. 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, JUSTNET News, an online, weekly 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, www.justnet.org. Subscribers to JUSTNET News receive the news summary directly via email. To subscribe to JUSTNET News, go to https://www.justnet.org/app/puborder/subscribe/subscribe.aspx, email your request to asknlectc@justnet.org or call (800) 248-2742.

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Report on Offender Recidivism

Bureau of Justice Statistics

A report from the Bureau of Justice Statistics examines the offending patterns of persons placed on federal community supervision in 2005 by offender characteristics and prior criminal history. It includes the number and types of crimes offenders committed prior to and after being placed on community supervision.

The report, *Recidivism of Offenders Placed on Federal Community Supervision in 2005: Patterns from 2005 to 2010*, examines arrests of federal offenders by federal and state and local law enforcement agencies. It also compares characteristics and recidivism outcomes of offenders released from federal prison to offenders released from state prison in 2005.

In fiscal year 2005, nearly 43,000 offenders were placed on federal community supervision. Findings include that within one year, 18 percent had been arrested at least once. At the end of the five-year follow-up period, 43 percent had been arrested.

Findings are based on records obtained from the Office of Probation and Pretrial Services of the Administrative Office of the U.S. Courts, the Federal Bureau of Prisons, the FBI's Interstate Identification Index, and state criminal history repositories. To read the report, go to http://www.bjs.gov/index.cfm?ty=pbdetail&iid=5642.

Manual Available for Developing Joint Jurisdiction Courts

Bureau of Justice Assistance

A resource publication is available that can serve as a roadmap for tribal and community leaders who want to develop joint jurisdiction courts or initiatives in their communities.

Joint Jurisdiction Courts: A Manual for Developing Tribal, Local, State & Federal Justice Collaborations, was published by Project T.E.A.M, a Bureau of Justice Assistance-funded training and technical assistance provider. It examines the process developed in one Minnesota community and adopted by other jurisdictions, and provides information on creating new joint jurisdiction initiatives.

The report notes that greater intergovernmental cooperation can result in better services for Indian country and provide better arrest and prosecution rates. Tribal-state cooperative agreements can offer the opportunity to coordinate the exercise of authority, share resources and reduce administrative costs.

For additional information and to access the report, go to http://www.ohsu.edu/xd/research/centers-institutes/evidence-based-policy-center/stakeholder-engagement/Joint-Jurisdiction-Courts-Manual.cfm.

Real-Time Crime Forecasting Challenge

National Institute of Justice

The National Institute of Justice plans to release a Crime Forecasting Challenge later this year. The Challenge seeks to harness the advances in data science to address the challenges of crime and justice. It encourages data scientists across all scientific disciplines to foster innovation in forecasting methods. The goal is to develop algorithms that advance place-based crime forecasting through the use of data from one police jurisdiction. NIJ will award up to \$1.2 million in prizes for the most effective and efficient forecasts at the conclusion of the Challenge. NIJ plans to release the Challenge and the first datasets in September 2016.

A Challenge competition poses a problem or question to the public and requests a practical solution; rewards are offered for solutions that meet the criteria set out by the sponsoring agency.

For information, go to http://nij.gov/funding/Pages/fy16-crime-forecasting-challenge.

Public Safety Technology in the News

Following are abstracts on public safety-related articles that have appeared in newspapers, magazines and websites.

Simulator Mimics Stressful Calls Police May Get

Cape May Herald, (08/09/2016), Vince Conti

The police department in Cape May, N.J., is addressing the stressful situations faced by today's law enforcement officers by implementing the latest in virtual reality technology. The equipment, consisting of a freeware advanced audio coder (FAAC) and the Milo firearms simulator, allow trainers at the agency's training academy to take an officer from the moment of receiving a call in a patrol car through the completion of an incident involving use-of-force decisions.

http://www.capemaycountyherald.com/news/article_b4ae4ed6-5e31-11e6-be21-0b8f4a87aefc.html

Cincinnati Police Deploy First Officer Body Cameras

WLWT5, (08/10/2016)

Cincinnati has begun rollout of body-worn cameras for police officers. Officials expect to distribute 700 cameras by the end of the year. Officers will be required to activate the cameras in various emergency situations.

http://www.wlwt.com/news/cincinnati-police-debuts-officer-body-cameras/41134034

California Inmates Help Train Puppies to Become Service Dogs

ABC News, (08/11/2016), Avianne Tan

Inmates at two California prisons are helping train puppies to become service dogs for wounded veterans and people with autism. The Prisoners Overcoming Obstacles and Creating Hope (POOCH) program is in place at the Richard J. Donovan Correctional Facility in San Diego and the Mule Creek State Prison in the city of Ione.

http://abcnews.go.com/US/california-inmates-train-puppies-service-dogs/story?id=41311656

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JUSTNET News. 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, protective gloves and more.

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

Social Media. Access our Facebook, Twitter and YouTube feeds for the latest news and updates.

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