TechBeat

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

WORKING TOGETHER TO REDUCE

GRAFFITI... AND FEAR

P. 3

NLECTC
National Law Enforcement and Corrections Technology Center
A Program of the National Institute of Justice NIJ

FALL 2013   WWW.JUSTNET.ORG

TELL US ABOUT YOUR TECHNOLOGY NEEDS

The National Law Enforcement and Corrections Technology Center wants to know your technology needs and requirements as a law enforcement or corrections professional. Use the form at https://www.justnet.org/tech_need_form.html to describe tools that would enhance the safety and effectiveness of your job. This information from practitioners is used to inform the National Institute of Justice (NIJ) research, development, testing and evaluation process and to make recommendations on prioritizing NIJ's investments across its various technology portfolios.

Communications Technology CoE

Forensic Technology CoE

Small, Rural, Tribal and Border Regional Center

States, Major Cities and Counties Regional Center

Sensor, Surveillance, and Biometric Technologies CoE

NLECTC
National Law Enforcement and Corrections Technology Center

Weapons and Protective Systems Technology CoE

Law Enforcement Standards Office

Corrections Technology CoE

NLECTC–National

Information and Geospatial Technologies CoE

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.

ANDROID AND IPHONE APPS AVAILABLE

TECH Beat

Android and iPhone apps are now available to access *TechBeat*. Keep current with research and development efforts for public safety technology and enjoy interactive features including video, audio and embedded images.

iTunes:
http://www.justnet.org/iphoneapp/
Android:
http://www.justnet.org/androidapp/

WORKING TOGETHER TO REDUCE GRAFFITI... AND FEAR

By Becky Lewis

It lines tunnels, bridge abutments, alley walls. It covers road signs and obscures vital information. It exposes small children to ugly words.

It is graffiti. And it isn't art.

"Graffiti scares people. It doesn't matter if it's gang-related or not, it makes people feel unsafe," says Lt. Lori Dreier of the St. Louis Park (Minn.) Police Department. "Our mayor, Jeff Jacobs, has said, 'If you think this is art, then sign it and we'll come talk to you.'"

But after a six-year eradication campaign, it might be hard to find graffiti in St. Louis Park, signed or unsigned. And what does appear quickly vanishes, thanks to what started as a grassroots campaign that has grown to a sophisticated cooperative effort between a number of Minneapolis suburbs and includes a reporting system, a searchable database and a
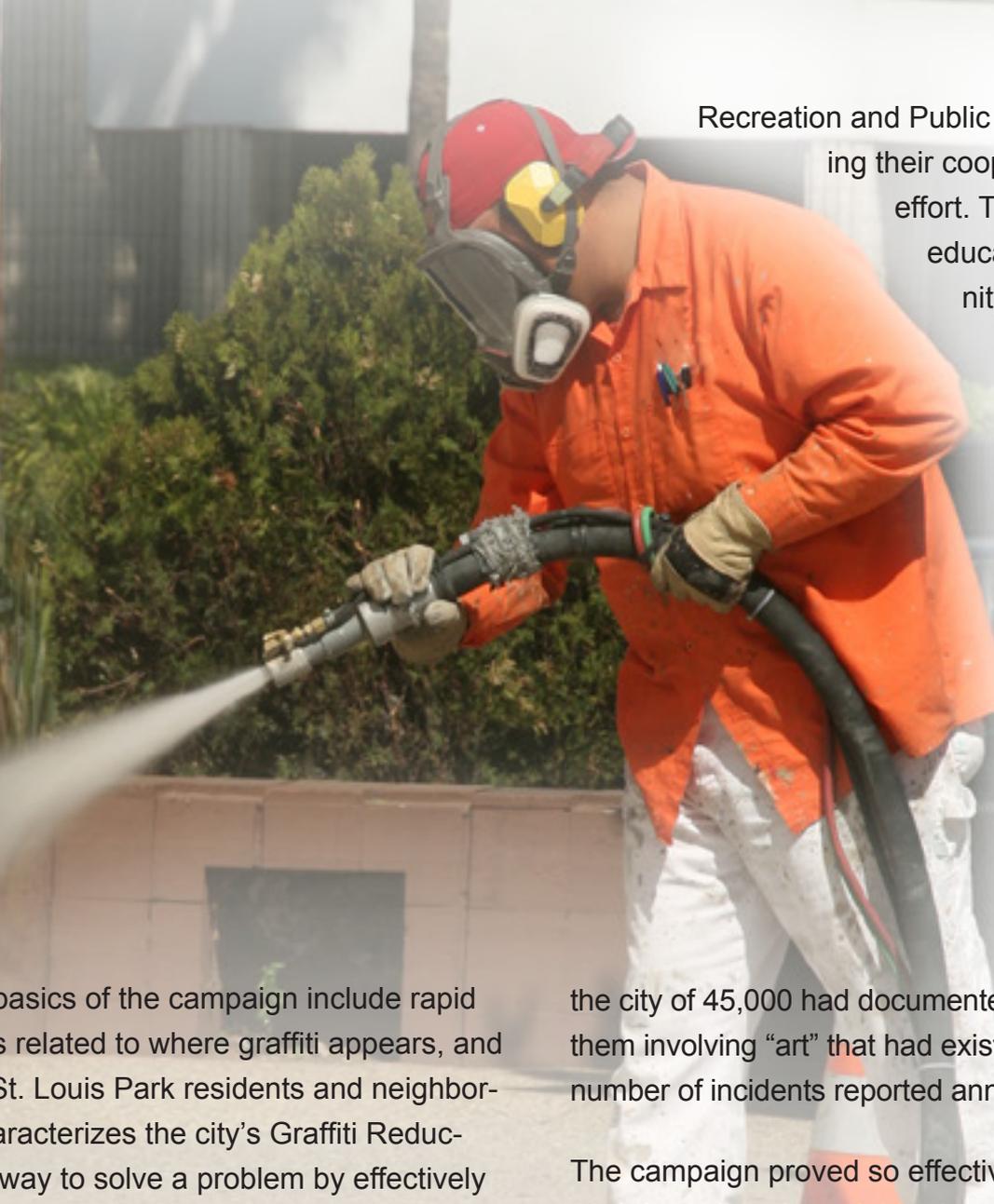
Recreation and Public Works departments, and requesting their cooperation in a mandatory reporting effort. The department launched a public education campaign, asking community members to file reports and offering them help with cleanup. St. Louis Park PD also developed partnerships with the local railroad and utility companies to ensure those entities participated in the cleanup effort.

"Our Public Works department became chemists and found out the best ways to clean various surfaces, so they could in turn help out the homeowners," Dreier says.

By the end of the first year, the city of 45,000 had documented 710 incidents of graffiti, some of them involving "art" that had existed for years. Six years later, the number of incidents reported annually has declined to around 150.

The campaign proved so effective that St. Louis Park decided to push it out it to the neighboring suburbs, spearheading the West Metro Graffiti Reduction campaign. That effort now encompasses the majority of Hennepin County, the largest county in the state, and covers nearly 100 square miles of suburban Minneapolis. Minneapolis and the Three Rivers Park District are participating in the West Metro group and are members of Graffitinet©.

With approximately a half-dozen communities involved in the West Metro effort, the group needed a more sophisticated tracking system than the Microsoft® Excel spreadsheet initially used in

website. Dreier says the basics of the campaign include rapid cleanup, tracking patterns related to where graffiti appears, and information sharing with St. Louis Park residents and neighboring communities. She characterizes the city's Graffiti Reduction Initiative as a simple way to solve a problem by effectively using existing technology.

The effort started in 2007 due to an increasing number of reports from community members concerned about graffiti. At that time, incidents involving graffiti received the same code as other property damage, so there was no way to accurately determine the extent of the problem.

St. Louis Park PD started on the path to a solution by meeting with all the involved stakeholders, including the city's Parks and

"Graffiti scares people. It doesn't matter if it's gang-related or not, it makes people feel unsafe. Our mayor, Jeff Jacobs, has said, 'If you think this is art, then sign it and we'll come talk to you.'"

-Lt. Lori Dreier, St. Louis Park Police Department.
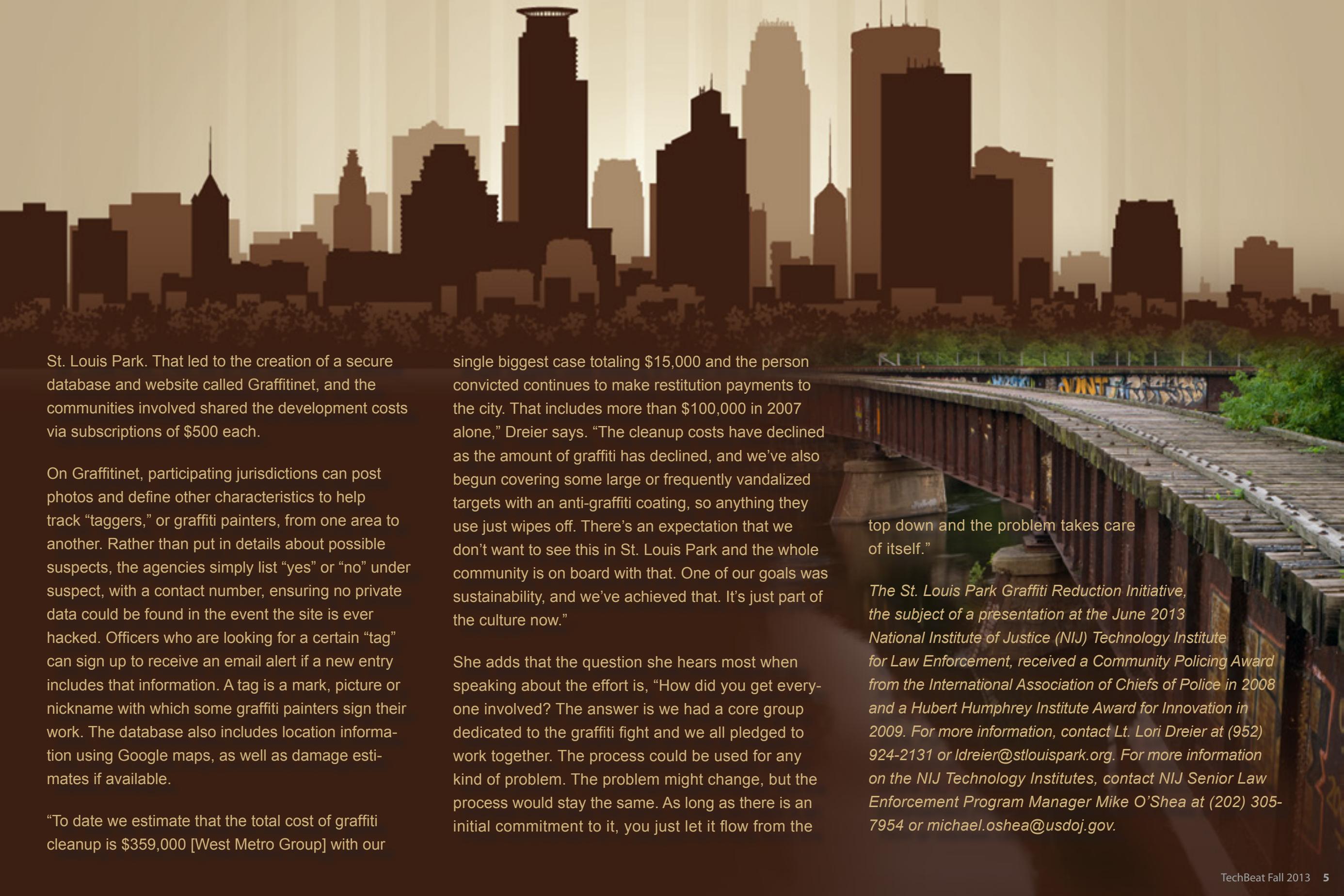
St. Louis Park. That led to the creation of a secure database and website called Graffitinet, and the communities involved shared the development costs via subscriptions of $500 each.

On Graffitinet, participating jurisdictions can post photos and define other characteristics to help track "taggers," or graffiti painters, from one area to another. Rather than put in details about possible suspects, the agencies simply list "yes" or "no" under suspect, with a contact number, ensuring no private data could be found in the event the site is ever hacked. Officers who are looking for a certain "tag" can sign up to receive an email alert if a new entry includes that information. A tag is a mark, picture or nickname with which some graffiti painters sign their work. The database also includes location information using Google maps, as well as damage estimates if available.

"To date we estimate that the total cost of graffiti cleanup is $359,000 [West Metro Group] with our single biggest case totaling $15,000 and the person convicted continues to make restitution payments to the city. That includes more than $100,000 in 2007 alone," Dreier says. "The cleanup costs have declined as the amount of graffiti has declined, and we've also begun covering some large or frequently vandalized targets with an anti-graffiti coating, so anything they use just wipes off. There's an expectation that we don't want to see this in St. Louis Park and the whole community is on board with that. One of our goals was sustainability, and we've achieved that. It's just part of the culture now."

She adds that the question she hears most when speaking about the effort is, "How did you get everyone involved? The answer is we had a core group dedicated to the graffiti fight and we all pledged to work together. The process could be used for any kind of problem. The problem might change, but the process would stay the same. As long as there is an initial commitment to it, you just let it flow from the top down and the problem takes care of itself."

The St. Louis Park Graffiti Reduction Initiative, the subject of a presentation at the June 2013 National Institute of Justice (NIJ) Technology Institute for Law Enforcement, received a Community Policing Award from the International Association of Chiefs of Police in 2008 and a Hubert Humphrey Institute Award for Innovation in 2009. For more information, contact Lt. Lori Dreier at (952) 924-2131 or ldreier@stlouispark.org. For more information on the NIJ Technology Institutes, contact NIJ Senior Law Enforcement Program Manager Mike O'Shea at (202) 305-7954 or michael.oshea@usdoj.gov.

Choosing a New Approach to AMBER ALERTS

By Becky Lewis

There's nothing more critical to the mission of law enforcement than protecting children who can't protect themselves. That's the philosophy that Capt. John Bradley and the Kentucky State Police emphasize in their approach to using the Commercial Mobile Alert System (CMAS) with some AMBER Alerts.

"This reaches everybody," Bradley says of CMAS, which automatically sends a loud tone and the AMBER Alert message to all cellphones physically located within a designated geographic area. (For more details on Wireless Emergency Alerts/CMAS, see http://www.fema.gov/wireless-emergency-alerts#0). Users may opt out by changing settings on their phone or calling their carrier, but many are unaware the system even exists.

"Law enforcement agencies need to get out in front of this and tell citizens they may get these alerts. It's not something they register for, and even though your cellphone might have a completely different area code, if you're traveling through an area when the system is activated, you'll get the alert," Bradley says.

Although the Kentucky State Police see the implementation of CMAS for AMBER Alerts as a valuable tool, it has made the process of deciding when and how to issue alerts more complicated. Because of those complications, some states may choose to opt out entirely from using CMAS for AMBER Alerts, and others may avoid the issues by using it with every alert.

"We're not going to box ourselves in this way," Bradley says. "We'll look at this on a case-by-case basis to determine if use of CMAS is appropriate. We want to use it only when it is meaningful to do so."

Instead of either "all or nothing," Kentucky has chosen a different approach, one that could be used as a model. To start, Bradley explains, the U.S. Department of Justice has issued nationwide recommendations on the criteria to determine whether a situation warrants an AMBER Alert. The National Center for Missing and Exploited Children has additional recommendations on the use of CMAS. For example, recommendations say to consider a moratorium on its use between 10 p.m. and 6 a.m., although Kentucky may still use it during those hours if the information is strong and solid.

"If it's 10 in the morning and we have vehicle information, the decision to use it is easy. If it's 2 a.m. and the information is sketchy, maybe not. But what if it's 2 a.m. and we have a license number and a specific route of travel?" Bradley says.

Other best practices adopted by the state include the use of three specific geographic zones, with the alert possibly going to only one or two of the three, and establishment of an agreed-upon template for information, such as vehicle description and specific roads of interest.

Although Kentucky has yet to put these practices into use, CMAS for AMBER Alerts has already proven successful since its Jan. 1, 2013, implementation by the Federal Emergency Management Agency. Its most notable use came in Minnesota, which became the first state to use it successfully with the safe recovery of 8-month-old Carlos Orosco on February 20 (http://www.emergencymgmt.com/emergency-blogs/alerts/Abducted-Child-Found-Thanks-022113.html).

"We're thankful that AMBER Alerts in Kentucky are relatively rare," Bradley says. "Some years we might issue four or five, then we might go a couple of years without issuing even one. Still, we're going to use every tool at our disposal when we need to issue an AMBER Alert. These days, everybody has a cellphone, and this gives us another really effective tool to help recover missing children."

Capt. John Bradley, who can be reached at (502) 564-1020 or john.bradley@ky.gov, gave a presentation on this topic at the June 2013 National Institute of Justice (NIJ) Technology Institute for Law Enforcement. For more information on NIJ Technology Institutes, contact NIJ Senior Law Enforcement Program Manager Mike O'Shea at (202) 305-7954 or michael.oshea@usdoj.gov.

39
USA
AMBER ALERT
saves missing children

"We're thankful that AMBER Alerts in Kentucky are relatively rare. Some years we might issue four or five, then we might go a couple of years without issuing even one. Still, we're going to use every tool at our disposal when we need to issue an AMBER Alert. These days, everybody has a cellphone, and this gives us another really effective tool to help recover missing children."

-Capt. John Bradley, Kentucky State Police

The Future of BODY-WORN Cameras for LAW ENFORCEMENT

By Michele Coppola

In recent years law enforcement agencies have been experimenting with and using body-worn video cameras. How future cameras can be improved to further officer safety and effectiveness was among the topics discussed at a technology institute sponsored by the Office of Justice Programs' National Institute of Justice (NIJ).

Proponents of body-worn cameras say they protect officers from false accusations, reduce agency liability and citizen complaints, and provide evidence for use in court. Unlike vehicle-mounted cameras, the body-worn cameras travel with the officer when he steps away from the patrol car. They can be attached to a shirt pocket, helmet, glasses or badge, and can serve to augment in-car video systems or provide an option to the expensive in-car systems that some departments cannot afford.

Capt. Wayne Hoss of the San Mateo Police Department says that while those arguments carry weight, the current technology has limitations. Why not go further and incorporate technology into body-worn cameras that could substantially increase officer safety? Hoss discussed the current state of body-worn cameras and a future vision for the technology at the NIJ 2013 Technology Institute for Law Enforcement.

San Mateo, with a population of approximately 98,000, sits about 20 miles south of San Francisco, near Silicon Valley, which is home to numerous established and start-up high-tech companies. The police department has 100 sworn officers. Hoss says the proximity to the technology enclave has served the police department well, affording it the opportunity to serve as a testing ground for new technologies, such as a WiFi network that provides officers in the field with wireless broadband access to law enforcement databases.

In the past three years, the police department has conducted five pilot tests of body-worn cameras, and decided not to use them, Hoss says, noting that the placement of the camera on the officer is extremely important.

"We have tested cameras and found that none of them are ready technology-wise for fulltime wearing by our police officers," Hoss says. "The cameras were not seeing what we wanted them to see. The perspective the video is recording is not the perspective of where the

officer is looking unless the camera is mounted on the officer's head, so for officers with a helmet it works well."

Vehicle camera systems have integrated automated license plate recognition technology. Future officer-worn cameras could also include it, Hoss says, as well as facial recognition software to scan the environment and notify the officer of stolen vehicles and wanted individuals. Eventually perhaps voice stress analysis software could also be incorporated into a body-worn camera system.

A current challenge is battery life.

"Current batteries will generally last enough for a shift but officers are doing limited technology with it, only recording video," Hoss says. "My hope is that on future cameras, the lense could follow a suspect's movements. The problem would be the battery mechanics; it would make the battery much larger than the officer would be comfortable wearing."

Hoss says he has been discussing the vision for future camera capability with industry members.

"At the law enforcement technology institute, my recommendation for agencies was to be patient on body-worn cameras; the technology is emerging, so look at the technology in the next 18 to 24 months," he says. "The folks in the market are trying to address the challenges I have brought up. If law enforcement expects these companies to adapt technology for us, we're going to have to take the lead."

In 2012, the NIJ Sensor, Surveillance, and Biometric Technologies Center of Excellence published a primer on the use of body-worn cameras by law enforcement. *A Primer on Body-Worn Cameras for Law Enforcement* provides an introduction to body-worn cameras and highlights issues and factors for agencies to consider regarding implementation. The report can be viewed at https://justnet.org/pdf/00-Body-Worn-Cameras-508.pdf

For more information on possible future capabilities of body-worn cameras, contact Capt. Wayne Hoss at (650) 522-7682 or whoss@cityofsanmateo.org. For information on the NIJ Technology Institutes, contact NIJ Senior Law Enforcement Program Manager Mike O'Shea at (202) 305-7954 or michael.oshea@usdoj.gov.
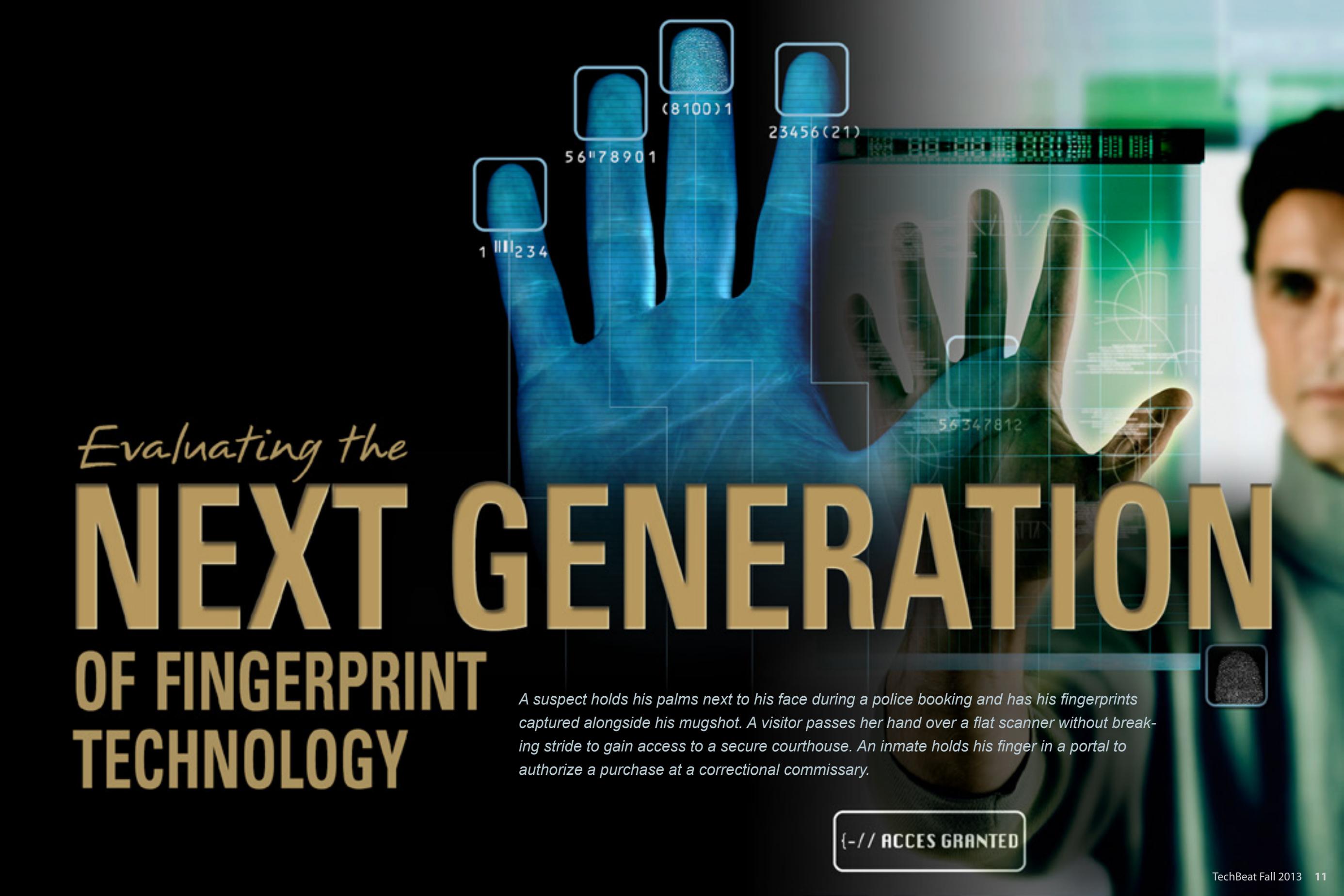
Evaluating the
NEXT GENERATION
OF FINGERPRINT TECHNOLOGY

A suspect holds his palms next to his face during a police booking and has his fingerprints captured alongside his mugshot. A visitor passes her hand over a flat scanner without breaking stride to gain access to a secure courthouse. An inmate holds his finger in a portal to authorize a purchase at a correctional commissary.

{-// ACCES GRANTED

Sound futuristic? Well, it actually is, but within the next few years, it might not be.

The National Institute of Justice (NIJ) Sensor, Surveillance and Biometric Technologies Center of Excellence (SSBT CoE) recently finished a research and evaluation project of the next generation in fingerprint technology: devices that scan digital fingerprint images without individuals needing to press their fingers against a screen, and that do not require trained operators to collect the images.

The CoE performed a summary assessment of existing contactless fingerprint technologies, including both commercial products and prototypes funded by federal research. The report provided a detailed summary of what these technologies could do. This research showed that the majority of currently available commercial contactless scanners are intended to provide secure employee access to facilities and are not set up to work with automated fingerprint identification systems (AFIS); it would take additional product development and research and development (R&D) investment to add that capability. This report will be posted later in 2013 on JUSTNET, the website of the National Law Enforcement and Corrections Technology Center (NLECTC) System, which includes the SSBT CoE.

"One of the main benefits is you capture the fingerprint without anything touching the finger, so it's in a natural state," says Lars Ericson, SSBT CoE director. "With traditional scanners, officers require special training to accurately collect prints, and if you compare prints taken by two different operators, there might be inconsistencies due to differences in their techniques. Also, the amount of force an individual uses to press down can change a

With contactless technology, the potential exists for higher quality images produced at a faster rate of speed with less supervision.

fingerprint, as can residual oils from another person's finger. If your fingers are very dry, or very worn from years of manual labor, that can also change the image. All of these factors can create problems."

With contactless technology, the potential exists for higher quality images produced at a faster rate of speed with less supervision. Ericson says this could improve throughput when used for access control and could eliminate potential contamination from previous users. However, more R&D and evaluation work is needed to realize and confirm these benefits. That is where this work by the SSBT CoE provides an important foundation. Ericson notes that the project's reports, although publicly available, will be of more interest to the research community than to the public safety community at large.

"We're starting to see these come on the market, and we want to get ahead of technology and understand it before state and local agencies start adopting it. We want to stay ahead of the technology curve," Ericson says. "I think that is really important with emerging technologies. You don't want to try to play catch-up and try to understand applications after they're already out in the field."

As part of this research project, the SSBT CoE also performed a study of the performance of contactless fingerprint technology as compared

to traditional scanners. Data from three contactless scanners, one commercially available and two U.S. Department of Defense (DoD) prototypes, were compared to four traditional contact scanners used in the field, and to rolled ink fingerprints. (CoE partner West Virginia University conducted a fingerprint collection from 500 individuals that became the comparison dataset for the research.)

The evaluation results showed less match performance for the contactless systems when compared to traditional fingerprint scanners. Ericson says it isn't surprising that the contactless systems did not perform as well as the others, given that the algorithms used in the research were developed for traditional scanners and were not optimized for use with the new contactless devices.

"What the research does create is a benchmark of sorts. It shows us where we are now and where we need to be," he says. "NIJ and DoD are quite pleased with the results, which should be valuable to the research community."

NIJ is planning to publish a report on the research through the NLECTC System and the National Criminal Justice Reference Service later in 2013, and NIJ and DoD are considering a follow-on effort for FY2014. Also, other researchers can access the fingerprint database through a request to West Virginia University. Ericson notes that this database of contactless and contact fingerprints from the same population has not existed before now and will aid the research community.

"What does this all mean for law enforcement? The contactless technologies could offer some unique and interesting advantages, but they're not yet mature enough for widespread use," Ericson says. "However, they may be ready for adoption within the next five years; agencies should not pursue this right now, they should allow it to become more mature."

For more information on the programs of the Sensor, Surveillance, and Biometrics Technologies Center of Excellence, contact NIJ Program Manager Mark Greene at (202) 307-3384 or by email at mark.greene2@usdoj.gov. To learn when the reports are available, visit www.justnet.org *and sign up to receive the weekly newsletter, JUSTNET News, and other breaking news alerts.*

FISHING for EVIDENCE
Yields Results in TEXAS
By Becky Lewis

When officers need to investigate an unwitnessed vehicle crash, especially a fatal one, they can usually find plenty of physical evidence: tire tracks, skid marks, broken trees, damaged guardrails, and of course, the vehicle itself.

Unless, of course, it ends up underwater.

Lt. Michael Mitchell of the Texas Parks and Wildlife Department says that sometimes he envies officers who work on the 29 percent of Earth's surface not covered by water.

"In Texas, my agency is the primary water patrol agency," Mitchell says. "We were looking for persons or evidence under the water by using either hooks, which is a laborious process, or divers, which is an inefficient and expensive process, and we wanted to find a way to do it better."

The way that Mitchell devised for doing it better involved taking off-the-shelf technology used for commercial and recreational fishing, and putting it to a different use. Taking a side scan sonar imagining device, which is typically hard-mounted into one vessel, Mitchell
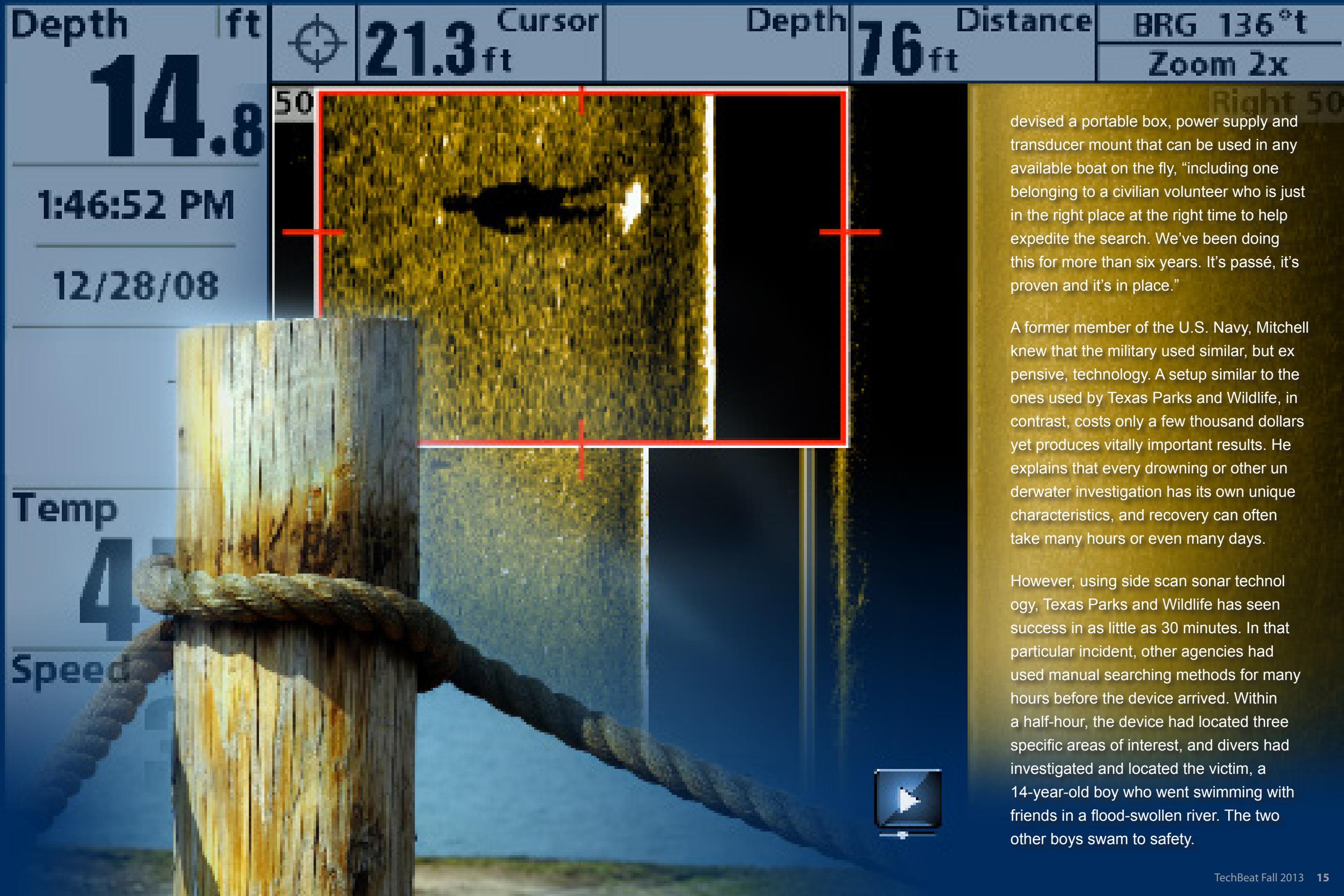
Depth ft
14.8

1:46:52 PM

12/28/08

Temp
4

Speed

devised a portable box, power supply and transducer mount that can be used in any available boat on the fly, "including one belonging to a civilian volunteer who is just in the right place at the right time to help expedite the search. We've been doing this for more than six years. It's passé, it's proven and it's in place."

A former member of the U.S. Navy, Mitchell knew that the military used similar, but ex pensive, technology. A setup similar to the ones used by Texas Parks and Wildlife, in contrast, costs only a few thousand dollars yet produces vitally important results. He explains that every drowning or other un derwater investigation has its own unique characteristics, and recovery can often take many hours or even many days.

However, using side scan sonar technol ogy, Texas Parks and Wildlife has seen success in as little as 30 minutes. In that particular incident, other agencies had used manual searching methods for many hours before the device arrived. Within a half-hour, the device had located three specific areas of interest, and divers had investigated and located the victim, a 14-year-old boy who went swimming with friends in a flood-swollen river. The two other boys swam to safety.

"It's not average, but it is a great success story," Mitchell says. "Every drowning event is personal because it affects a family. With this device, I'm confident that we can at least decrease the amount of time a family is suffering the pain of not knowing. We know it at least puts us in areas of interest more so than manual hook and line dragging."

Investigating officers can keep a device available in their vehicle back seats because it takes up only a few square feet of space, and more than 100 side scan sonar units are now in use throughout Texas. However, in a state that big, an official vessel could still be hours away from the scene. Thus, in many cases, officers have welcomed volunteer assistance and mounted the side scan sonar in a personally owned watercraft.

Although the device can be, and has been, mounted in many types of boats, Mitchell cautions that it takes training to interpret the sonar images that result. To help with that interpretation, he teaches a multi-day training course that includes classroom sessions and a field exercise to find an object in a lake.

Students start with studying images of more easily identifiable objects, such as a sailboat that sank off the coast of Florida and an airplane immersed in a lake, and move on to more obscure results. Key points emphasized in the training include that because the technology sweeps across the

bottom, the investigating boat has passed the object before the officer sees the image and it might sometimes be easier to identify an object from its shadow rather than its actual image. Side scan sonar also has its shortcomings; for example, it cannot identify objects as small as a handgun, which often sink into the mud and are almost impossible to find through that means.

"The images admittedly are difficult to interpret. In our investigations, we also use photography, including aerial photography, and combine the results. We use free software to help pull it all together," he says.

Investigators from outside Texas who are interested in the technology could start by researching side scan sonar technology on the Internet, then contact Mitchell for more information.

"A lot of people might want to patent this type of portable transducer concept and sell it, but I'm the opposite. I just want to help."

For more information on Texas Parks and Wildlife's use of side scan sonar in underwater investigations, which was the subject of a presentation at the June 2013 National Institute of Justice (NIJ) Technology Institute for Law Enforcement, contact Lt. Michael Mitchell at michael.mitchell@tpwd.texas.gov. *For more information on NIJ Technology Institutes, contact NIJ Senior Law Enforcement Program Manager Mike O'Shea at (202) 305-7954 or michael.* oshea@usdoj.gov.

TECHshorts

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 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 *JUST-NET News,* go to https://www.justnet.org/subscribe.html, email your request to asknlectc@justnet.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.

A Review of Gun Safety Technologies Released

National Institute of Justice

The National Institute of Justice (NIJ), with assistance from its Sensor, Surveillance, and Biometric Technologies Center of Excellence (SSBT CoE), has released *NIJ Research Report: A Review of Gun Safety Technologies,* in support of the Presidential Executive Actions on Reducing Gun Violence. SSBT CoE assessed smart or personalized technologies implemented into a firearm that prevents anyone other than an authorized user from firing it, and conducted a market survey of those technologies currently available. This research played a key role in shaping the final report, written by Dr. Mark Greene, program manager of NIJ's Sensor and Surveillance and Biometrics research portfolios.

To read the report, visit https://www.ncjrs.gov/pdffiles1/nij/242500.pdf.

Unmanned Aircraft Systems (UAS) Workshop Addresses Emerging Issues

National Institute of Justice

The National Institute of Justice (NIJ), the U.S. Department of Homeland Security and the Federal Aviation Administration sponsored "Pre-Flight Briefing: Public Safety Guidance on UAS Operations," a free workshop held in June 2013. The workshop covered rules and regulations regarding UAS, available spectrum issues, federal UAS evaluation programs, privacy and working with the public, operational considerations, aircraft and their payloads, and lessons learned and best practices.

UAS have the potential to support the public safety mission in a cost-effective manner, but getting a program airborne requires a working knowledge of how to deal with these and other issues. The workshop helped public safety agencies determine if there is a role for this technology to support their specific public safety mission.

For information, contact Mike O'Shea, NIJ senior law enforcement program manager, at michael.oshea@usdoj.gov.

Study on StarChase Technology

National Institute of Justice

The National Institute of Justice (NIJ) is nearing completion of a study of the StarChase pursuit management system, which allows an officer to deploy a GPS tag onto a fleeing suspect vehicle in order to track it.

The tag device is launched from the grill of the officer's patrol car. The Arizona Department of Public Safety has been using the technology for several years. The agency purchased a StarChase unit with its own funds in 2009, then bought six additional units over several years using grant funds from the U.S. Department of Homeland Security.

"We still consider it a pilot program. We've had some hits and misses," says Major Larry Scarber of the department's Southern Patrol Bureau. "We have had some good successes with them, particularly among officers who do interdiction with drugs and smuggling."

Geoffrey Alpert of the University of South Carolina met with officers from the Arizona agency and has spoken to other agencies using the technology. He submitted a preliminary report to NIJ in 2013 and will finalize the report once he receives speed-related computer data.

"It's not for every officer; it's not for the timid driver," Alpert says. "But some of the guys called it a game changer."

With funding assistance from NIJ, StarChase has been improving the reliability and operational utility of the technology.

"It is evolving technology," Scarber adds. "Since we purchased the one unit in 2009, the technology has been improved. The controls are touch friendly and provide audible tones to indicate readiness, so once you practice with them there is no need to take your eyes off the road. The first units were powered by a gas cartridge. Now we have air

compressors built into the cars which are more reliable. They've also been experimenting with the adhesive that is used to stick the projectile to the target vehicle. We've had mixed results with that. It is still a work in progress."

Misses include instances in which the projectile either missed the vehicle entirely or did not adhere to the surface. "Sometimes it is due to operator error, or it is distance or terrain related. Some are good hits, but for whatever reason they did not adhere to the suspect vehicle," Scarber says.

He says the tool has proved useful in avoiding pursuits.

"If officers find out that an officer who has StarChase is in the area, they sometimes won't initiate the pursuit of, for example, a confirmed stolen vehicle. They will back off and wait until the officer with StarChase is in position to tag the vehicle, and then we avoid a pursuit."

For more information on use of StarChase, contact Major Larry Scarber of the Arizona Department of Public Safety at lscarber@azdps.gov. For information on the NIJ study, contact Brian Montgomery, NIJ officer safety and protective technologies program manager, at brian.montgomery@usdoj.gov.

Mobile JUSTNET Released

NLECTC-National

NLECTC-National has launched a mobile version of the JUSTNET website (www.justnet.org/mobile). The new pages, specifically formatted for mobile devices, allow smartphone and tablet users to more effectively use the website on their devices. Mobile JUSTNET provides better and faster access to *JUSTNET News* Alerts, *TechBeat* articles and information on the NLECTC System, and gives mobile users the ability to search the Compliant Products List and sign up for free subscriptions to *eTech-Beat* or *JUSTNET News.* Graphics scaled to suit all smartphones and the information – which is updated often – is organized to give users the ability to read headlines and bullet points, and offer a snapshot of the larger JUSTNET.

PUBLIC SAFETY TECHNOLOGY
In The News

JUSTNET

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

Sheriff's Office Employs New Crime-Fighting Tool

TBNWeekly.com, (09/06/2013)

The Pinellas County Sheriff's Office in Florida has used funding from the National Institute of Justice's Paul Coverdell Forensic Science Improvements Grants Program to purchase a forensic comparator/examination workstation that uses high-resolution cameras and three different light sources to improve results. The device improves clarity, documents the comparison process and helps examiners meet the criteria of the Daubert Standard in court.

http://www.tbnweekly.com/pinellas_county/content_articles/090613_pco-01.txt

California, San Francisco Officials Unveil New Smartphone App for Law Enforcement

San Jose Mercury News, (09/09/2013)

Approximately 6,000 San Francisco law enforcement officers have used a smartphone application called JusticeMobile in a pilot project, and plans call for some 1,600 officers to receive an expanded version of the app soon. JusticeMobile allows officers to look up suspects' criminal records from their smartphones.

http://www.mercurynews.com/crime-courts/ci_24058601/california-san-francisco-officials-unveil-new-smartphone-app

Pennsylvania Facial Recognition Systems Integrate to Widen Search for Criminals

Government Technology, (09/03/2013), Sarah Rich

Pennsylvania has integrated two facial recognition systems to broaden the scope of online searches for criminals. The state's Justice Network (JNET) Facial Recognition System was integrated with the Pennsylvania Department of Transportation (PennDOT) facial recognition system. The JNET system could only compare images from sources such as surveillance footage against previously arrested or convicted criminals listed in the statewide database, and needed a way to find suspects unknown to law enforcement. So the JNET system was merged with the PennDOT system, which stores millions of driver's license and identification photo images.

http://www.govtech.com/public-safety/Pennsylvania-Facial-Recognition-Systems-Integrate-to-Widen-Search-for-Criminals.html

Click here for recent public safety-related articles from the news media.

Go

WWW.JUSTNET.ORG

JUSTNETNews. 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.

Do More With Less. Highlights creative programs and resources to help agencies meet challenges as budgets shrink and demands on departments grow.

Tech Topics. Browse for information on specific topics such as biometrics, cybercrime, forensics and corrections.

Public Safety Technology in the News.
Click here for recent public safety-related articles from the news media.

http://www.youtube.com/JUSTNETorg

https://www.facebook.com/JustNetorg

https://twitter.com/JUSTNETorg