TechBeat

June 2019

by JTIC

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About TechBeat

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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The Justice Technology Information Center (JTIC), a component of the National Institute of Justice's National Law Enforcement and Corrections Technology Center (NLECTC) System, serves as an information resource for technology and equipment related to law enforcement, corrections and courts and as a primary point of contact for administration of a voluntary equipment standards and testing program for public safety equipment.

JTIC is part 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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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 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.

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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, and more.

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Video Highlights Technology to Provide Information on Suspicious Prepaid Money Cards

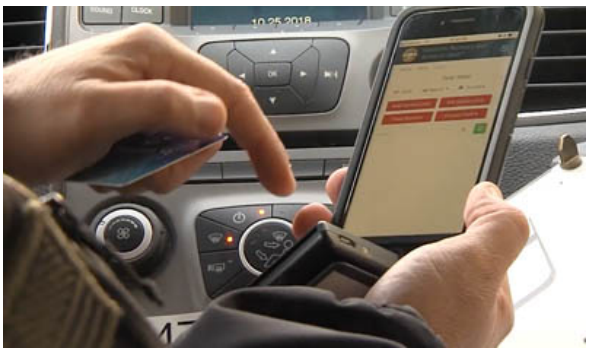
Video Highlights Technology to Provide Information on Suspicious Prepaid Money Cards

A recent video highlights technology designed to help law enforcement obtain information on suspicious prepaid money cards.

Large amounts of money can be programmed onto prepaid cards and used for illicit purposes. Cards with magnetic stripes such as bank credit and debit cards, gift cards and hotel card keys can be turned into prepaid cards.

The Electronic Recovery and Access to Data (ERAD) Prepaid Card Reader is a small, handheld device that wirelessly allows law enforcement officers in the field to identify and check the balance of suspicious cards, and to put a temporary hold on the linked funds until a full investigation can be completed.

Available since 2015, ERAD is used by state and



local law enforcement in 48 states, as well as by federal and international law enforcement agencies, according to the U.S. Department of Homeland Security Science and Technology Directorate, (DHS S&T), which coordinated development of the technology.

Previously, law enforcement had to contact each bank to determine whether a card was lost, stolen, bogus or cloned. In the recent video, Alan Walker, certified fraud examiner, Maricopa County (AZ) Attorney's Office, describes a case for which ERAD would have been helpful.

"We had a situation from the city of Scottsdale involving 6,000 cards which were obviously cloned cards or bogus cards," Walker said. "As we began to assist in the investigation, we realized that going through each card one at a time, contacting the banks individually, doesn't work. It took nine months to conclude that. We began to look for a better method, a better way. What we found was ERAD."

In the video, Det. Vince Porter, Financial Crimes Unit, Fairfax County (VA) Police Department, notes that patrol officers making a stop for some other kind of incident can come across a number of cards in the driver's possession that have different names embossed on them or no names at all.

Using the portable ERAD device attached to a smart phone, the officer can run the card through the device onsite. The device sends a signal to ERAD, which will identify the card and information about it, and email it back to the law enforcement officer.

"We are trying to verify that the information that comes up on the mag strip, is the same information that is on the face of the card," Porter said. "If we run a card and the card comes back not to match, we are able to freeze those assets that are on the card using ERAD itself."

The system also includes a USB-enabled scanner that users can connect to a desktop computer, so an investigator with a large number of cards can scan them at his or her computer. ERAD produces a detailed report on the status of each card and associated data.

The system has been a valuable asset for linking the suspicious cards to crimes. In the video, Walker notes that, "For every seizure we've had, we have seen 20 separate, unrelated

criminal cases investigated, instigated or created because of the card identifying identity theft, drug trafficking, money laundering, child prostitution, sex trafficking, human trafficking."

To read more about the technology and view the video, go to this link. Also, email first.responder@hq.dhs.gov for information.

Article photo: U.S. Department of Homeland Security/Science and Technology Directorate

Main photo: U.S. Department of Homeland Security/Science and Technology Directorate

Workshop Focuses on Rapid DNA and Disaster Victim Identification

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The explosion at a St. Louis rubber band factory resulted in a sobering number of fatalities that included workers, management, international visitors and schoolchildren. Sobering, that is, if it had been reality and not a workshop exercise at the May 2019 American Society of Crime Laboratory Directors (ASCLD) conference.

Workshop attendees learned valuable skills about handling the aftermath of a catastrophic event and the role that Rapid DNA technology can play in shaping that aftermath.

The use of Rapid DNA technology has increased in the nearly two years since the August 2017 passage of the Rapid DNA Act by Congress (see "Rapid DNA Forum Showcases the Technology," *TechBeat* January 2018), leading to the development of the May 19 Disaster Victim Identification Workshop by ASCLD's DVI Rapid DNA Subcommittee, the Department of Homeland Security Science and Technology Directorate, SNA International and the National Institute of Justice Forensic Technology Center of Excellence (NIJ FTCoE). Approximately 50 participants learned more about the technology and its uses in the morning

session, then divided into seven subgroups to cycle through a scenario involving the explosion at the rubber band factory.

The groups worked their way through interviews with family members looking for their missing loved ones, collecting samples from family members and creating a DNA pedigree; running the reference samples through Rapid DNA analysis; conducting a briefing at the family assistance center; collecting, and then processing, post-mortem samples; and conducting kinship analysis.

"Each group had to come up its own plan of attack: how many instruments they needed, how to work with the local medical examiner's office and various first responder groups, and so on," says the FTCoE's Sarah Norsworthy. "Both vendors in this field, Thermo Fisher and ANDE, provided instruments to use in the workshop, so participants learned how to use each instrument to process samples they took."

Working with actual samples included processing post-mortem samples of human bones and tissues on a table set up in front of a portable lab set up inside a van. Participants obtained insight into how to establish that type of field operation from a representative from U.S. Customs and Border Protection. They also heard from a subject-matter expert from the National Transportation Safety Board on how to communicate with the media and with family members. At the end of the workshop, the groups assembled to review lessons learned and challenges faced.

"Since the Act passed in 2017, more and more law enforcement agencies and crime labs have been implementing the use of Rapid DNA," says FTCoE's Donia Slack. "We had a fantastic case presented at the workshop about its use after last summer's Camp Fire wildfire in California (see https://www.cbsnews.com/news/paradise-lost-inside-california-camp-fire-60-minutes/). ASCLD really wanted to showcase the technology and how it can be a powerful tool in identifying disaster victims."

"The participants were very interested and engaged the whole time," Norsworthy says, and

Slack adds: “For a lot of the participants, the workshop made them realize they would have to reach out to neighboring states and labs to pull together a comprehensive response. One of the take home messages is that states and agencies need to have these preset collaborations in place beforehand instead of trying to work something out in the moment.”

Other key takeaways, Slack says, are how many players that comprehensive process involves and the need for continuing with ongoing trainings and developing consistent operating procedures.

For more information on the workshop, visit this link, or go here and follow the links. Other sponsors of the workshop, held at the St. Louis Metropolitan Police Department, included the Florida Emergency Mortuary Operations Response System (FEMORS) and the Missouri Mortuary Operations Response Team (MO MORT).

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Look for Report on Lawfully Owed DNA Later in 2019

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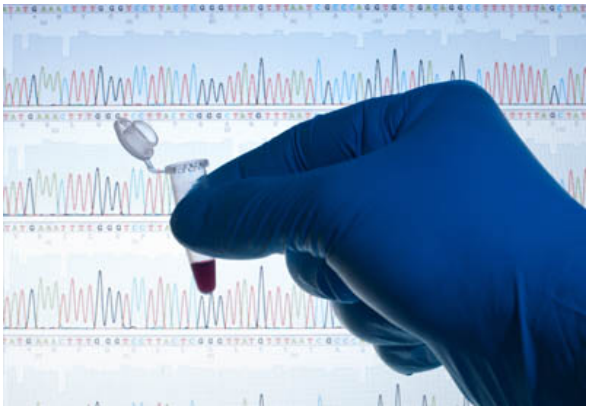
A false identity blown, thanks to DNA collected at the time of a prior arrest. A carelessly dropped cigarette butt, leading to a DNA hit on a suspect released from prison years ago in another state. Leads generated, suspects identified, cases linked: all thanks to the Combined DNA Index System (CODIS).

CODIS, maintained by the FBI, allows law enforcement agencies throughout the United States to share DNA profiles and information. Like every database, CODIS is only as good as the information entered into it. Recent research, legislative activities, practitioner discussion and media reports indicate that criminal justice agencies fail to consistently populate CODIS with DNA profiles obtained from taking samples from both arrestees and convicted offenders. Including these samples, often termed “lawfully owed DNA” samples, is critical to CODIS’ success.

The National Institute of Justice Forensic Technology Center of Excellence (NIJ FTCoE) conducted a landscape study (working title: *Recommendations for Improved Standard*

Operating Procedures to Collect, Track and Process Lawfully Owed DNA Samples) to identify factors that may result in potential barriers related to the collection, tracking and processing of arrestee and convicted offender samples, as well as identify successful policies and highlighting recommendations and suggested best practices related to improved efficiency for lawfully owed DNA samples.



The report is based on interviews with several criminal justice agencies responsible for the collection and processing of lawfully owed DNA samples, including representatives from courts and corrections, law enforcement and crime laboratories. Key recommendations emerging from this report, tentatively set for release in late summer 2019, follow.

Recommendation 1: Create a process for effective communication and tracking regarding the submission of lawfully owed DNA samples by law enforcement agencies to crime laboratories.

Most, if not all, crime laboratories appear to have efficient tracking systems for processing lawfully owed DNA samples. The majority of collection agencies, however, typically do not have an efficient tracking system in place. Additionally, there is little systematic communication regarding tracking lawfully owed DNA samples between the collection agency and the crime laboratory. This disconnect can result in the labs not being aware of the total number of lawfully owed DNA samples collected compared to the number received.

“There is essentially no quality assurance process to ensure that all lawfully owed samples collected are submitted to, and received by, the crime laboratory. Therefore, samples could be lost and not tested,” says the FTCoE’s Dr. Patricia Melton.

Possible solutions include, at a minimum, having the collection agency provide a manifest of lawfully owed DNA samples collected and submitted to the crime laboratory. The lab, in turn, can use this manifest to verify the correct samples are received and moved into the testing process. Alternatively, the optimal solution would be a shared tracking system that can easily identify and compare samples collected to samples received and processed.

“Such a system could also identify duplicate samples or failed samples that need to be re-

collected in a much more time-efficient manner," Melton says.

Recommendation 2: Encourage crime laboratory representation at discussions that involve legislation pertaining to the collection and processing of lawfully owed DNA samples.

Melton says that interviewees stated that having crime laboratory representation and involvement in discussions associated with forthcoming legislation can provide an opportunity to help strategize the collection and tracking processes needed to efficiently process these samples. Such discussions would allow crime labs to proactively address possible workflow modifications, identify solutions to identified challenges and ensure the availability of required capacity.

"When crime labs were proactively included, interviewees said their agencies' ability to respond to the legislation became a smoother, more efficient process," she says.

Recommendation 3: Appoint a crime laboratory liaison who will be the primary point of contact for collection agencies.

Interviewees believed that creating a position and having a dedicated person to address questions from collection agencies resulted in clear and consistent communication, streamlining issues with submission, duplicate samples and failed samples. Having this position also provided an opportunity to ensure the collection agency received effective training and implemented its procedures. Also, some interviewees observed increased efficiency, resulting in overall cost savings and improved processing productivity, and they highly recommend that crime laboratory administrators create such a position.

"This forthcoming landscape report also discusses differences in the overall legislation and collection procedures pertaining to lawfully owed DNA samples and highlights the need for a new cultural perspective that recognizes their importance," Melton says. "Collecting a convicted offender sample early in the process as opposed to prior to the individual's departing the system more effectively identifies serial perpetrators and avoids the potential pitfalls from failing to collect and process the sample."

The report will be posted on the FTCoE website when available, and its availability will be promoted through social media.

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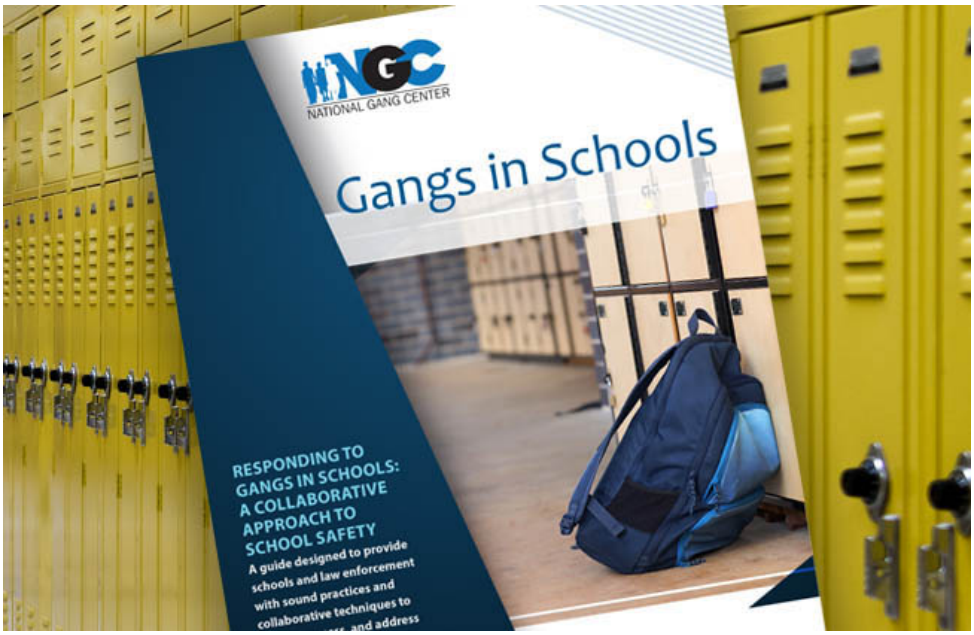

Gangs in Schools

National Gang Center

Gangs in Schools is designed to provide schools and law enforcement with sound practices and collaborative techniques to identify, assess and address gang activity in the school setting.

It provides information on creating a school safety plan to prevent and disrupt gangs in schools. An effective response begins with the coordination of prevention, intervention and suppression efforts guided by appropriate information sharing protocols. This establishes shared responsibility for tackling gang-related problems in schools.

The National Gang Center is jointly funded by the Office of Juvenile Justice and Delinquency Prevention and the Bureau of Justice Assistance.

Download the guide here.

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Opioid Crisis: Two Chiefs Discuss the Challenges, Changes and Results in Their Jurisdictions

National Institute of Justice

In a transcript and video, Dayton (Ohio) Police Chief Richard Biehl and Burlington (Vermont) Police Chief Brandon del Pozo discuss the challenges of introducing institutional change across all of the agencies necessary to address the opioid crisis. They also explain the changes that they have made in their jurisdictions and the outcomes of those changes.

The two chiefs participated in the panel, "Opioids and the Law Enforcement Response: Partnerships for Public Safety and Improved Outcomes," presented by NIJ at the 2018 International Association of Chiefs of Police annual conference.

Access here: HTML (Transcript)| VIDEO (YouTube).

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