

# TechBeat

June 2018

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.



The Justice Technology Information Center, a component of the National Law Enforcement and Corrections Technology Center System, is supported by Cooperative Agreement #2014-IJ-CX-K404 awarded by the National Institute of Justice, Office of Justice Programs, U.S. Department of Justice. Analyses of test results do not represent product

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Victims of Crime; the Office of Juvenile Justice and Delinquency Prevention; and the Office of Sex Offender Sentencing, Monitoring, Apprehending, Registering, and Tracking.

### [WWW.JUSTNET.ORG](http://WWW.JUSTNET.ORG)

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# FTCoE Report Provides Insights, Information on Portable Drug Testing Devices

## FTCoE Report Provides Insights, Information on Portable Drug Testing Devices

Heroin. Fentanyl. Carfentanil. Synthetic cannabinoids.

Mass spectrometry. Ion mobility spectrometry. Raman spectroscopy. Infrared spectrometry.

Law enforcement officers in the field encounter a vast number of confusing street drugs, and administrators looking to purchase portable drug testing technology may find the choices equally confusing. A new landscape report from the Forensic Technology Center of Excellence (FTCoE), *Landscape Study of Field Portable Devices for Presumptive Drug Testing*, can help clear up that confusion.

Like the other landscape reports produced by the National Institute of Justice's FTCoE, *Field Portable Devices* offers a discussion of the benefits, limitations and implementation



considerations for the various technologies; a comparison of how they work; agency case studies spotlighting their use; a glossary; information on emerging technologies; and an extensive side-by-side comparison of product features.



“We want the users to see themselves in all of our landscape reports,” says the FTCoE’s Rebecca Shute. “We lay out important purchasing considerations and provide examples of successful implementation to help the forensic and law enforcement communities implement the right technology for them.”

The opioid crisis and the rise in novel psychoactive substances (NPSs) hitting the street was the impetus for developing this particular landscape study, as officers not only face an increasing number of substances carried by suspects, but also a greater danger from possible deadly exposure to powerful opioid drugs.

“Safely identifying unknown chemicals in the field is a critical topic to all law enforcement agencies,” Shute says. “Many agencies are pushing to eliminate field testing for officer safety reasons. This report shows them that there are a variety of technology alternatives in addition to the option of eliminating field testing altogether.”

The FTCoE’s Megan Grabenauer adds that safety concerns have caused many agencies to eliminate the well-known color-change kits used in the past. Portable field testing devices in general tend to be more sensitive, and in some cases can make accurate readings, even through packaging. She cautions that the capability varies according to the technology and the substance being tested. Color-based tests also often have multiple steps and can be difficult to interpret in the field, especially in low light. Portable drug testing devices provide a clear, objective output.

“Without field testing, officers must use their judgment as to whether to make an arrest. If they have a test that says indications are this is a controlled substance, it gives them backup that they really like to have,” Grabenauer says.

“Preliminary testing can provide important investigative leads through establishing probable cause to arrest an individual suspected of possessing illicit drugs,” Shute says. “The results of these tests may lead to plea deals, which may reduce the burden on the court system. It helps officers make informed decisions in the field.”

Grabenauer notes that from a strict legal perspective, some NPSs are not unlawful, and being able to use a portable device to determine something is not a controlled substance is an important feature. Many devices come with a library that is revised on a regular basis through firmware updates or Internet downloads, a key way of keeping tabs on emerging NPSs. This leads to another advantage portable field devices have over traditional color-based testing, because no one knows how those tests would react with one of the new materials.

“We know that baking soda doesn’t react to the test for cocaine, but we have no idea how a new synthetic cannabinoid might react,” Grabenauer says.

Shute agrees, saying, “New drug analogues are being created at a rapid rate, and it’s hard to keep up with the pace of development. It takes a long time to develop a new color test, and when multiple NPSs hit the street in a month, there’s no way to develop tests for all of them. Conversely, these portable devices can detect these new compounds through quick library updates.”

Another significant difference between the portable devices and color-based testing is cost, with pricing on the miniaturized versions of lab instruments starting at around \$25,000 and going up from there. (Traditional color-based test kits cost relatively little.)

“Agencies told us they could buy a new cruiser for that kind of money, but if you compare the cost over time, particularly in areas that have a lot of drug activity, a case can be made that they do pay for themselves. The cost structure is different, however, and funding request justifications should address this,” Shute says.

“Budget requests need to demonstrate long-term cost savings versus the up-front expense to support the challenging approval process,” Grabenauer says. “Awareness is key. I’ve done ride-alongs to help learn how officers perform drug testing in the field, and many patrol officers don’t even know the newer technologies exist. It’s the top of the chain-of-command that makes the decisions, but front-line officers can influence that decision by sharing their experiences and making technology requests based on their knowledge. It’s just a question of getting the information out to them.”

*Landscape Study of Field Portable Devices for Presumptive Drug Testing* can be downloaded from <https://forensiccoe.org/landscape-study-of-field-portable-devices-for-presumptive-drug-testing/>. For more information on FTCoE programs, contact Dr. John Morgan, Director at [jmorgan@rti.org](mailto:jmorgan@rti.org). For more information on forensics programs of the National Institute of

Justice, contact Gerald LaPorte, Director, Office of Investigative and Forensic Sciences, at Gerald.LaPorte@usdoj.gov.

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# Pennsylvania System Tracks and Centralizes Drug Overdose Information

## **Pennsylvania System Tracks and Centralizes Drug Overdose Information**

Pennsylvania has established a statewide online system to track and share information on drug overdoses, administration of the opioid overdose reversal drug naloxone, and investigative leads and markings for street drugs.

The Pennsylvania Overdose Information Network (ODIN), implemented in March 2018, was developed by the Pennsylvania State Police in coordination with the Liberty Mid-Atlantic High Intensity Drug Trafficking Area (HITDA). It serves as a centralized information repository available to criminal justice agencies across the state, and supplements information being collected by the Pennsylvania Department of Health for other first responders and noncriminal justice agencies. Ability to enter and access data in ODIN varies with the type of user.

ODIN data includes location of naloxone administration, how many doses were administered and what happened to victims after



they received naloxone.

Illegal drugs come in different kinds of packaging. For example, stamp bags are small wax-coated bags commonly used to hold heroin, and are sometimes stamped with an emblem or symbol by drug dealers. These identifiable markings can possibly indicate who the drug was purchased from or the area from which it was obtained.

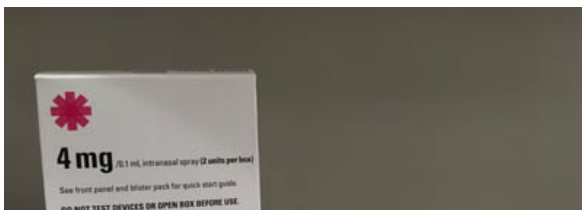


“The markings can be entered into ODIN, and criminal justice agencies can search the system to determine if any other agency has drug investigations with similar characteristics and if those incidents can be connected,” says Karina Reed, intelligence analyst supervisor for the Drug Analysis Unit in the State Police’s Pennsylvania Criminal Intelligence Center. “It is basically a pointer index to provide the capability to reach out to investigators in another jurisdiction who also have overdose incidents with similar characteristics to see if the cases are related.”

The information in ODIN can be used by both law enforcement and health care agencies to identify areas with high levels of drug activity, and inform efforts for drug enforcement, prevention and treatment.

ODIN is available to agencies through the Pennsylvania Justice Network (JNET), the state’s primary public safety and criminal justice information portal. ODIN is accessible through personal computers housed at an agency, not from mobile devices such as smartphones.

In 2016, Pennsylvania was among the five states with the highest rates of death due to drug overdose (37.9 per 100,000), according to the Centers for Disease Control and Prevention (<https://www.cdc.gov/drugoverdose/data/statedeaths.html>). Preliminary numbers from the CDC indicate in the 12 months that ended with September 2017, the number of drug overdose deaths in the state was 5,577, an increase of 38.4 percent from the 4,030 that occurred in the previous 12-month period (<https://www.cdc.gov/nchs/nvss/vsrr/drug-overdose-data.htm>).



Phase 2 of the ODIN project will include mapping of overdose incidents and administration of naloxone, and creating a bridge to various existing individual county systems to



eliminate duplicate data entry and share information across platforms.

According to Reed, data on overdoses and naloxone administrations will be shared with the Pennsylvania Opioid Data Dashboard, a public facing website that includes information on various aspects of the opioid problem including treatment and prevention (<https://data.pa.gov/stories/s/Pennsylvania-Opioids/9q45-nckt/>).

Pennsylvania has about 1,117 law enforcement agencies in the state. As of mid-May, 231 agencies had entered data on at least one incident into ODIN, according to Reed, and more than 3,400 users had logged in and used the system. There were 1,403 overdose incidents reported by system users, with 765 law enforcement naloxone administrations, of which there were 50 fatalities. Data goes back to Jan. 1, 2018, because some agencies retroactively entered information into ODIN after it became available in March.

“Our goal is not to just collect the incidents of overdoses but also collect information such as victim demographics, the details about what happened after the victim received naloxone, how many doses of naloxone were administered and the suspected drug that caused the overdose,” Reed says. “The system is designed primarily to fill the strategic void to help inform policy and decision making by law enforcement administrators and leaders in public health and safety at both the state and local levels and be able to share details about what is happening in their communities.”

For more information, contact Karina Reed at [karireed@pa.gov](mailto:karireed@pa.gov).

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# Report: Update on Prisoner Recidivism

## *Bureau of Justice Statistics*

A recent report examines the recidivism patterns of former prisoners during a nine-year follow-up period. The report from the Bureau of Justice Statistics, *2018 Update on Prisoner Recidivism: A 9-Year Follow-up Period (2005-2014)*, provides data on the number and types of crimes prisoners commit after release, by offender characteristics, commitment offense, whether the arrest was within or outside the state of release, and whether released prisoners had no subsequent arrests during the follow-up period.

It also shows how recidivism and desistance patterns change when using longer or shorter follow-up periods, including cumulative and annual arrest percentages, year of first arrest following release from prison, and the total number of arrests of released prisoners. The longer follow-up period shows a fuller picture of offending patterns and criminal activity of released prisoners than is shown by prior studies that used a three- or five-year follow-up period.

Findings include that five out of six (83 percent) of state prisoners released in 2005 across 30

states were arrested at least once during the nine years following their release. The percentage of prisoners arrested following release declined each year during the follow-up period, with 44 percent of prisoners arrested during the first year after release, 34 percent arrested during the third year and 24 percent arrested during the ninth year.

To read the report, go [here](#).

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# Public Safety Use of Unmanned Aircraft Systems

*Center for the Study of the Drone at Bard College*

At least 910 state and local public safety agencies in the U.S. have acquired unmanned aircraft systems, according to information compiled by the Center for the Study of the Drone at Bard College.

The organization's database includes all known law enforcement and emergency response agencies (including fire departments and EMS) that are reported to own at least one drone. However, the database may not reflect the total number of agencies that have used drones at some point, because it is not uncommon for an agency to receive drone services from nearby agencies or to contract the services of a local drone operator, according to the Center. Texas, California and Wisconsin lead the states in terms of the number of agencies with drones.

The informal survey is based on a combination of local media reports and government records.

To read the May 2018 database report, *Public Safety Drones: An Update*, click [here](#).

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