

# TECHBeat

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



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## TOMBALL POLICE DEPARTMENT TAKES TO THE "OPEN" SKIES

P.3

REPORT EXAMINES COLD  
CASE INVESTIGATIVE PRACTICES  
AND OUTCOMES

P.6

NIJ BODY ARMOR FOLLOW-UP  
INSPECTION AND  
TESTING PROGRAM

P.8

TECHNOLOGY  
INSTITUTE FOSTERS  
RESOURCE SHARING

P.10

TAKING THE "GREEN WAY"  
TO REDUCING COSTS AND  
INCREASING EFFICIENCY

P.12

NIJ TRAINING TOOL  
HELPS CHICAGO POLICE  
LEARN SPANISH

P.14



**NLECTC**  
National Law Enforcement and  
Corrections Technology Center

A Program of the **NIJ**  
National Institute of Justice

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

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## NIJ Technology Institute for Law Enforcement

SEPT. 9-13, 2012

Annapolis, Md.

Application Deadline: June 8, 2012

**Agenda:** The National Institute of Justice is sponsoring a Technology Institute for Law Enforcement. Participants will learn about and discuss technology initiatives and issues affecting the law enforcement community. This event focuses on the needs of agencies with 50 or more sworn officers. Attendance is limited to 25 full-time, sworn, mid-grade state and local law enforcement officers who are actively involved in technology-related issues.

**Registration:** To obtain an application, visit <http://www.justnet.org> or contact **Bruce Blair** at (931) 200-0611 or [bblair@justnet.org](mailto:bblair@justnet.org). There is no registration cost and all travel, food and lodging expenses are paid by NIJ. Selected applicants will be required to present a 10 to 15 minute presentation on a technology challenge that their agency has solved or currently faces.



## 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.

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# TOMBALL POLICE DEPARTMENT TAKES TO THE “OPEN” SKIES

*No doors? No roof? No problem, not for the pilot officers who have been flying an Auto-Gyro MTO Sport gyroplane to provide aerial support to the Tomball (Texas) Police Department since March 2011.*

The Auto-Gyro MTO Sport, a two-seat, open cockpit gyroplane, costs approximately \$75,000 to purchase and about \$50 an hour to operate, and runs on the same type of gasoline used in automobiles. It needs minimal room to take off and land, and uses very little hangar space. The craft can fly at speeds up to 115 mph or as slow as 0 mph. Add all of those pluses together, and Tomball’s use of the MTO Sport gyroplane scored high enough to be named one of the “Top 30 Law Enforcement Technology Stories of 2011” by *Government Technology* (<http://www.govtech.com/public-safety/The-Top-30-Law-Enforcement-Technology-Stories-of-2011.html>).

Tomball, a municipality of approximately 15,000 people located in Houston’s suburban Harris County, used Office of Justice Programs’ National Institute of Justice (NIJ) assistance to launch the nation’s first-ever law enforcement gyroplane.

“In 2009, I attended the NIJ Applied Technologies Conference in Coronado, Calif., where I saw a demonstration of a powered parachute,” says Tomball Chief Robert S. Hauck. (See *TechBeat*, Summer 2006). “That was my introduction to the NIJ Aviation Technology Program and nonconventional aircraft. Before coming to Tomball, I spent 20 years with the Los Angeles Police Department, and just took for granted that aerial support was available to officers on the ground 24/7. When I came to the Houston area, I discovered that resources were much more limited.”

Hauck initially expressed interest in obtaining a powered parachute for use in Tomball, but learned that the prevailing Texas winds made its use impractical. The program wanted to look at the Auto-Gyro for testing and evaluation, and Hauck and two of his officers eventually found themselves attending a week of training along with a certified pilot from the Harris



County Sheriff’s Office. Harris County has served as a “mentoring partner” to Tomball on the project.

“When [NIJ Aviation Technology Program Manager] Mike O’Shea asked me to make a presentation on behalf of Tomball to the Aviation Technology Working Group in 2010, I told him I’d be glad to come, but I reminded him I wasn’t a pilot,” Hauck says. “He said that’s why he wanted me to come, because I had 20 years of ground experience and knew the value of aerial support, and I wasn’t making a pitch because I was a pilot and thought it would be cool to fly a gyroplane. So I went in and told the committee, ‘I can guarantee you there is not a person in this room who has less experience with flying than me, because my experience is zero.’”

The working group heeded Hauck’s words and on March 25, 2011, the gyroplane flew its first mission, providing aerial support at a community festival. Since then, the 60-officer agency has found many uses for the Auto-Gyro, including aggressive driver patrols, incident patrols, aerial photography and event support. The demonstration project has a goal of reporting best practices, actual operating costs and other benefits to NIJ following 300 operational hours of flight time.



**“The Auto-Gyro and the aviation program in general are opening a door and giving small and middle-sized agencies a chance to have a force multiplier in the air.”**

**–Chief Robert S. Hauck, Tomball Police Department.**

Video Transcript

According to O’Shea, NIJ had researched the Auto-Gyro and found it to have an outstanding safety record in addition to being affordable to small and rural agencies that cannot afford to spend \$3 million on a helicopter to provide aerial support. Those findings placed it alongside powered parachutes and light-sport aircraft as options offered to agencies that participate in the program’s demonstration efforts.

“There have been some challenges with training,” Hauck says. “When you start an aviation program and you have no pilots, it takes time to get things up and running. Tomball made a commitment to the project, but we couldn’t have done it without NIJ’s support and technical expertise or the support we’ve received from Harris County. I would recommend

that any small agency that is planning to get involved in a low-cost aviation project work with a partner that already has a full-time program for advice, assistance and training. The Auto-Gyro and the aviation program in general are opening a door and giving small and middle-sized agencies a chance to have a force multiplier in the air.”

*For more information on the Tomball Police Department’s use of the Auto-Gyro, contact Chief Robert S. Hauck at (281) 351-5451 or [rhauck@ci.tomball.tx.us](mailto:rhauck@ci.tomball.tx.us). For more information about the NIJ Aviation Technology Program, contact Program Manager Mike O’Shea at (202) 305-7954 or [michael.oshea@usdoj.gov](mailto:michael.oshea@usdoj.gov). To view a video on the NIJ program, go to [www.youtube.com/JUSTNETorg](http://www.youtube.com/JUSTNETorg) and click on NLECTC Minutes.*



# AUTO-GYRO HELPS "CATCH BAD GUYS FROM THE AIR"

Chief Robert S. Hauck of the Tomball (Texas) Police Department says he has been "amazed" at the varied uses and success stories his 60-officer department has found for the Auto-Gyro MTO Sport gyroplane it has been flying since March 2011:

"We've backed up the Harris County Sheriff's Office when its aircraft have been down for maintenance," Hauck says. "In the city of Houston, they have multimillion dollar helicopters that they can only fly six hours a day due to economic constraints, so we've been helping out with daytime patrol over the Houston shipping channel, which is the third largest port in the country. That made me realize that for specific missions, there really can be a place for alternative aircraft in large agencies. Their use would allow them to save the other aircraft for night missions, for inclement weather, or when they need video."

Hauck cited several other successful missions for the Tomball Auto-Gyro, including:

- Helping locate two missing persons, one an 80-year-old man with Alzheimer's who walked away from a nursing home, the other a mentally ill woman in her 50s who had disappeared. In the woman's case, Hauck says the Auto-Gyro crew spotted a culvert that looked like a possible hiding place and directed officers on the ground to the site. "When they looked inside, she was curled up about 10 feet in, and she looked at the EMS

chief and the police officer and said, 'I've been waiting for you.'"

- Assisting the Harris County Sheriff's Office in pursuit of two grand theft auto suspects, one of whom shot at officers during the chase. Again, the Auto-Gyro crew helped direct officers on the ground toward the suspects, who had separated.
- Supporting incident commanders during the September 2011 Tri-County wildfires (Montgomery, Waller, Grimes), considered the worst in Texas history.

"I thought we'd maybe be doing daytime burglary mitigation, traffic control, backing up officers on routine calls and setting up perimeters now and then," Hauck says. "I didn't imagine doing things like saving lives, catching cop killers and helping provide homeland security to one of the biggest ports in America. I quickly learned that when you're up in the air, the officers on the ground and the community don't care what you are flying as long as you can help catch the bad guys from the air."



# Report Examines COLD CASE INVESTIGATIVE PRACTICES and OUTCOMES

*Solving cold cases can be elusive, even when police departments have the resources to devote to cold case units. A recent study and report seeks to characterize factors in cold case investigations that improve the chances of solving the crime.*

Researched and written by the RAND® Corporation with funding from the Office of Justice Programs' National Institute of Justice (NIJ), *Cold-Case Investigations, An Analysis of Current Practices and Factors Associated with Successful Outcomes*, examines case and investigative attributes contributing to effective cold-case investigations.

The study's objectives were to assess current practices in cold-case investigations and determine which are most effective, and identify the type of cases most likely to be solved. The information can be used to guide agencies on resource allocation, agency organization and case prioritization for optimizing clearance rates.

RAND conducted a national survey of law enforcement agencies on cold case investigation practices, then chose four agencies with cold case units (District of Columbia, Baltimore, Dallas and Denver). Researchers examined those agencies' cold case files for characteristics and investigative practices associated with solving cases.

"I think the study has the potential to help NIJ inform the field about cold case investigations, and the recommendations and conclusions in the report may help practitioners," says Brett Chapman, an NIJ social science analyst and project monitor. "If you expect to get something out of a cold case investigation, you

have to put something into it – tracking, accountability, level of funding for cold case units and cost-benefit analyses are some of the important factors involved."

## The Survey

Of the 5,000 surveys mailed, 1,051 were returned, for a response rate of 20 percent, according to the report. Findings include:

- Ten percent of agencies have investigators dedicated to cold cases, and 7 percent have formal cold case units. Only 14 percent of responding agencies have a protocol for initiating cold-case investigations.
- About one in five cases cleared, but clearing a case does not always result in an arrest. About one in 20 cold-case investigations with a known perpetrator resulted in arrest; one in 100 resulted in conviction.
- Level of funding and access to investigative databases are associated with higher case clearance rates. Most cold case work (56 percent) is funded through grants or supplemental funds rather than directly from agency budgets.



procedure review of cases unsolved for a specified length of time. These cases are likely to be the most expensive and least successful.

The second case type, which is based on availability of forensic tests due to advances in DNA technology, is relatively inexpensive, and federal funds are available for DNA testing. According to the report, the rate of success from indiscriminate DNA testing of large numbers of cases is likely below 50 percent.

The third type of case, which are those opened due to a confession or a plea deal, are the most inexpensive and successful.

The report notes cold case investigation should emphasize convictions, not just clearance rates. If conviction is the goal, it is logical for investigators to work closely with prosecutors to identify cases that, if solved, would likely be prosecutable. Researchers also did not find evidence that cold-case units were tracking conviction rates or other basic information on the value of cold-case investigations. Agencies had information on the number of cold cases worked, the number cleared by arrest and the number of exceptional

clearances (a suspect is identified but prosecution is impossible), but generally did not have information on convictions, sentences, or time spent on cold cases relative to the number of clearances obtained.

To gauge return on investment and help agencies decide what portion of resources should be diverted to cold cases, the report recommends that a cost-effective analysis be conducted of investigator time spent on cold cases versus new cases. The data collected from several selected agencies could be used to develop models that relate the average amount of time spent on active and cold-case investigations to clearances and arrests.

The report also recommends that researchers assess the conviction rate for cold cases and determine whether involvement of prosecutors in investigations leads to a higher rate of convictions. The research could include reasons prosecutors did not file cases or why cases were dismissed.

*To view a copy of the report, visit [http://www.rand.org/pubs/technical\\_reports/TR948.html](http://www.rand.org/pubs/technical_reports/TR948.html). For information on the project, contact Brett Chapman of NIJ at (202) 514-2187 or [brett.chapman@usdoj.gov](mailto:brett.chapman@usdoj.gov).*



the crime and suspect lineups) also affected case clearance.

- Clearing a cold case does not automatically lead to an arrest for a variety of reasons, including missing or uncooperative witnesses, a dead or incarcerated suspect, or DNA results implicating multiple suspects or otherwise inconclusive.
- In sexual assault cases in which a DNA match to a suspect had been made, about one-third were dropped due to problems with victim cooperation, credibility or availability of suspects. However, 90 percent of prosecuted cases resulted in convictions and lengthy prison terms.
- Cooperation between prosecutors and investigators at the onset of a cold case investigation, instead of waiting until there are results, can result in successful case outcomes. Prosecutors can advise on the most compelling type of evidence and whether the case is likely to produce a conviction.

### Conclusions and Recommendations

The researchers identified three distinct types of cold case investigations, each with different processes, benefits and costs. In the classic cold-case investigation, the detective reopens a case due to family or media inquires or a

- Most cold case investigations involve homicides. Other types of cases include sex offenses, missing persons, burglaries and robberies.

### Case Site Analysis

In the four cities selected for analysis, the researchers examined solved and unsolved cases assigned to cold case squads. Findings include:

- The basis for opening a case, age of the case, characteristics of the victim and crime and progress made during the initial investigation all affected investigative outcome. According to the report, cases were less likely to be cleared if the cold-case investigation was initiated by family pressure or the passage of time. Location of the body, age and gender of the victim and whether the victim was a known drug user were also factors. A case was more likely to be solved if it was more recent and did not involve a drug user. Actions of cold-case investigators (developing a new theory of



# NIJ BODY ARMOR

follow-up

# INSPECTION AND TESTING Program

*A National Institute of Justice (NIJ) program is providing critical oversight to give confidence that recently manufactured ballistic-resistant body armor will perform similarly to armor samples previously tested and deemed compliant with Ballistic Resistance of Body Armor, NIJ Standard 0101.06.*

Now in its second year, the Follow-Up Inspection and Testing (FIT) Program continues to provide this essential service by successively comparing the construction of newly made armor with samples previously tested under the Compliance Testing Program (CTP). Both programs are administered by NIJ's National Law Enforcement and Corrections Technology Center (NLECTC)-National.

"The FIT Program has accomplished what we wanted it to from the inception — it provides that additional set of eyes and ears into the manufacturing process to ensure that what is coming off the assembly line is manufactured the same, and more importantly performs the same, as

put through a series of tests to verify that they comply with the standard. Models that comply and enter into the FIT Program are added to the compliant products list (CPL) posted online on the NLECTC website, [www.justnet.org](http://www.justnet.org). Manufacturer compliance with NIJ standards is voluntary.

The FIT Program applies to armor models found by the NIJ CTP to be compliant with the latest version of the standard, published in 2008. Under FIT, periodic surprise inspections are conducted, during which independent inspectors pull production armor samples and send them for testing and inspection.

what was originally tested and found to comply with NIJ standards," says Lance Miller, NLECTC-National director. "We want to ensure that the men and women who wear these vests on a daily basis have as much confidence in these products as we can possibly give them."

"We've already had a couple of scenarios, or instances, come up in the FIT Program that have called out performance issues with certain models of armor," he adds. "Program staff at NLECTC and NIJ have worked actively with the affected manufacturers to identify the root cause of that problem, and in cases where it was a significant issue, manufacturers voluntarily take immediate action to recall and replace units or take some sort of corrective action out in the field."

## Background

The follow-up program is the latest improvement in the progression of the CTP, under which the designs of armor models are thoroughly documented before being

Follow-up inspection and testing has two aspects: performance testing and construction inspection. Each month, the CTP prepares a list of armor and locations for follow-up inspection, based on the number of models a manufacturer location currently has on the CPL that have not been inspected within the past 10 months.

Labs send the follow-up ballistic test results and the tested armor samples to the CTP for inspection. The testing and CTP inspection are used to ensure the vest is built the same way as samples submitted for initial compliance testing. The multiple inspections, both before and after production begins, results in greater confidence that production armor fielded to practitioners meets the requirements of NIJ Standard 0101.06.

Some models of ballistic body armor are initially manufactured for a single contract and not produced again for a significant amount of time. Unfortunately, this resulted in the CTP not analyzing production samples for comparison with samples initially tested for compliance. To address this issue, the FIT Program includes initial product inspection,



which requires that follow-up inspection occur as soon as a model is listed on the compliant products list and production begins.

## Results

The first follow-up inspection was conducted in September 2010, and inspections continue today. Through December 2011, inspectors had completed 75 inspections of manufacturing locations and pulled 191 models of ballistic-resistant armor, according to Jamie Phillips, NLECTC conformity assessment coordinator. Of those models, three sustained multiple perforations during laboratory testing, resulting in a manufacturers' total recall and replacement of more than 1,750 fielded armors to ensure that practitioners had effective ballistic body armor compliant with NIJ Standard 0101.06.

During the same period, inspection discovered seven major construction variations that could impact ballistic performance. Major construction variations include, for example, a difference in the number of layers in a vest between the follow-up testing samples and the original samples, or leaking covers that allow water to penetrate to the ballistic panel. Inspection also identified 32 minor construction variations, which means the deviation does not affect ballistic performance. In response to documented variations, manufacturers worked with the CTP to implement quality control improvements at several manufacturing locations to prevent additional variations.

Inherent to the FIT Program is additional communication and interaction between body armor manufacturers and the CTP.

"It has given us an opportunity to work more closely with manufacturers to ensure that the armor that is fielded is more likely to comply with requirements," Phillips says. "I believe manufacturers initially had concerns that the FIT Program would be a significant burden to them in labor, materials and ultimately financially. However, keeping in mind that additional production costs (such as follow-up

inspection and testing) would likely be transmitted to practitioners, we attempted to strike a balanced approach, one that would provide additional value (in confidence), while not being cost prohibitive. Over the past year, I think those fears have been alleviated significantly. We're not working in isolation. This allows manufacturers to express their concerns, and we in turn are able to explain the reasons behind our decisions and how those decisions support the law enforcement community as a whole."

Body armor has been credited with saving the lives of more than 3,000 law enforcement officers since the mid-1970s, when NIJ began testing body armor and developing performance standards.

## Future Plans

Major changes are not anticipated for the near future, but staff will work on fine-tuning the FIT Program as it evolves.

"I think we view it in the same light as the entire Compliance Testing Program," Miller says. "We view the standard itself as a living, breathing document that is flexible and can adapt to changing trends in industry and new testing methods, and I don't see the FIT Program as any different. We obviously have learned much. As we continue this dialogue with manufacturers, we continue to learn more about the body armor manufacturing processes and how quality management in that industry works, and as we learn more, we are going to adapt the program."

**Standard revision.** NIJ has laid the groundwork for the process to revise the 0101.06 ballistic resistant standard,

and a Special Technical Committee is scheduled to begin work on the revision in July 2012.

"It's good we are staying on the three to five year revision cycle with the body armor standard and applying the things we've learned from the 0101.06 standard and the FIT Program," says Alex Sundstrom, NLECTC-National testing coordinator. "We'll roll that into the revision, and as

the revision process goes along, we become much smarter on how to operate the program."

**BA 9000.** This is a body armor quality management standard that is an extension of ISO 9001, a standard for quality management from the International Organization for Standardization. If a manufacturer's location is certified to BA 9000, it provides greater confidence that the armor is being produced consistently. Compliance with BA 9000 will be inspected by accredited certification bodies. The NIJ ballistic body armor CTP is working with ANAB (ANSI ASQ National Accreditation Board) to develop the applicable accreditation rule in order to accredit interested certification bodies.

*For more information on the FIT and compliance testing programs, visit [http://www.justnet.org/body\\_armor/index.html](http://www.justnet.org/body_armor/index.html) or contact NIJ Program Manager Michael O'Shea at [michael.oshea@usdoj.gov](mailto:michael.oshea@usdoj.gov).*

# TECHNOLOGY INSTITUTE

## FOSTERS RESOURCE SHARING

*Police Chief Kevin Billiot of Montgomery, La., came to the 2011 Fall Rural Law Enforcement Technology Institute (RLETI) looking for technology assistance and advice on the use of in-car video systems. He left with promises of donated “new to you” equipment and a nationwide network of contacts to help him manage his financially struggling department.*

Thirty-one administrative-level law enforcement officers (lieutenant and above) attended the 12th RLETI session, held in December 2011 in Annapolis, Md. and coordinated by the Small, Rural, Tribal and Border Regional Center (SRTB-RC) on behalf of the Office of Justice Programs' National Institute of Justice (NIJ). Officers apply to attend the five-day Institute, where they each provide a presentation on a technology challenge faced by their department, hear presentations from NIJ, and put in much time outside the formal sessions networking and developing contacts. Billiot, whose five-officer department recently dropped in size to just three, learned about the RLETI through information provided by NIJ to the Louisiana State Association of Chiefs of Police.

“I went there hoping for input and advice on camera systems. I thought I could learn which ones had worked well for other agencies and maybe get some advice on how to get grant funding,” he says. “The other agencies just overwhelmed me with offers of support, training and equipment. It just snowballed from there.”

**“I am familiar with the camaraderie and brotherhood of police departments, but to actually see it in action, and be the primary beneficiary of that at this conference, is humbling and really overwhelming.”**

*—Chief Kevin Billiot, Montgomery Police Department.*



Weeks after the event ended, that snowball was still rolling. A press release sent out by SRTB after the Institute drew nationwide publicity, and more offers of assistance arrived, including free and discounted uniforms from a Louisiana vendor. Billiot has even been able to share some of the donations with other neighboring small agencies, such as a one-officer department in Atlanta, La., that needed a car, a camera and a Taser™. The Montgomery Police Department shared all three with its smaller neighbor.

“One of the advantages of having this kind of event is the officers get to talk to each other when they’re on break, before and after sessions start, and in the evenings,” says Dave Mather, SRTB-RC executive director. “The more they get to know each other, the more they share, and the more they share, the more they find ways to help each other with their problems. Most of these solutions are discovered during conversations offline, not in the classroom. If the institutes were done in a format where they couldn’t share time outside the classroom (such as via webcam), these solutions wouldn’t happen.”

Billiot serves as a full-time pastor at Montgomery’s Northside Baptist Church, and took on the additional responsibilities of police chief in April 2011 with the blessings of his congregation.

“The mayor had mistakenly thought I had prior law enforcement experience, but I was only a licensed concealed carry instructor,” Billiot says. “I had no law enforcement experience, but she had heard of my experience as a self-employed small-business owner and she thought I might be the right person to reorganize the department. I agreed on the condition that the town send me to the Alexandria Regional Police Academy, and two weeks after graduation from that 14-week course, there I was at the RLETI.”

“During his presentation, Billiot mentioned the incredible economic challenges his agency was facing, to the extent that he had asked his officers to buy their own winter jackets because the town just didn’t have the funds to purchase them,” Mather says. “When he started talking about the things he did not have, I asked him to make a list and to share that list with the rest of the group. By the end of the week, agencies had offered

to donate everything on his list and more. The stuff may not be new, but it’s new to them. This is a great example of sharing resources.”

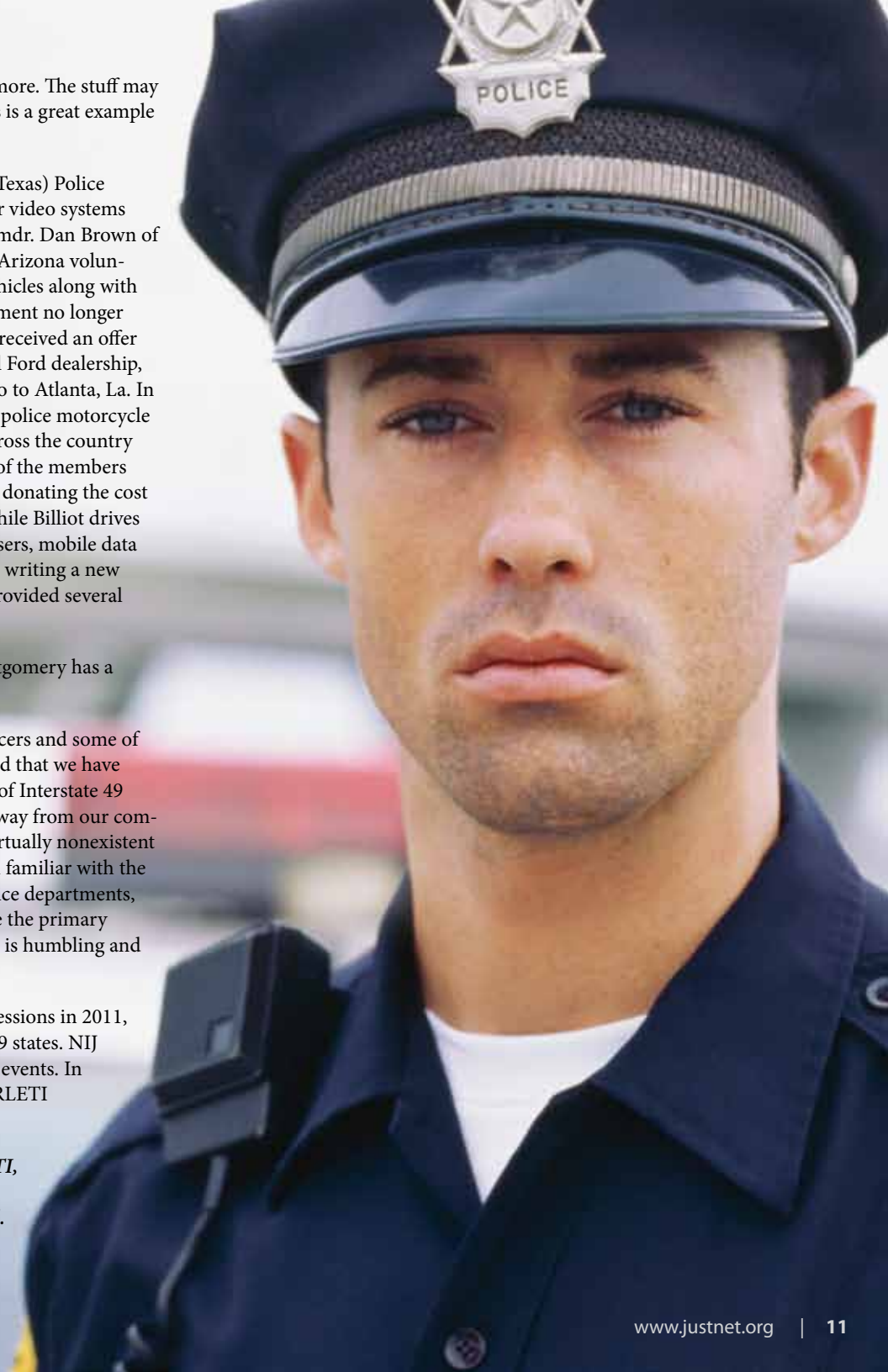
Capt. Rick Grassi of the Tomball (Texas) Police Department offered Billiot two in-car video systems not being used by his department. Cmdr. Dan Brown of the Gila River Police Department in Arizona volunteered to donate three used patrol vehicles along with uniforms, recorders and other equipment no longer used by his agency. (Billiot has since received an offer of a new Crown Victoria from a local Ford dealership, which freed one of the used cars to go to Atlanta, La. In January, the Blue Knights, a national police motorcycle club, offered to escort the vehicles across the country from Arizona to Louisiana, and one of the members who owns a car shipping company is donating the cost of transporting two of the vehicles while Billiot drives the other.) Other agencies offered Tasers, mobile data computers, radar and assistance with writing a new policy manual. NLECTC-National provided several laptop computers.

Located in Grant Parish, La., Montgomery has a population of 730 residents.

“We have a group of dedicated officers and some of the most basic equipment, but beyond that we have little else,” says Billiot. “The opening of Interstate 49 drew traffic, commerce and people away from our community. As a result, our tax base is virtually nonexistent and we have very few resources. I am familiar with the camaraderie and brotherhood of police departments, but to actually see it in action, and be the primary beneficiary of that at this conference, is humbling and really overwhelming.”

SRTB-RC conducted two RLETI sessions in 2011, with a total of 60 participants from 19 states. NIJ pays all expenses associated with the events. In all, 366 officers have participated in RLETI since 2006.

*For more information on the RLETI, contact NIJ Program Manager Mike O’Shea at (202) 305-7954 or michael.oshea@usdoj.gov.*



# Taking the "GREEN WAY"

## to Reducing COSTS and Increasing EFFICIENCY

*Looking for ways to involve inmates in more diverse training programs that promote marketable skills? Ways to decrease energy consumption? Ways to cut costs? Correctional facility administrators can find all that information and more in the Greening Corrections Technology Guidebook, a new, free online publication produced by the Corrections Technology Center of Excellence (CoE).*

The 62-page guidebook provides case studies, references and other detailed information on such topics as integrating technology and people, lighting, HVAC systems, plug-in appliances, materials flow (including recycling and toxics), water, energy and transportation, and financing mechanisms.

The CoE is part of the National Law Enforcement and Corrections Technology Center (NLECTC) System, a program of the Office of Justice Programs' National Institute of Justice

(NIJ). Joe Russo, Corrections Technology CoE director, explains that the impetus behind the guidebook came from the Institutional Corrections Technology Working Group (TWG) at its Fall 2007 meeting.

"In our meetings, we discussed various subject areas where guidebooks would be useful in helping correctional administrators understand new technologies, and green technologies was one of the most requested topics," Russo says. "TWG

members felt that in the current economic climate, administrators need to explore ways to be more efficient, and they need to know about strategies to reduce costs."

To develop the guidebook, the CoE brought in Paul Sheldon, a national expert on sustainability-oriented solutions, in December 2010, and teamed him with Gene Atherton, the CoE's institutional corrections program manager. As a senior consultant at Natural Capitalism Solutions, Sheldon has spent the past 10 years working with companies, communities and countries on implementing sustainability practices to capitalize on savings and opportunities.

Together, the co-authors convened a focus group of corrections professionals from across the country who were spearheading a variety of green technology initiatives for their respective agencies.

"Sheldon's national perspective on sustainable energy and Atherton's strong institutional corrections background, combined with the focus group's real-world experiences in selecting, implementing and evaluating green technology initiatives were key to the success of this project," Russo says.

Sheldon and Atherton tapped into the experiences of focus group members for content, conducted their own research and site visits, and compiled useful resources to create a draft document that the focus group could then review and revise.

"The first step was to contact as many state corrections agencies as possible," Atherton says. "We ultimately made 35 successful contacts and used them to develop a database. It became very clear to us that a lot of states had green technologies programs, but the persons in charge



of implementing them didn't have time to reach out to other states because they were so swamped with work obligations. Ultimately, they weren't talking to each other."

Sheldon and Atherton collected real-world examples from the contacts in the database, contacted vendors to find solutions that might be specific to corrections, and developed a series of 10 steps to implementing green technologies in corrections. They later honed the 10 steps down to seven, which became the outline for the seven primary chapters of the book.

"These specific areas of sustainability offered opportunities to save money, increase safety, increase environmental and community responsibility, and improve corrections facilities' image in the local community," Sheldon says. "By and large these are not new ideas. They are proven technologies, so we began with the issue of how best to integrate technologies and people so that implementation could take place."

"That's what practitioners want to know: not just what technologies are available, but also how to integrate them," Atherton says.

The guidebook promotes this integration by including real-world examples in every chapter (for an example, see sidebar).

"The practitioners who sit on the TWG had felt there was a real need for focused information in this area," Russo says. "Green technologies are not necessarily new to the corrections community, but they're being looked at in new ways because of the economic climate. The TWG members felt it was important to have comprehensive information on at least an elementary level in one document, a document that explains what green technologies are, how they work, how they've been applied in other facilities, resources they can explore if they want to take a particular approach. This was the main goal of the project and the peer review process (a panel convened by NIJ) validated its success," Russo says. "The NLECTC System often says it serves as a 'one-stop shop.' This was an effort to provide a document that was the 'one stop' for green technologies information."

Several members of the Institutional Corrections TWG participated on the peer review panel; members of the focus group reviewed the text as well.

*To download a copy of Greening Corrections Technology Guidebook, visit [https://www.justnet.org/our\\_centers/COEs/corr-tce-publications.html](https://www.justnet.org/our_centers/COEs/corr-tce-publications.html). For more information, contact Joe Russo of the Corrections Technology CoE at [joe.russo@correctionscoe.org](mailto:joe.russo@correctionscoe.org) or Jack Harne of NIJ at [Jack.Harne@usdoj.gov](mailto:Jack.Harne@usdoj.gov).*

## From New Trash Cans to New Job Skills

Through recycling and sale of materials, the Putnamville Correctional Facility in Indiana has generated a \$160,000 annual income stream that has almost completely offset the facility's \$180,000 waste disposal bill.

Paul Sheldon, co-author of the guidebook, explains that the idea started with a line officer named Steven Rader.

"He asked his supervisor about implementing recycling, and after the supervisor 'checked up the food chain,' Officer Rader was told to go ahead, as long as it didn't cost anything," Sheldon says.

The next time Putnamville ordered trash cans, the facility ordered them in three different colors — one for trash, one for aluminum and one for plastic, Sheldon says. Putnamville started out by requiring residents in one building to use them, then expanded the effort. Next, administrators realized there was an opportunity to provide training to inmates that could give them job skills and possibly reduce recidivism.

"In his spare time, Officer Rader went on the Internet and downloaded materials on how to recycle and put together a vocational training program," Sheldon says. "An official from the U.S. Department of Labor heard about it, and Putnamville ended up receiving a \$50,000 grant to develop an internship program in recycling skills. This resulted in vocational certification for inmates that go through this flagship training program, and it all came from the initiative of a line officer."



# NIJ Training Tool HELPS CHICAGO POLICE LEARN.

*A National Institute of Justice (NIJ) interactive training course is helping Chicago police officers learn Spanish and apply it on the job.*

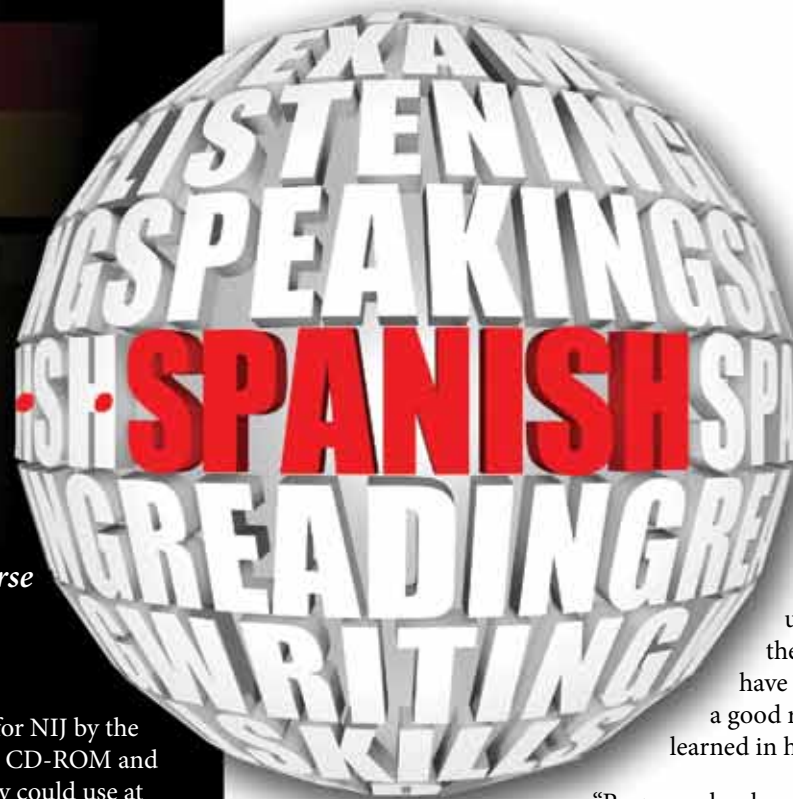
*Español for Law Enforcement: An Interactive Training Tool*, was developed for NIJ by the Eastern Kentucky University Training Resource Center several years ago as a CD-ROM and online course to equip officers with a working knowledge of Spanish that they could use at crime scenes and during interviews, traffic stops and domestic violence situations.

The basic knowledge portion of the training covers fundamentals such as letters, numbers, days of the week, helpful words and phrases and courteous expressions. It also covers arrest commands and phrases helpful for obtaining descriptions of suspects from victims and witnesses. It includes phonetic spelling and audio pronunciation of words and phrases.

The training includes video interview scenarios on a traffic accident, the report of a missing child and drug use. The crime scene module features scenarios on responding to a noise complaint and a burglary. Motor vehicle scenarios cover a routine traffic stop, a DUI traffic stop and a felony traffic stop. Another module covers domestic violence situations. Exams are included at the end of the training.

The Chicago Police Academy had Spanish language training for recruits, but the department wanted to make Spanish training available to all officers through its internal e learning system. After receiving a CD ROM of the NIJ training program, the department adapted it for its own use, according to Martin Foley, a training officer with the department's Education and Training Division.

Foley adapted portions of the NIJ training for his department's internal system. He said the training in general is very helpful, and particularly useful are the scenarios that cover



motor vehicle stops, crime scenes and descriptions.

More than 1,000 Chicago officers have participated in the training since 2010, according to Foley. The course is voluntary and officers can take it at any time at their own pace. The department does not follow up with formal evaluations of the course. However, participants have stated that the training provides a good refresher of information they learned in high school or college.

“Response has been favorable, and actually officers have asked if we could use the same program to provide training in other languages,” Foley says. “It’s not mandatory training, but still over 1,000 have found it and taken it.”

According to the U.S. Census Bureau, people of Hispanic or Latino descent comprise about 29 percent of Chicago’s population.

“Basically, the training is to reach out to the Hispanic community in Chicago. We have a large Hispanic community, and this is one way to keep officers safe and improve communication with the community,” Foley says.

“It helps from an officer safety standpoint because if I can say ‘let me see your hands’ in Spanish, it’s a good thing to do. It enhances communication, which helps with officer safety. It also helps people who may be afraid of police because of the country where they came from, so it can be an icebreaker and put them at ease,” Foley adds.

*To view the NIJ training online, visit <http://www.nij.gov/pubs-sum/201801.htm>, or contact NIJ Program Manager Mike O’Shea at (202) 305-7954 or [michael.oshea@usdoj.gov](mailto:michael.oshea@usdoj.gov) for a free copy. For information on the Chicago program, contact Martin Foley at [martin.foley@chicagopolice.org](mailto:martin.foley@chicagopolice.org) or (312) 746-8310, ext. 329.*

# 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. If you would like additional information concerning any of the following TECHshorts, please refer to the specific point-of-contact information that is included at the end of each entry.

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

## Report on Excited Delirium Available Weapons and Protective Systems Technology Center of Excellence

In January, the Weapons and Protective Systems Technology Center of Excellence (WPSTC) released a special report, *Special Panel Review of Excited Delirium*. This report constitutes the proceedings of a meeting of a special panel convened by the WPSTC in April 2011 in Seattle to examine the subject of Excited Delirium Syndrome (ExDS) and the interventions being cooperatively developed by the law enforcement and medical communities. Panel participants examined the phenomenon of "excited delirium" and its association with the use-of-force in general and the use of conducted energy discharge (CED) weapons in particular, then reviewed, discussed, and examined related medical and other first-responder protocols. Although the panel acknowledged response protocols will continue to evolve and improve with experience and research, consensus was that overall, the response protocols examined are appropriate.



General response measures include:

- Clear identification of ExDS cases based on common signs and symptoms (indicators) of the syndrome.
- Rapid control of the individual with adequate law enforcement personnel.
- Sedation by emergency medical personnel immediately after the subject is under police control.
- Transport of the subject to a medical facility for follow-up treatment and evaluation, and documenting the case.

To download the report, go to [http://www.justnet.org/our\\_centers/COEs/weapon-tce-publications.html](http://www.justnet.org/our_centers/COEs/weapon-tce-publications.html). For more information, contact the Weapons and Protective Systems CoE at [elh5@psu.edu](mailto:elh5@psu.edu).

## Constituent Advisory Council Convenes States, Major Cities and Counties Regional Center

Thirteen representatives of large police and sheriff's departments from across the country gathered in Linthicum, Md., on Jan. 31-Feb. 1, 2012,

for the first meeting of the States, Major Cities and Counties (SMCC) Regional Center Constituent Advisory Group (CAG). Many of the CAG members are representatives of the Major Cities Chiefs of Police and Major County Sheriffs Association's Technology Committees.

The CAG is tasked with assisting the NLECTC System with identifying and reviewing technology needs and requirements developed by NLECTC Technology Working Groups and providing input from the large agency perspective. Additionally, the CAG will assist the SMCC Center with identifying appropriate outreach and assistance programs for large agencies.

CAG members received a briefing on the NIJ and NLECTC System meetings and provided input to NIJ on future technology needs.

For information on the CAG, contact center director Lance Miller at [lance.miller@justnet.org](mailto:lance.miller@justnet.org).

## New Software Evaluation Reports Published Criminal Justice Electronic Crime Technology Center of Excellence

The Criminal Justice Electronic Crime Technology Center of Excellence (ECTCoE)



has released additional evaluation reports on software tools for law enforcement investigations of electronic crime. The ECTCoE helps build the capacity of state and local law enforcement to handle electronic crime prevention and investigation, and digital evidence collection and examination. The ECTCoE provides state and local law enforcement with needed tools, technology and training related to electronic crime. The evaluation and testing reports support the NIJ research, development, testing and evaluation process.

The reports below are available in electronic format only.

- *Evaluation of Mac Marshal™, Version 2.0.3*, Evaluation Report, September 2011.
- *Lantern, Version 2.0.4*, Evaluation Report, December 2011.
- *SAFE Boot CD, Version 1.2.1.6711*, Evaluation Report, January 2012.

These reports, along with others in the series, can be downloaded from <http://www.ectcoe.net/resources/toolreports>. For more information, contact Mark Davis of the ECTCoE at [mdavis@ectcoe.org](mailto:mdavis@ectcoe.org).

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## JUSTNET Sports New Look, New Content, New Resources

JUSTNET, the official website of the NLECTC System, has been upgraded to feature the latest news, information, publications, videos and presentations that help criminal justice professionals do their jobs—safely and effectively.

Looking for information on equipment standards and testing? Go to [JUSTNET.org](http://JUSTNET.org). Want the latest news on law enforcement and corrections practitioners across the country? See JUSTNET News Alerts and access our Facebook, Twitter and YouTube feeds on the home page. Interested in specific technical issues? Browse through our Tech Topics list.

NLECTC knows the challenges that agencies face as budgets shrink and demands on departments grow. That's why the new JUSTNET features a Do More with Less section. The site also includes an upgraded ordering system so officers can access free materials.

**Visit [www.justnet.org](http://www.justnet.org) today.**



The National Law Enforcement and Corrections Technology Center is supported by Cooperative Agreement #2010-MU-MU-K020 awarded by the U.S. Department of Justice, National Institute of Justice. Analyses of test results do not represent product approval or endorsement by the National Institute of Justice, U.S. Department of Justice; the National Institute of Standards and Technology, U.S. Department of Commerce; or Lockheed Martin. Points of view or opinions contained within this document are those of the authors and do not necessarily represent the official position or policies of the U.S. Department of Justice.

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