On PAROLE in New Mexico

In 2003, when the Bureau of Justice Statistics issued statistics on the number of people in the United States on probation or parole, the tally came to just under 4.85 million—roughly 4.1 million probationers and 775,000 parolees. All these individuals required some degree of supervision—a daunting challenge for community corrections both then and now. This challenge, however, became a little less daunting with the introduction of Global Positioning System (GPS) technology.

Beginning in the late 1990s, probation and parole departments began using passive monitoring systems, whereby a monitoring "bracelet" tracks an offender’s location via GPS technology. With passive systems, however, an officer only receives information when the offender returns home and reports in using a device connected to a modem and landline phone. Passive systems do not provide real-time or even near real-time references, which could potentially prevent incidents such as a rape and murder committed by a sex offender on probation in New Mexico in early 2003. That incident, along with the support of the State’s governor, resulted in funding for the New Mexico Corrections Department to purchase a system based on more advanced technology that employed active tracking.

Active tracking, via GPS technology, constantly tracks an offender’s location and uses cellular technology to provide near real-time reporting. A probation or parole officer can use the cellular system to locate an offender any time. The technology also allows the officer to draw an “invisible fence,” or exclusion zone, around an area such as a playground. If an offender ventures inside a forbidden area, the bracelet sends an automatic alarm telling him to leave the area immediately. At the same time, it broadcasts a similar real-time alarm to the probation or parole officer.

Faced with the prospect of purchasing innovative yet essentially untested technology, the New Mexico Corrections Department called on the National Institute of Justice’s Rural Law Enforcement Technology Center (RULETC) in Hazard, Kentucky, and its technology partner, the Eastern Kentucky University (EKU) Justice and Safety Center, for help. In February 2004, the Post-Incarceration Active Remote Offender Location Evaluation (PAROLE) project began.

According to project staff, the problem the New Mexico Corrections Department faced was the same one faced by many law enforcement and correctional agencies: the agency did not have the time or the facilities to test the available technologies.

Corrections department representatives identified four active tracking systems for evaluation and defined their requirements:

• Tests should be conducted in New Mexico, where the technology would be used.
• The devices had to work not only in large urban areas such as Albuquerque and Santa Fe but also in more remote areas away from major thoroughfares such as Roswell and Hobbs.

For the past few television seasons, network and cable channels have been awash in crime scene investigators and forensic experts solving what seem to be unsolvable crimes. Cutting-edge technologies, some of which have yet to be invented, coupled with keen insight and investigative savvy, usually have the culprit in ’cuffs within 60 minutes—with commercials.

Although forensics-related television programs are in vogue today, the National Institute of Justice’s National Law Enforcement and Corrections Technology Center–West (NLECTC–West) in El Segundo, California, has been employing real-world audio, video, and metallurgical forensics analysis in support of more than 1,000 felony investigations since 1994.

Working with a surveillance videotape that is too grainy? Sorting through the background noise of an audiotape to pick out the information you need? Trying to get a few metal fragments to tell you what happened in an accident? NLECTC–West calls on the expertise of its technical host, The Aerospace Corporation, a not-for-profit company that operates a federally funded research and development center for the U.S. Air Force and works with other government agencies and commercial firms. Although the Center has an
GPS, short for Global Positioning System, is a “constellation” of 24 satellites orbiting the Earth and their corresponding ground stations. These satellites are positioned 10,600 miles above the surface and make two complete orbits every 24 hours. They are spaced so that at any point on Earth, four are above the horizon.

Each satellite contains a computer, an atomic clock, and a radio. With an understanding of its own orbit and the clock, each continuously broadcasts its changing position and time. In addition, once a day, each satellite checks its own sense of time and position with a ground station and makes any minor corrections. GPS receivers on the ground contain a computer that can triangulate its own position based on the information received from three of the four satellites.

Originally called NAVSTAR (Navigation System with Timing and Ranging), GPS was developed and is operated by the U.S. Department of Defense. Before its civilian applications, GPS was used to provide round-the-clock navigation capabilities for military ground, sea, and air forces during all types of weather.

Scientists are now using GPS to measure such things as volcanic activity and the movement of polar ice sheets and the Earth’s tectonic plates. GPS receivers also are increasingly becoming consumer products. In addition to their outdoor use (hiking, cross-country skiing, ballooning, flying, and sailing), GPS receivers can be used in cars to relate the driver’s location with traffic and weather information.
active outreach program and receives referrals from past users, most of its requests for assistance come by word of mouth.

Working primarily in the areas of video and audio enhancement, the Center's assistance has led to arrests, validated Miranda rights notifications, corroborated witness testimony, and helped investigators develop new leads. In a 2001 investigation by the Los Angeles Police Department of a kidnapping, rape, and robbery, officers were looking for two men who knocked a woman from her bicycle, breaking her leg. The woman was put into a van, raped, and then driven to an automatic teller machine (ATM) where she was forced to withdraw money. The suspects then drove her to the entrance of a hospital emergency room where she was left outside. The suspects fled with some of the woman's personal items, including her house key. They not only went to her house, but one of them also went back to the hospital and entered her room. Needless to say, police were anxious to track down and arrest the two men. They turned to NLECTC–West for video enhancement assistance in identifying the van used by the two men.

Fortunately for police, images of the van were captured by the ATM’s security camera. Although the area around the ATM was not well lit, the van stayed long enough that it appeared in multiple frames. This allowed an analyst to overlap frames, increase the contrast of the pixels, and read six of seven license-plate digits. Within 3 hours of coming up with the partial license number, police arrested one suspect; the other was taken into custody approximately 2 weeks later. One suspect pled guilty; the other was convicted at trial.

NLECTC–West will soon begin offering a course on video forensics in addition to an audio forensics course, which it has offered since 2002. The audio forensics course uses computer software designed for the music industry and specific software filters created for law enforcement to teach investigators the skills needed to perform audio forensic analysis. The 20-hour course teaches digital signal-processing theory and skills, how to evaluate audio cases, and the hardware and software requirements for performing analysis. Students complete workbook exercises and may bring in evidence from a case they currently are investigating.

Graduates of the Center’s audio forensic course continue to use Center specialists as mentors and have provided useful recommendations on improving the instruction process and class content. In addition to teaching participants new skills, the course provides an opportunity to network with others in the field. Idaho and Utah have approved the course for Peace Officers Standards and Training (POST) credit, and California and Nevada may approve similar certification soon.

NLECTC–West also handles metallurgy requests, usually in connection with automobile accidents. In one assistance project, the California Highway Patrol (CHP) brought in lug nuts from a truck and a fender from a car involved in a fatal accident. According to officers, the car had been completely demolished in the accident. However, the car’s fender had a dent that appeared to be made by one of the truck’s lug nuts. If the dent was determined to be clockwise in nature, that would mean the two vehicles came at each other from different directions. If the dent was counterclockwise, the vehicles were going in the same direction. Witnesses gave conflicting reports of the accident, and the truck driver apparently was not aware of the initial impact.

NLECTC–West forensic experts “sliced and diced” the metals and determined that both vehicles were moving in the same direction at the time of the initial impact. Their investigation additionally revealed that the vehicles were traveling at the same speed. CHP also examined skid marks and other evidence at the scene. Combined with the Center’s analysis, CHP determined that the truck initially tapped the car, causing it to lose control and careen in front of the truck. A second impact caused the car to flip over nearby guardrails; the truck then flipped over on top of the car. The car’s passenger died at the scene; the driver died a short time later. They were recently engaged and lived in the local community.

The truck driver was charged as a result of NLECTC–West’s analysis (and subsequent testimony) and CHP reconstruction. For its forensics assistance, NLECTC–West received a rarely given commendation from CHP.

For more information on the audio, video, and metallurgy forensics assistance program at NLECTC–West, call 888–548–1618 or e-mail nlectc@law-west.org.
Approximately halfway between New York City and Miami lies Charleston, South Carolina, home to the Nation’s fourth busiest container seaport. In addition to handling agricultural products, consumer goods, machinery, metals, vehicles, chemicals, and clay products, the port deals with hazardous and toxic materials that, should they fall into the hands of terrorists, could pose a serious threat to the local population.

The establishment of a safe and secure port for the city of Charleston was a concern of former U.S. Senator Ernest “Fritz” Hollings of South Carolina as early as fall 2000, when he introduced into Congress the first version of his port security legislation. Following the terrorist attacks of September 11, 2001, Federal and State officials began to realize fully that maritime shipping could be a valuable instrument for terrorism.

In November of the following year, under the Maritime Transportation Security Act, the Intermodal Transportation and Port Security Pilot Project was created to promote port security through joint operations, unified command, interagency cooperation, and information/intelligence sharing. This project established the Charleston Harbor Operation Center (commonly known as Project SeaHawk) Task Force and gave its members the daunting assignment of developing a unified law enforcement and intelligence operation to—

- Deter and prevent acts of terrorism.
- Manage a joint operations center to track maritime and other modes of transportation operations in the Port of Charleston.
- Establish an interoperable system for intermodal data sharing and intelligence gathering.
- Provide a test bed for innovative concepts, initiatives, and equipment related to port security.

Under the direction of the U.S. Attorney’s Office–District of South Carolina and Assistant U.S. Attorney Sean Kittrell, Project SeaHawk began its evolution as well as its relationship with the National Institute of Justice’s (NIJ’s) National Law Enforcement and Corrections Technology Center–Southeast (NLECTC–Southeast), which provided technical assistance to the project from the beginning. That relationship was formalized in October 2003, when NIJ provided NLECTC–Southeast with $3.9 million to assist with interoperability issues and identification of innovative technologies.

Southeast Center staff provided extensive assistance in the design and development of Project SeaHawk’s initial information technology (IT) capabilities. According to Buddy McAlister (the IT project manager for Project SeaHawk), this assistance ranged from analyzing software solutions to procuring IT equipment and services, from gathering information on system requirements to helping with equipment design and installation. NLECTC–Southeast digitized a field interview form, coordinated an interface with the U.S. Transportation Security Agency (TSA) to provide Geographic Information System (GIS) data displays and database integration, and gained access to vessel information obtained by the U.S. Coast Guard, the local port authority, and local harbor pilots.

“As Project SeaHawk continues to grow in interest and scope, so have the demands for integration,” McAlister says. SeaHawk
originally included 20 participating partner agencies, but by the time day-to-day operations started, that number had grown to 47. Some agencies joined the effort because the task force requested their input, while others heard about the project and wanted to get onboard. This made the task of designing databases and other systems to ensure interoperability even more complex, he says.

With the opening of the Seahawk operations center at the end of last year, the assistance provided by NLECTC–Southeast has moved into a new phase. Receipt of a second grant from NIJ, this one for $7.5 million, will help in the development of new technology projects, such as an event-driven camera monitoring system that incorporates sensors, cameras, thermal imagery, and radiation dispersion detectors. This complex system will report consolidated information to the operations center, says McAlister, who adds that a video wall in the operations center to monitor port activity will be the first step in this project.

Another $4.6 million in grants from TSA and the Department of Homeland Security’s Office of Domestic Preparedness will fund construction of a regional radiation dispersion device initiative, which will develop and evaluate radiological detection and monitoring programs and design action plans to be used in the event of radiological or nuclear terrorism. NLECTC–Southeast, under the direction of Project Manager Bill Deck, will provide technical assistance on this complex project.

“With projects like these on the horizon, Project SeaHawk will continue to grow and evolve through at least 2006, when the pilot project period ends,” Deck says. “There has been discussion of using Project SeaHawk as a model for port security projects in other cities at that point. I know that was Senator Hollings’ original plan.”

For more information on Project Seahawk and NLECTC–Southeast’s involvement, contact Buddy McAlister or Bill Deck at 800–292–4385. Or e-mail them at mcalister@nlectc-se.org or bdeck@nlectc-se.org.

Did You Know . . .

- In addition to the public safety challenges all States face, South Carolina is particularly vulnerable to the extraordinary threats of natural and manmade disasters that require mutual aid responses, including serious threats from hurricanes and even earthquakes. In 1989, Hurricane Hugo, one of the largest and most costly natural disasters in the United States, hit the coast of South Carolina, causing massive destruction and widespread power outages that disrupted or destroyed public safety communications across the State.

- The State boasts six major military bases, one of which is home to a squadron of F-16 fighter jets deployed for active duty on a regular basis. In addition, the U.S. Naval Weapons Station stores and distributes large amounts of weapons and Naval ordnance for the U.S. Navy in support of overseas operations.

- The area around Charleston is often referred to as South Carolina’s “Low Country.” It encompasses the counties of Charleston, Berkeley, and Dorchester and covers an area that extends 90 miles along the Atlantic coastline and 50 miles into the interior of the State, a total of about 3,200 square miles. It is home to more than 560,000 people and plays host to several million visitors each year.
Formula grants are awarded to State and local governments based on a determined formula that depends on a jurisdiction’s crime rate, population, or other factors. States are generally required to pass a certain portion of formula grants through to local agencies and organizations within the State's jurisdiction. Many of OJP's formula grants have technology-related components, including the following:

- **Court and Community DNA Backlog Reduction Program.** Prior to fiscal year 2004, NIJ provided funding under this program to States to enhance their public laboratories to speed analysis of convicted offender DNA backlogs. NIJ has moved in recent contracts to awarded funding which is now only available for outsourcing samplers. NIJ provides funding, a contracting vehicle, to enhance laboratories to outsource their convicted offender DNA backfilling. For more information, contact Natalie Lu at 202–353–0710 or visit the NIJ website at www.ojp.usdoj.gov/nij/sciencetech/dna_backlog_reduction.htm.

- **DNA Capacity Enhancement Program.** This NIJ program seeks to improve the infrastructure and capacities of States and local criminal justice agencies to conduct DNA analysis. The grants are critical to prevent future DNA backlogs and to help the criminal justice system realize the full potential of DNA technology. NIJ provides funding based on crime statistics (Part 1 Crime Data) Estimated funding amounts are made available in each year’s Formula Grant Program. All existing State and Tribal funds for forensic DNA laboratories are used to apply directly to NIJ. For more information, contact Natalie Lu at 202–353–0710 or visit the NIJ website at www.ojp.usdoj.gov/nij/sciencetech/dna_capacity.htm.

- **Edward Byrne Memorial State and Local Law Enforcement Assistance Formula Grant Program.** This program provides funds to States and local governments to control and prevent drug abuse, crime, and violence and to help improve the criminal justice system. Byrne funds are awarded for projects that include law enforcement, adjudication, community crime prevention, and the development of criminal justice information systems. The grants can be used to provide additional personnel, equipment, technical assistance, and training. For more information, contact BJA at 202–514–3234 or visit the BJA website at www.ojp.usdoj.gov/BJA/grant/llebg_app.html.

- **Local Law Enforcement Block Grant (LEEPG) Program.** This program awards block grants to local governments to reduce crime and enhance public safety grants. Funding is allocated based on crime data (number of sexual assaults and homicides reported to the FBI). For more information, contact 202–425–6448 or visit the BJA website at www.ojp.usdoj.gov/BJA/grant/llebg_app.html.

- **Paul Coverdell Forensic Sciences Improvement Grant Program.** This program provides funds to the States and units of local government for the improvement of forensic sciences, including forensic science and medical examiner/forensic examiner services for crime scene processing, system development, and forensic science and medical examiner/forensic examiner services for crime scene processing, system development, and forensic science and medical examiner/forensic examiner services. The program supports funding for laboratories and forensic health care providers, and forensic health care providers, and forensic health care providers, and forensic health care providers to provide training and related services to States and local governments to control and prevent drug abuse, crime, and violence. NIJ provides funding based on the quality, timeliness, and immediate accessibility of criminal justice information services. For more information, contact Natalie Lu at 202–353–0710 or visit the NIJ website at www.ojp.usdoj.gov/nij/sciencetech/funding.htm.

- **Federal Crime Scene DNA Backing Reduction Program.** This NIJ program provides funding to States and local governments to reduce crime and enhance public safety grants. Funding is allocated based on crime data (number of sexual assaults and homicides reported to the FBI). For more information, contact 202–425–6448 or visit the BJA website at www.ojp.usdoj.gov/BJA/grant/llebg_app.html.

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- **Juvenile Accountability Block Grants (JABG) Program.** Administered by OJJDP, the JABG program encourages accountability-based reform for State and local juvenile justice systems. The OJJDP National Training and Technical Assistance Center serves as the national training and technical assistance provider for the JABG program to ensure that comprehensive support is available to States and units of local government. The goal of this support is to promote States and units of local government to implement state-of-the-art accountability-based programs in any of the program areas, including training, equipment, and funding, to assist prosecutors of violent offender youth. For more information, call 202–307–0911 or visit the JABG website at www.ojp.usdoj.gov/ncjrs/org/jabg.htm.

- **OJJDP Formula Grants Program.** States may use grant funds to support programs related to delinquency prevention and reduction, juvenile justice system improvement, research, evaluation, statistics, analysis, and technical assistance. For more information, call 202–307–0911 or visit OJJDP’s website at www.ojjdp.ncjrs.org/jabg.htm.

- **Paul Coverdell Forensic Sciences Improvement Grant Program.** This program provides funds to the States and units of local government for the improvement of forensic sciences, including forensic science and medical examiner/forensic examiner services for crime scene processing, system development, and forensic science and medical examiner/forensic examiner services for crime scene processing, system development, and forensic science and medical examiner/forensic examiner services. The program supports funding for laboratories and forensic health care providers, and forensic health care providers, and forensic health care providers to provide training and related services to States and local governments to control and prevent drug abuse, crime, and violence. NIJ provides funding based on the quality, timeliness, and immediate accessibility of criminal justice information services. For more information, contact Natalie Lu at 202–353–0710 or visit the NIJ website at www.ojp.usdoj.gov/nij/sciencetech/funding.htm.

- **National Criminal History Improvement Program (NCCHP).** Administered by NIJ, this program provides funding to States to improve the quality, timeliness, and accessibility of criminal history and related records. NCCHP helps States upgrade the quality and accessibility of their criminal history and related records by providing technical assistance, training, and grants. For more information, contact NCCHP at 202–307–0783 or visit the NCCHP website at www.ojp.usdoj.gov/nij/grants/ncchp.htm.

- **National Incident-Based Reporting System Implementation Program (NIBRS).** This program supports the state and local governments to collect and analyze a broad range of criminal incident data. NIBRS is designed to replace the Uniform Crime Reporting Program initiated by the FBI in 1930. NIBRS is developing the system to encourage the participation of local, State, and tribal governments, and to provide new information about the variety of crime. The program provides funding to States and local agencies to participate in NIBRS. For more information, contact BI at 202–307–0785 or visit the BI website at www.ojp.usdoj.gov/oca/ois/nibrs.htm.

- **National Institute of Justice Science and Technology Solicitations.** NIJ assists the State’s and local criminal justice agencies and other public safety agencies by sponsoring technology solicitation announcements to meet a broad range of those agencies’ needs. NIJ typically funds two to three active solicitations: involves application research, development, and evaluation of technologies or their implementation, and demonstration of technologies or their implementation applied commercially in the public sector. The principal aim of these solicitations is to support projects that may lead to commercial application of technology. For more information, visit the NIJ website at www.ojp.usdoj.gov/nij/grants/nts.htm.

- **Nowell A. Byrd Memorial State and Local Law Enforcement Assistance Formula Grant Program.** This program provides funds to States and local governments control and prevent drug abuse, crime, and violence and to help improve the criminal justice system. Byrne funds are awarded for projects that include law enforcement, adjudication, community crime prevention, and the development of criminal justice information systems. The grants can be used to provide additional personnel, equipment, technical assistance, and training. For more information, contact BJA at 202–514–3234 or visit the BJA website at www.ojp.usdoj.gov/BJA/grant/byrne.html.
Office on Violence Against Women (OVW) Grants

OVW grant programs help State, tribal, and local governments and community-based agencies to train personnel, establish specialized domestic violence and sexual assault units, and assist victims of violence. Grant programs offered by OVW include the following:

• Grants to Encourage Arrest Policies and Enforcement of Protection Orders. These discretionary grants are designed to encourage State, local, and tribal governments and State, local, and tribal courts to treat domestic violence as a serious violation of criminal law requiring the coordinated involvement of the entire criminal justice system. Grant funds may be used for implementing mandatory or proarrest programs and policies; developing policies and training in criminal justice agencies to improve tracking of domestic violence and dating violence cases; and creating centralized domestic violence units consisting of police, prosecution, or other criminal justice agencies. For more information, contact OVW at 202–307–6026 or visit www.ojp.usdoj.gov/ovw/arrest_grant_desc.htm.

• STOP Violence Against Indian Women Discretionary Grants Program. The STOP Violence Against Indian Women Grants are intended to develop and strengthen tribal law enforcement and prosecution efforts to combat violence against Native women and to develop and enhance services for victims of such crimes. For more information, contact OVW at 202–307–6026 or visit www.ojp.usdoj.gov/ovw/stop_vaiw_grant_desc.htm.

• STOP Violence Against Women Formula Grants Program. The STOP (Services, Training, Officers, and Prosecutors) Violence Against Women Formula Grants are awarded to States to develop and strengthen the criminal justice system’s response to violence against women and to support and enhance services for victims. Each State and territory must allocate 25 percent of the grant funds to law enforcement, 25 percent to prosecution, 5 percent to courts, and 30 percent to victim services. The remaining 15 percent is discretionary with the parameters of the Violence Against Women Act. For information, contact OVW at 202–307–6026 or visit www.ojp.usdoj.gov/ovw/stop_grant_desc.htm.

• COPS Interoperable Communications Technology Program. This program provides funding to help communities develop effective interoperable communications systems for public safety and emergency services providers. Interoperable Communications Technology grants fund projects that explore uses of equipment and technologies to increase interoperability among the law enforcement, fire service, and emergency medical service communities. These projects are the result of thorough planning and demonstrate how new technologies and operating methods can help communities achieve interoperability. For more information, contact COPS at 800–421–6770 or visit the COPS website at www.cops.usdoj.gov.

• COPS Technology Grants. These grants provide funding for the continued development of technologies and automated systems that help tribal, State, and local law enforcement agencies prevent, respond to, and investigate crime. The funding allows State agencies to purchase technologies to advance communications interoperability, information sharing, crime analysis, intelligence gathering, and crime prevention in their communities. For more information, contact COPS at 800–421–6770 or visit the COPS website at www.cops.usdoj.gov.

Office of Domestic Preparedness (ODP) Grants

ODP is the principal component of the Department of Homeland Security responsible for preparing the United States for acts of terrorism. ODP is the primary office responsible for providing training, funds for the purchase of equipment, support for the planning and execution of exercises, and technical assistance to help States and local jurisdictions prevent, plan for, and respond to acts of terrorism. Programs under the Homeland Security Grants Program include the following:

• Law Enforcement Terrorism Prevention Program (LETPP). LETPP seeks to provide law enforcement communities with enhanced capabilities for detecting, deterring, disrupting, and preventing acts of terrorism. Funds are provided for the purchase of equipment to support efficient sharing of information and intelligence and allow interoperable communications among agencies; “target hardening” to make vulnerable targets more resistant to attack; and improvement of threat recognition and intervention capabilities.

• State Homeland Security Grants Program (SHSG). Help provided under this program includes funds to enhance the capability of State and local units of government to prevent, deter, respond to, and recover from incidents of terrorism involving the use of chemical, biological, radiological, nuclear, and explosive (CBRNE) weapons and cyber attacks. These funds support costs related to homeland security and emergency operations planning activities and purchase of specialized equipment.

For information on these and other ODP programs, call 800–368–6498 or visit www.ojp.usdoj.gov/odp/grants_programs.htm.

NIJ Technology Institutes 2005

For nearly 10 years, the National Institute of Justice (NIJ) has sponsored two annual Technology Institutes—one specifically for law enforcement personnel; the other for corrections personnel.

Both Technology Institutes are held in Washington, D.C., and run for 5 days, during which participants receive information and assistance on existing and developing technologies, work through problems relating to technology implementation, and exchange technology lessons learned that are of importance to law enforcement or corrections. In addition, those attending receive briefings and demonstrations at various agencies and departments in the metropolitan area.

Participants from across the country bring to the Institutes questions, technology problems and solutions, and a desire to do their jobs more efficiently and effectively.

There is no cost for either Institute, and all travel, food, and lodging expenses are covered. However, only 25 to 30 individuals are selected to attend (no previous attendees, please). Applications and additional information for both Technology Institutes are available online at www.justnet.org or by calling 800–248–2742.

Law Enforcement Technology Institute

July 31–August 5, 2005
Application Deadline: June 17, 2005

Corrections Technology Institute

September 18–23, 2005
Application Deadline: July 16, 2005
National Criminal Justice Reference Service

In addition to funding the National Law Enforcement and Corrections Technology Center, the National Institute of Justice (NIJ) and other Federal agencies support the National Criminal Justice Reference Service (NCJRS), assisting a global community of policymakers, practitioners, researchers, and the general public with justice-related research, policies, and programs. NCJRS offers reference and referral services, publications, onsite and offsite conference support, and other technical assistance. The easiest way to access NCJRS is online.

Start at http://www.ncjrs.org. The NCJRS website showcases the latest criminal and juvenile justice and drug policy information. Take advantage of—

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- http://askncjrs.ncjrs.org (questions)
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Web: http://www.ncjrs.org

Phone: 800–851–3420
(Monday – Friday, 10 a.m. to 6 p.m. e.s.t.)
Fax: 301–519–5212
Mail: NCJRS, P.O. Box 6000, Rockville, MD 20849–6000

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Online News Summary. Online News Summary includes articles 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.

Frequently Asked Questions. Frequently Asked Questions offers detailed information based on thousands of calls to our information specialists.

Publications. Publications from NIJ and NLECTC that you can view or download to your system.

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

Publications of Interest

Status Report to the Attorney General on Body Armor Safety Initiative Testing and Activities. This special report to the U.S. Attorney General by the National Institute of Justice (NIJ) provides information on current body armor testing and related activities in light of the reported failure of an NIJ-compliant ballistic vest in Forest Hills, Pennsylvania. The report can be viewed online at http://vests.ojp.gov/docs/ArmorReportWithPress.pdf. (Note that the online version of the report includes a media release from the U.S. Department of Justice, Office of Justice Programs at the beginning.) Printed copies of the report can be obtained by contacting the National Criminal Justice Reference Service, 800–851–3420.

Supplement I: Status Report to the Attorney General on Body Armor Safety Initiative Testing and Activities. This supplement serves as a follow-on to the above report detailing NIJ’s interim findings and containing information on the ballistic performance of Zylon®-based armor and upgrade kits. The supplement can be viewed online at http://www.ncjrs.org/pdffiles1/nij/207605.pdf. Contact the National Criminal Justice Reference Service, 800–851–3420, to obtain printed copies.

Links. Links takes you to other important law enforcement and corrections websites.

For help establishing an Internet connection, linking to JUSTNET, or finding needed technology and product information, call the NLECTC Information Hotline at 800–248–2742.
The National Law Enforcement and Corrections Technology Center (NLECTC) system, a program of the National Institute of Justice (NIJ), offers no-cost assistance in helping agencies large and small implement current and emerging technologies.

The NLECTC system was established in 1994 by NIJ’s Office of Science and Technology to deliver information and technology assistance to more than 18,000 police departments; 50 State correctional systems; thousands of prisons, jails, and parole and probation departments; and other public safety organizations.

Technology Identification
The NLECTC system provides information and assistance to help agencies determine the most appropriate and cost-effective technology to solve an administrative or operational problem. We deliver information relating to technology availability, performance, durability, reliability, safety, ease of use, customization capabilities, and interoperability.

Technology Assistance
Our staff serve as proxy scientists and engineers. Areas of assistance include unique evidence analysis (e.g., audio, video, computer, trace, and explosives), systems engineering, and communications and information systems support (e.g., interoperability, propagation studies, and vulnerability assessments).

Technology Implementation
We develop technology guides, best practices, and other information resources that are frequently leveraged from hands-on assistance projects and made available to other agencies.

Property Acquisition
We help departments take advantage of surplus property programs that make Federal excess and surplus property available to law enforcement and corrections personnel at little or no cost.

Equipment Testing
In cooperation with the Office of Law Enforcement Standards (OLES), we oversee the development of standards and a standards-based testing program in which equipment such as ballistic- and stab-resistant body armor, double-locking metallic handcuffs, and semiautomatic pistols is tested on a pass/fail basis. NLECTC also conducts comparative evaluations—testing equipment under field conditions—on patrol vehicles; patrol vehicle tires and replacement brake pads; and cut, puncture, and pathogen-resistant gloves. NLECTC also has evaluated emerging products to verify manufacturers’ claims. The primary focus of OLES is the development of performance standards and testing methods to ensure that public safety equipment is safe, dependable, and effective.

Contact NLECTC for:

Technology Demonstration
We introduce and demonstrate new and emerging technologies through such special events, conferences, and practical demonstrations as the Mock Prison Riot (technologies for corrections) and an annual public safety technology conference. On a limited basis, NLECTC facilitates deployment of new technologies to agencies for operational testing and evaluation.

Capacity Building
We provide hands-on demonstrations of the latest technologies to address such operational issues as crime and intelligence analysis, geographic information systems, explosive detection and disablement, inmate disturbances and riots, and computer crime investigation.

Technology Information
NLECTC disseminates information to the criminal justice community at no cost through educational bulletins, equipment performance reports, guides, consumer product lists, news summaries, meeting conference reports, videotapes, and CD-ROMs. NLECTC also publishes TechBeat, an award-winning quarterly newsmagazine. Most publications are available in electronic form through the Justice Technology Information Network (JUSTNET) at www.justnet.org. Hard copies of all publications can be ordered through NLECTC’s toll-free number, 800-248-2742, or via e-mail at asknlectc@nlectc.org.

Technology Commercialization
Our law enforcement and corrections professionals, product and commercialization managers, engineers, and technical and market research specialists work together to identify new technologies and product concepts. They then work with innovators and industry to develop, manufacture, and distribute these new, innovative products and technologies.

Technology Needs Assessment
Our national body of criminal justice professionals—the Law Enforcement and Corrections Technology Advisory Council (LECTAC)—ensures that we are focusing on the real-world needs of public safety agencies.

Because most of the country’s law enforcement and corrections services are provided at the local level, the NLECTC system is composed of five regional centers and is complemented by several specialty offices and a national center. Most centers and offices are collocated with or supported by federally funded technology partners so they can leverage unique science and engineering expertise.
Stay in Your Seat!

Office of Law Enforcement Technology Commercialization

Some suspects will do just about anything to escape custody, but a recently commercialized safety device known as “Trooper Trap” may prevent escapes by suspects who have beenseated into a patrol car. Oklahoma Highway Patrol’s Trooper Beaty developed the prisoner seatbelt alarm system after a female suspect escaped from her hand cuffs, unbuttoned her seatbelt, and drove away with the patrol car while he was dealing with another suspect. The escape resulted in a car crash, the prisoner’s eventual recapture, and the invention of Trooper Trap. Trooper Trap does not restrict or restrain the prisoner. It alerts the officer when the prisoner removes the seatbelt by sounding an external alarm on the patrol unit. The device can be installed on most patrol vehicles and can be modified to sound an alarm if weapons mounted in the vehicle are disturbed. To bring his product to market, Beaty received commercialization assistance for Trooper Trap through the Office of Law Enforcement Technology Commercialization (OLETC) and its Commercialization Planning Workshop®. The workshop is designed to provide the necessary tools, procedures, information, and understanding to assist clients in logically working through the commercialization process in an organized and rational manner. For more information regarding Trooper Trap or commercialization assistance and events offered by OLETC, contact Tom McLaughlin, 888-306-3582 or tmcLaughlin@oletc.org.

A Signature All Its Own

National Institute of Justice

Researchers at Intelligent Automation, Inc. (IAI), have developed a 3D imaging system for examining the markings imprinted on a bullet as it travels through the barrel of a gun. The system is capable of automatically obtaining data from the bullets, storing the information in a database, extracting a “signature” associated with the data, and evaluating the degree of similarity between the signatures. IAI is using this system to study the scientific foundations of forensic bullet comparisons. At the core of this study are such questions as: Are bullets fired by the same gun sufficiently similar to be “matched”? What is the probability of error associated with these matches? What is the effect of barrel wear? The IAI system will also assist law enforcement by providing a tool for comparing bullets found at crime scenes with guns found as part of an investigation. Funding for this work is provided by the National Institute of Justice and the National Science Foundation. Forensic Technology, Inc. (FTI), manufacturer of the Integrated Ballistic Identification System, is transitioning the 3D-based technology from the research stage into the hands of the law enforcement community. For additional information, contact Lois Tully, 202-307-0694 or lois.tully@usdoj.gov.

Phish Out of Water

NLECTC–Northeast

When Vermont band Phish held an outdoor concert before 70,000 campers in Coventry, Vermont, in August 1990, they paid the 300-officer Vermont State Police (VSP) its first opportunity to use its new interoperable communications capability to handle traffic management, assist venue security, and perform alcohol, drug, and other regulatory and criminal enforcement. The communications interoperability equipment was purchased with the support of the Office of the U.S. Attorney for Vermont and was installed in a mobile outdoor command post with the assistance of NLECTC–Northeast. The unexpected rainstorm that turned the site into a mudbath and created a 23-mile backup along Interstate 91 and the two-lane roads leading into the site, the new equipment worked as planned, according to NLECTC–Northeast interoperable communications specialist John Sallustio. It enabled VSP to patch together normally incompatible radio systems, including those of VSP, Vermont Fish and Wildlife, U.S. Customs Service, Royal Canadian Mounted Police, and concert operations/security agencies. In addition to helping set up the command post, NLECTC–Northeast staff provided assistance before and during the concert. Prior to the event, the Center provided VSP staff with interoperability information and training developed under the National Institute of Justice’s CommTech program. During the concert, NLECTC–Northeast staff provided assistance that included extending the range of an in-flight video system and trouble-shooting electrical overload problems. Public safety agencies or departments interested in obtaining information on communications interoperability or obtaining technical assistance contact NLECTC–Northeast, 888-338-0584 or nlecct@vermont.edu, for further information.

Prohibition and Parole Online Program

NLECTC–Rocky Mountain

NLECTC–Rocky Mountain has completed an experimental online education project for probation and parole officers designed to bring quality instruction to departments that cannot shoulder the high cost of traditional training methods. Called the Community Corrections E-Learning Collaborative (CCELC), this pilot program was developed in conjunction with the Education Coalition, a not-for-profit group established to provide distributed education products to diverse audiences. More than 400 officers from 64 Federal, State, and local agencies in 22 States as well as the District of Columbia and Canada received practical, indepth training in motivational interviewing, individual and group cognitive-behavioral approaches, family dynamics and domestic violence, introduction to the superposition of sex offenders, and officer safety in the community. Highly rated by participants, the program saw a first-day dropout rate of less than 10 percent (as compared to 40 percent experienced by traditional online university courses). The lessons learned from the pilot program will contribute to the creation of additional, ongoing training opportunities. Currently, NLECTC–Rocky Mountain and CCELC are looking to transition the initiative to a not-for-profit organization willing to grow the project into a flexible training program that can be accessed by agencies nationwide at a reasonable cost. For more information about the CCELC pilot program, contact Joe Russo, 800-416-8086 or jruss0@du.edu.

Worth More Than “Blue Book”

NLECTC–Southeast

Law enforcement agencies in North Carolina can borrow some pretty valuable vehicles from the North Carolina Law Enforcement Support Services surplus property program. Although the vehicles are fairly beat up and might sell for only a few hundred dollars, their interiors can be stocked with tiny cameras and other surveillance equipment worth thousands of dollars. Law enforcement agencies throughout the State can arrange for vehicle loans to use in special short- or long-term surveillance projects, thus giving them access to specialized equipment the department could not afford to purchase. If a particular car becomes known in a community before a project ends, it can be rotated with another program vehicle. NLECTC–Southeast helps the North Carolina program locate cars through the 1033 Federal Excess Property Program. The Center also outfitted one vehicle for the exclusive use of school safety officers. [For more] The 1033 program permits the Secretary of Defense to transfer, without charge, excessive U.S. Department of Defense personal property (supplies and equipment) to State and local law enforcement agencies. [Ken Dover, Federal Property Programs project manager with NLECTC–Southeast, previously worked for the North Carolina Alcohol Law Enforcement division and helped start the car-loan program. He says that although the program is available only to North Carolina law enforcement agencies, NLECTC–Southeast is encouraging other States to create similar programs. “It costs some startup money, but the return is worth it,” Dover says. “In 7 years of operation, the loaner vehicles have helped officers seize nearly $3 million in illegal drugs and $750,000 in cash, and arrest more than 3,000 individuals.” For more information, contact Ken Dover, 888-874-3584 or kdover@nlectc-se.org.

Intelligence: Past, Present, Future

NLECTC–West

Criminal intelligence analysts can spend much of their time in the past: gathering threads of evidence, pulling them together, looking to solve a case. Following September 11, 2001, however, some analysts are learning to live not only in the past but also the future. “There are two common methods of using intelligence,” says Matt Begert of NLECTC–West. “Law enforcement commonly looks back in time to try to solve crimes that have already happened; in contrast, the military and the U.S. intelligence agencies look at indicators and warnings to try to first predict, then alter events. Intelligence can be used to predict and prevent, detect, or mitigate terrorist operations. In the big picture, we’re trying to add a front-end piece to crisis management and public safety, to predict what may happen before it happens.” NLECTC–West is adding to that front-end piece through a 3-day training session on intelligence analysis that presents methods, systems, and structures as used by the U.S. intelligence community and the U.S. military. In addition to the training session, the Center informally works with a number of intelligence analysts to promote networking as a faster, more collaborative, and less restrictive way for law enforcement agencies to work together on intelligence operations. NLECTC–West also offers a suicide bomb threat network, a bomb and a laser-incident database, and a series of “occasional papers” that include less-lethal weaponry terms and references, an aviation and airport terrorism guidebook, and a Terrorism Early Warning network reader. The Center additionally offers two relevant “on-request” presentations, a 1-hour class on intelligence preparation for operations, and a 2-hour module on the laser threat to aviation. For more information, contact Matt Begert, 888-548-1618, ext. 3, or begert@law-west.org.
A Small Matter of Size

Following a lengthy investigation, officers armed with a search and seizure warrant enter the residence of a suspected offender. As part of their search, the officers begin collecting every potential source of electronic evidence. They sack the computer tower, the keyboard, and the apparently unburned CD-ROMs still on their packaging spindles. But they do not take a tiny black plastic square, smaller than a postage stamp, tucked halfway underneath a coffee cup. The officers unfortunately do not recognize this small object as a memory card—as THE memory card that would seal their case.

"Physically, memory storage cards are getting smaller and smaller, while virtually, they are getting larger and larger," says Joshua Bartolomie, an electronic crime specialist at the National Institute of Justice’s CyberScience Laboratory (CSL) in Rome, New York. "Cards the size of a postage stamp can hold up to three times the information stored on a CD-ROM." In his search and seizure warrant scenario, Bartolomie points out that the "little black thing on the corner of the desk" could easily be hidden by a knickknack, or even mistaken for one.

To help law enforcement officers recognize these multimedia storage devices for what they are, CSL staff have developed a desktop reference card that depicts 11 miniature memory cards commonly used in cell phones, personal digital assistants, MP3 players, laptops, desktops, and digital cameras. These cards can store any type of data, including, but not limited to, audio, pictures, video, and documents. Two of the products pictured on the desktop reference card, TransFlash™ and Extreme Digital (XD), are only half the size of a postage stamp, yet may hold up to a gigabyte of information.

"This technology industry is already talking about new media cards to be out by this summer that are even smaller and hold three times more information," Bartolomie says. Because technological advances occur at such a rapid pace, CSL plans to update its reference card several times a year.

In addition to overlooking or ignoring the tiny cards themselves, Bartolomie says officers may not realize that memory cards used in devices other than computers, such as MP3 players or digital cameras, can store any type of file. "A lot of people think if you have an MP3 player that it just plays music," he says. "You can store anything on that card; the computer just sees it as another logical drive. You can save files to the memory card through a card reader/writer or by using the device that the card is contained within."

Officers also may not know all the places in a computer system that can "hide" a memory card. In another scenario Bartolomie uses in training sessions, he asks his class if they would take the mouse when seizing a computer as evidence; most say no. However, because many laptop users do not want to carry both a mouse and a card reader, the computer industry has created models that include built-in memory card readers/writers. Criminals have managed to turn a space-saving innovation into a way to hide evidence from the eyes of the law, he says.

For more information regarding the identification of multimedia storage cards, contact Joshua Bartolomie, 888–338–0584 or joshua.bartolomie@rl.af.mil. To obtain the reference card "Multimedia Storage Devices," or other reference cards in the CyberScience Laboratory Desktop Reference Card Series, go to www.cybersciencelab.com. [Note: You will need to register for the Private Site in order to complete download.] Print copies are available also by calling 888–338–0584.