Criminals commit crimes close to where they work and live,” says Noah Fritz, deputy director of NLECTC–Rocky Mountain and director of its Crime Mapping and Analysis Program (CMAP), which provides technology assistance and introductory and advanced training to State and local agencies. “They also base their choices on their routine activities. People drive to work the same way every day, put on their right shoe before their left, or whatever. Criminals often have similar reasons for picking certain places. They do what has succeeded before.”

Jurisdictions often try to share information about ongoing investigations through monthly task force meetings and through more frequent e-mail alerts, Fritz says. But the creation of a regional information sharing system like KCRCAGIS may improve their ability to collaborate and solve cases sooner. “We're trying to identify serial crime: murder, rape, robberies. This tool will allow investigators to make sense of trends and identify interesting leads,” he says.

The KCRCAGIS project was launched in August 1999 as the first regional crime-mapping project to include jurisdictions from multiple States. Doug Weishar, a captain with the Kansas City (Missouri) Police Department and deputy director of the Midwest High Intensity Drug Trafficking Area’s (HIDTA) Investigative Support Center, is co-chair of the project. He has been with the project since its inception. Dave Burger, a captain with the Lenexa (Kansas) Police Department, serves as the other co-chair.

“A bunch of us started to talk about it. Here we were, with 80 to 100 separate agencies spanning 2 States and 10 counties, and nothing linked even our pin maps,” Weishar recalls. “A lot of analysts were taking advantage of Federal dollars to take crime-mapping...”

(See Sharing the Crime, page 3)

(See You Don’t Have Mail, page 2)
Correctional facilities faced with illegal drug contraband may be interested in reading Sandia National Laboratories’ detailed report, *Contraband Detection in the Pima County Jail Mail Room*, available on an “official use” basis by contacting the Border Research and Technology Center (BRTC) at info@brtc.nlectc.org.

BRTC also suggests that departments considering the purchase of drug detection technology equipment review the Guide for the Selection of Drug Detectors for Law Enforcement Applications, NIJ Guide 601-00, August 2000, available online at www.ncjrs.org/pdffiles1/nij/183260.pdf.

In addition, the Federal facility in Fort Leavenworth, Kansas, was one of the first correctional facilities in the country to research better ways of uncovering illicit drugs hidden in letters and packages. Log on to www.justice.org/pdf/chev/2002.html to access the article, “The Check Is in the Mail,” from the Summer 2002 edition of TechBeat.

(You Don’t Have Mail . . . cont. from page 1)

Gearhart says the Pima County detention center houses around 1,500 inmates. It has one full-time mailroom officer and another who helps part-time—a staffing setup fairly similar to those used in many other smaller facilities. This small mailroom staff opens and hand inspects several hundreds of pieces of inmate mail daily, except around holidays when the amount may reach 1,000 pieces per day. Staff use ultraviolet light to illuminate suspicious areas or marks. Suspicious mail may be taken outside and sprayed with a chemical testing spray, and/or eventually sent to a lab for analysis. However, Gearhart says, his facility recently received an alert from another State saying that drug smugglers are getting ahead of mailroom staff and getting around the ultraviolet light check by soaking entire letters in methamphetamine.

It was clear that mailroom staff needed help, but using a dog to sniff each of the hundreds of pieces of mail coming into the center daily was not practical. In search of a viable solution to the problem, the detention facility contacted the Border Research and Technology Center (BRTC), part of the National Institute of Justice’s National Law Enforcement and Corrections Technology Center system. “We asked what can you do to help us?” Gearhart recalls. “Is there any new technology out there, or is there any old technology that we don’t know about that we should?”

An answer came through BRTC’s host organization and technology partner, Sandia National Laboratories (SNL). A team from SNL’s Entry Control and Contraband Detection Department helped jail officials conduct a mailroom residual background contamination evaluation and incoming mail contamination evaluation to determine the feasibility of using available trace drug detection equipment. “The Pima County folks weren’t looking for bulk narcotics such as might come into the country at a port,” notes Chris Aldridge, BRTC director. “They were looking for very small amounts.”

According to the SNL team, drug detection systems fall into two categories: bulk detectors and trace detectors. Both systems can be used for nonintrusive drug testing of packages and containers.

**Bulk Detectors.** Bulk detectors use x rays, computed tomography (CT) scans, and similar imaging techniques to detect a pound or more of contraband substances. These bulk systems usually do not produce automated alarms and require a human operator to examine the resulting image and then decide whether to examine the item further.

**Trace Detectors.** Trace detectors operate in two sample collection modes: vapor or swipe. They detect drug residue on the exterior of an item or vapors emanating from inside. Portable “sniffers” are available for detecting drug vapors. However, when vapors from several ounces of drugs are not present, as was the case at the Pima County facility, surface particle detectors can be used in the “swipe” mode. Using a cloth-like medium, the operator swipes the surface of an item. The sample is then inserted into the detector so collected particles can be extracted, analyzed, and identified. If drugs are present, the detector alerts the operator.

SNL proposed two contraband detection systems for evaluation by Pima County. One is a hand-portable system offering both swipe and vapor collection capabilities. When combined with a commercial chemical detector, the system is capable of detecting substances at parts per trillion. The other is a highly sensitive stationary detector with swipe capability only. SNL’s testing covered methamphetamines, LSD, cocaine, and marijuana—often drugs of choice among inmates. Both systems are capable of testing for other substances as well, including explosives.

“Both machines were very effective in finding all types of substances in the mail,” says Lt. Dan Brown, who is in charge of the facility’s security services, including the mailroom. “They tested some pieces we were suspicious of, including what was supposed to be a child’s crayon drawing that didn’t look like it was done by a child. It tested positive. In another case, they found drugs under a stamp.”

Pima County sent the tested samples to its drug laboratory for confirmation, and criminal charges are pending in one case. Although both systems performed well, the detention facility prefers the hand-portable system with both vapor and swipe detection capabilities. “The hand-portable system will allow us to go into other areas of the facility as well and test papers and even cells,” Gearhart adds. “This would help control other ways that drugs might get in, such as being smuggled in by work furlough crew members or by visitors. If we’ve received any type of confidential information as to where drugs might be, we can follow up on the tip with testing.”

Training needs for the new equipment should be minimal, Brown says, because it is easy to learn to use. Staff will need to work the swipe testing into their normal routine, but it should eventually eliminate the need to look at items under ultraviolet light and save time.

While training should not present any problems, funding may Gearhart says that like many correctional facilities across the country, Pima County faces budget restrictions, and the detention center administrator plans to look into alternative funding sources, such as a Federal grant, for the $70,000 to $100,000 project. “To me, stopping the introduction of drugs into the jail is worth any cost.”

Pima County has found ways to use SNL’s evaluation results to improve procedures even before the equipment purchase takes place. For example, Gearhart says his facility no longer accepts mail with postage stamps. Even personal letters must be mailed in prepaid postage envelopes or taken to the post office and metered. This eliminates the possibility of hiding drugs behind the stamps. In addition, staff now destroy the original envelopes containing legal mail and replace them with clean blank manila envelopes. Finally, all letters written in ink gel are returned.

This combination of procedural changes should help stop some inmates from receiving contraband. When the new equipment is in place, Gearhart and Brown hope that even more inmates will have to learn to get along without illicit drugs.

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For additional information about the Pima County, Arizona, contraband detection initiative, contact Capt. Greg Gearhart at 520-547-8391, e-mail ggearhar@pimasheriff.net; or Chris Aldridge, Border Research and Technology Center, 888-656-2782, e-mail cdaldri@brtc.nlectc.org.
training. They started bringing copies of the maps they were making to monthly meetings and sharing them. This helped us realize it would be even more valuable if we could get on our computers and see what others were working on.”

The original committee, which Weishar describes as “a ragtag bunch of volunteers,” expanded its efforts, moving from discussions about needs, to a needs assessment survey, to development of a concept paper and other work often done by consultants. The committee sent the concept paper to every chief and sheriff in the Kansas City metropolitan area and asked them to allow the committee to make decisions for their agencies and for the area. Support, according to Weishar, was overwhelming.

“We heard about this program called RCAGIS, used in the Baltimore-Washington metropolitan area. It was designed by the University of Maryland and allowed regional sharing of crime-mapping data,” he says. “We started figuring, okay, this is something that we could use. We thought maybe there was something that others were working on.”

It was designed by the University of Maryland and used in the Baltimore-Washington metropolitan area. The program provides agencies with coordination, equipment, technology, and additional resources to combat drug trafficking and its harmful consequences in critical regions of the United States. To learn more about HIDTA, log on to www.whitehousedrugpolicy.gov/hidta/.

Even using this ripple effect, Weishar says he expects full implementation will take approximately 3 years. His move to HIDTA made him realize the extent of the connectivity issues, and that, although the technology exists, coordination is needed. Weishar also realized that HIDTA would make the perfect host for the KCRCAGIS database. “The highway is already set up. This saves us even more, because we don’t have to purchase the server.” He adds that Midwest HIDTA Director Dave Barton agrees that KCRCAGIS fits perfectly into HIDTA’s information sharing mission. (HIDTA offices nationwide represent a cooperative effort among Federal, State, and local law enforcement agencies across jurisdictions.)

Using the Midwest HIDTA’s server represents just one of several money-saving ideas implemented by the committee. Weishar says the members will continue to search out alternative funding sources.

“We’re pretty excited about it,” he says. “We’ve absolutely saved a ton of money on the front end. We know that right now, money is pretty tight with the Federal Government due to homeland security, so we’re not going to wait for Federal funding. We’re exploring other avenues of financing.”

**Learn More About HIDTA**

The High Intensity Drug Trafficking Area (HIDTA) program enhances and coordinates drug control efforts among local, State, and Federal law enforcement agencies. The program provides agencies with coordination, equipment, technology, and additional resources to combat drug trafficking and its harmful consequences in critical regions of the United States. To learn more about HIDTA, log on to www.whitehousedrugpolicy.gov/hidta/.

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What Every Public Safety Officer Should Know About

RADIATION AND RADIOACTIVE MATERIALS: A RESOURCE GUIDE

This resource guide provides a broad list of sources of information and guidance for law enforcement officers, firefighters, emergency medical personnel, and other public safety officers who may be the first responders to a terrorist attack in which a nonnuclear radiological device (known as a radiological dispersal device (RDD) or a “dirty bomb”) is used.

These resources will help departments and agencies develop and update procedural guidelines and personnel training. Also covered are resources for response, equipment funding, and general information.

Although many of the following resources provide links to other websites, the list should not be considered all inclusive. A number of other government and nongovernment organizations also provide publications, guidelines, information, and training for first responders. Most have websites and can be located by using a search engine, such as Google™ or AltaVista™. Website addresses change frequently. If a listed address no longer works, try locating the site by using a search engine.

A 35-page, electronic version of this guide that includes expanded resource descriptions and an appendix of general contact information for Federal Government agencies involved in planning and implementing responses to radiological attack can be downloaded through JUSTNET, the website of the National Law Enforcement and Corrections Technology Center system, at www.justnet.org. For assistance, call 800–248–2742. A quick-reference poster that provides basic information about radiation hazards and initial response is in the Spring 2003 TechBeat, also available at www.justnet.org.

PROCEDURAL GUIDELINES

Centers for Disease Control and Prevention, Agency for Toxic Substances and Disease Registry
www.atstdr.cdc.gov/mhmi.html
Links to a three-volume planning guide (with accompanying video) to help first responders, both onscene and at the hospital, with the medical management of patients exposed during a hazardous materials incident.

Centers for Disease Control and Prevention, National Center for Environmental Health, Radiation Studies
Casualty Management After a Deliberate Release of Radioactive Material.
www.bt.cdc.gov/radiation/casualtiesradioactive.asp
Recommends immediate actions for police, firefighters, and emergency medical technicians who may be faced with a nuclear terrorist act.

Centers for Disease Control and Prevention, National Center for Environmental Health, Radiation Studies
Casualty Management After Detonation of a Nuclear Weapon in an Urban Area.
www.bt.cdc.gov/radiation/casualtiesdetonation.asp
Recommends immediate actions for police personnel, firefighters, and emergency medical technicians who may be faced with the detonation of a nuclear weapon in a populated area.

Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health
Guidance for Protecting Building Environments From Airborne Chemical, Biological, or Radiological Attacks, May 2002.
www.cdc.gov/niosh/bldvent/pdfs/2002-139.pdf
Provides specific recommendations for building owners and managers on how to protect indoor environments from airborne chemical/biological/radiological agents.

Central Intelligence Agency, Interagency Intelligence Committee on Terrorism
Provides information for first responders to use when making a preliminary assessment of a suspected chemical, biological, or radiological incident. The handbook includes a concise list of indicators of the use and/or presence of chemical, biological, or radiological material to aid in the assessment.

Disaster Preparedness and Emergency Response Association
www.disasters.org/dera/library/Heyer%20WMD.pdf
Includes a section on nuclear and radiological weapons, including dirty bombs, and discusses decontamination techniques for victims and first responders.

Federal Emergency Management Agency
(Chapter on national security emergencies, section on nuclear and radiological attack.)

Federal Emergency Management Agency

International Association of Emergency Managers

National Fire Protection Association
Sets forth the NFPA’s recommended standard operating guidelines for organizations that are responsible for responding to hazardous materials incidents, including the release of radioactive...
materials (considered a level 3 incident—the highest level in the standard).

National Fire Protection Association
www.nfpa.org/PDF/472.pdf

Defines the roles and responsibilities of emergency medical personnel who may be required to respond to hazardous materials incidents and includes suggested training requirements, hazardous materials classifications, and informational references for terrorist and criminal activity.

National Fire Protection Association
www.nfpa.org/PDF/472.pdf

Defines internal standards for qualifications of various categories of persons responding to incidents involving hazardous materials, including incidents involving radiation and incidents resulting from criminal or terrorist activities.

National Institute of Standards and Technology
Aid for Decontamination of Fire and Rescue Service Protective Clothing and Equipment After Chemical, Biological, and Radiological Exposures, NIST Special Publication 981, 2002.
www.nist.gov/pd/nistspecialpub981.pdf

Provides fire and rescue services and other emergency first responders with information on basic decontamination processes for personal protective equipment after exposure to low levels of chemical or biological agents or radiological materials following an attack with a weapon of mass destruction.

National Law Enforcement and Corrections Technology Center System
www.justnet.org/radiation/brochure.html

Provides basic information about radiation, radiation hazards, and initial response. It is not intended to replace an agency’s existing policies, procedures, or training.

National League of Cities
www.nlc.org/nlc/site/files/reports/terrorism.pdf

Developed for local officials by the National League of Cities’ Working Group on Homeland Security. Provides a set of guidelines for responding to terrorist attacks, discusses planning for terrorist attacks in general and responding to specific types of terrorists, and includes a comprehensive list of resources.

National Safety Council
Emergencies and Disasters.
www.nsc.org/issues/prepare.htm

Offers resources on emergency response planning for emergency responders, businesses, communities, and journalists. Links to articles and guidance documents on effective emergency response planning, a 10-point checklist for emergency preparedness, a list of more than 100 documents related to emergency preparedness, and an emergency response guide prepared to assist with quick action procedures.

Radiation Emergency Assistance Center/Training Site
www.orau.gov/reacts/

Sponsored by the Oak Ridge Institute for Science and Education, provides an information resource for the medical management of radiation accidents and includes guidance for radiation accident management for first responders.

U.S. Department of Transportation
http://hazmat.dot.gov/guidebook.htm


Contains guides for first responders that describe potential hazards of various types of hazardous materials and appropriate emergency actions to take when arriving at the scene of an accident involving hazardous materials.

U.S. Environmental Protection Agency
Protective Action Guides.
www.epa.gov/radiation/ert/pags.htm

Discuss protective action guides (PAGs) developed by EPA to help State and local authorities make radiation protection decisions during emergencies.

U.S. Environmental Protection Agency
www.epa.gov/radiation/ert/radfacts.htm

Provides glossary of radiation terms for persons involved in a nuclear emergency and discusses basic concepts for measurement of radiation, types of radiation, limits of radiation exposure, effects of radiation, and emergency response terms.

U.S. Environmental Protection Agency, Office of Radiation and Indoor Air
www.epa.gov/radiation/ert/docs/erp-1-00.pdf

Presents EPA’s policy and procedures guide to readiness for responding to releases of radiation and to radiological emergencies and includes an outline of EPA’s procedures for responding to terrorist incidents.

U.S. Nuclear Regulatory Commission

Discusses the impact of a dirty bomb and issues regarding the security and control of nuclear materials and links to Nuclear Regulatory Commission information regarding responses to radiological emergencies.

PERSONNEL TRAINING

Center for Terrorism Preparedness, School for Environmental and Emergency Management, University of Findlay
http://seem.findlay.edu/calendar/2003/courses.html

Lists a schedule of courses for 2003, including weapons of mass destruction and first-responder courses.

(Continued on page 6)

NIJ TECHNOLOGIES FOR PUBLIC SAFETY IN CRITICAL INCIDENT RESPONSE CONFERENCE AND EXHIBITION September 23–25, 2003 RENAISSANCE GRAND HOTEL • ST. LOUIS, MISSOURI

A coordinated effort by first responders requires not only cooperation, but also access to and knowledge of the best technologies to safely and efficiently respond to the diverse public safety emergencies they face with every day. For this fifth annual conference, the National Institute of Justice will bring together professionals from law enforcement, fire, emergency management urban search and rescue, and other first responders to:

• Observe the latest tools and technologies that address their needs in responding to critical incidents, such as terrorist threats and acts, major industrial accidents, natural disasters, cybercrime, and threats to the safety of our communities.

• Participate in roundtable discussions on these and other issues critical to their missions.

• Hear from colleagues and other experts on lessons they have learned in various response situations.

The conference will feature 12 breakout sessions and 3 plenary sessions on such topics as homeland security, cybercrime, transportation security, chemical/biological weapons, training technologies, incident command systems, information sharing, and interoperability.

For additional details, conference registration, and hotel information, log on to www.justnet.org/conf/nij2003/nij2003.html
Counter-Terrorism Training and Resources for Law Enforcement
www.counterterrorismtraining.gov

Serves as a single point of access to counterterrorism training opportunities and related materials available from the Federal Government and from private and nonprofit organizations.

Federal Emergency Management Agency

Comprehensive Exercise Program
www.fema.gov/trt/cepmwes.htm

Through training and disaster drills, the Comprehensive Exercise Program (CEP) improves the proficiency of Federal, State, and local governments to perform emergency management functions in an efficient and timely manner.

Federal Emergency Management Agency

Education and Training
www.fema.gov/tab_education.htm

Links to FEMA programs, courses, and materials to support emergency preparedness and response by emergency personnel and the general public; to the Emergency Management Institute (EMI); to the National Fire Academy; to community emergency response teams; and to EMI independent study courses.

Federal Emergency Management Agency

Emergency Management Institute
http://training.fema.gov/EMIWeb/

Links to course offerings, catalogs, and independent study courses offered through FEMA’s Emergency Management Institute.

Federal Emergency Management Agency

Emergency Management Institute
Catalog of Activities 2002–2003
http://training.fema.gov/EMIWeb/EMICatalog1/menu/index.html

Provides an online catalog of courses provided by FEMA’s Emergency Management Institute, including a course schedule, curriculum descriptions, and indexes of resident, nonresident, and independent study courses.

Federal Emergency Management Agency

Emergency Management Institute
Community Emergency Response Teams
http://training.fema.gov/EMIWeb/CERT

Provides information and links to training materials for community emergency response teams, teams of citizens who are trained and recruited to be auxiliary responders following a disaster.

Federal Emergency Management Agency

U.S. Fire Administration
Emergency Response to Terrorism: Self-Study (ERT-S) (Q534)
www.usfa.fema.gov/dhtlm/fire-service/nfa.cfm

Accesses a free, 10-hour, self-paced course designed to provide basic awareness training to prepare first responders for terrorist incidents.

Federal Emergency Management Agency

U.S. Fire Administration, National Fire Academy

www.usfa.fema.gov/dhtlm/fire-service/nfa.cfm

Links to courses and programs offered by NFA. NFA works to enhance the ability of fire and emergency services personnel and allied professionals to deal more effectively with fire and related emergencies. NFA courses include curricula on emergency response to terrorism, hazardous materials, and incident management.

Federal Law Enforcement Training Center
www.fletc.gov/tmd/copdf.pdf

Provides a list of courses for first responders on responding to radiological incidents, with a focus on terrorism.

Texas Engineering Extension Service, National Emergency Response and Rescue Training Center
www.teex.com/division/cfm?div=NERRTC

Provides information on the National Emergency Response and Rescue Training Center (NERRTC), part of the National Domestic Preparedness Consortium, established in 1998 to prepare Federal, State, and local officials (including law enforcement officials, firefighters, emergency medical service personnel) to prepare for and respond to chemical and biological attacks, weapons of mass destruction, and other terrorist acts.

U.S. Department of Energy, National Center for Exercise Excellence, Nevada Test Site, WMD Radiological/Nuclear Awareness
www.sema.state.mo.us/HazMat%20Tech%20Course.pdf

Provides information on a 32-hour course for hazardous materials (HazMat) personnel, as well as law enforcement, bomb squad, and emergency medical service personnel who have cross-trained to the level of HazMat technician.

U.S. Department of Homeland Security

Office for Domestic Preparedness
Emergency Responder Guidelines
Washington, DC: U.S. Department of Justice, Office of Justice Programs, August 1, 2002.

Provides baseline information for first responders on the training necessary to respond to a weapon of mass destruction.

U.S. Department of Homeland Security

Office for Domestic Preparedness
Exercise Program
www.ojp.usdoj.gov/odp/exercises/state.htm

Describes ODP’s State and Local Domestic Preparedness Exercise Program and helps States and localities in advancing domestic preparedness through evaluation of authorities, plans, policies, procedures, protocols, and response resources.

U.S. Department of Homeland Security

Office for Domestic Preparedness
www.ojp.usdoj.gov/odp/docs/courselocator.pdf

Presents the course catalog (current as of April 2003) for all ODP training programs related to terrorism response and weapons of mass destruction.

U.S. Department of Homeland Security

Office for Domestic Preparedness
Overview: Training and Technical Assistance.
www.ojp.usdoj.gov/odp/ta/overview.htm

Describes ODP’s State and Local Domestic Preparedness Training and Technical Assistance Program, which provides direct training and technical assistance to State and local jurisdictions to enhance their capacity and preparedness to respond to domestic incidents.

U.S. Department of Homeland Security

Office for Domestic Preparedness
www.ojp.usdoj.gov/odp/docs/helpline.htm

Describes the activities of the helpline and the types of support available to States and localities under the Nunn-LugarDomniac Domestic Preparedness Program, which provides assistance to the Nation’s 120 largest cities.

U.S. Department of Justice, Bureau of Justice Assistance

Law Enforcement Training Database.
http://bjatraining.aspensys.com

Provides a database of all federally funded and supported training available to State and local law enforcement officials relating to weapons of mass destruction; emergency response to criminal and terrorist attacks; law enforcement response to terrorist attacks; and chemical, biological, and nuclear attacks on public transportation.

U.S. Department of Justice, National Institute of Justice

Law Enforcement, Emergency Management, and Corrections Training Resources (LECTR).
www.lectr.org

Provides an online national repository of law enforcement and emergency management (including hazardous materials, fire, and medical) course announcements and training resources; links to law enforcement training providers and facilities; contact information for individual trainers; and course information.

RESPONSE RESOURCES

Conference of Radiation Control Program Directors, Inc.
State Radiation Control Agencies.
www.crcpd.org/map/map.asp

Lists State-by-State radiation control contacts.

Federal Emergency Management Agency

Rapid Response Information System.
www.app1.fema.gov/rris/

Provides a reference guide, training aids, and an overall planning and training resource for response to a chemical, biological, and/or nuclear terrorist incident.

Federal Emergency Management Agency

State Offices and Agencies of Emergency Management.
www.fema.gov/fema/stateedr.shtml

(Continued on page 8)
behind the design comes in,” MacAleese says, “LED (light emitting diode) displays flashes to notify the shooter when the round leaves the chamber, passes over a sensor, which activates a transponder. That transponder sends signals back to a radar array on the firing platform. The radar locks on the target, and when the round—traveling at 250 feet per second—comes within 9 feet of its target, the launcher’s electronics signal an electronic match to detonate the round and ignite the flake aluminum.

“This sounds like Buck Rogers, but it uses all off-the-shelf existing technology,” MacAleese says. “What we want to do is develop a flash-bang that could be fired accurately from approximately 20 to 100 yards from a target.” Most projectiles, he says, have an error range of plus or minus 10 percent because of the variability of propellants used in the ballistics. “If you are 20 yards away, that’s 2 yards, that’s not so bad. If you are 100 yards away, that’s 10 yards, and you begin to run into problems. This new round is designed to be accurate within 6 inches, but the real challenge was making it that accurate from different distances.”

The radar-controlled system is expected to be ready for field testing later this year and available commercially in 2004. Live rounds are expected to cost about $60 and training rounds about $30. The launchers will be priced at approximately $2,500, but the company plans to develop leasing options to help keep them affordable to departments and agencies with limited budgets.

LET already plans to enhance the rounds by adding irritating chemicals or paint that could mark a suspect indelibly. Testing is under way to determine suitable flame-resistant paints and irritants.

“We are taking tremendous pains to make it safe—but uncomfortable—for the target,” MacAleese says. “I don’t think the target will necessarily appreciate this, but we are trying to create a kinder, gentler projectile.”

Even without the added irritants, the effect of the round’s burst will last somewhere between 45 seconds and 15 minutes, depending on factors such as time of day, whether the individual looks directly at the burst, and how close the burst is to the individual. The project’s objective, MacAleese says, was to come up with something for departments of all sizes, with varying budgets and varying needs. “As a former cop, I know their needs pretty well. We’re trying to develop options that will make their jobs a lot easier and a lot safer.”

According to Amon Young, NIU project manager, this flash-bang system is different because it is capable of being deployed against individuals or groups at a distance. NIU senior program manager Joe Cecconi adds that the “flash-bang has been used in the past in grenade fashion by being thrown into a room. The officer has to pull the pin and there are only a few seconds of delay. Officers have injured their hands . . . This particular device will represent less of a hazard in that regard.”

MacAleese says that most fireworks take place within a range of 10 yards or less, and at that range, a bursting round would impact the shooter as much as the targeted individual or group. However, he says, the LET system will give law enforcement its first less-than-lethal flash-bang option effective within a 20- to 100-yard range.

Developing options that will make the lives of law enforcement officers easier and safer is what NIU’s Less-Than-Lethal (LTL) Technologies program is all about. The program provides funding for the development and evaluation of technology that gives law enforcement and corrections officers effective alternatives to lethal force. Two LTL technologies that could be commercially available in the near future include—

**MultiSensory Grenade.** Scientific Applications and Research Associates is developing the MultiSensory Grenade (MSG) for the U.S. Marine Corps. The grenade combines sound, light, and odor to overwhelm three of the five human senses. Unlike existing LTL weapons, the design of the MSG allows for easy configuration so that the sensory subcomponents can be changed to adapt to new uses. NIU is funding an evaluation of baseline MSG prototypes with the assistance of various local law enforcement agencies.

**Ring Airfoil Projectile.** The Ring Airfoil Projectile (RAP) is a 2-inch rubber ring that inflicts pain but no permanent bodily injury when it strikes an individual. (See “NIU Takes the Rap,” TechBeat, Winter 1998, at www.justnet.org/techbeat/justnet.html.) The ring potentially could be filled with pepper powder and break open on impact. NIU sponsored the development of a singleshot prototype by Guilford Engineering, which was demonstrated at NIU’s 2001 Mock Prison Riot. However, in field testing, law enforcement agencies did not like the single-shot concept. Cecconi says NIU hopes to have a prototype of an eight-shot device ready for testing by fall 2003.

For more information on the variable range, less-than-lethal flash-bang round project or other projects under the National Institute of Justice’s Less-Than-Lethal Technologies Program, contact Joe Cecconi, 202-305-7850, or email cecconi@ojp.usdoj.gov.
Provides contact information for and links to State emergency management departments and agencies (also provides contact information for Territories, but does not link to territorial agencies).

FirstGov.gov
Homeland Security and Emergency Services, by State.
www.firstgov.gov/Topics/Homeland_Security.shtml
Links to State departments of homeland security, emergency management, and public safety.

National League of Cities
www.nlc.org/nlc_org/site/files/reports/fedrsrc.pdf
Provides a guide for municipal officials of Federal Government terrorism response programs.

http://ndms.dhhs.gov
Links to the National Disaster Medical System, a partnership among the Departments of Health and Human Services, Defense, and Veterans Affairs; FEMA; State and local governments; private businesses; and community volunteers that is responsible for the Federal health and medical response to weapon of mass destruction attacks, as well as links to the home page for the Metropolitan Medical Response System.

U.S. Environmental Protection Agency
Radiological Emergency Response: Contacting Us.
www.epa.gov/radiation/ert/contact.htm
Provides contact information for EPA's Radiological Emergency Response Program, including information on reporting a radiological emergency and contact information for obtaining the Manual of Protective Action Guides.

U.S. Environmental Protection Agency
Radiological Emergency Response Team.
www.epa.gov/radiation/ert/ert.htm
Briefly discusses the duties of EPA’s Radiological Emergency Response Team, which responds to emergencies involving the release of radioactive materials, including deliberate acts of nuclear terrorism.

U.S. Environmental Protection Agency
Ready to Respond: EPA’s Radiological Emergency Preparedness and Response Programs.
www.epa.gov/radiation/docs/readytorepond/index.html
Briefly describes EPA’s role in responding to radiological emergencies and the cleanup of radiological incidents and discusses the Federal Radiological Emergency Response Plan.

U.S. Nuclear Regulatory Commission
Federal Radiological Emergency Response Plan (FREP)—Operational Plan.
Details the Federal response to a peacetime radiological emergency, including radiological sabotage and terrorism.

WMDFirstResponders.com
www.wmdfirstresponders.com
Serves as an information clearinghouse to assist law enforcement and other first responders in improving their capabilities to respond to a weapon of mass destruction attack or other terrorist attacks.

EQUIPMENT FUNDING

National Law Enforcement and Corrections Technology Center
1033 Program-PlusProfit.
www.nectc/equipment/1033.html
Provides information on the 1033 Program, which makes excess Department of Defense personal property (supply and equipment) available to State and local law enforcement agencies.

U.S. Department of Homeland Security, Office for Domestic Preparedness
Equipment Acquisition Grants.
www.ojp.usdoj.gov/odp/grants/goals.htm
Describes ODP’s Equipment Acquisition Grant Program, which provides all 50 States, the District of Columbia, and the U.S. Territories with funding to enable State and local jurisdictions to purchase specialized equipment to respond to a weapon of mass destruction incident and to mitigate the consequences of those incidents.

U.S. Department of Homeland Security, Office for Domestic Preparedness
www.ojp.usdoj.gov/odp/docs/02odpkit.pdf
Provides financial assistance for the purchase of specialized equipment to enhance State and local agencies’ capability to respond to weapon of mass destruction (WMD) incidents; protection of critical infrastructure; costs related to the design, development, implementation, and evaluation of WMD exercises; and administrative costs associated with the implementation of statewide domestic preparedness strategies.

U.S. Department of Homeland Security, Office for Domestic Preparedness
www.odp.usdoj.gov/odp/assessments/definition.htm#tools (Click on “Local Jurisdiction Data Entry Module.”)
Provides information about the fiscal year 1999 ODP State Domestic Preparedness Equipment Program and the Federal Government’s needs assessments being implemented under the program.

GENERAL INFORMATION

Center for Defense Information
Pascal’s New Wager: The Dirty Bomb Threat Heightsens,” CDI Weekly.
www.cdi.org/terrorism/dirty-bomb.cfm
Discusses a recent Federation of American Scientists (FAS) study on the likely effects of a dirty bomb.

Center for Strategic and International Studies
Radiological Weapons as Means of Attack.
www.csis.org/burke/hd/reports/radiological.pdf
Provides information on the effects of radiation, the types of radiological weapons available (including radiological dispersion devices, or dirty bombs), potential sources of materials for dirty bombs, and the potential impact of various types of radiological weapons.

www.ndc.gov/tech/radiation/response.htm
Links to emergency response fact sheets that provide information on various types of radiation emergencies, including nuclear attacks and dirty bombs.

Council on Foreign Relations
Terrorism: Questions and Answers:
www.foreignaffairs.org/foreignaffairs/terrorism/questionsandanswers/dirty-bomb.html
Provides basic information about dirty bombs.

National Emergency Preparedness Directory
http://ndms.dhhs.gov
Provides a clearinghouse of information about the Federal response to a weapon of mass destruction incident.

Homeland Security: Federal Resources for Local Governments
Provides contact information for Territories, but also links to State emergency management services.
www.firstgov.gov/Topics/Homeland_Security.shtml
Includes links to the National Disaster Medical System, the National Institute of Justice, U.S. Department of Justice, National Institute of Standards and Technology, U.S. Department of Commerce, and the Office of Domestic Preparedness.

Federal Register
www.gpoaccess.gov/FR
Provides a list of Federal Register notices and the accompanying Federal Register documents.

FirstGov.gov
Homeland Security and Emergency Services, by State.
www.firstgov.gov/Topics/Homeland_Security.shtml
Includes links to State departments of homeland security, emergency management, and public safety.

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U.S. Nuclear Regulatory Commission
Federal Radiological Emergency Response Plan (FRERP)—Operational Plan.
Details the Federal response to a peacetime radiological emergency, including radiological sabotage and terrorism.

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Provides basic information about dirty bombs.

(Continued on page 12)
Online New Pubs

The following publications are available (online only) through the National Law Enforcement and Corrections Technology Center. Log on to the JUSTNET website at www.justnet.org to view or download these publications.

- **What Every Public Safety Officer Should Know About Radiation and Radioactive Materials: A Resource Guide.** This resource guide is a follow-on to the NLECTC brochure on the same subject. The guide is a comprehensive list of sources of information for public safety officers who may be the first responders to a terrorist attack in which a nonnuclear radiological dispersal device is used.

- **Tech Profiles: Making a Difference.** This report presents stories told by law enforcement, corrections, and public safety officers who have benefitted directly from technology assistance and expertise provided by the NLECTC system.

**www.justnet.org**

**Online News Summary** includes article abstracts on law enforcement, corrections, and forensics technologies that have appeared in major newspapers, magazines, and periodicals and on national and international wire services and websites.

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

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

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

**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.

With a network of regional centers and specialty offices located across the country, the NLECTC system has been able to deliver expertise in a number of technologies by forming partnerships with such host organizations as the Air Force Research Laboratory, the Space and Naval Warfare Systems Center, and The Aerospace Corporation. Through these partnerships, NLECTC staff have access to the latest innovations in research and development.

The NLECTC system serves as an “honest broker” resource for technology information, assistance, and expertise.

Contact NLECTC for:

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 and weapons based testing program in which equipment is safe, dependable, and effective.

Technology Demonstration
We introduce and demonstrate new and emerging technologies through such special events, conferences, and demonstration as the Mock Prison Riot (technologies for corrections), Operation America (bomb detection technologies), 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, and other needs.

Technology Commercialization
Our law enforcement and corrections professionals, product and commercialization managers, engineers, and technical and market research specialists work together to identify new law enforcement and technology products and services. 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 co-located with or supported by federally funded technology partners so they can leverage unique science and engineering expertise.
Bay Area Goes Wireless To Secure Bridges, Tunnels

Computeworld

The California Department of Transportation (Caltrans) is constructing a massive surveillance project to monitor seven bridges and three tunnels. The Bay Area Surveillance Enhancement (BASE) system is an extension of the homeland security project implemented following the September 11, 2001, terrorist attacks.

The system will use a network of wireless links and 250 video cameras to monitor and transmit data to the command center. Caltrans and the California Highway Patrol will use the system to detect any suspicious activities at key infrastructure sites.

Radiocarbon Dating To Help Identify Illegal Drug Stockpiles

Australian Associated Press

Radiocarbon dating is the latest weapon law enforcement officials can use in the war against illegal drugs. Scientists have used the method to date items of historical significance, such as the Shroud of Turin and a mummified body found in the Italian Alps. Law enforcement personnel plan to use radiocarbon dating to determine when drug making materials found in investigations were manufactured and locate stockpiles of illegal drugs in certain countries. Radio- carbon dating is especially helpful in opium, heroin, cocaine, and morphine investigations.

Profiling the Hackers

Associated Press

State University of New York at Buffalo researchers are working on a system that can profile network users in real time and catch cybercriminals in the act. These profiles are built by tracking each command a user executes at each computer terminal—the way a person opens files, sends e-mail, searches archives, and Performs other routines are continuously watched for even the smallest deviations. Anomalous behavior—entering a zone that is off-limits or using a stolen password, for example—is reported to network administrators. With this approach, an intruder with malicious intent can be identified very early. In addition, the system operator can contain the damage, repair it in real time, and shut out the intruder.

New Alert System Activated in Ohio

Columbus Dispatch

A new Ohio alert system, called 'A Child Is Missing,' uses computer mapping technology and a national database of 45 million telephone numbers to contact 1,000 homes and businesses in the surrounding area where the missing person was last seen. When police register an abduction or missing person report, the system goes live within 5 minutes and a recorded message with the description of the missing person, the last-known sighting, and the local contact number alerts those in the designated radius.

Obscure U.S. Agency Seeks Gizmos To Combat Terrorism

Wall Street Journal

A little-known U.S. federal agency called the Technical Support Working Group (TSWG) is playing a key role in the process of developing devices and gadgets to be used in the Nation's war on terrorism. The TSWG's main task consists of sorting through thousands of proposals for antiterrorism devices, identifying those proposals with the most promise, and funding those proposals from conception to reality. Since the terror attacks of September 11, 2001, the TSWG's 70-employee office has sifted through 16,000 proposals, reducing that number to a final cut of 120 viable projects. Now, at the behest of the Homeland Security Department, the TSWG is preparing to make a public call for antiterrorism devices. In return, the Homeland Security Department will contribute $30 million to the TSWG's budget. The Department of Homeland Security has a lengthy wish list for antiterrorism devices: chemical decontamination kits; air-sampling systems for businesses and apartment buildings; transportable water treatment and distribution systems; underwater mine-detecting technology for the Nation's ports; and a highly efficient screening system for railroad passengers and baggage.

The TSWG has already helped bring several antiterrorism gadgets to market, including a small, radioactivity-detecting device known as a "dosimeter" that will soon be available at a price of just $5.

Where the Hall Monitor Is a Webcam

New York Times

An increasing number of U.S. schools are turning to video surveillance cameras in an effort to boost security, especially as safety concerns rise. In Fresno, California, for example, the campus that houses the W.E.B. DuBois and Carter G. Woodson charter schools uses 12 cameras, affixed at entrances, corridors, and the computer lab, to allow real-time monitoring of students inside the buildings. Anyone with an Internet connection and password can watch the students remotely, including the Fresno Police Department. School administrators, instructors, and students say the cameras make the school feel more secure. In Biloxi, Mississippi, meanwhile, the city has spent $1.2 million to place a surveillance camera in every classroom, which number nearly 500. But Biloxi superintendent of schools Dr. Larry Drawdy says the sense of security may be misleading, since someone wanting to inflict harm in a school usually wants attention, rather than hopes to escape.

Tag, You're It

CIO

Slowly but surely, enterprises are finding it easier and cheaper to track and manage assets through radio frequency identification (RFID) technology, in which products and other items are equipped with electronic tags containing ID data that can be read remotely. RFID technology reduces the need for human intervention, provides data more efficiently than bar codes (and can store more data as well), is reliable in extreme environments, and is unaffected by nearby objects, all of which can significantly increase business productivity while saving money. A chip and an antenna are embedded within RFID tags, which come in two varieties: Passive tags that have no batteries and whose transmission range usually extends to only a few feet, and larger, battery-powered active tags that can transmit data from hundreds of feet away. As RFID tags become smaller and cheaper, they will be incorporated into more and more everyday products, according to industry observers. Poten- tial applications include the tracking of mail, pets, and children, as well as crowd control and ID counterfeiting prevention.

Tiny Computer Lock Simplifies Security

ZDNet

Sandia National Laboratories has unveiled the Recordable Locking Device, a combination lock about the size of a dime that uses micro-electromechanical system (MEMS) technology. Like a traditional combination lock, the Recordable Locking Device will accept only a single code. However, the mechanism goes away. A chip and an antenna are embedded within RFID tags, which come in two varieties: Passive tags that have no batteries and whose transmission range usually extends to only a few feet, and larger, battery-powered active tags that can transmit data from hundreds of feet away. As RFID tags become smaller and cheaper, they will be incorporated into more and more everyday products, according to industry observers. Potential applications include the tracking of mail, pets, and children, as well as crowd control and ID counterfeiting prevention.

Government Asked To Arm Fisheries, Officers With Batons, Spray

Daily News (New Zealand)

Fisheries law enforcement officers in New Zealand are requesting the government equip them with batons and pepper spray in order to handle violent situations in cases when facial injuries or in order to select a p. There has been a rise in violent encounters with fisher- men violating rules, and the Ministry of Fish- eries board will consider a number of health and safety reforms in 2003, including arm- ing about 100 fishery officials with batons and pepper spray.
Discusses the likely consequences of a dirty bomb and possible sources of materials for the radioactive component of such a bomb.

Testimony of Dr. Henry Kelly, President, Federation of American Scientists
Testimony before the Senate Committee on Foreign Relations, March 6, 2002.
www.fas.org/ssp/docs/kelly_testimony_030602.pdf

Provides an overview of the potential consequences of radiological attacks involving nonnuclear devices (dirty bombs), including security risks related to the possible theft of radioactive materials for use in a bomb and health risks related to the release of radiation; discusses three potential scenarios involving the release of various levels of radiation; and provides maps that show the immediate and long-term contamination effects that would result from each scenario.

U.S. Department of Justice, National Institute of Justice
Inventory of State and Local Law Enforcement Technology Needs to Combat Terrorism, January 1999.
www.ncjrs.org/pdffiles1/173384.pdf

Provides an inventory of technologies and training needed by State and local law enforcement agencies to combat terrorism, as identified by representatives of those agencies in interviews and focus groups.

The White House
www.whitehouse.gov/homeland/book/sec3-5.pdf

Discusses steps the Federal Government should take, including support for first responders, to plan and prepare for large-scale terrorist incidents. This is a chapter from the National Strategy for Homeland Security.

The White House

Sets forth Federal policy recommendations and strategies for improving homeland security.