

## Responding to Terrorism

As a result of the terrorist attacks of September 2001 and the subsequent national and international battle against terrorism, NIJ expanded its focus on and capacity to perform research on terrorism. For example, terrorism was added as a specific category in the solicitation for investigator-initiated research in 2002. Plans for a directed solicitation on terrorism research were developed for 2003 funding. This section describes NIJ activities during 2002 that helped the Nation's public safety institutions be better prepared and equipped to respond to a terrorist incident and to investigate terrorist planning and activity.

### Research on how terrorist organizations fund themselves

An effective strategy for combating terrorist networks is to choke off their funding stream. Criminal organizations are often supported by systems or networks of people who transfer money and other resources outside the conventional, regulated financial institutions. These unregulated methods of exchanging money and other commodities are called Informal Value Transfer Systems. Although not necessarily illegal, they have come under scrutiny because they are used by criminal enterprises, including terrorist networks. The Treasury Department's Financial Crimes Enforcement Network (FinCEN) funded a study of Informal Value Transfer Systems to fully understand their mechanisms in this country and to construct effective intervention policies. NIJ partnered with FinCEN to examine the international context in which

these unregulated value transfer systems develop and the experiences of other nations that have long confronted them. Also in 2002, at the request of officials from Customs, the FBI, and FinCEN, the research was expanded to develop methods for identifying suspicious trade diversion transactions so that Federal, State, and local regulatory and enforcement agencies can better target and disrupt terrorist financial transfers.

### Workshops on local law enforcement preparedness for terrorism

Local law enforcement plays a critical role in preparing for and responding to terrorism. Local law enforcement officials must confront new demands placed upon them in their efforts to effectively deal with the terrorist threat in their jurisdictions. To assist local law enforcement in this effort, NIJ worked with the Office of Community Oriented Policing Services (COPS) on a series of six workshops on policing and terrorism. Each had a hands-on component developed by COPS and a research component developed by NIJ. The titles of the six workshops were:

- Improving Federal/Local Partnerships.
- Technology and Information Sharing.
- Intelligence Gathering and Analysis.
- Policing Muslim and Arab Communities.

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- n Community Policing and Terrorism.
- n Local Law Enforcement Preparation for and Response to Terrorist Incidents.

The research component featured leading policing and other relevant researchers who identified information gaps that could be addressed in future NIJ-sponsored studies. The workshops helped NIJ develop a terrorism research agenda that will support local law enforcement agencies in their efforts to effectively counter the terrorist threat.

### **Helping to assess chemical facility vulnerability**

Facilities that comprise the Nation's infrastructure are potential terrorist targets and must be protected. NIJ released a special report in 2002 providing an overview of a method to assess the security of chemical facilities within the United States. The methodology identifies and assesses potential security threats, risks, and vulnerabilities. It also guides the chemical facility industry in making security improvements.

NIJ developed the vulnerability assessment methodology in collaboration with the Department of Energy's Sandia National Laboratories, which has developed vulnerability assessment methodologies for other critical infrastructure components, including dams, water treatment and supply facilities, correctional facilities, and nuclear facilities.

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### **For more information:**

- n *A Method to Assess the Vulnerability of U.S. Chemical Facilities*, Washington, DC: U.S. Department of Justice, National Institute of Justice, November 2002 (NCJ 195171), <http://www.ojp.usdoj.gov/nij/pubs-sum/195171.htm>.

### **Assessing first responder equipment**

The men and women who first respond to the scene of a terrorist attack or other critical incident face a multitude of dangers. It is crucial that first responders be properly equipped. In the immediate aftermath of the terrorist attacks of September 11, NIJ rushed to publication a series of draft guides for first responder equipment. These guides provide key information for agencies to consider when purchasing such equipment. During 2002, these publications were among the most requested in NIJ's inventory, in both print and online formats.

### **Personal protection equipment.**

This NIJ Guide discusses duration of protection; dexterity, mobility, and launderability; and the use and/or reuse of respiratory protection equipment, protective garments, and other protective apparel, including boots, gloves, hoods, and lab coats.

### **Communication equipment.**

This NIJ Guide provides information on communication equipment for use with chemical and biological protective clothing and respiratory equipment. It presents an overview of communications systems, discusses equipment characteristics and performance parameters, and lists manufacturer-supplied details for 181 specific items.

**Biological agent detection**

**equipment.** This guide identifies the four most common classes of biological agents, discusses the challenges in detecting biological agents, describes detection system components and technologies, and outlines how to prepare for a biological incident.

**Chemical and biological decontamination equipment.**

This guide provides information on decontamination equipment for chemical agents, biological agents, and toxic industrial materials. A survey of decontamination equipment known to the authors is included. Brief technical discussions outline the principles for operating such equipment effectively.

**For more information:**

- n *Guide for the Selection of Personal Protection Equipment for Emergency First Responders, NIJ Guide 102-00*, Washington, DC: U.S. Department of Justice, National Institute of Justice, November 2002 (NCJ 191518), <http://www.ojp.usdoj.gov/nij/pubs-sum/191518.htm>.
- n *Guide for the Selection of Communication Equipment for Emergency First Responders, NIJ Guide 104-00*, Washington, DC: U.S. Department of Justice, National Institute of Justice, February 2002 (NCJ 191160), <http://www.ojp.usdoj.gov/nij/pubs-sum/191160.htm>.
- n *An Introduction to Biological Agent Detection Equipment for Emergency First Responders, NIJ Guide 101-00*, Washington, DC: U.S. Department of Justice, National Institute of Justice, December 2001 (NCJ 190747), <http://www.ojp.usdoj.gov/nij/pubs-sum/190747.htm>.
- n *Guide for the Selection of Chemical and Biological Decontamina-*

*tion Equipment for Emergency First Responders, NIJ Guide 103-00*, Washington, DC: U.S. Department of Justice, National Institute of Justice, October 2001 (NCJ 189724), <http://www.ojp.usdoj.gov/nij/pubs-sum/189724.htm>.

**Detecting bombs**

NIJ continued its work developing and assessing equipment used for detecting and removing bombs. The Bomb Technician Personal Digital Assistant puts a wealth of information literally into the hands of a bomb technician at an incident. Quick access to numerous manuals, charts, and publications in a wireless palm-sized device gives bomb technicians an edge in performing their dangerous tasks more safely and effectively. NIJ oversaw the development of a prototype device that was used by Fairfax County, Virginia, bomb squad technicians in their role as part of the security contingent at the 2002 Winter Olympics in Salt Lake City, Utah.

NIJ sponsored a groundbreaking study to design a bomb robot built to the specifications of practitioners on the front lines. A technical working group helped define the specifications and identified shortfalls in the current generation of bomb robots. The first commercial device built to meet the working group specifications—called the Vanguard Robot—was introduced in 11 law enforcement agencies in 2002 for testing and operation.

**Securing aircraft**

Airline safety became an issue of paramount concern in 2002. Could a stun gun or other less-than-lethal device help a crew member thwart an onboard attack? In FY

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2002, Congress directed NIJ to assess the use of less-than-lethal weapons aboard commercial aircraft as a means of incapacitating individuals posing a clear and present danger. NIJ considered each of the six general categories of less-than-lethal weapons in use or development:

- Electric shock.
- Chemical.
- Impact projectile.
- Physical restraint.
- Light.
- Acoustic.

Many characteristics of an airliner in flight—confined space, air that is recirculated, critical electrical navigation and communication equipment, close proximity of passengers—pose special challenges for each type of weapon.

NIJ's report concluded that electric shock systems, such as tasers or stun guns, show the most promise for use within the confines of an aircraft, but that substantial testing needs to be done to ensure that use of an electrical shock device will not damage or disable critical

flight systems. The report cautioned that all of the weapon types pose safety or effectiveness issues that must be thoroughly examined before any deployment is considered.

As Congress considered whether to allow properly trained pilots to have access to firearms as a last line of defense, NIJ, at the request of the Federal Aviation Administration, began developing performance standards for frangible ammunition. Because frangible ammunition by nature more readily breaks into smaller pieces on impact, it would be more suitable for use in an aircraft than other ammunition types.

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#### For more information:

- NIJ Director Sarah V. Hart's statement to the House Subcommittee on Aviation, Committee on Transportation and Infrastructure, summarizes the report on less-than-lethal weapons (see <http://www.ojp.usdoj.gov/nij/speeches/aviation.htm>).
- NIJ's Standards and Testing Program is described at <http://www.ojp.usdoj.gov/nij/sciencetech/st.htm>.

## Violence Against Women/ Family Violence

Since passage of Title IV of the Violent Crime Control and Law Enforcement Act of 1994, NIJ has aggressively sought to identify and fill gaps in knowledge related to violence against women and family violence. Research findings can help bolster the ability of the criminal justice system to protect victims of domestic violence.

### When domestic violence and child maltreatment co-occur (Greenbook initiative)

Too often, domestic violence and child maltreatment occur under the same roof. Yet communities continue to treat violence against women and child maltreatment within the same family as separate