

# Duress Systems in Correctional Facilities

By National Institute of Justice Staff

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**D**uress systems can help correctional officers respond quickly and effectively to the many dangers they face while performing their jobs. Consider this scenario: While on routine patrol, a correctional officer opens a cell door to check on the inmate slumped over inside. Suddenly, the inmate lunges at the unarmed officer, knocks him down and stabs him with a crude handmade knife. The only witnesses to the violent attack are other inmates who, even if they want to, can do nothing to help. Fortunately, if his facility uses a duress system, the officer can trigger a transmitter on his belt that can send a "man down" alarm and summon aid.

## What Is a Duress System?

To respond effectively to assaults on personnel and other emergencies, correctional facilities must be able to pinpoint the location and nature of the problem within seconds of its occurrence. A duress system is typically composed of a closed network of portable and mounted transmitters and receivers linked by ultrasonic, infrared or radio frequency waves to a command center alarm console. It permits the rapid and coordinated response that can save lives and reduce institutional damage.

## Background

The National Institute of Justice and the U.S. Department of Defense work together on projects involving the development and demonstration of emerging technologies of mutual interest and benefit to the military, corrections and law enforcement communities. The Staff Alarm and Inmate Tracking (SAINT) program, which operates at the Navy's Space and Naval Warfare (SPAWAR) Systems Center in Charleston, S.C., is one such joint venture. SAINT researches systems for use in correctional facilities and provides guidelines for acquiring and implementing such technologies. The program promotes safety for both correctional officers and inmates through the use of alarm systems.

As part of the project, SPAWAR developed the *Correctional Officer Duress Systems: Selection Guide*, which is intended to help with the identification, selection and deployment of this technology. It provides detailed information on nine commercially available systems, covering the alarm, locator and control subsystems; hardware/software used; and additional features. The guide also provides contact information for system vendors, so administrators can follow up with requests for additional information.

## Types of Duress Systems

Three types of alarm systems are available for commercial sale, each designed to fulfill different needs and varying in its limitations.

**Type I: Panic Button Alarm.** These basic systems use buttons located on walls, underneath desks and near doorways. Pushing a button transmits a dedicated signal to a central alarm console. Using visible and/or audible enunciations, the alarm console identifies the location of the event where the alarm was triggered. Type I systems are simple, effective for many types of emergencies, relatively inexpensive and easy to install.

**Type II: Identification Alarm.** In Type II systems, portable transmitters broadcast a wireless signal to a nearby sensor, which forwards the alarm to a central console. The alarm signal includes an identification code that tells the dispatcher who sounded the alarm. Because officers carry these transmitters with them, they can sound an alarm from almost anywhere within a facility. Use of a Type II system also eliminates most false alarms.

**Type III: Identification/Location Alarm.** Type III systems operate much like Type II systems, with the added feature of tracking correctional facility staff members and pinpointing the alarm location. An extensive wireless infrastructure identifies, localizes and tracks the transmitting device. The system may produce a positioning symbol on a console panel or a map-like display at a central alarm location.

The limitations of each system vary:

- Type I systems may be inaccessible in a duress situation because they are mounted in fixed locations. They also lend themselves to false alarms triggered by inmates;
- Type II systems cannot localize alarms within a facility; and
- Type III systems are more expensive than other systems and are the most difficult to install.

## System Selection

Selecting an appropriate officer duress system for a particular facility requires those involved in the selection process to define their own specific requirements and needs. Administrators might consider the following factors when choosing a system:

**Cost.** How much does it cost to install and integrate the system? What are the expected operational and maintenance costs?

**Scalability/Flexibility.** Can the system be expanded and updated as needed?

**Installation and Integration.** Is the installation process simple? Will the duress system integrate smoothly and successfully with other systems already in operation?

**Reliability.** Does the system self-test for accuracy? Does it have a battery backup in case of power failure? Do the transmitters indicate when batteries are low? Is maintenance readily available?

**Operator Usage.** Is it easy to learn how the system works? What about ease of day-to-day use?

**Coverage.** Given the design quirks and flaws of a particular facility, how complete will coverage be?

## Outlook

Vendors are working on systems that will use emerging technologies, such as global positioning systems; ultra wideband (a radio frequency-based technology that operates across a broad frequency range at low power levels, emitting short pulses that exhibit a wide spectrum); and biometrics, which is the science of positive identification using an individual's unique characteristics such as facial features, fingerprints, voice and eyes. Each technology, however, has distinct advantages and disadvantages that have to be considered regarding incorporation into a duress system.

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*This article is based on NIJ's publication, [In Short: Duress Systems in Corrections Facilities](http://www.ncjrs.gov/pdffiles1/nij/205836.pdf), which is available at [www.ncjrs.gov/pdffiles1/nij/205836.pdf](http://www.ncjrs.gov/pdffiles1/nij/205836.pdf). Also see the full report, [Correctional Officer Duress Systems: Selection Guide](http://www.ncjrs.gov/pdffiles1/nij/grants/202947.pdf), at [www.ncjrs.gov/pdffiles1/nij/grants/202947.pdf](http://www.ncjrs.gov/pdffiles1/nij/grants/202947.pdf).*

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