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Technology for Corrections: California Style

For many people the word “prison” conjures up images of stone walls and steel bars, of notorious public enemies portrayed in movies produced in black and white, of a foreboding place where not only the people but the facility remains locked in a time, removed from the current world and its advances in technology.

But this is a sorely inaccurate view of prisons in the United States today in general and in California in particular, due in part to a successful 20-plus-year effort coming out of the State of California’s Department of Corrections (CDoC), specifically its Technology Transfer Committee.

What makes the CDoC’s Technology Transfer Committee so successful, according to Executive Officer Larry Cothran, is that the committee works to bridge the gap between government and industry. While the committee does not fund technology development, it does test and evaluate it, working with developers along the way to ensure that each new technology meets the department’s needs.

“Each new technology is developed specifically for CDoC operations,” Cothran says. “It isn’t a case of science developing widgets that have no place in corrections or corrections dreaming up gadgets that are not scientifically feasible.

“Technology development, he says, happens in three phases. The first is what Cothran, who has an engineering background, calls his “by the book” criteria, meaning the technology must meet sound engineering principles. The next phase places the technology before the committee’s corrections experts. If they find merit in the technology, it moves on to the CDoC director, who evaluates it on a political, legal, financial, and medical basis, gathering input from the divisions that will be using it. “The divisions have to tell us if the technology makes sense for them,” Cothran says. “If it doesn’t, we go back to the developer and have them change it to make it work better for us.”

CALIFORNIA SUCCESSES

One of the most populous States in the country, California also has one of the largest inmate populations—around 140,000 individuals on any given day. But it may not be too long before prison authorities will be able to know the precise location of every person in their facilities, whether inmate or correctional officer. A project of the California Department of Corrections (CDoC) Technology Transfer Committee, the technology making this tracking possible was originally envisioned as an officer duress signaling system. It has since evolved into what one corrections expert says will “revolutionize prisons forever.”

Electronic wrist monitors utilizing radio-frequency signals will allow prison officials to know the whereabouts of every single person in their facility, according to Larry Cothran, executive officer of the Technology Transfer Committee and chair of the Corrections Technology Committee of the National Institute of Justice’s (NIJ’s) National Law Enforcement and Corrections Technology Center–West.

If an inmate gets too close to a perimeter fence or to an inmate with whom he’s prohibited to have contact, Cothran says, the wrist monitor will send a signal to a series of antennas which in turn feed the signal to a computer that analyzes and evaluates the information. If an inmate tries to damage the wrist monitor in any way or engages in behavior that is not allowed, or if there is a violation of any kind, an alarm will sound at both the central control and in the inmate’s unit, resulting in almost immediate response.

Personnel at the central control location will monitor the activities of each officer and each inmate simply by watching a wall-mounted electronic map of the entire prison. Each person will be represented by a light that moves as the person moves. Inmates will be represented by yellow lights; correctional officers by blue lights. The

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“Another aspect of this program is that we go out to private industry with ideas,” Cothran says. “I have a list of entrepreneurs who are experts in their fields. I can say we need a new weapons system and give them an idea of the direction I want. They will develop the technology on their dime, not ours. We test it, evaluate it, and if it works for us, they’re guaranteed a market.”

Cothran notes that some projects take months, but most take years. CDoC employs very few technologies exactly as they were originally presented to its Technology Transfer Committee. Most need to be modified to fit the prison system’s needs.

The Technology Transfer Committee started with six voting members, most of whom were field wardens. Now, the committee numbers 35, yet still has a nucleus of 6 voting members. Its quarterly meetings are attended by representatives from other State prison systems, the California Highway Patrol, the California Department of Justice, and a variety of related State and Federal agencies.

A major feature of the CDoC’s technology development model is that its success is not limited to the confines of the State. The model can be utilized by any other corrections departments in the country. Cothran says that the National Law Enforcement and Corrections Technology Center–West, a program of the National Institute of Justice, is standing by to assist these agencies in emulating the CDoC’s technology development model.

For more information regarding current corrections technology assistance and future initiatives of the National Law Enforcement and Corrections Technology Center–West or regarding California’s Department of Corrections Technology Transfer Committee, contact Larry Cothran at 888–548–1618.

[Editor’s Note: In addition to his work with the California Department of Corrections, Larry Cothran chairs the Regional Advisory Council for the National Law Enforcement and Corrections Technology Center–West and is involved with the center’s Corrections Technology Committee.]

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California Successes *(continued)*

officers, however, will wear small pagers instead of wrist monitors.

“This kind of technology will change the way prisons are run because it takes the manpower that is necessary to run a prison and makes it electronic,” Cothran says. “It converts the information of a thousand eyes. It takes away all the guesswork of investigations. If inmate A is stabbed, we now can see exactly who was standing next to him at the time. Will it change almost every facet of prison life? I think so.”

Certainly enthusiastic about this new tracking technology, Cothran also says one of his favorite past projects involving the Technology Transfer Committee was the development in the early 1980s of an inmate telephone recording system. This technology, now used nationwide, can record inmate telephone conversations and search for and flag keywords that suggest illegal activity. For example, the California Department of Justice investigators use the recording system to coordinate and cross-reference telephone numbers and conversations with suspects outside the prison. But technology is never static. The recording system can now automatically disconnect the telephone line should one inmate try to call another.

Another “first” for California’s Department of Corrections, Cothran notes, was the development of the original electrified fence. This project now saves taxpayers millions of dollars annually in manpower costs. A current project of the CDoC’s Technology Transfer Committee is a less-than-lethal water restraint system that operates like a fire hose. According to Cothran, more than 50 are being installed, mounted on the sides of buildings, and trained to shoot a spray of water laced with pepper spray over the heads of fighting inmates.

“OC [pepper spray] is heavier than water and it becomes a mist that drops down on the inmates,” he says. “We don’t touch them. We don’t hit them. We don’t endanger any lives or body parts. We immerse them in a fog of irritant. It’s stopped virtually 90 percent of the fights in the yards.”

Another device employing pepper spray was developed for cell extractions in which the inmate jams a mattress against the food port and refuses to come out. The apparatus is a long rod with handles on the side and a bottle of pepper spray on the end. The corrections officer puts the rod through the meal port, shoves the

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California Successes (continued)

mattress aside, and fires a plume of pepper spray into the cell. "In 10 minutes they're begging to come out," Cothran says.

But one of worst problems for corrections is the smuggling of contraband, Cothran adds. The CDoC addressed this issue by helping in the development of a system that uses backscatter x-ray to detect nonmetallic objects. More than 10 years in development, the system is now the cornerstone of all contraband detection, he says. By also employing metal detection capabilities and ion mobility spectrometry to find drugs, prison personnel can now detect virtually any type of contraband. The success of the system did not go unnoticed. NIJ is funding a project to combine metal, nonmetal, and drug detection technologies into a walk-through device.