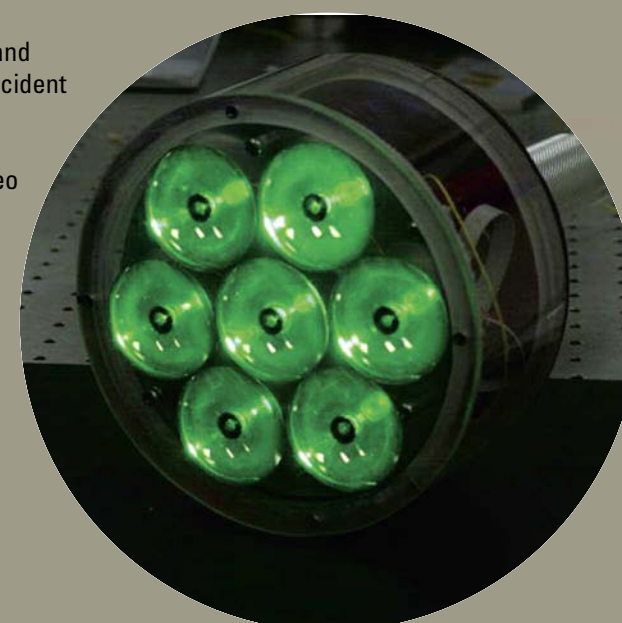


Office of the Undersheriff Technology Exploration Program

The Sheriff's Department's Technology Exploration Program continues its quest to find, develop, adapt, integrate and employ the latest technological advances in both equipment and procedures to support its public safety missions. The time required to bring a technology from concept to fully integrated reality can span many years. Because it is essential that technology developers remain focused upon the public safety end user's requirements, the Sheriff's Department maintains technology exploration liaison with several entities including the Department of Justice's National Institute of Justice, the Technical Support Working Group in the Department of Defense, the Applied Research Laboratory of the Pennsylvania State University, and various local, state, national and international technology support groups and organizations. The Technology Exploration Program also shares the Department's experience and expertise with business and trade groups and individuals as well as to various media to enhance the public's understanding of the current and potential role of technology in public safety.

Among the primary responsibilities of the Technology Exploration Program is to assist in technology development through demonstrations, field testing and evaluation of emerging technologies. Field testing and evaluation includes both simulations and actual deployment of technologies. Only after a device has been thoroughly tested to ensure its safety and after it has been shown to work well in the laboratory, will the Department consider testing it to determine its effectiveness in the field. Among the technologies pursued, demonstrated, field tested or evaluated during calendar year 2008 were the following:

- A "see through the wall" radar device that would enable tactical officers to have better situational awareness of what they might encounter before being required to forcibly enter a closed room.
- A high-velocity fire extinguishing system that allows emergency personnel to extinguish fires using minimal amounts of liquid from portable and backpack systems.
- Unmanned aircraft, ground and marine systems that would allow emergency responders to approach scenes too hazardous for human response as well as more narrowly define areas to be searched by persons.
- A millimeter wave device that would enable jail staff to intervene from a position of safety and without causing any injury during an inmate-on-inmate assault pending the arrival of sufficient staff to safely enter inmate housing areas.
- A portable light-emitting diode device that would use pulsating light to incapacitate or distract a violent or resistive person, without injury to them, to allow deputies to take them into custody without having to overcome physical resistance.
- A ground-link video device to enable real-time visual and data communications between front-line personnel, incident commanders and off-site subject matter experts.
- A portable device that self-corrects and stabilizes video images for target acquisition or situational awareness during tactical operations.



A recent success for the Technology Exploration Program was the Department's recent acquisition of a magnetic acoustic device to be used by the Sheriff's Response Teams to increase and focus deputies' verbal communication with crowd members during demonstrations or other crowd control scenarios. The device allows directions to be transmitted more clearly and for longer distances to ensure that necessary communications are clearly understood.

The Technology Exploration Program is assigned to the Office of the Undersheriff, and can be reached by calling (323) 526-5666.