Committee urges S&T to accelerate its efforts to achieve results in the nearer term, within the next one or two years.

INFRASTRUCTURE AND GEOPHYSICAL

The Committee recommends $48,816,000 for infrastructure and geophysical, $11,000,000 above the amount requested and $15,684,000 below the amount provided in fiscal year 2008. Within the funds provided is $11,000,000 for the National Institute for Hometown Security to support existing work in research, development and application of technology for community-based critical infrastructure protection solutions.

The Committee includes the requested $4,000,000 for continued development of emergency responder tracking, monitoring and rescue systems. Such systems would permit incident commanders to wirelessly locate, track, and monitor individual first responders throughout multi-story structures in real-time. This would allow incident commanders to make decisions that would save lives and help meet the 2005 U.S. Fire Administration's goal of reducing line-of-duty deaths by 25 percent in 2010. The Committee encourages S&T to consider providing additional resources to investigate alternative technologies to ensure that monitoring can be successfully carried out in diverse environments and under varied circumstances. For instance, a successful monitoring technology would be capable of accurately monitoring the location and health status of an individual first responder who is isolated from other first responders during an emergency response.

INNOVATION

The Committee recommends $38,660,000 for innovation, $6,340,000 below the amount requested and $5,660,000 above the amount provided in fiscal year 2008. A reduction to this program has been made due to a lack of budgetary details on the initiatives that will be funded in 2009.

NEW TECHNOLOGIES

New technologies may significantly help the Department as it seeks to secure our homeland. The Committee encourages S&T to assess technologies such as gallium nitride-based multi-mission phased array radar; gunshot detection and classification systems; passive and active biological chemical sensors at seaports; handheld x-ray imaging devices; mono-energetic gamma resonant imaging and detection systems; technologies to thwart radio-controlled improvised explosive devices using geospatial analysis tools; smart sensor and microsystem technologies for high threat problem-solving; remote border intrusion sensing technology; blast mitigation modeling and simulation tools; maturation of existing command and control systems using modular, distributable, standards-based and information-centric decision architecture; enhanced three dimensional backscatter x-ray for use in cargo container inspection; near real-time interactive tools for mapping flood hazards; and enzyme-based technology for explosive detection.