



**Homeland
Security**

Science and Technology

Highlight

U.S. Department of Homeland Security



System Assessment and Validation for Emergency Responders

The U.S. Department of Homeland Security (DHS) established the System Assessment and Validation for Emergency Responders (SAVER) Program to assist emergency responders making procurement decisions.

Located within the Science and Technology Directorate (S&T) of DHS, the SAVER Program conducts unbiased operational tests on commercial equipment and systems and provides those results along with other relevant equipment information to the emergency response community in an operationally useful form. SAVER provides information on equipment that falls within the categories listed in the DHS Authorized Equipment List (AEL). The SAVER Program mission includes:

- Conducting impartial, practitioner relevant, and operationally oriented assessments and validations of emergency responder equipment;
- Providing information that enables decision makers and responders to better select, procure, use, and maintain emergency responder equipment.

Information provided by the SAVER Program will be shared nationally with the responder community, providing a life-saving and cost-saving asset to DHS, as well as to federal, state, and local responders.

The SAVER Program is supported by a network of technical agents who perform assessment and validation activities. Further, SAVER focuses primarily on two main questions for the emergency responder community: "What equipment is available?" and "How does it perform?"

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Thermal Imagers

Thermal imagers (Figure 1) are used by emergency responders for a variety of applications. Most commonly, these systems are used to assist firefighters in identifying hidden hotspots in firefighting, locating downed personnel in limited visibility conditions such as smoke-filled rooms and in "overhaul" operations. The systems also have other applications, including locating hidden persons or other heat sources, in search and rescue, law enforcement, and industrial/hazardous materials scene assessment. Texas A&M Engineering including Texas Engineering Extension Service (TEEX) and Texas Transportation Institute (TTI), conducted a comparative assessment of thermal imaging systems.

The *Thermal Imaging Devices Focus Group Assessment Recommendations Report* identifies specific measurable and subjective criteria that are routinely considered when comparing similar thermal imaging devices. The *Thermal Imaging Cameras Market Survey* provides a comprehensive list of thermal imaging devices available on the market at the time of the focus group. The *Thermal Imagers Final Technical Report* presents the results for nine different Microbolometer type sensor thermal imaging systems.

All reports in the series as well as reports on other technologies are available on the SAVER Web site (<https://www.rkb.us/saver>).



**Figure 1.
Thermal Imager**