



**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 objective assessments and validations 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, 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- 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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<https://www.rkb.us/saver>

Passive Millimeter Wave Detection

Passive millimeter wave detection systems can detect concealed objects on a human body and are used for security screening. Unlike X-ray and magnetometer systems currently in use, passive millimeter wave detection systems are able to detect and provide an image of concealed objects underneath clothing without emitting radiation. Passive millimeter wave detection systems work by collecting naturally emitted energy waves from the body and from any object carried on a body. Using specialized software, the system translates the energy wave information into images or data that can reveal the location of concealed objects. Passive millimeter wave systems are able to detect materials such as metals, ceramics, plastics, liquids, and gels.

As a SAVER Program Technical Agent, the Space and Naval Warfare Systems Center (SPAWARSYSCEN), Charleston, conducted a comparative assessment of passive millimeter wave detection systems for the SAVER Program. Prior to the assessment, SPAWARSYSCEN conducted a market survey in order to provide information on commercially available equipment, and produced the *Passive Millimeter Wave Detection Systems Market Survey Report*. A focus group was then conducted to identify equipment selection criteria for the assessment, determine evaluation criteria, and recommend assessment scenarios. The results can be found in the *Passive Millimeter Wave Detection Systems Focus Group Recommendations* report.

All reports in the series, including the *Assessment Report on Passive Millimeter Wave Detection Systems*, will be located on the SAVER Web site (<https://www.rkb.us/SAVER>) as they become available. Information on other technologies being evaluated in the SAVER Program can also be found on the Web site.



An Example of a Passive Millimeter Wave Detection System