



**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>

Portable Breathing Air Compressors

Portable Breathing Air Compressors (PBACs) are used primarily to enable emergency responders to refill self-contained breathing apparatus bottles onsite during an extended operation when stationary breathing air refill systems are not available. Many breathing air compressors found in dive shops and fire stations are capable of compressing air to high pressures and in high volume. These compressors, however, often weigh over 500 pounds, making them immobile and impractical during emergencies. To meet the specialized needs of first responders, compressor sizes have been reduced by manufacturers while preserving their high pressure and volume capabilities.

As a SAVER Program Technical Agent, Texas A&M Engineering has performed a comparative assessment of PBACs in November 2006, at the TEEX Gateway Building, College Station, Texas.

In preparation for the assessment, Texas A&M conducted a focus group on PBACs. Assessment criteria recommendations as determined by the focus group may be found in the *Portable Breathing Air Compressors Focus Group Report*.

Texas A&M Engineering also authored a market survey report that provides comparative data for commercial PBACs currently available to the responder community. The *Portable Breathing Air Compressors Market Survey Report* is not intended to include a complete catalog of available PBAC equipment, but to be used as a resource in determining the types of equipment available to assist emergency responders.

All other reports in the series, including the *Portable Breathing Air Compressors Assessment Report*, will be located on the SAVER Web site as they become available (<https://www.rkb.us/SAVER>). Reports on other technologies can also be found on the Web site.