



**Homeland
Security**

Science and Technology

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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Visit SAVER on the RKB Web site:

<https://www.rkb.us/saver>

Highlight

Urban Atmospheric Plume Models for Emergency Response

An atmospheric plume model is a computer tool that can be used for planning, emergency response, and assessment of consequences of releases of hazardous materials into the air from industrial, transportation, and terrorist activities. The atmospheric plume model can predict the concentration and the path that airborne contamination might take as it spreads in the atmosphere. In the event of a Chemical, Biological, Radiological, Nuclear or Explosive (CBRNE) attack in an urban environment, a model including urban settings will be needed for predicting the distributions of resulting contamination. Emergency responders could communicate the model predictions to the public and use these predictions to assess the impacts of the attack and help plan response operations and actions including the evacuation routes, sheltering in place and relocation areas.

In order to provide emergency responders with information on atmospheric plume models for their jurisdiction, the Environmental Measurements Laboratory has prepared a TechNote for the SAVER Program. The *Urban Atmospheric Plume Models for Emergency Response TechNote* provides an overview of the physical, chemical, and biological processes involved in the atmospheric transport of materials. It describes the different urban models, discusses the limitations and uncertainties of the equipment, and explains the need to validate the models against urban testing.

The TechNote will be placed on the SAVER Web site (<https://www.rkb.us/SAVER>) once it becomes available. Information on other technologies can also be found on the Web site.

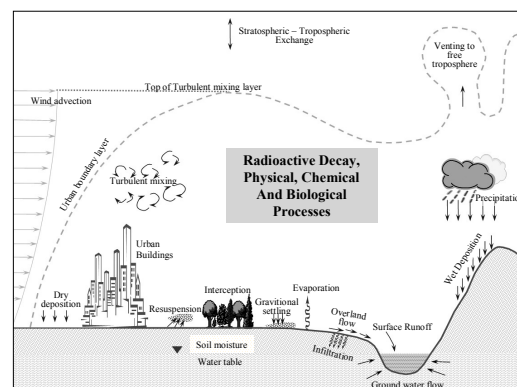


Diagram of Processes Influencing the Cycles of Material Transport