



**Homeland
Security**

Science and Technology

Summary

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 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 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?"

To contact the SAVER Program Support Office
RKB/SAVER Telephone: 877-336-2752
E-mail: saver@dhs.gov
Visit SAVER on the RKB Web site:
<https://www.rkb.us/saver>

Reference herein to any specific commercial products, processes, or services by trade name, trademark, manufacturer, or otherwise does not constitute or imply its endorsement, recommendation, or favoring by the United States Government. Neither the United States Government nor any of its employees make any warranty, express or implied, including but not limited to the warranties of merchantability and fitness for a particular purpose for any specific commercial product, process, or service referenced herein.

Closed Circuit Television Technology Handbook

Closed Circuit Television (CCTV) systems have been on the market for over fifty years, existing primarily as commercial off-the-shelf (cots) products and technologies. They are integrated into a wide range of security systems for not only surveillance, but also for access control and for forensic use in determining the origins of criminal activity.

The CCTV Technology Handbook, published by the Space and Naval Warfare Systems Center (SPAWARSYSCEN), Charleston, provides emergency responders, law enforcement, and security professionals with a reference containing brief summaries on current CCTV technologies, capabilities, and



Thermal Camera (right)
Image from thermal camera (below)



limitations. In addition, the handbook explains the theory behind CCTV development and describes the components in a CCTV system as used for access control, surveillance, and forensic applications.

The technologies described in the handbook include cameras, lenses, transmission systems, monitor, and multiplexers as well as a section on considerations in selecting a CCTV system. The handbook provides a short history of CCTV and a brief discussion of emerging CCTV technologies.

A vendor/product matrix is provided identifying the associated technologies used in the market research and vendor contact information, but it is not intended to be an all-inclusive list of equipment suppliers or models. In addition, a glossary and an acronym list is provided at the end of the handbook to assist the reader with the terms found in the handbook.

Information on specific sensors and manufacturers was derived, in part, from information received in response to a request for information placed in the Commerce Business Daily, posted on the FedBizOps.gov Web site on October 21, 2004.

Additional research was conducted using the Internet, security conferences, and trade shows to gather information on available CCTV technologies, products and vendors. Limited direct contact was made with government, civilian, and vendor personnel to further research process.

No assertion is made that the handbook is comprehensive in its breadth or depth. It is introductory-level information and should not be considered definitive in planning or implementing a CCTV system. Such efforts should be undertaken only in consultation with organizations experienced in the various phases of planning, constructing, testing, operating, and maintaining comprehensive

CCTV systems for access control, surveillance, or forensic applications.

Vendor information was not altered or edited. The United States Government did not conduct independent tests of any of the CCTV products or systems and does not warrant, guarantee, or endorse any of these devices. CCTV technologies under development or restricted to military use are not included in the handbook, while emerging technologies related to CCTV applications are discussed briefly.