

Why GAO Did This Study

Preventing terrorists from smuggling radiological or nuclear material into the United States to carry out an attack is a national priority. DHS's DNDO develops and deploys radiation detection equipment to assist other federal agencies, such as CBP, in intercepting illicit radiological or nuclear materials that could be used to make a radiological dispersive device (dirty bomb) or a crude nuclear bomb. CBP uses RPMs at nearly all land border crossings and seaports to detect radiation in trucks and cargo. DHS recently cancelled acquisition of ASPs, which was originally envisioned as costing from \$2 billion to \$3 billion.

GAO was asked to provide updated information on the ASP program. This report examines, among other things, (1) the results of ASP testing conducted in 2009 and 2010 that led to DHS's decision to cancel the ASP program and (2) the benefits of lessons learned reviews and how DHS captures any lessons learned when programs are cancelled. GAO reviewed testing and acquisition documents and interviewed key agency officials, as well as seven experts the National Academies identified for their knowledge of leading practices in large-scale engineering and acquisition programs.

What GAO Recommends

DHS should require lessons learned reviews and develop processes to ensure such reviews are done in a timely manner and the results disseminated throughout the department. DHS agreed with all of GAO's recommendations and has planned and taken some actions to address them.

View [GAO-13-256](#). For more information, contact David C. Trimble at (202) 512-3841 or trimbled@gao.gov or Dr. Timothy M. Persons at (202) 512-6412 or personst@gao.gov.

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COMBATING NUCLEAR SMUGGLING

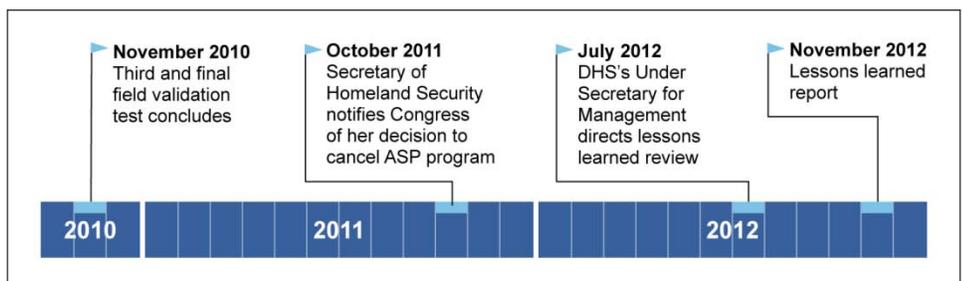
Lessons Learned from Cancelled Radiation Portal Monitor Program Could Help Future Acquisitions

What GAO Found

The advanced spectroscopic portal monitor (ASP)—a next-generation radiation portal monitor (RPM) for screening trucks and cargo containers—did not pass field validation tests conducted in 2009 and 2010. The Department of Homeland Security's (DHS) Domestic Nuclear Detection Office (DNDO) intended to replace many currently deployed RPMs and handheld radiation detectors used by U.S. Customs and Border Protection (CBP) with ASPs. However, in the tests, ASP did not meet key requirements to detect radiation and identify its source. For example, ASP triggered too many false alarms from benign, naturally occurring radioactive material in common items such as kitty litter and granite, and it sometimes would not turn on or continue operating long enough to complete a day of testing. In addition, GAO's review identified analytical weaknesses related to the testing and program cancellation, including inconsistencies in DNDO's analysis of the settings used for testing the ASP. The final field validation test was conducted in November 2010, and the Secretary of Homeland Security notified Congress of her decision to cancel the program in October 2011.

Conducting lessons learned reviews when programs are cancelled benefits organizations by identifying things that worked well and did not work well in order to improve future acquisitions programs, according to experts GAO consulted. However, DHS does not have processes in place to ensure such reviews are conducted or that the results are disseminated. Experts identified by the National Academies told GAO that lessons learned reviews help identify reasons why programs were cancelled. The experts also said lessons learned reviews should be required and conducted promptly, and the results should be disseminated. At the direction of DHS management, DNDO reviewed the ASP program and submitted and disseminated a lessons learned report in November 2012. (See timeline below.) This report cited 32 lessons learned including having program officials work closely with end users to ensure equipment meets operational requirements. DHS guidance calls for lessons learned reviews immediately after programs are cancelled and states that the lessons learned are to be shared throughout the department, but this guidance is not a requirement. Before DHS's directive, there was confusion about whether a lessons learned review was needed for the ASP program, and DNDO officials did not intend to conduct such a review. Moreover, DHS officials were unable to provide examples of previous lessons learned reports from other cancelled programs. DHS officials also said they have no process for disseminating such reports but are planning one.

Events from Final Test of ASP to Lessons Learned Report



Source: GAO analysis of ASP program documents.