Order Code RL34750

CRS Report for Congress

The Advanced Spectroscopic Portal Program: Background and Issues for Congress

November 17, 2008

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Prepared for Members and
Committees of Congress

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Summary

The Domestic Nuclear Detection Office (DNDO) of the Department of Homeland Security (DHS) is charged with developing and procuring equipment to prevent a terrorist nuclear or radiological attack in the United States. At the forefront of DNDO's efforts are technologies currently deployed and under development whose purpose is to detect smuggled nuclear and radiological materials. These technologies include existing radiation portal monitors and next-generation replacements known as advanced spectroscopic portals (ASPs).

Radiation portal monitors are used to detect radiation being emitted by conveyances, such as trucks, that are entering the United States. Combined with additional equipment to identify the source of the emitted radiation, they provide for a detection and identification capability to detect smuggled nuclear and radiological materials. The ASPs currently under testing integrate these detection and identification steps into a single process. By doing so, DHS aims to reduce the impact of such radiation screening on commerce while increasing its ability to detect illicit nuclear material.

The speed of ASP development and deployment, the readiness of ASP technology, and the potential benefits of the ASP program relative to its cost have all been topics of extensive congressional interest. Congress has held oversight hearings regarding the ASP program. Additionally, since FY2007, Congress has each year required that the Secretary of Homeland Security certify that ASPs will result in a "significant increase in operational effectiveness" before DHS can obligate appropriated funds for full-scale ASP procurement. Secretarial certification is still pending.

Testing of the ASPs in the laboratory and in the field, a cost-benefit analysis, and other activities are underway to inform the Secretary's certification decision. Among the issues Congress faces are whether to further define the expected performance of the ASP systems through additional legislation; how to assess whether the ASP systems are technologically ready to be deployed; how to weigh the potential economic and security benefits of ASP deployment versus the increased financial cost; and whether that certification process developed by DHS to establish a "significant increase in operational effectiveness" is well founded.

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Introduction

The attacks of September 11, 2001, prompted an increased federal focus on protecting the United States against terrorist nuclear or radiological attack. Since that time, the federal government has expanded existing programs, developed new programs, and deployed new equipment at U.S. borders and elsewhere. The global nuclear detection architecture has multiple facets, including security to make acquiring threat material more difficult, intelligence activities, law enforcement activities, and deployment of radiation detection equipment.[1] New technologies have been proposed to replace or augment existing radiation detection equipment and enhance its effectiveness. Primary among these new systems is an improved type of radiation detection device known as the Advanced Spectroscopic Portal (ASP). This report provides an overview of the ASP program's history and outlines issues for Congress as the program moves forward.

History and Background

The ASP program is an effort by the Department of Homeland Security (DHS) to develop, procure, and deploy a successor to the existing radiation detection portals. Radiation detection portals, also known as radiation portal monitors, are to detect the emission of radiation from objects that pass by them. The current portals are generally deployed at the U.S. land and sea borders by DHS's Domestic Nuclear Detection Office (DNDO) and operated by DHS's Customs and Border Protection (CBP).

When entering the United States, cargo conveyances, such as trucks, are to pass through a radiation detection portal. This process is called primary screening. If radiation is present, the CBP officer is to be alerted. The conveyance is to be directed to a second radiation detection portal, which would confirm the presence of radiation, and where additional equipment can be used to identify the origin of the radiation and determine if it comes from a potential threat. This process is called secondary screening. Consequently, the current approach to radiation detection at the border is based on a two-step process using different types of equipment.

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[1] For more information, see CRS Report RL34574, *The Global Nuclear Detection Architecture: Issues for Congress*, by Dana A. Shea.

The ASP, in contrast, is designed to both detect radiation and identify its source. More effective *detection* could increase the likelihood of preventing a nuclear threat from entering the United States. More effective *source identification* could reduce the costs and delays associated with "nuisance alarms" from innocuous radiation sources, such as cat litter or ceramic tiles.

The ASP program was begun in 2004 by the DHS Directorate of Science and Technology, which funded initial research and development through two broad agency announcements (BAAs).[2] When DNDO was established in April 2005,[3] responsibility for the ASP program was transferred to DNDO. In 2005, under DNDO auspices, ASP advanced technology prototypes were tested at the Nevada Test Site. Subsequent to this testing, DNDO issued a request for proposals regarding procurement of ASP systems.[4]

In March 2006, the Government Accountability Office (GAO) expressed concerns that "in tests performed during 2005, the detection capabilities of the advanced technology prototypes demonstrated mixed results — in some cases they worked better, but in other cases, they worked about the same as already deployed systems."[5] The GAO recommended that the Secretary of Homeland Security work with the Director of DNDO to prepare a cost-benefit analysis for the deployment of ASPs.

In May 2006, DNDO reported on a cost-benefit analysis that it said supported the proposed ASP procurement. In July 2006, it awarded contracts to three companies — Raytheon Company, Thermo Electron Corporation (now known as Thermo Fisher Scientific), and Canberra Industries — to further develop and manufacture ASP systems. The Raytheon and Thermo systems used detectors made of medium-resolution sodium iodide (NaI); the Canberra system used high-resolution high-purity germanium (HPGe). The DHS stated that it planned to procure and deploy 80 systems quickly and ultimately to deploy a total of about 1,400 at land and sea ports of entry.[6]

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[2] Department of Homeland Security, Homeland Security Advanced Research Projects Agency, *Detection Systems for Radiological and Nuclear Countermeasure, Proposer Information Pamphlet*, Broad Agency Announcement BAA-04-02, January 30, 2004; and *Detection Systems for Radiological and Nuclear Countermeasure, Proposer Information Pamphlet*, Broad Agency Announcement BAA-05-04, December 2, 2004.

[3] The DNDO was first established by presidential directive: Executive Office of the President, The White House, "Domestic Nuclear Detection," National Security Presidential Directive NSPD-43/Homeland Security Presidential Directive HSPD-14, April 15, 2005. Statutory authority was subsequently provided in the SAFE Port Act (P.L. 109-347, Section 501).

[4] Department of Homeland Security, Domestic Nuclear Detection Office, "Advanced Spectroscopic Program," *Request for Proposal*, HSHQDC-05-R-00009, October 17, 2005.

[5] Government Accountability Office, *Combating Nuclear Smuggling: DHS Has Made Progress Deploying Radiation Detection Equipment at U.S. Ports-of-Entry, but Concerns Remain*, GAO-06-389, March 2006.

[6] *Remarks by Homeland Security Secretary Michael Chertoff and DNDO Director Vayl* (continued...)

In October 2006, GAO reported that the DNDO cost-benefit analysis did "not provide a sound analytical basis for DNDO's decision to purchase and deploy new portal monitor technology."[7] The GAO's concerns involved both the cost of ASPs and their performance relative to existing radiation detection systems.

In the Department of Homeland Security Appropriations Act, 2007 (P.L. 109-295, signed into law October 4, 2006), Congress prohibited DHS from obligating FY2007 funds for full-scale procurement of ASPs "until the Secretary of Homeland Security has certified ... that a significant increase in operational effectiveness will be achieved." The act did not define or explain the phrase "significant increase in operational effectiveness."

Faced with criticism of its test results and cost-benefit analysis, DNDO engaged in a further round of ASP testing in 2007. These tests were to generate the data needed to support secretarial certification and to provide additional information regarding the capabilities of the ASP systems.[8] The GAO reviewed the 2007 ASP tests and criticized them as being methodologically flawed.[9] The GAO's criticisms included the use of the same radiation sources and shielding material for both calibration and performance testing and the inclusion of test results that might not have statistical significance. In September 2008, GAO issued another report critical of DNDO's ongoing ASP testing.[10] It found that further testing by DNDO "provide[d] little information about the actual performance capabilities of the ASPs," and that the resulting test report should not be used in determining whether ASPs are a significant improvement over currently deployed equipment.

The DNDO strongly disputed these criticisms. In response to GAO's initial critique, DHS convened an Independent Review Team to address the criticisms and determine their validity. This purpose of this review was described as "to assist the Secretary in determining whether he should certify that there will be a significant increase in operational effectiveness with the procurement of the ASP system."[11] The

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[6] (...continued)
Oxford at a Press Conference to Announce Spectroscopic Portal (ASP) Program Contracts, July 16, 2006, online at [http://www.dhs.gov/xnews/releases/press_release_0953.shtm].

[7] Government Accountability Office, *Combating Nuclear Smuggling: DHS's Cost-benefit Analysis to Support the Purchase of New Radiation Detection Portal Monitors Was Not Based on Available Performance Data and Did Not Fully Evaluate All the Monitors' Costs and Benefits*, GAO-07-133R, October 17, 2006.

[8] Testimony of Vayl S. Oxford, Director, Domestic Nuclear Detection Office, before the House Committee on Energy and Commerce, Subcommittee on Oversight and Investigations, September 18, 2007.

[9] Government Accountability Office, *Additional Actions Needed to Ensure Adequate Testing of Next Generation Radiation Detection Equipment*, GAO-07-1247T, September 18, 2007.

[10] Government Accountability Office, *Combating Nuclear Smuggling: DHS's Phase 3 Test Report on Advanced Spectroscopic Portal Monitors Does Not Fully Disclose the Limitations of the Test Results*, GAO-08-979, September 2008.

[11] Testimony of Paul A. Schneider, Under Secretary for Management, Department of (continued...)

Independent Review Team found no bias in the test results, but it concluded that some aspects of the testing process were "not ideal."[12] The Independent Review Team also concluded that the test results and measures of effectiveness were not properly linked to operational outcomes, the testing up to that point was properly characterized as developmental, and no independent operational testing and evaluation had been conducted.[13] Following the Independent Review Team review, DNDO undertook another round of ASP testing.

In the Consolidated Appropriations Act, 2008 (P.L. 110-161, signed into law December 26, 2007), Congress prohibited the obligation of FY2008 funds for full-scale ASP procurement until the Secretary of Homeland Security certified a "significant increase in operational effectiveness" — the same language as in the FY2007 act. This time, the act also directed the Secretary to consult with the National Academy of Sciences before issuing the certification and to submit separate certifications for ASP's use in primary and secondary screening.[14] (If primary screening detects a potential threat, secondary screening is undertaken to confirm the detection and identify the source.) The Consolidated Security, Disaster Assistance, and Continuing Appropriations Act, 2009 (P.L. 110-329, signed into law September 30, 2008), continued the requirement for secretarial certification before obligation of FY2009 funds. Again, the phrase "significant increase in operational effectiveness" was not defined or explained in either act.

The DNDO continues to engage in additional testing and evaluation, which it expects will lead to a secretarial decision regarding certification in November 2008, but DNDO officials have stated that they will move forward with the certification decision only when the available test results and other information are sufficient to support it. If the Secretary of Homeland Security certifies that a "significant improvement in operational effectiveness" has been achieved, DNDO will be able to obligate the FY2007, FY2008, and FY2009 funds already appropriated for ASP procurement, if they have not been reprogrammed for another purpose. Following secretarial certification, DNDO may choose to immediately begin acquisition and deployment of ASPs at ports of entry, conduct further ASP system testing first, or take some other course. The most recent ASP Project Execution Plan, which

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[11] (...continued)
Homeland Security, before the House Committee on Energy and Commerce, Subcommittee on Oversight and Investigations, September 18, 2007.

[12] Testimony of George E. Thompson, Deputy Director, Homeland Security Institute, before the House Committee on Homeland Security, Subcommittee on Emerging Threats, Cybersecurity, Science and Technology, March 5, 2008.

[13] Testimony of Vayl S. Oxford, Director, Domestic Nuclear Detection Office, before the House Committee on Homeland Security, Subcommittee on Emerging Threats, Cybersecurity, and Science and Technology, March 5, 2008.

[14] The National Academies are currently engaged in a project evaluating testing, costs, and benefits of the ASP systems, but they have not yet issued a final report. For more information, see online at [http://www8.nationalacademies.org/cp/projectview.aspx?key=48932].

describes the number of ASPs to be procured and how they would be deployed, reportedly no longer reflects DNDO's current plans.[15]

Issues for Congress

Through hearings, letters, legislation, and report language, some Members of Congress have expressed concern about the ASP program and support for it. These actions raise issues in several areas: the effectiveness of ASP technology at detecting and identifying threats, the ASP program's costs relative to its benefits, the Secretary's criteria for determining whether ASPs will provide a "significant increase in operational effectiveness," and future actions following secretarial certification.

Capability to Detect and Identify Threats

The effectiveness of ASP technology hinges on its ability to both detect radiation and identify its source. These tasks are currently performed sequentially, using two different types of equipment. The ASP technology would integrate these tasks into a single step. A key question for Congress is whether ASPs would perform sufficiently better than the existing systems to make investment in them worthwhile. Since the ASP technology is intended to perform both detection and identification, this question can be asked with respect to both functions.

The DNDO's ongoing testing is intended to provide the remaining information needed to compare ASP performance with the performance of existing systems. Because of the criticism of past ASP test campaigns by GAO and others, Congress directed DHS to have the National Academies examine the methodology and results of the ASP test campaigns and evaluate how DNDO uses those results to assess ASP performance. Congress may wish to consider the sufficiency of DHS's plans for further ASP development, procurement, and deployment in light of the National Academies' assessment.

Some nongovernmental critics believe that even if ASPs are better than existing radiation portal monitors at detecting and identifying radioactive material, they cannot provide a sufficient defense. These critics state that nuclear material can be shielded or divided into amounts too small to be detected and that detection equipment can be avoided by illegally entering the United States away from official ports of entry.[16] These arguments challenge the belief that better detection systems are an effective way to protect against the threat of nuclear and radiological terrorism.

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[15] Government Accountability Office, *Combating Nuclear Smuggling: DHS's Program to Procure and Deploy Advanced Radiation Detection Portal Monitors Is Likely to Exceed the Department's Previous Cost Estimates*, GAO-08-1108R, September 22, 2008.

[16] See, for example, Thomas B. Cochran and Matthew G. McKinzie, "Detecting Nuclear Smuggling," *Scientific American*, April 2008.

Costs and Benefits

In 2006, DNDO conducted a cost-benefit analysis for the development and deployment of ASP systems. Additional DNDO cost-benefit analyses are to be used as input to the Secretary's certification decision. It appears that the analyses conducted so far have focused mainly on the economic costs of implementation and the economic benefits to commerce of making the radiation screening process more efficient.

The expected economic cost of procuring and deploying ASP systems has changed since the inception of the program, as have the number, type, and purpose of the systems themselves. Rather than an all-inclusive suite of ASP varieties, DNDO has chosen to focus on a single type of ASP used to screen cargo conveyances. According to analysis by GAO, the cost of the ASP program has increased from the original $1.2 billion to approximately $3.1 billion for the previously planned full deployment or approximately $2.1 billion for the currently planned reduced deployment. The DNDO asserts that the actual number of deployed systems may change dramatically depending on the results of ongoing testing.[17]

The DNDO asserts that the number of nuisance alarms, in which radiation is detected correctly but turns out to come from an innocuous source, would be greatly reduced following deployment of the ASP systems. This reduction would result from the ASP's ability to identify the source of the radiation it detects and discriminate between dangerous and innocuous sources. Because of this expected reduction, the number of conveyances that would be required to go through subsequent, more in-depth screening would be reduced, and as a result, the radiation screening process would have less impact on commerce. The DNDO stated in 2006, based on its cost-benefit analysis at that time, that the value of the reduced impact on commerce outweighed the cost of the ASP program and caused deployment of the ASP systems to be a preferred outcome.

It appears that DNDO's cost-benefit analyses have not attempted to quantify the security benefit of making radiation screening more effective: the avoided cost of a nuclear or radiological attack in the United States that a more effective system might prevent. The omission of this avoided cost from a cost-benefit analysis might be justified in several ways. One might be that the likelihood of an avoided successful attack is the same between existing radiation portal systems and the ASP systems. Another might be that it is too difficult to determine quantitatively the benefit from an incremental increase in detection effectiveness. Because the potential consequences of a nuclear or radiological attack would vary widely depending on the location of the attack, and the likelihood and timing of an attack occurring would depend on a terrorist adversary having the requisite intent and capability, calculating the benefits of an avoided attack may have significant uncertainties. Absent such an analysis, however, it is difficult to assess whether a small increase in detector effectiveness would lead to a substantial reduction of the overall security risk.

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[17] Government Accountability Office, *Combating Nuclear Smuggling: DHS's Program to Procure and Deploy Advanced Radiation Detection Portal Monitors Is Likely to Exceed the Department's Previous Cost Estimates*, GAO-08-1108R, September 22, 2008.

The increased cost of the ASP program and related changes in procurement and deployment plans have led to uncertainty regarding the total costs and benefits of the program. Congress is likely to continue to be interested in the scope of the ASP program, its total cost, how ASP systems would be deployed, the calculated benefits of that potential deployment, and the degree to which this next-generation technology increases homeland security. Additionally, Congress may be particularly interested in the degree to which potential deployment of ASP systems reduces the likelihood of a successful attack and how such considerations are weighed and balanced against other economic factors.

Criteria for Secretarial Certification

The appropriations acts that established the certification requirement provided no definition or explanation of the phrase "significant increase in operational effectiveness." Absent further congressional guidance, DHS has established a definition based on a list of criteria and published it as a memorandum for the record. The GAO and others have criticized these criteria. Congress may be interested in examining whether the criteria meet the certification requirement's intent. On the other hand, considering that Congress has provided no explanation of the requirement in statute or report language, it may have intended to leave the definition to DHS's discretion.

In the DHS memorandum for the record in July 2008, DHS agencies, including DNDO and CBP, jointly established certification criteria that constitute their definition of "significant increase in operational effectiveness." The memorandum is unclassified and less than two pages long. It is possible that additional details supporting the certification criteria are provided elsewhere, but the memorandum gives no indication that this is the case.

Amount of Improvement. Several of the criteria require an improvement in some aspect of performance without specifying a minimum amount of improvement. For the criteria that do specify a minimum amount of improvement, DHS does not explain how it determined that amount. For those with no specified minimum, an improvement so small as to be operationally insignificant would apparently be sufficient. The GAO criticized this approach, which it said

> set a low bar for improvement — for example, by requiring ASPs to perform at least as well as current generation equipment when nuclear material is present in cargo but not specifying an actual improvement.[18]

On the other hand, if the performance of existing systems is already sufficient in certain respects, it may be appropriate simply to preclude backsliding in those areas while seeking to make larger improvements in other areas where current performance is less acceptable. For example, DNDO states that for some threat types, current systems are already expected to detect correctly 100% of the time, so that further

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[18] Government Accountability Office, *Combating Nuclear Smuggling: DHS Needs to Consider the Full Costs and Complete All Tests Prior to Making a Decision on Whether to Purchase Advanced Portal Monitors*, GAO-08-1178T, September 25, 2008.

improvement would be impossible.[19] Providing fewer quantitative targets might also allow the criteria to be reused for future decisions about further equipment upgrades.

Verification of Performance. The memorandum establishing the criteria does not define under what test conditions or with which test data the criteria are to be verified. For example, it does not specify the types, amounts, or configurations of threat material that are to be detected. Other documents may provide these details, or DNDO may have specific plans that it has not documented formally. In some cases, DNDO officials have stated how particular criteria will be assessed. For example, previously scheduled field validation tests that involve the screening of trucks in actual commerce are to be used to assess the time required for secondary screening, and the results of a specific test campaign at the Nevada Test Site are to be used to assess the ASP's ability to detect special nuclear material.[20]

Performance Aspects Addressed. The criteria address certain aspects of performance, such as detection rates and false alarm rates, but do not expressly address others, such as reliability, ease of use, and cost. For example, the criteria compare ASP performance versus the performance of current systems on a one-to-one basis, without regard to cost, even though ASPs are more expensive than current systems. As the technology developer, DNDO, and the technology user, CBP, jointly established these criteria, these choices presumably reflect DHS's conclusions about which aspects of performance are most important. Nevertheless, some experts have expressed concern about the criteria's balance, asserting that the criteria should focus more on increasing the likelihood of detecting a genuine threat, rather than on reducing the false alarm rate.[21]

Procedural Changes. The memorandum establishing the criteria states that performance comparisons against currently deployed systems are to be made on the basis of current concepts of operations (CONOPs) and standard operating procedures (SOPs). The ASP systems are to combine radiation detection (the goal of primary screening) with identification of the radiation source (the goal of secondary screening). One might expect that either adding an identification capability to the detection stage or adding a detection capability to the identification stage would be accompanied by changes in CONOPs and SOPs, but no such changes are reflected in the criteria. If changes in CONOPs and SOPs could improve the performance of the ASPs in the field, then assessing performance using test data may not reflect their full capabilities.

Detection Threshold. Finally, the criteria compare ASP performance against the performance of current systems set at current operational detection thresholds. They do not compare performance against the same equipment set at other thresholds that might have different operational ramifications, such as higher detection and false

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[19] DNDO, personal communication with CRS, October 9, 2008.

[20] DNDO, personal communication with CRS, October 9, 2008.

[21] Testimony of Thomas B. Cochran, Ph.D., Senior Scientist, Nuclear Program, Natural Resources Defense Council, before the Senate Committee on Homeland Security and Governmental Affairs, September 25, 2008.

positive rates. The DHS has considered such scenarios in some past analyses but does not require such consideration in the context of the certification criteria.

Actions That Would Follow Secretarial Certification

The date for secretarial certification has been postponed several times. The current reported date is November 2008, but DNDO officials have stated that they will move forward with the certification decision only when the available test results and other information are sufficient to support it. At the same time as the secretarial certification, DHS would determine whether to proceed with full-scale production of the ASP systems.

If the certification decision is postponed further, little time would remain for it to occur before the end of the Bush Administration. This possibility may create pressure on the Secretary to make the decision before the end of the Administration, especially if he fears that valuable time and experience could be lost during the presidential transition. Alternatively, the Secretary might choose to postpone the certification decision to give the next Administration flexibility if it has different views on the utility or appropriateness of the ASP technology.

If the current Secretary of Homeland Security or his successor decides to make the required certification, several choices would remain about how to proceed. The Secretary may decide that ASP systems should be fully deployed. The DHS could use whatever funds remain from prior-year appropriations for ASP procurement to begin this process and would likely request additional funds in future fiscal years to continue and complete the process.[22]

The Secretary may decide that while ASP systems do represent a "significant improvement in operational effectiveness," their costs make them less desirable than other possible detection improvements. For example, rather than procure ASP systems, DHS might invest in additional existing secondary inspection systems, while achieving comparable reductions in secondary screening time. The DHS has stated that cost-benefit analyses will inform the Secretary's certification decision, even though the criteria do not mention cost.

The Secretary may decide to acquire and deploy ASP systems on a limited basis. For example, ASP systems might be deployed at high-throughput locations only. It is possible that the benefits of ASPs outweigh their cost in some locations but not others. While preferring to procure ASP systems in large numbers for system performance uniformity and economies of scale, DNDO has stated that it will present various deployment strategies to the Secretary.[23]

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[22] The DNDO received approximately $107 million in FY2007 and $90 million in FY2008 for the radiation portal monitor program, which includes the ASP program (Domestic Nuclear Detection Office, Department of Homeland Security, *Fiscal Year 2009 Congressional Justification*, p. DNDO ACQ-13). P.L. 110-329 provided $120 million for the radiation portal monitor program for FY2009.

[23] Testimony of Vayl S. Oxford, Director, Domestic Nuclear Detection Office, before the (continued...)

Upon secretarial certification, Congress may be interested in the manner and scale of ASP procurement, where and how initial ASP systems would be deployed, and the projected future deployment of these systems. The existing radiation portal monitor program has been a multiyear program with continued phased deployment. Consequently, the required time to replace these systems may be of congressional interest. Finally, if the existing radiation portals are superseded by ASP systems, Congress may be interested in the expected lifetime of those ASP systems and DHS's expectation of the development of a next-generation system to replace those ASP systems.

Options for Congress

Congress has several options for addressing the ASP program. Those options include providing legislative guidance to DHS regarding certification of the ASP systems and awaiting the Secretary's decisions regarding certification and procurement.

A key question of possible congressional interest might be whether the approach taken by DHS in determining a "significant increase in operational effectiveness" meets congressional intent. The definition developed by DHS for a "significant increase in operational effectiveness" may meet congressional intent, and Congress may be fully supportive of DNDO moving forward with ASP procurement and deployment. Alternatively, Congress might choose to restrict the Secretary's discretion by defining a "significant increase in operational effectiveness" for DHS or by delineating what areas need to be addressed by DHS when it defines a "significant increase in operational effectiveness." Congress could even prohibit further action on the ASP program if it disagreed with the Secretary's judgment regarding certification.

The Next Generation Radiation Screening Act of 2008 (H.R. 5531) takes this approach. H.R. 5531 would direct DHS to develop quantitative metrics to use as certification criteria for the ASP program. These metrics would be required to include a quantitative definition of "significant increase in operational effectiveness," a specification of all relevant threat materials and all relevant masking scenarios, and a cost/benefit analysis under specified guidelines. The bill would also allow the Secretary of Homeland Security to consider relevant reports from outside groups, such as GAO or an Independent Review Team, and any other information the Secretary determined to be relevant. The House of Representatives passed H.R. 5531 on July 30, 2008, and the bill was referred to the Senate Committee on Homeland Security and Governmental Affairs on July 31, 2008.

An alternative approach to providing legislative guidance would be for Congress to set a deadline for secretarial certification. The DHS has not met previous expectations for the date of certification. Instead, it has engaged in further development and testing following criticisms of its test procedures and results.

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[23] (...continued)
Senate Committee on Homeland Security and Governmental Affairs, September 25, 2008.

Congress might pass legislation directing DHS make a determination regarding the "significant increase in operational effectiveness" by a specified date rather than continuing with more tests and developmental work.

Congress might also choose to continue to leave the criteria and schedule for secretarial certification to DHS, focusing instead on oversight activities. Both the 109th and the 110th Congress held series of oversight hearings on the ASP program. Further scrutiny of DHS and oversight of the testing and certification process may help to ensure that DHS's decision to certify and procure the ASP system is well-founded.

If secretarial certification occurs, but Congress determines the certification did not meet its legislative intent, Congress might place additional restrictions or requirements on the ASP program. Examples of such restrictions or requirements might include limiting the rate of procurement of ASP systems, directing DHS to reevaluate its decision-making process, or requiring analysis of the certification decision by a third party. Congress could even rescind ASP procurement funding appropriated in previous years.

Lastly, Congress might choose to change the direction of the program if secretarial certification does not go forward as planned. Policymakers might choose to direct DNDO to change its expectations of the ASP technology performance and scope, so as to match the tested capabilities. Alternatively, policymakers might direct DNDO to invest additional funds into further development for a fixed period of time, to transfer the program focus away from procurement and towards development milestones. Finally, policymakers might direct DNDO to enhance their development of alternate technologies beyond those incorporated in the ASP systems, attempting to achieve a breakthrough in technology development.