Testimony
Before the Committee on Homeland
Security, House of Representatives

SECURE BORDER INITIATIVE

Observations on Deployment Challenges

Statement of Richard M. Stana, Director
Homeland Security and Justice Issues

G A O
Accountability ★ Integrity ★ Reliability

SECURE BORDER INITIATIVE

Observations on Deployment Challenges

Why GAO Did This Study

In November 2005, the Department of Homeland Security (DHS) established the Secure Border Initiative (SBI), a multiyear, multibillion-dollar program to secure U.S. borders. One element of SBI is the U.S. Customs and Border Protection's (CBP) SBI program, which is responsible for developing a comprehensive border protection system through a mix of surveillance and communication technologies known as SBI*net* (e.g., radars, sensors, cameras, and satellite phones), and tactical infrastructure (e.g., fencing).

The House Committee on Homeland Security and its Subcommittee on Management, Investigations, and Oversight asked GAO to monitor DHS progress in implementing CBP's SBI program. This testimony provides GAO's observations on (1) technology deployment; (2) infrastructure deployment; and (3) how the CBP SBI program office has defined its human capital goals and the progress it has made to achieve these goals. GAO's observations are based on prior and new work, including analysis of DHS documentation, such as program schedules, contracts, and status reports. GAO also conducted interviews with DHS and Department of the Interior officials and contractors, and visits to sites on the southwest border where SBI deployment is under way. GAO performed the work from March to September 2008. DHS generally agreed with GAO's findings.

To view the full product, including the scope and methodology, click on GAO-08-1141T. For more information, contact Richard M. Stana at (202) 512-8777 or stanar@gao.gov.

What GAO Found

SBI*net* technology deployments continue to experience delays and, as a result, Border Patrol agents have to rely upon existing limited technological capabilities to help achieve control of the border. SBI program officials had originally planned to deploy SBI*net* technology across the southwest border by the end of 2008, but in February 2008 this date had slipped to 2011. In July 2008, officials reported that two initial projects that had been scheduled to be completed by the end of calendar year 2008 would be finished sometime in 2009. SBI*net* program uncertainties, such as not fully defined program expectations, changes to timelines, and confusion over the need to obtain environmental permits contribute to ongoing delays of SBI*net* technology deployments. Due to the delays, Border Patrol agents continue to use existing technology that predates SBI*net*, and in the Tucson, Arizona, area they are using capabilities from SBI*net*'s prototype system despite previously reported performance shortfalls. Further delays of SBI*net* technology deployments may hinder the Border Patrol's efforts to secure the border.

The deployment of fencing is ongoing, but costs are increasing, the life-cycle cost is not yet known, and meeting DHS's statutorily required goal to have 670 miles of fencing in place by December 31, 2008, will be challenging. As of August 22, 2008, the SBI program office reported that it had constructed a total of 341 miles of fencing, and program officials stated that they plan to meet the December 2008 deadline. However, project costs are increasing and various factors pose challenges to meeting this deadline, such as a short supply of labor and land acquisition issues. According to program officials, as of August 2008, fencing costs averaged $7.5 million per mile for pedestrian fencing and $2.8 million per mile for vehicle fencing, up from estimates in February 2008 of $4 million and $2 million per mile, respectively. Furthermore, the life-cycle cost is not yet known, in part because of increasing construction costs and because the program office has yet to determine maintenance costs and locations for fencing projects beyond December 2008. In addition, land acquisition issues present a challenge to completing fence construction.

As of September 2008, the SBI program office was reevaluating its staffing goal and continued to take actions to implement its human capital plan. In February 2008, we reported that the SBI program office had established a staffing goal of 470 employees for fiscal year 2008. As of August 1, 2008, the SBI program office reported having 129 government staff and 164 contractor support staff for a total of 293 employees. Program officials stated that a reorganization of the SBI program office and SBI*net* project delays have resulted in fewer staffing needs and that they plan to continue to evaluate these needs. The SBI program office also continued to take steps to implement its human capital plan. For example, recruitment efforts are under way to fill open positions. However, the SBI program office is in the process of drafting or has drafted documents, such as the Succession Management Plan, that have yet to be approved or put into action.

United States Government Accountability Office

Chairman Thompson, Mr. King, and Members of the Committee:

I am pleased to be here today to discuss observations on selected aspects of the Secure Border Initiative (SBI) program implementation. Securing the nation's borders from illegal entry of aliens and contraband, including terrorists and weapons of mass destruction, continues to be a major concern. Much of the United States' 6,000 miles of international borders with Canada and Mexico remains vulnerable to illegal entry. Although the Department of Homeland Security (DHS) apprehends hundreds of thousands of people entering the country illegally each year, several hundreds of thousands of individuals also enter the United States illegally and undetected. In November 2005, DHS announced the launch of the Secure Border Initiative (SBI), a multiyear, multibillion-dollar program aimed at securing U.S. borders and reducing illegal immigration. Elements of SBI will be carried out by several organizations within DHS. The U.S. Customs and Border Protection's (CBP) SBI program[1] is responsible for developing a comprehensive border protection system using technology, known as SBI*net*, and tactical infrastructure—fencing, roads, and lighting.

You requested that we monitor CBP's SBI program and provide periodic updates on the status of the program. My testimony today is the third in a series of interim reports on SBI implementation[2] and focuses on the following issues:

- SBI*net* technology deployment,
- SBI tactical infrastructure deployment, and
- how the SBI program office has defined its human capital goals and the progress it has made to achieve these goals.

To address these issues, we analyzed DHS documents, including program schedules, status reports, and workforce data. We determined that the data were sufficiently reliable for purposes of this testimony. We interviewed DHS and CBP headquarters and field officials, including

---

[1]The CBP SBI Program Executive Office, referred to in this testimony as the SBI program office, is responsible for overseeing all SBI activities for acquisition and implementation, including establishing and meeting program goals, objectives, and schedules; for overseeing contractor performance; and for coordinating among DHS agencies.

[2]See GAO, *Secure Border Initiative: Observations on the Importance of Applying Lessons Learned to Future Projects*, GAO-08-508T (Washington, D.C.: Feb. 27, 2008); and *Secure Border Initiative: Observations on Selected Aspects of SBInet Program Implementation*, GAO-08-131T (Washington, D.C.: Oct. 24, 2007).

representatives of the SBI program office, Border Patrol, and Border Patrol's Office of Training and Development; U.S. Army Corps of Engineers (USACE) officials; Department of Interior (DOI) officials, including representatives of the Office of the Deputy Secretary and Office of Law Enforcement Security and Emergency Management; and representatives of the prime contractor, Boeing. We also visited the Border Patrol's Rio Grande Valley, Tucson, and El Paso sectors[3]—sites where SBI*net* technology, fencing deployment, or both, were under way at the time of our review. During the visit to the Rio Grande Valley, we also met with public officials and members of the community to discuss proposed SBI fencing projects and their effect on the communities. We conducted this performance audit from March 2008 through September 2008 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the work to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our objectives.

We also have work underway and have completed work to review other components of the SBI program. Specifically, today we are also providing a statement for this committee that assesses DHS's efforts to define the scope, timing, and approach for developing SBI*net* capabilities, and how well DHS is managing related requirements development and management and testing activities.[4] We also expect to issue a report covering these topics later this month. In addition, in April 2008, we completed a report on SBI*net* as part of a broader review of DHS's use of performance-based services acquisition, an acquisition method structured around the results to be achieved instead of the manner by which the service should be performed.[5] Lastly, as mandated in the Consolidated Appropriations Act,

---

[3]The U.S. Border Patrol has 20 sectors responsible for detecting, interdicting, and apprehending those who attempt illegal entry or smuggle people—including terrorists, contraband, and weapons of mass destruction—across U.S. borders between official ports of entry.

[4] See GAO, *Secure Border Initiative: DHS Needs to Address Significant Risks in Delivering Key Technology Investment*, GAO-08-1148T (Washington, D.C.: Sept. 10, 2008).

[5]See GAO, *Department of Homeland Security: Better Planning and Assessment Needed to Improve Outcomes for Complex Service Acquisitions*, GAO-08-263 (Washington, D.C.: Apr. 22, 2008) and *Department of Homeland Security: Better Planning and Oversight Needed to Improve Complex Service Acquisition Outcomes*, GAO-08-765T (Washington, D.C.: May 8, 2008).

2008,[6] we reviewed DHS's fiscal year 2008 expenditure plan for the SBI program and reported in June 2008.[7] A list of SBI-related products appears at the end of this statement.

Summary

SBI*net* technology deployments continue to experience delays and, as a result, Border Patrol agents have to rely upon existing limited technological capabilities to help secure the border. As of October 2007, SBI program officials expected to complete all of the first planned deployment of technology projects across the Tucson, Yuma, and El Paso sectors by the end of calendar year 2008. But, by February 2008, program office officials said that only a portion of the Tucson sector would be completed by the end of calendar year 2008 and other deployments would be complete by the end of calendar year 2011. In July 2008, SBI program office officials reported that SBI*net* technology deployment to the Tucson, Yuma and El Paso sectors had been further delayed and that the two planned deployments in the Tucson sector would be completed sometime in 2009. SBI*net* program uncertainties, such as not fully defined program expectations, changes in deployment schedules, and confusion over the applicability of environmental regulations, continue to delay SBI*net* technology deployments. For example, the construction permit application for initial SBI*net* deployment sites on environmentally sensitive lands was submitted on July 10, 2008. According to DOI officials, the process normally takes 2 to 3 months and the SBI program office had planned to begin construction on July 15, 2008. In the Tucson sector, Border Patrol agents are using capabilities provided by Project 28, the SBI*net* prototype, which we previously reported had encountered performance shortfalls and delays.[8] In other sectors, agents are using technology that predates SBI*net* and does not have the capabilities that SBI*net* is to provide. Further delays of SBI*net* technology deployments may hinder the Border Patrol's efforts to secure the border.

---

[6]Pub. L. No. 110-161, 121 Stat. 1844, 2047-2049.

[7]See GAO, *Secure Border Initiative Fiscal Year 2008 Expenditure Plan Shows Improvement, but Deficiencies Limit Congressional Oversight and DHS Accountability*, GAO-08-739R (Washington, D.C.: June 26, 2008).

[8]GAO-08-508T.

The deployment of tactical infrastructure projects along the southwest border is ongoing, but costs are increasing, the life-cycle cost[9] is not yet known, and land acquisition issues pose a challenge to DHS meeting the goal it set, as required by law, to have 670 miles of fencing—370 miles of pedestrian fence and 300 miles of vehicle fence—in place by December 31, 2008. As of August 22, 2008, the SBI program office reported that it had constructed a total of 341 miles of fencing—187 miles of pedestrian fence and 154 miles of vehicle fence, and program officials stated that they plan to meet the December 2008 deadline. However, project costs are increasing and various factors pose challenges to meeting this deadline, such as a short supply of labor and land acquisition issues. According to program officials, as of August 2008, fencing costs averaged $7.5 million per mile for pedestrian fencing and $2.8 million per mile for vehicle fencing, up from estimates in February 2008 of $4 million and $2 million per mile, respectively.[10] Furthermore, SBI program office officials do not have a life-cycle cost estimate for fencing, in part because of increasing construction costs and also because the SBI program office has not yet determined the maintenance costs and locations for fencing construction projects beyond December 2008. Without a life-cycle cost estimate, the total cost to build and maintain fencing along the southwest border is not yet known. With respect to land acquisition issues, identifying landowners and negotiating land purchases present a challenge to completing fence construction by December 2008. For example, as of August 26, 2008, an estimated 320 properties remain to be acquired from landowners. Program officials noted that the fencing construction segments usually require 90 to 120 days to complete, and completion of all tactical infrastructure projects by December 31, 2008, is in jeopardy if issues related to land acquisition are not resolved.

As of September 2008, the SBI program office was reevaluating its staffing goal and office continues to take actions to implement its December 2007 human capital plan. In February 2008, we reported that the SBI program office had established a staffing goal of 470 employees for fiscal year

---

[9]The estimated life cycle cost is the total cost to the government for a program over its full life, consisting of research and development, operations, maintenance, and disposal costs. Using a life-cycle cost estimate to determine the budget helps to ensure that all costs are fully accounted for so that resources are adequate to support the program. See GAO, *Cost Assessment Guide: Best Practices for Estimating and Managing Program Costs— Exposure Draft*, GAO-07-1134SP (Washington, D.C.: July 2007).

[10]GAO-08-508T.

2008.[11] As of August 1, 2008, the SBI program office reported having 129 government staff and 164 contractor support staff for a total of 293 employees. SBI program office officials said that a reorganization of the SBI program office and SBI*net* project delays have resulted in fewer staffing needs. The officials further noted they will continue to evaluate the expected staffing needs through the end of fiscal year 2009. In addition, the SBI program continues to implement its human capital plan. For example, the SBI program office has recruitment efforts underway to fill open positions. However, in other areas, the SBI program office is in the process of drafting or has drafted documents, such as the SBI Succession Management Plan, which have yet to be approved and acted upon. Until the SBI program office fully implements its plan, it will lack a baseline and metrics by which to judge its human capital efforts.

In their oral comments on a draft of this statement, DHS generally agreed with our findings and provided clarifying information that we incorporated as appropriate.

Background

CBP's SBI program is responsible for deploying SBI*net* (e.g., sensors, cameras, radars, communications systems, and mounted laptop computers for agent vehicles), and tactical infrastructure (e.g., pedestrian and vehicle fencing, roads, and lighting) that are intended to enable CBP agents and officers to gain effective control of U.S. borders.[12] SBI*net* technology is intended to include the development and deployment of a common operating picture (COP) that provides data through a command center to Border Patrol agents in the field and potentially to all DHS agencies and to be interoperable with stakeholders external to DHS, such as local law enforcement. The current focus of the SBI program is on the southwest border areas between the ports of entry[13] that CBP has designated as having the highest need for enhanced border security because of serious vulnerabilities. The SBI program office and its offices of SBI*net* and

---

[11]GAO-08-508T.

[12]DHS defines effective control of U.S. borders as the ability to consistently: (1) detect illegal entries into the United States; (2) identify and classify these entries to determine the level of threat involved; (3) efficiently and effectively respond to these entries; and (4) bring events to a satisfactory law enforcement resolution.

[13]At a port of entry location, CBP officers secure the flow of people and cargo into and out of the country, while facilitating legitimate travel and trade.

tactical infrastructure are responsible for overall program implementation and oversight.

Figure 1: Map of Border Patrol Sectors along the Southwest Border

In September 2006, CBP awarded a prime contract to the Boeing Company for 3 years, with three additional 1-year options. As the prime contractor, Boeing is responsible for acquiring, deploying, and sustaining selected SBI technology and tactical infrastructure projects. In this way, Boeing has extensive involvement in the SBI program-requirements development, design, production, integration, testing, and maintenance and support of SBI projects. Moreover, Boeing is responsible for selecting and managing a team of subcontractors that provide individual components for Boeing to integrate into the SBI*net* system. The SBI*net* contract is largely

performance-based—that is, CBP has set requirements for the project and Boeing and CBP coordinate and collaborate to develop solutions to meet these requirements—and designed to maximize the use of commercial off-the-shelf technology.[14] CBP's SBI program office oversees and manages the Boeing-led SBI contractor team.

CBP is executing part of SBI activities through a series of task orders to Boeing for individual projects. As of September 5, 2008, CBP had awarded 11 task orders to Boeing for a total amount of $933.3 million. Table 1 is a summary of the task orders awarded to Boeing for SBI projects.

[14]Commercial off-the-shelf is a term for software or hardware, generally technology or computer products, that are available for sale, lease, or license to the general public.

Table 1: Task Orders Awarded to Boeing for SBI projects as of September 5, 2008 (Dollars in millions)

Task Order Description	Date awarded	Task order obligation
Program Management: The mission engineering, facilities and infrastructure, systems engineering, test and evaluation, and program management services to develop and deploy the SBI*net* system.	09/21/2006	$144.0
Project 28: Boeing's pilot project and initial implementation of SBI*net* technology for 28 miles of the border in the Tucson sector.	10/20/2006	20.6
Barry M. Goldwater Range (BMGR): The construction of 32 miles of vehicle and pedestrian barriers on the southern border of the BMGR in the Yuma sector.	01/12/2007	122.2
Fence Lab: The testing of potential pedestrian and vehicle fence and barrier solutions.	02/16/2007	0.7
Design: SBI*net* deployment design solution including design, environmental-clearance support, and locations for the SBI*net* technology solution in the Yuma, Tucson, and El Paso sectors.	08/01/2007	84.0
Project 28 Contractor Maintenance and Logistics Support: Provides Project 28 with the required maintenance and logistics support to operate the system.	12/07/2007	10.6
Command, Control, Communications and Intelligence (C3I) and Common Operating Picture: The development of the next version of the SBI*net* operating software to design, develop, and demonstrate a functional SBI*net* C3I/COP system.	12/07/2007	64.5
SBI*net* System: A follow-on to the program management task order, this task order specifies the program management and system-engineering activities required to achieve an integrated program across all task orders issued under the SBI contract.	04/15/2008	93.6
Supply and Supply Chain Management: The development and implementation of a supply and supply chain management system solution to execute tactical infrastructure projects.	06/06/2008	313.3[a]
Arizona Deployment Task Order: Boeing's deployment of the SBI*net* system along approximately 53 miles of the southwest border in the Tucson sector.	06/25/2008	70.5
Integrated Logistics Support: Provides SBI*net* with the required maintenance and logistics support to operate the system	08/16/2008	9.3
Total		**$933.3**

Source: GAO Analysis of CBP data.

[a]In January 2008, CBP issued a letter task order for the Supply and Supply Chain Management in the estimated amount of $733.3 million. On June 6, 2008, CBP finalized the task order in the amount of $313.3 million.

In addition to deploying technology across the southwest border, the SBI program office plans to deploy 370 miles of single-layer pedestrian fencing and 300 miles of vehicle fencing by December 31, 2008. Pedestrian fencing is designed to prevent people on foot from crossing the border and vehicle fencing consists of physical barriers meant to stop the entry of vehicles. Figure 2 shows examples of SBI fencing styles along the southwest border. The SBI program office, through the tactical infrastructure program, is using USACE to contract for fencing and supporting infrastructure (such

as lights and roads), complete required environmental assessments, and acquire necessary real estate.[15] In June 2008, CBP awarded Boeing a supply and supply chain management task order for the purchase of construction items, such as steel.

Figure 2: Examples of SBI Fencing Styles along the Southwest Border

Source: CBP.

The Picket Fence (upper left), Bollard Fence (upper right) and Post & Rail with wire mesh (lower left) are examples of pedestrian fencing; the Normandy Vehicle Fence (lower right) is an example of vehicle fencing.

Since fiscal year 2006, Congress has appropriated more than $2.7 billion for SBI. Table 2 shows SBI obligations from fiscal years 2006 through 2008

---

[15]The SBI program office contracted with Boeing Company to construct 32 miles of fencing in the BMGR. Deployment of this fencing has been completed, and the SBI program office plans to use USACE to contract for most remaining pedestrian fencing and vehicle barriers to be deployed through December 2008.

for SBI*net* technology, tactical infrastructure, and program management. DHS has requested an additional $775 million for SBI for fiscal year 2009.

Table 2: SBI Funding Fiscal Years 2006 to 2008, as of March 2008 (Dollars in billions)

Allocation of funds	Total funds	Percent of total funds
SBInet Technology	$0.74	27
Tactical Infrastructure	1.84	67
Program Management[a]	0.15	6
Total	**$2.73**	**100**

Source: GAO Analysis of CBP data.

[a]Includes personnel operations and support, and regulatory and environmental requirements.

SBI*net* Deployment Delays Are Ongoing and Border Patrol Agents Continue to Use Existing Technology to Secure Borders

SBI*net* technology deployments continue to experience delays and, as a result, Border Patrol agents have to rely upon existing limited technological capabilities to help achieve effective control of the border. We reported in October 2007, that SBI program office officials expected to complete all of the first planned deployment of technology projects in the Tucson, Yuma, and El Paso sectors by the end of 2008.[16] In February 2008, we reported that the first planned deployment of technology would occur in two geographic areas within the Tucson sector—known as Tucson-1 and Ajo-1—by the end of calendar year 2008, with the remainder of deployments to the Tucson, Yuma, and El Paso sectors scheduled to be completed by the end of calendar year 2011.[17] In July 2008, SBI program office officials reported that SBI*net* technology deployments to Tucson-1 and Ajo-1 would be completed sometime in 2009. These officials further noted that SBI*net* technology deployments in the Tucson, Yuma, and El Paso sectors had also been delayed.

[16]GAO-08-131T.

[17]GAO-08-508T.

SBI*net* program uncertainties contribute to ongoing delays of SBI*net* technology deployments. These include:

- SBI*net* technology will be deployed to fewer sites than originally planned by the end of 2008; is expected to have fewer capabilities than originally planned at that time; and as discussed above, the SBI*net* program office does not have specific deployment dates;
- SBI*net* planning documents and mechanisms, such as the integrated master schedule, have not received executive approval and are constantly changing.[18] For example, the current (unapproved) schedule is out of date and under revision; and
- The SBI*net* program office has not effectively defined and managed program expectations, including specific project requirements.[19]

The need to obtain environmental permits is also contributing to the initial Tucson deployment delays. According to DOI officials, DHS officials initially stated that the DHS authority to waive all legal requirements as necessary to ensure expeditious construction covered both SBI*net* technology and tactical infrastructure projects.[20] However, DHS officials later determined that the Secretary's April 1, 2008, waiver did not extend to the Tucson-1 and Ajo-1 SBI*net* projects. Without waiver coverage for these projects, DHS must conform to the National Environmental Policy Act,[21] which requires federal agencies to evaluate the likely environmental effects of projects they are proposing using an environmental assessment or, if the projects likely would significantly affect the environment, a more detailed environmental impact statement. According to DOI officials, SBI program office officials had planned to submit the permit application for the Tucson-1 project area in February 2008, requesting access and permission to build on environmentally sensitive lands. SBI officials said that they had been working with DOI local land managers; however, due to confusion over the DHS waiver authority, the complete application for the tower construction sites was submitted on July 10, 2008, while the SBI

---

[18]The integrated master schedule is a planning tool intended to integrate the disparate project schedules that officials use to manage SBI*net* program activities.

[19]These issues are discussed in greater detail in GAO-08-1148T.

[20]The REAL ID Act of 2005 allowed the Secretary of Homeland Security to waive all legal requirements he determines necessary to ensure expeditious construction of physical barriers and roads along the U.S. border to deter illegal crossings in areas of high illegal entry. Pub.L.No. 109-19, § 102, 119 Stat. 302, 306.

[21]42 U.S.C. §§ 4321-4347.

program office had planned to begin construction for Tucson-1 on July 15, 2008. According to DOI officials, the approval process normally takes 2 to 3 months, but they have expedited the DHS permit and plan to resolve the application in mid-September 2008.

Given the delays with SBI*net* technology deployment, Border Patrol agents continue to rely upon existing technologies. The cameras and sensors in use predate SBI*net* technology and do not have the capabilities that SBI*net* technology is to provide.[22] In addition, some of the equipment currently in use may be outdated. For example, in the Border Patrol's El Paso sector, aging cameras and sensors do not work in inclement weather and do not always function at night. In the Tucson sector, Border Patrol agents are using capabilities provided by Project 28, the SBI*net* prototype that was accepted by the government in February 2008. We previously reported that Project 28 encountered performance shortfalls and delays.[23] Despite these performance shortfalls, agents in the Tucson Sector continue to use Project 28 technology capabilities while waiting for the SBI*net* technology deployment. During our visit to the Tucson Sector in June 2008, Border Patrol agents told us that the system had improved their operational capabilities, but that they must work around ongoing problems, such as finding good signal strength for the wireless network, remotely controlling cameras, and modifying radar sensitivity. Moreover, during our visit we observed the agents' difficulties in logging on to the wireless network and maintaining the connection from the vehicle-mounted mobile data terminal.[24] Project 28 is the only available technology in the Tucson-1 project area of the Tucson sector, compared to the Ajo-1 project area, which does not have any technology. Further delays of SBI*net* technology deployments may hinder the Border Patrol's efforts to secure the border.

---

[22]SBI*net* is to provide a system with the detection, identification, and classification capabilities required to maintain operational control of the border. To do so, Boeing is to provide, among other items, mobile towers equipped with radar, cameras, a COP that communicates comprehensive situational awareness, and secure-mounted laptop computers retrofitted in vehicles to provide agents in the field with COP information.

[23]GAO-08-508T.

[24]A mobile data terminal is a laptop computer mounted in select agent vehicles in the field. Mobile data terminals enable field agents to see information similar to that seen by command center operators.

Tactical Infrastructure Deployment Continues, but Costs Are Increasing, the Life-Cycle Cost Is Not Yet Known, and Land Acquisition Issues Pose a Challenge to Completion of the Timeline

The deployment of tactical infrastructure projects along the southwest border is ongoing, but costs are increasing, the life-cycle cost is not yet known, and land acquisition issues pose challenges to DHS in meeting the goal it set, as required by law, to complete 670 miles of fencing—370 miles of pedestrian fence and 300 miles of vehicle fence, by December 31, 2008.[25] We previously reported that as of February 21, 2008, the SBI program office had constructed 168 miles of pedestrian fence and 135 miles of vehicle fence.[26] See figure 3 for photographs of SBI tactical infrastructure projects in Arizona and New Mexico. Approximately 6 months later, the SBI program office reports that 19 additional miles of pedestrian fence and 19 additional miles of vehicle fence have been constructed as of August 22, 2008 (see table 3).

---

[25]The Consolidated Appropriations Act of 2008, requires DHS to complete construction by December 31, 2008, of 370 miles (or other mileage determined by the Secretary) of reinforced fencing along the southwest border wherever the Secretary determines it would be most practical and effective in deterring smugglers and aliens attempting illegal entry.

[26]GAO-08-508T.

Figure 3: Examples of SBI Fence Construction

Source: GAO.

Construction of Post & Rail with wire mesh fence in Lukeville, Arizona, as of June 10, 2008 (left) and Santa Teresa, New Mexico, as of August 26, 2008 (right).

Source: GAO.

Completed Post & Rail with 4-gauge wire mesh (15 feet high) near Santa Teresa, Mexico.

Table 3: Tactical Infrastructure Deployment Progress as of August 22, 2008

Infrastructure Type	Miles in place before SBI	Miles deployed through SBI as of 08/22/08	Total miles in place as of 08/22/08	Target for 12/31/08	Miles remaining to meet target
Pedestrian fencing	78	109	187	370	183
Vehicle fencing	57	97	154	300	146
Total	**135**	**206**	**341**	**670**	**329**

Source: GAO analysis of SBI data.

Although SBI program office and USACE officials stated that they plan to meet the December deadline, factors such as a short supply of labor and materials, and the compressed timeline affect costs. SBI program office officials said that beginning in July 2008, as they were in the process of finalizing construction contracts, cost estimates for pedestrian fencing in Texas began to increase. According to USACE officials, as of August 28, 2008, fencing costs[27] average $7.5 million per mile for pedestrian fencing and $2.8 million per mile for vehicle fencing, up from estimates in February 2008[28] of $4 million and $2 million per mile, respectively. SBI program office officials attributed the cost increases to a short supply of both labor and materials as well as the compressed timeline. For example, they said that as a result of a construction boom in Texas, labor is in short supply and contractors report that they must provide premium pay and overtime to attract workers. In terms of materials, USACE officials stated the price of cement and steel have increased and in some areas within Texas obtaining cement near the construction site is difficult. For example, contractors are now procuring cement from Colorado, and aggregate, a cement mixing agent, from Houston, Texas. The SBI program office officials also said that increasing fuel costs for transporting steel and cement were contributing factors. Officials said they are working to mitigate the cost increases where possible, for example, through their bulk purchase of steel and their negotiations in one county where premium labor rates were higher than usual. The SBI program office officials said that the compressed construction timeline also contributes to the cost increase, particularly in terms of labor costs.

---

[27]According to USACE officials, the cost includes program management, environmental assessments, design, real estate, construction management, and construction costs.

[28]GAO-08-508T.

The SBI program office does not yet have an estimated life-cycle cost for fencing because maintenance costs are unknown and the SBI program office has not identified locations for fencing construction projects beyond December 2008. The fiscal year 2008 Consolidated Appropriations Act required DHS to submit to the House and Senate Appropriations Committees an expenditure plan for the SBI program that included, among other things, a life-cycle cost estimate. However, the plan did not include the estimate. In a June 2008 response to an inquiry from the Chairman of the House Appropriations Subcommittee on Homeland Security regarding several deficiencies in the plan, the Secretary of Homeland Security stated that because Border Patrol agents have traditionally repaired damaged fencing themselves, DHS does not have historical cost data on fence repair by contractors on which to estimate life-cycle fence costs. However, according to the letter, DHS is currently collecting information on maintenance costs and by early calendar year 2009 plans to have a life-cycle cost estimate. In the near term, the department requested $75 million for operations and maintenance of tactical infrastructure in fiscal year 2009, according to the letter. In addition, Border Patrol officials have identified additional segments of the southwest border for construction of pedestrian and vehicle fencing beyond December 2008 and SBI program office and Border Patrol stated that they are developing fencing project priorities for 2009. However, they have not yet established a timeline for construction, and sources of funding have not been determined.

Land acquisition issues such as identifying landowners and negotiating land purchases present a challenge to completing fence construction by December 31, 2008. According to SBI program office officials, in order to adhere to this timeline, all fencing construction projects must be underway by September 30, 2008. However, according to SBI program office officials, as of August 26, 2008, an estimated 320 properties remain to be acquired from landowners. USACE officials noted that completion of fencing construction projects usually take 90 to 120 days and the December 31, 2008 deadline, is in jeopardy if ongoing litigation related to land acquisition is not resolved by September 30, 2008 (see table 4).[29]

---

[29]USACE officials stated they have the primary responsibility for negotiating land acquisition agreements for fence construction with private landowners. In cases where the property owner does not agree to right of entry or an offer to sell, the Department of Justice files a lawsuit against the landowner on behalf of the United States of America at the request of the Secretary of Homeland Security for the condemnation and taking of the property.

Table 4: Land Acquisition Status for Pedestrian and Vehicle Fencing as of August 26, 2008

Landowner Status	Number of Properties
Landowner has offered to sell	184
Landowner has refused to sell	122
Landowner is unknown	8
Landowner negotiations are ongoing	6
Total property acquisitions remaining[a]	**320**

Source: GAO analysis of USACE data.

[a]Agency officials stated that 56 land acquisitions were resolved in addition to the 320 property acquisitions remaining.

Of the 122 landowners who have refused to sell, 97 are within the Rio Grande Valley sector. As of August 28, 2008, of these 97 landowners, 20 are defendants in lawsuits filed by the Department of Justice at the request of the Secretary of Homeland Security for the condemnation and taking of their property. According to USACE officials, the 20 lawsuits were filed in July 2008 and are awaiting an order of possession ruling expected sometime in September 2008. Subsequent lawsuits were filed against the remaining 77 landowners, but court dates have not been set.[30]

The SBI Program Management Office Is Reevaluating Its Staffing Goal and Has Continued to Take Steps to Implement Its Human Capital Plan

As of September 2008, the SBI program office was reevaluating its staffing goal, and the SBI program office continued to take steps to implement the December 2007 Human Capital Plan. In February 2008, we reported that the SBI program office had established a staffing goal of 470 employees for fiscal year 2008.[31] As of August 1, 2008, the SBI program office reported having 129 government staff and 164 contractor support staff for a total of 293 employees (see table 5). SBI program office officials stated that a reorganization of the SBI program office and project delays have resulted in a need for fewer staff during fiscal year 2008. The officials further noted they plan to continue to evaluate the expected staffing needs through the end of fiscal year 2009.

---

[30]As of August 28, 2008, USACE officials reported that they continue to negotiate with these land owners and some of these lawsuits may be settled out of court.

[31]GAO-08-508T.

Table 5: SBI Employees, as of August 1, 2008

	Government	Contractors	Total
SBI*net*	48	102	150
Tactical infrastructure	14	27	41
Other[a]	67	35	102
Total	**129**	**164**	**293**

Source: SBI program office.

[a]Other includes employees in the Office of the Executive Director, the Office of Budget and Finance, the SBI Acquisition Office, the Transportation program office, and the Program Control Division.

The SBI program office published the first version of its *Strategic Human Capital Management Plan* in December 2007, and as of September 2008, continued to implement the plan. The SBI program office's plan outlines seven main goals for the office and includes planned activities to accomplish those goals, which align with federal government best practices.[32] As of September, 2008, the SBI program office had taken several steps to implement the plan. For example, the SBI program office held a meeting on September 2, 2008, to develop SBI's mission, visionary goals and objectives, and core values, and the office has recruitment efforts under way to fill open positions. However, in other areas, the SBI program office is in the process of drafting or has drafted documents, such as the SBI Value Statement, the SBI Awards and Recognition Plan, and the Succession Management Plan, which have yet to be approved and acted upon. Table 6 summarizes the seven human capital goals, the SBI program office's planned activities, and steps taken to accomplish these activities. We have previously reported that a properly designed and implemented human capital program can contribute to achieving an agency's mission and strategic goals.[33] Until the SBI program office fully implements its plan, it will lack a baseline and metrics by which to judge the human capital aspects of the program.

[32]These best practices are contained in the government-wide Human Capital Assessment and Accountability Framework which was developed by Office of Management and Budget, the Office of Personnel Management, and GAO.

[33]See GAO, *Human Capital: Key Principles for Effective Strategic Workforce Planning*, GAO-04-39 (Washington, D.C.: Dec. 11, 2003).

Table 6: Human Capital Goals, Planned Activities, and Steps Taken

SBI human capital goals	Planned activities	Steps taken as of February 2008	Steps taken as of September 2008, as reported by the SBI program management office
(1) Develop a coherent framework of human capital policies, programs, and practices to achieve a shared vision integrated with SBI's strategic plan	Complete the SBI human capital plan	• Completed the first draft of the human capital plan • Prepared the fiscal year 2008 staffing plan	• Human capital plan completed and to be updated on recurring basis • Staffing plan drafted and pending approval
(2) Prepare leaders to lead and manage the workforce (3) Create and instill within the organization a value-driven organization	(1) Identify key leaders' skills and competencies, develop and deliver a leadership/management workshop focused on equipping SBI leaders with these skills (2) Identify key organization values and create an SBI Value Statement	• Planning SBI leadership off-site meeting in early April, which will include discussions of leadership needs • Planning to conduct 360° assessments for SBI leadership in late spring/early summer	• Leadership meeting held September 2, 2008 to develop SBI mission, visionary goals and objectives, and core values • The 360° assessments for SBI leadership deferred to fiscal year 2009 • Project manager, contracting officer's technical representative, and contracting officer certification and training available • SBI Value Statement is drafted; final approval is anticipated within 30 days
(4) Develop and implement a succession management plan	Develop a succession strategy for mission-critical positions	• Not yet started	• Succession Management Plan in progress; Currently identifying Mission Critical Positions
(5) Define the performance culture (reward excellence)	Based on the CBP Awards and Recognition Program, create an SBI policy and practice on rewards and recognition	• Designed but not yet implemented a program to recognize high performers • Drafted a recognition program	• SBI Awards and Recognition Plan drafted; approval anticipated within 30 to 60 days • Awards recognition ceremonies conducted monthly
(6) Hire, recruit, develop, and retain employees with the skills for mission accomplishment	Fill vacancies with qualified professionals and create a Supervisors' Onboarding Guide and retention interview process	• Developed an orientation course for new employees • Drafted, but not yet finalized, the Supervisors' Onboarding Guide • Recruitment efforts under way to fill open SBI positions in all programs	• SBI orientation approved and operational • Approval of the Supervisors Onboarding Guide anticipated within 30 to 60 days • Recruitment efforts underway to fill open SBI positions • SBI section of CBP's National Training Plan submitted
(7) Establish leadership accountability for human capital management	Clarify key leadership responsibilities and metrics of success	• Not yet started	• Have started to link individual performance goals to DHS's strategic priorities

Source: GAO analysis of CBP data.

Concluding Observations

The SBI program continues to face challenges that include delays in project implementation and cost increases. The delays and cost uncertainties could affect DHS's ability to meet projected completion dates, expected costs, and performance goals. Border Patrol agents continue to rely upon existing limited technological capabilities as SBI*net* technology deployments delays persist, and this may hinder the Border Patrol's efforts to secure the border. In the tactical infrastructure area, meeting the Secretary's goal to build 670 miles of fencing by December 31, 2008, a goal that DHS was required by law to set for itself, continues to be challenging. Since our last report to you 6 months ago, 38 miles of fence have been built and 329 are to be constructed during the next 4 months – provided that land acquisition issues can be resolved. Furthermore, tactical infrastructure costs are increasing and the SBI program office has not yet determined a life-cycle cost for fencing because maintenance costs are unknown and the SBI program office has not identified the locations for fencing construction projects beyond December 31, 2008; therefore, the total cost for building and maintaining fences along the southwest border is not yet known. These issues underscore Congress's need to stay closely attuned to DHS's progress to ensure that schedule and cost estimates stabilize, and the program efficiently and effectively addresses the nation's border security needs.

This concludes my prepared testimony. I would be pleased to respond to any questions that members of the committee may have.

Contacts and Acknowledgments

For questions regarding this testimony, please call Richard M. Stana at (202) 512-8777 or stanar@gao.gov. Contact points for our offices of Congressional Relations and Public Affairs may be found on the last page of this statement. In addition to the contact named above, Susan Quinlan, Assistant Director, and Jeanette Espínola, Analyst-in-Charge, managed this assignment. Sylvia Bascopé, Burns Chamberlain, Katherine Davis, Jeremy Rothgerber, and Erin Smith made significant contributions to the work.

Related GAO Products

Secure Border Initiative: Fiscal Year 2008 Expenditure Plan Shows Improvement, but Deficiencies Limit Congressional Oversight and DHS Accountability. GAO-08-739R. Washington, D.C.: June 26, 2008.

Department of Homeland Security: Better Planning and Oversight Needed to Improve Complex Service Acquisition Outcomes. GAO-08-765T. Washington, D.C.: May 8, 2008.

Department of Homeland Security: Better Planning and Assessment Needed to Improve Outcomes for Complex Service Acquisitions. GAO-08-263. Washington, D.C.: April 22, 2008.

Secure Border Initiative: Observations on the Importance of Applying Lessons Learned to Future Projects. GAO-08-508T. Washington, D.C.: February 27, 2008.

Secure Border Initiative: Observations on Selected Aspects of SBInet Program Implementation. GAO-08-131T. Washington, D.C.: October 24, 2007.

Secure Border Initiative: SBInet Planning and Management Improvements Needed to Control Risks. GAO-07-504T. Washington, D.C.: February 27, 2007.

Secure Border Initiative: SBInet Expenditure Plan Needs to Better Support Oversight and Accountability. GAO-07-309. Washington, D.C.: February 15, 2007.

GAO's Mission	The Government Accountability Office, the audit, evaluation, and investigative arm of Congress, exists to support Congress in meeting its constitutional responsibilities and to help improve the performance and accountability of the federal government for the American people. GAO examines the use of public funds; evaluates federal programs and policies; and provides analyses, recommendations, and other assistance to help Congress make informed oversight, policy, and funding decisions. GAO's commitment to good government is reflected in its core values of accountability, integrity, and reliability.
Obtaining Copies of GAO Reports and Testimony	The fastest and easiest way to obtain copies of GAO documents at no cost is through GAO's Web site (www.gao.gov). Each weekday, GAO posts newly released reports, testimony, and correspondence on its Web site. To have GAO e-mail you a list of newly posted products every afternoon, go to www.gao.gov and select "E-mail Updates."
Order by Mail or Phone	The first copy of each printed report is free. Additional copies are $2 each. A check or money order should be made out to the Superintendent of Documents. GAO also accepts VISA and Mastercard. Orders for 100 or more copies mailed to a single address are discounted 25 percent. Orders should be sent to: U.S. Government Accountability Office 441 G Street NW, Room LM Washington, DC 20548 To order by Phone: Voice: (202) 512-6000 TDD: (202) 512-2537 Fax: (202) 512-6061
To Report Fraud, Waste, and Abuse in Federal Programs	Contact: Web site: www.gao.gov/fraudnet/fraudnet.htm E-mail: fraudnet@gao.gov Automated answering system: (800) 424-5454 or (202) 512-7470
Congressional Relations	Ralph Dawn, Managing Director, dawnr@gao.gov, (202) 512-4400 U.S. Government Accountability Office, 441 G Street NW, Room 7125 Washington, DC 20548
Public Affairs	Chuck Young, Managing Director, youngc1@gao.gov, (202) 512-4800 U.S. Government Accountability Office, 441 G Street NW, Room 7149 Washington, DC 20548