

## **Project 28: Lessons Learned and the Future of SBI<sup>net</sup>**

(02/29/2008) **Statement of  
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**Before the  
House Committee on Homeland Security  
Subcommittee on Border, Maritime and Global Counterterrorism  
Subcommittee on Management, Investigations, and Oversight**

Chairwoman Sanchez, Chairman Carney, Ranking Members Souder and Rogers, and Distinguished Subcommittee Members, my name is Jayson Ahern. I have served in federal law enforcement within U.S. Customs and Border Protection (CBP) and legacy U.S. Customs for 31 years and am now the Deputy Commissioner of CBP. With me here today is David Aguilar, Chief of the U.S. Border Patrol, and Greg Giddens, the Executive Director of SBI.

It is an honor to have the opportunity to appear before you today. My testimony this morning focuses on our border enforcement efforts and how the men and women of CBP on the front lines accomplish the goal of achieving control of our borders at and between the official ports of entry. I know the Committee wishes to primarily discuss Project 28 (P-28) and future SBI<sup>net</sup> plans today, and I will turn to those topics in a moment. But I would be remiss if I did not begin by putting those topics in the overall context of CBP's multifaceted efforts to secure our Nation's borders. P-28, SBI<sup>net</sup> and the promise of integrated surveillance and tracking capabilities is an important piece of our ongoing efforts, but it is only a piece and not even the most important one. Unfortunately this is a piece which has generated a disproportionate amount of attention compared to its actual scope and significance. I am concerned that the singular public focus on this "tree" has at times caused some to lose sight of the whole "forest" of our efforts in securing the border and the very real achievements of the men and women of CBP.

The creation of CBP within the Department of Homeland Security (DHS) nearly five years ago -- establishing for the first time a single, unified border agency for the United States -- was a profound achievement. Our responsibilities today are complex and challenging. CBP is the largest uniformed law enforcement agency in the country. We have over 20,000 CBP Officers and Agriculture Specialists at U.S. ports of entry around the Nation -- air, land, and sea ports. And we deploy over 15,000 Border Patrol agents and 745 Air and Marine Interdiction agents across the country to prevent the illegal entry of persons and goods between our official ports of entry.

CBP is responsible for protecting more than 4,000 miles of border with Canada, 1,900 miles of border with Mexico and operating 326 official ports of entry. Our mission includes preventing terrorists and terrorist weapons from entering the United States, while also facilitating the flow of legitimate trade and travel. CBP is also responsible for: interdicting the flow of illegal aliens, drugs and contraband; protecting our agricultural and economic interests from harmful pests and diseases; protecting American businesses from theft of their intellectual property, violations of textile agreements, import safety violations and monopolistic practices; regulating

and facilitating international trade; collecting import duties and enforcing United States trade laws. Each day CBP inspects more than 1.1 million travelers, including 340,000 vehicles and over 85,000 shipments of goods approved for entry; processes more than 70,000 truck, rail and sea containers; collects more than \$88 million in fees, duties, and tariffs; seizes more than 5,500 pounds in illegal narcotics; and intercepts more than 4,400 agricultural items and pests at ports of entry. CBP also intercepts over 84 fraudulent documents a day and refuses entry to 416 inadmissible aliens, which translates to nearly 31,000 fraudulent documents and more than 152,000 inadmissible aliens each year. During Fiscal Year (FY) 2007 alone, CBP Officers at our land, sea, and air ports of entry arrested 25,693 individuals, including murderers, sexual predators, drug smugglers, and individuals with links to terror. Between the Ports of Entry, Border Patrol agents apprehended 876,704 persons (858,638 on the southwest border) attempting to enter the U.S. illegally, including human smugglers, drug traffickers, and illegal aliens.

CBP's approach to border security strikes a balance among the elements that contribute to our success. Those elements include personnel and force multiplier tools such as infrastructure, the use of intelligence, technology tools, and air assets. As of February 2, 2008, CBP had 15,439 Border Patrol agents on board, and plans to have over 18,000 agents by the end of calendar year 2008. CBP also continues to increase its workforce at the ports of entry, hiring 2,156 new CBP Officers and 340 agriculture specialists, for a net increase of 648 officers and 151 specialists in Fiscal Year 2007.

Our frontline personnel are the Nation's most important asset in securing the borders. However, the mission success of CBP's agents and officers is undoubtedly enhanced by their access to the tools they need to most effectively and efficiently carry out their duties. CBP has been deploying and continues to deploy these technology tools for our frontline personnel and we have not been waiting for or dependent upon the results of P-28 to do so. For CBP Officers operating at U.S. Ports of Entry, these tools include Advanced Targeting Systems to identify potentially dangerous arriving travelers and cargo; Radiation Portal Monitors and Cargo X-ray systems to screen arriving cargo for hazardous or prohibited materials; and hand-held radiation detection devices to screen arriving travelers, baggage, and conveyances for nuclear materials. For Border Patrol Agents working to control our borders between the ports of entry, they currently use tools such as:

- Fencing to deter or delay illegal border crossings;
- Unattended Ground Sensors (UGS) to alert agents to potentially illegal cross-border movement in remote areas and at non-24-hour northern border ports of entry during non-operating hours; and
- Truck-mounted mobile surveillance systems (MSS), Remote Video Surveillance Systems (RVSS), Unmanned Aerial Systems (UASs), and fixed- and rotary-wing aircraft to detect, classify, track and respond to illegal border crossings. ( [UAS Sample Surveillance Video](#) ) ( [SBIInet's Project 28 Sample Surveillance Video](#) )

Although beneficial, use of some of these tools today is resource intensive. For example, deployment and operation of the MSS requires a Border Patrol Agent to drive the MSS-equipped truck out to the deployment location; monitor activity on the radar and relay that information to dispatchers or agents. Likewise UGSs and RVSSs could be more useful and operated with fewer personnel if they were linked with

each other such that a camera was automatically directed to a location where a UGS was tripped off. It is with these types of technological improvements in the area of integration, as well as design and display of a Common Operating Picture, that *SBI*net was undertaken. P-28 was the first proof of concept of this integrated, linked approach which we believe in the long run will make our frontline personnel more efficient and effective by delivering an integrated package of sensor technology with an enhanced user interface.

Through *SBI*net, CBP will field an effective, integrated mix of proven technology (radars, communication devices, cameras, sensors, and other equipment), infrastructure (vehicle and pedestrian fence, lighting, and all-weather roads), and response platforms. This mix, combined with existing resources, will assist Border Patrol agents, CBP officers, and Air and Marine interdiction agents to more efficiently deter, detect, and apprehend illegal entries into the United States.

As part of the competitive *SBI*net solicitation and original call to industry for proposals, firms were asked to propose an initial task which could be one or more modules of their overall concept of operations for border security. Each offeror's proposed task order was evaluated for its technical approach and achievability, and the extent to which it demonstrated the feasibility of the proposed overall solution. Boeing proposed to deploy mobile long-range sensors, communications, command and control equipment, and a Common Operating Picture (COP) in the Tucson Sector area of responsibility. CBP chose Boeing's overall *SBI*net solution, and subsequently awarded the offeror's proposed task, P-28, in October 2006.

P-28, Boeing's initial prototype demonstration along a 28 mile stretch of border in Arizona, was designed to be a proof of concept and the first building block for the system's technology foundation. As a prototype, the system was intended to (1) demonstrate the feasibility of Boeing's *SBI*net solution and (2) establish baseline performance characteristics against the *SBI*net performance targets.

The P-28 task order included deployment of 9 mobile sensor towers, including radar, cameras, satellite terminals, and wireless access points; communication kits installed in agent vehicles; Rapid Response Vehicles; satellite phones for agent use; unattended ground sensors; mobile command, control, and communications units; software to operate the system and provide the COP; training to operate the system; and 32 data requirements, including system documentation and reports.

After the P-28 module was designed, installed, and the Boeing testing program was underway, technical deficiencies were identified. Some of these were so egregious that the Government delayed acceptance of P-28 from the original target of early summer 2007. After Boeing fixed the majority of the deficiencies, the Government conditionally accepted P-28 on December 7, 2007, so the Border Patrol could begin using the system to determine opportunities for improvements, as well as learn how it would enhance their operational capabilities. During this time, Boeing worked to resolve the remaining system performance issues until only one issue, an infra-red camera (FLIR) flicker anomaly, remained. The FLIR flicker anomaly remained a key driver for final acceptance from an operational perspective and was considered to be critical to system performance. Boeing identified the root cause of the issue and upgraded the grounding systems on the towers in late January. Final testing of this solution indicated the problem was resolved. Of the 53 open items from conditional acceptance, all were closed except four with minimal operational impact that were

waived in exchange for financial consideration. Consequently, CBP accepted P-28 on February 21, 2008. In consideration of the schedule delays and waived open items, Boeing has credited the government \$2.2 million in logistics, maintenance and support for the P-28 system.

In its current state, P-28 provides Border Patrol agents with improved situational awareness of operations in the field. Agents in the command center now receive additional alerts and notifications of potential illegal activity by using integrated cameras and radar. Agents deployed in the field using vehicle mounted mobile data terminals have an improved picture of the section of border they are enforcing. This includes where their fellow agents are, potential suspects, and terrain features. The system provides an initial capability that will be used by our operators to explore and refine future concepts of operations and operational requirements, evaluate how the technology can be effectively placed into the field and utilized by Border Patrol agents and operators, and continue to identify risk and focus areas for future *SBI*net deployments.

The installed P-28 system is being evaluated by an independent operational test group to determine the system's operational and suitability characteristics and its ability to meet CBP mission characteristics. This information, along with the lessons already learned, will be used to help guide the development of the next version of the *SBI*net COP.

Through the development of Project 28, CBP has learned several valuable technical, acquisition, and operational lessons, and has already incorporated these lessons learned into our planning for future *SBI*net deployments. For example:

- Commercial off the shelf components, even proven technologies, cannot be integrated "right out of the box" in the field without interface design, thorough testing, and integration in the laboratory. *SBI*net is fully testing and integrating the first operational configuration of the *SBI*net solution in a Systems Integration Lab before testing in the field.
- The interfaces between the sensors and the COP are as important as the technical characteristics of the sensors themselves. The follow-on sensors selected for *SBI*net will have common standard controls and interfaces.
- The Project 28 towers had significant limitations due to the use of satellite data links and the inherent problems with latency and bandwidth. The follow-on operational configuration will use microwave data links in lieu of satellite data links.
- The P-28 COP software was based on a commercial civil system used for the dispatch of public safety assets. This proved to be inadequate for the command and control of a sensor net and the distribution of a near real time situational picture.

On December 7, 2007, CBP authorized Boeing, under the COP Task Order, to begin development of the new software, which we refer to as COP Version 0.5. Unlike the P-28 COP, COP Version 0.5 is based on a government owned and tested real-time battle management command and control system. Our plan is to implement this software and fully lab-test it. It will then be integrated with new sensors and hardware that have been competitively sourced from multiple vendors to give us an open architecture for hardware. The integrated hardware and software will be tested in the laboratory, and then deployed in two locations in the Tucson Sector. Based on

the results of those two deployments, and once we determine that the system is operationally effective and suitable, we will continue to field the *SBI<sub>net</sub>* solution to more locations that can most benefit from this new tool.

Once the P-28 effort was underway with much public interest in its development, it came to mean different things to different people. Unfortunately, those interpretations diverged from what P-28 was intended to be and what the Government contracted for, specifically a task order segment of work that would demonstrate the technical approach and achievability, feasibility of the proposed overall *SBI<sub>net</sub>* solution. This objective has been achieved.

We have the confidence that a version of this P-28 type of solution can be used where it makes sense in other selected border locations and, with other tools and techniques, can contribute to CBP's efforts in securing our borders. The pieces of that technology solution will also continue to evolve as planned through an iterative "spiral" development process. But it is important to recognize that a P-28-like system will not be deployed along every mile of the border. Different segments of the border require different approaches and a P-28-like system would neither be cost-effective, nor necessary everywhere. For many locations, existing tools will be more than sufficient given the current nature and level of the threat; in others, even more advanced technological tools will be needed.

Moving forward, CBP will complete construction of the 370 miles of pedestrian fencing and 300 miles of vehicle fencing that local Border Patrol Chiefs determined were necessary to enhance border security. Right now, we have almost 170 miles of primary pedestrian fencing and 135 miles of vehicle fence in place. Plans are to complete construction of the full 670 miles of fencing by the end of this calendar year.

As for future deployment of technology solutions, we've completed technology requirements assessments of the Yuma, Tucson, and El Paso Border Patrol Sectors and will look to fill those needs first as they are presently the highest threat areas. But expanding the integrated tower-based system is not all we are doing in the interim for technology between our ports of entry. For example, CBP currently has 4 Mobile Surveillance Systems (MSS) in operation and plans to deploy an additional 36 MSS this year to the southwest border to serve as primary detection platforms. While some MSS will eventually be replaced by a more cost-effective, integrated radar/camera tower under *SBI<sub>net</sub>*, the highly mobile MSS units can be used to "fill gaps" of surveillance coverage, temporarily replace a sensor tower down for maintenance, or rapidly deploy to a "hot" area needing extra coverage. CBP also currently has deployed along U.S. borders, over 7,500 Unattended Ground Sensors that provide continuous, low-cost, and covert awareness of cross-border activity. CBP is acquiring 2,500 additional UGS this fiscal year with 1,500 of those planned for deployment on the northern border and 1,000 on the southwest border.

Additional and existing fixed- and rotary-wing aircraft will continue to be used to provide surveillance, interdiction, and response capabilities to bolster our efforts to secure our air and land borders between the ports of entry. Also, CBP has recently taken delivery of our fourth Predator Unmanned Aerial System (UAS), which provides unique highly mobile detection and tracking capabilities and is contributing daily to apprehensions of illegal traffic.

While much of the initial focus of SBInet deployments has been on the southwest border, CBP has also taken steps to address vulnerabilities on the northern border. In early 2007, with Congressional direction, CBP redirected a portion of the SBInet focus to the northern border, specifically in the Detroit, Michigan, area. We have initiated the Northern Border Demonstration project utilizing at least \$20 million from FY 2007 funds to begin addressing northern border vulnerabilities using a different mix of technologies and testing the integration of air and maritime assets.

In FY 2008, CBP will assign an additional 190 CBP officers, open its fifth northern border air branch, and deploy a UAS to the northern border. Over \$100 million has been appropriated in FY 2008 for the construction of ports of entry on the northern border. By the end of FY 2009, CBP intends to have 1,500 Border Patrol agents deployed on the northern border, a 30 percent increase over current staffing and a 500 percent increase over FY 2001 staffing levels. CBP continues to engage with other law enforcement entities and participate in partnerships with our Canadian counterparts through initiatives such as Project North Star, the Integrated Border Enforcement Teams (IBETS), joint operations with Joint Task Force-North (JTF-N), Border Enforcement Security Teams (BEST), and Border Security Evaluation Teams (BSET).

CBP's frontline officers and agents will continue to protect America from the terrorist threat while also accomplishing our traditional missions in immigration, customs, and agriculture. These initiatives discussed today are only a portion of CBP's efforts to secure our homeland, and we will continue to provide our men and women on the front lines with the necessary tools to help them gain effective control of our Nation's borders. I would like to thank Chairwoman Sanchez, Chairman Carney, Ranking Member Souder, and Ranking Member Rogers, and the members of the Committee, for the opportunity to present this testimony today, and for your continued support of DHS and CBP. We will be happy to respond to any questions that you may have at this time.

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