

TESTIMONY OF

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BEFORE

House Committee on Homeland Security
Subcommittee on Border and Maritime Security

November 15, 2011
Washington, DC

Introduction

Chairwoman Miller, Ranking Member Cuellar, and distinguished Members of the Committee, it is a privilege and an honor to appear before you today to discuss the Department of Homeland Security's (DHS) ongoing collaboration with the Department of Defense (DoD) to secure our nation's borders and particularly the role U.S. Customs and Border Protection's (CBP), the Science and Technology Directorate (S&T) and the U.S. Coast Guard (USCG) have played in such cooperative efforts. I am Mark Borkowski, Assistant Commissioner of CBP's Office of Technology Innovation and Acquisition (OTIA) and the CBP Component Acquisition Executive. I am pleased to offer this joint statement with my colleagues Paul Benda, Chief of Staff for DHS S&T and Director of the S&T Homeland Security Advanced Research Projects Agency (HSARPA), and Michael Tangora, Deputy Assistant Commandant for Acquisition in the U.S. Coast Guard.

As America's frontline border agency, CBP's priority mission is to protect the American public while facilitating lawful travel and trade. To do this, CBP has deployed a multi-layered, risk-based approach to enhance the security of our borders while facilitating the flow of lawful people and goods entering the United States. This layered approach to security reduces our reliance on any single point or program that could be compromised. It also extends our zone of security outward, ensuring that our physical border is not the first or last line of defense, but one of many.

Technology plays a critical role in this layered approach. My role, as Assistant Commissioner and CBP's Component Acquisition Executive, is to ensure our technology efforts are mission oriented and well integrated across agencies and Departments. To support us in our mission, we have developed extensive partnerships with DHS S&T and DoD.

Overview of CBP, DHS S&T and DoD Interactions

CBP is one of many components within DHS that work with DoD on a regular basis. In many cases, CBP partners with DHS S&T and together we work with DoD to leverage their investments and experiences to help identify potential solutions for CBP programs. DHS S&T plays a key role in many CBP activities including funding, co-funding, and providing technical expertise to many of the projects discussed throughout this testimony.

Together, CBP and S&T enjoy a close working relationship with our DoD counterparts. Many of the technologies CBP needs to support our officers and agents in the field have already been put into practice by DoD. There are many similarities, but also differences, between DoD and CBP missions and objectives. Through our history of close collaboration, we have been able to take advantage of what we have in common.

There are also opportunities for us to further refine our partnership with DoD. We look forward to continuing to work closely with DoD to develop a comprehensive view of the opportunities and technologies we can leverage together, while keeping in mind the different missions, objectives and needs for the two departments.

As we look back over our extensive history and relationship with DoD, we have found four general types of collaboration. They are:

- Joint Development and Demonstration
- Test Support
- Deployed Systems
- Joint Operations

The following examples are testament to the breadth and depth of our work with DoD. The examples are a snapshot in time; we find new opportunities every day. We look forward to continuing to build these relationships and seek new ones with those offices that have the technology and capability to help us perform our critical missions.

Joint Development and Demonstration

“Development and Demonstration” is the creation of a technology and the demonstration of the applicability of that technology in a particular mission setting. We often work with DoD to tailor already-existing technology (originally designed for a DoD application) to CBP’s mission. We also benefit from joint opportunities to evaluate potential future technologies. In some cases, we work with an acquisition command with specific expertise like the U.S. Army Night Vision and Electronic Sensors Directorate. In other instances, we work with an OSD organization such as Rapid Reaction Technology Office, an organization that coordinates across Service organizations. We also conduct cooperative demonstrations to assess DoD technology in a joint or CBP unique mission area. The examples listed below describe a variety of projects and concepts that have arisen through collaborations with DoD.

DoD Organization: OSD Rapid Reaction Technology Office (RRTO)

Joint Effort: Due to RRTO’s extensive history of demonstrating technology for rapid deployment to the field, DHS has been able to leverage RRTO’s efforts instead of creating new demonstrations. For example, knowledge we gained from RRTO research is currently informing our acquisition strategy for the sensor systems we will be deploying as part of our Arizona Technology Deployment Plan.

DoD Organization: Joint Project Manager Guardian (JPMG)

Joint Effort: Joint Program Manager Guardian acts as a clearinghouse for information about a wide range of technology systems, including Weapons of Mass Destruction (WMD) detection, tunnel detection, and monitoring technologies.

DoD Organization: U.S. Northern Command

Joint Effort: The Rapid Reaction Tunnel Detection (R2TD) Joint Capabilities Technology Demonstration (JCTD) is a DoD program to evaluate a readily available technology for tunnel detection. Working with Northern Command, we have been able to apply the system as a demonstrator for tunnel detection at the border as well as to collect data for DoD's purposes. The Border Tunnel Activity Detection System (BTADS), part of the R2TD initiative, is a multi-sensor system utilizing a combination of sensors and mobile equipment to detect general tunnel activity and find its specific location. The system has undergone extensive testing in the San Diego Sector and other locations within and outside the United States. We continue to use it while we complete our effectiveness evaluations. The result of those evaluations will also help inform the development of requirements for future tunnel detection projects.

DoD Organization: Defense Threat Reduction Agency (DTRA)

Joint Effort: Our experience with tunnel detection and unattended ground sensors has shown that it is critical to understand the geophysical characteristics of a particular area in order to design effective detection systems. This ongoing project with DTRA is developing a detailed understanding of the subsurface geophysical characteristics and their effect on seismic, acoustic, and electromagnetic signal sources. The result of this effort will be a 3-D modeling program that will assist in the deployment and use of tunnel detection technologies.

DoD Organization: Combating Terrorism Technical Support Office (CTTSO), Technical Support Working Group (TSWG)

Joint Effort: This is another ongoing project focused on tunnel detection. It will include evaluations of various technologies including a portable seismic acoustic sensor kit, advanced ground penetrating radar, thermal cameras, robot platforms for remote illicit tunnel inspection and 360 degree video systems.

DoD Organization: Army Communications Electronic Research Development and Engineering Center (CERDEC)

Joint Effort: Between 2009 and into the summer of 2011, DHS and CERDEC (along with several other supporting DoD organizations) evaluated the Vehicle and Dismount Exploitation Radar (VaDER) on both fixed wing and DHS's Predator drone aircraft. VaDER offers the potential for an affordable sensor package that can detect small moving objects on the ground. Its operation on the DHS Predator offered proof-of-concept for both DoD and DHS. In addition, during the evaluation, VaDER successfully supported the detection and interdiction of illicit border incursions. The results to date have demonstrated the significant potential of VaDER as applied to CBP's mission.

DoD Organization: Army Research Lab, Acoustic Signal Processing Branch

Joint Effort: Unattended Ground Sensors (UGS) have long been a staple of our border surveillance technology. Understanding how and where they work, and what we can do to improve their performance, has value to both DoD and DHS. We have worked with this laboratory since 2006 to expand our understanding and continue to gain useful insights as a result of this collaboration.

DoD Organization: Naval Research Lab (NRL)

Joint Effort: Since 2005, we have collaborated with NRL on algorithm development to distinguish tripwire activity so that we are able to differentiate among human, animals, and vehicle movement.

DoD Organization: Defense Intelligence Agency (DIA)

Joint Effort: This ongoing collaboration with the Defense Intelligence Agency will develop sensor technology capable of distinguishing between human, animal and vehicle traffic.

DoD Organization: Sandia National Lab

Joint Effort: Sandia is a U.S. Department of Energy (DOE) laboratory with expertise in Non-Intrusive Inspection (NII) technology. NII systems help us detect hidden contraband quickly and effectively. Both DHS and DoD use

Sandia's expertise to support research, development, and evaluation of the Non-Intrusive Inspection (NII) technology and detector designs.

DoD Organization: OSD Rapid Reaction Technology Office (RRTO)

Joint Effort: The Thunderstorm program was established to test evolving intelligence, surveillance, and reconnaissance (ISR) architectures, emerging technologies, and transformational concepts. The first generation testing of Thunderstorm included Border Patrol using DoD sensor data to provide a more complete operational picture in Southern Arizona. Future planning will include demonstration of two-way communication capability to provide a common operational picture (and improved, integrated command and control) among multiple agencies.

DoD Organization: Army Communications-Electronics Research and Development Center – U.S. Army Night Vision and Electronic Sensors Directorate (NVEDS)

Joint Effort: Radars are becoming increasingly important elements of our border security technology suite. There are many types of radars available so characterization of them in our border environment helps us to select among them. This collaboration is assisting with performance analysis and test and evaluation of radars and their associated signal processing suite, and the integration and test and evaluation of imagery sensors to include assessment of image performance characteristics and life cycle costs.

DoD Organization: Institute for Defense Analyses (an OSD Federally Funded Research and Development Center)

Joint Effort: We depend on well-established and recognized experts to advise us about existing and potential technologies for application to our missions. Since 2007, the Institute for Defense Analyses has provided subject matter expertise for market research, radar recommendations, test site and test methodology planning,

test support and data analysis assistance on improving detection and tracking of ground surveillance radars in challenging border environments.

DoD Organization: U.S. Naval Air Systems Command

Joint Effort: Part of any technology deployment plan should be a strong and effective logistics support strategy. DHS and CBP have limited expertise in this area, so we have solicited assistance from DoD experts. This effort is developing logistics and sustainment plans and processes for *SBI_{net}* Block 1 and other CBP acquisitions.

DoD Organization: U.S. Army Training and Doctrine Command

Joint Effort: Many DoD organizations have tools and extensive experience in Mission Analysis and Operations Research, which CBP has leveraged to augment our own capabilities. Together, this collaboration completed a study to determine the sensor mix that maximizes the probability and efficiency of detecting existing tunnels and tunnel construction activity on the U.S. border according to geographic location, infrastructure and historical data. Also addressed in the study was a business model for illegal cross-border tunnels based on production rates of interceded narcotic quantities.

DoD Organization: U.S. Northern Command, Department of State, Government of Mexico

Joint Effort: We have an ongoing effort to develop a Cross Border Secure Communications Network (CBSCN) Project with Mexico. This project is designed to enhance international cooperation and interoperability, which in turn should enhance our overall border security. This collaboration supports the installation of microwave equipment at 10 city pairs along the U.S.-Mexico border for the purpose of addressing the need for a long-term solution to cross border communications.

DoD Organization: U.S. Air Force (USAF) - Edwards Air Force Base (AFB), in partnership with USAF Test Pilot School

Joint Effort: Starting in 2010, the two agencies worked together on a joint demonstration to determine the effectiveness of current CBP air assets to detect and track small, dark aircraft. The demonstration showed how CBP air assets could increase their ability to detect these aircraft by changing their patrol strategies.

DoD Organization: USAF Edwards AFB, in partnership with USAF Test Pilot School

Joint Effort: This project is focused on developing innovative technologies that can detect and track small dark aircraft along the northwest border of the U.S. To date, exercises/testing have/has identified three promising, low-cost sensor technologies that can detect these aircraft at significant standoff ranges.

DoD Organization: U.S. Northern Command

Joint Effort: Low flying aircraft are a concern for border security because they are difficult to detect with existing radars. In this collaboration, we studied the use of Sentinel DoD radars during demonstrations along the northern border to evaluate their ability to detect low-flying aircraft.

DoD Organization: Joint Interagency Task Force, South (JIATF-S), U.S. Pacific Command, and U.S. Coast Guard (USCG) Maritime Intelligence Fusion Center, Pacific

Joint Effort: CBP's mission includes requirements to detect small items of interest in large expanses of oceans—for example, to detect potential drug smugglers. The Tipsheet Review and Correlation EnhanceR (TRACER) is a software application that enables an intelligence imagery analyst to quickly find and characterize small maritime vessels in an image showing over 1,000 square miles of ocean. The value of TRACER stems from the speed with which it finds

small vessels in large areas of ocean and shares critical information about those vessels.

DoD Organization: Naval Research Lab and Naval Systems Warfare Center (NSWC) Joint Effort: The Small Vessel Tracking system consists of a system to fuse and present multiple vessel information sources to law enforcement operators, through a laptop, into real-time tracking and mobile field kit software. This effort also evaluated RFID tags for tracking small vessels in a port/coastal environment. The core technology was developed by DoD to assist in mission planning for interdiction efforts. NSWC program management continues to provide support and technical expertise for the development of these sensor and surveillance technologies; a Small Business Innovation Research (SBIR) effort.

DoD Organization: Naval Research Lab (NRL)

Joint Effort: This ongoing effort began in 2010. Shipboard Automated Automatic Identification System (AIS) Radar Contact Reporting (SARCR) is a NRL Rapid Prototype System developed to deploy onboard U.S.-flagged commercial vessels, USCG costal patrol boats, and select naval support vessels with a feed to DoD and DHS operational components including CBP. The purpose of the SARCR System is to capture and relay vessel radar and AIS data from the ship to a land-based central processing center for distribution to DoD/DHS operating agencies. SARCR addresses the DHS maritime capability gap associated with wide area surveillance against illegal traffic which includes GO FAST boats, chugs, yolas, and potentially self-propelled semi-submersibles (SPSS). These non-radiating targets are often referred to as “dark” targets and separation of AIS contacts from non-radiating targets is the first level of filtering in determining suspicious behavior.

DoD Organization: Naval Research Lab and USAF Air Combat Command (ACC)

Joint Effort: This collaboration conducted over the past year was a demonstration of Tethered Aerostat System Adjunct Radar Processor (TARP) by leveraging the existing USAF ACC Tethered Aerostat Radar System (TARS) radar surveillance capability in the region (optimized to detect low slow flying aircraft) to provide enhanced maritime surface coverage and tracking capability. DHS adapted a new, highly-capable maritime radar processor to function with L-band radar designed specifically for detecting low- and slow-flying aircraft and making that surface contact data available to the appropriate action agency via the web-based radar display.

DoD Organization: Naval Research Lab and NSWC

Joint Effort: The Modular Sensor System/Improved Imaging Technology Project is a sensor and processing suite used for persistent wide-area surveillance and target tracking for port, harbor, and coastal environments. The Improved Imaging Technology (IIT) camera was developed over the last year at NRL as an Office of Naval Research (ONR) Future Naval Capability (FNC) program. This project integrated the camera system into an established port/coastal surveillance system used by the USCG, but also has applicability to the CBP maritime mission area.

DoD Organization: Naval Research Lab (NRL) Joint Effort: This ongoing effort is focused on leveraging existing weather radars for ocean surveillance. The National High Frequency (HF) Radar Network, component of U.S. Integrated Ocean Observing System (IOOS) led by NOAA, provides beyond the horizon surface current data. The HF radars are also capable of detecting the speed and location of vessels at sea, using algorithms developed by Rutgers. HF radar are currently monitoring approaches to New York Harbor.

DoD Organization: Naval Underwater Warfare Center Newport (NUWC Newport)

Joint Effort: Between 2008 and 2010, The NUWC Newport conducted a test and evaluation of an improved radar capability to enhance ocean surveillance. The

effort focused on the potential applicability and effectiveness of low cost, commercially available radars to the detection and tracking of large and small vessels in port and coastal regions.

Test Support

The Department of Defense has extensive test facilities, test ranges, and subject matter experts that DHS can use for checkout, demonstration, and operational evaluation of technology solutions and tactics. Use of these DoD capabilities offers a “try-before-buy” opportunity that reduces the risk of technology acquisition and increases the likelihood that selected technologies will be operationally useful. The DoD has not only offered testing environments for our new assets, but also provided experts to conduct the tests. The use of DoD facilities for testing purposes will continue to support DHS efforts to test and accredit technology as the following examples demonstrate.

DoD Organization: U.S. Army Test and Evaluation Command (ATEC)

Joint Effort: DHS solicited support from ATEC for the structured, quantitative, and comprehensive operational test and evaluation of our SBInet Block 1 effort. ATEC conducted the test in late 2010, performed data analysis, summarized test results, and provided recommendations for improved system effectiveness and suitability. In the process, DHS also gained valuable experience in performing this type of robust operational test and evaluation.

DoD Organization: Joint Technology Assessment Activity (JTAA), Naval Systems Warfare Center (NSWC)

Joint Effort: DHS has a continuing need for support to conduct operational test and evaluation activities. NSWC signed a 5-year Interagency Agreement that will provide Operational Test Agent support so that we can better ensure our technology provides value to our law enforcement personnel.

DoD Organization: Commander Operational Test and Evaluation Force (COMOPTEVFOR)

Joint Effort: As we deploy the Integrated Fixed Towers (one of the systems within the technology portfolio selected as part of the new Arizona Technology Deployment Plan), we have asked and received support from COMOPTEVFOR. COMPOMTEVFOR will serve as our formal “Operational Test Agent.”

DoD Organization: U.S. Army’s Joint Interoperability Test Command (JITC)

Joint Effort: We have a strong interest in maintaining awareness of the capabilities and availabilities of sensor systems. This awareness, in turn, advises our acquisition strategies and plans for technology along the border. The JITC has provided facilities, ranges, and personnel for several radar tests to characterize and compare systems for their potential effectiveness along the border.

DoD Organization: Naval Facilities Engineering Support Center, Space and Naval Warfare (SPAWAR) Systems Center Pacific

Joint Effort: As part of our approach to secure the maritime environment, we are interested in capabilities to detect small, underwater targets. The Center supported test and evaluation of a Low Cost Underwater Swimmer/Diver Detection Systems [a Small Business Innovative Research (SBIR) project] and provided field support for testing of this technology and marine engineering technical support including analysis and recommendations.

Deployed Systems

Many of the systems DHS currently uses for surveillance and situational awareness along the border come directly from DoD development and heritage. These systems include:

- Predator Drone - MQ-9
- Blackhawk - UH-60
- Orion P-3
- KingAir - Beechcraft
- Mobile Surveillance System (MSS)
- Agent Portable Sensor System (APSS)

- Remote Video Surveillance System (legacy system)
- Unattended Ground Sensors (Monitron, McQ Omnisense)
- Night Vision Camera (FLIR Night Ranger)
- SBInet Block 1 Laser Illuminator
- SBInet Block 1 Radar

Other examples include:

DoD Organization: U.S. Navy Space and Naval Warfare Systems Command (SPAWAR)

Joint Effort: The Advanced Wireless System is an upgrade of our CBP communications infrastructure to correct obsolescence and shift frequencies. SPAWAR supports us by providing project management expertise and support, especially for tower construction.

DoD Organization: SPAWAR

Joint Effort: SPAWAR and CBP have entered an Interagency Agreement with the northern border for the Law Enforcement Technical Collection project.

DoD Organization: Biometric Identification Management Agency (BIMA)

Joint Effort: This collaboration developed the Automated Biometric Identification System (ABIS) - an application to process and identify all apprehended subjects. As part of normal processing, the fingerprints are searched against the FBI and DHS's biometric databases. The Border Patrol now has the ability to automatically search the fingerprints and facial images against the DoD's ABIS database, which has resulted in positive identifications of apprehended subjects.

DoD Organization: U.S. Army Night Vision and Electronic Sensors Directorate

Joint Effort: DoD developed the Agent Portable Sensor System (APSS) and demonstrated its effectiveness during collaborative operations along the border. Based on this collaboration, DHS selected the APSS systems as part of the technology portfolio for the new Arizona Technology Deployment Plan. The

Directorate also supported DHS by providing an Army contract for DHS procurements, which accelerated deployment of this capability to the border.

Joint Operations

In addition to efforts that support development, evaluation, and deployment of technology systems, DHS collaborates with DoD and other agencies in direct support of the border security mission. DoD and other agency resources and personnel operate alongside our DHS personnel, providing expertise and support that increase our mission effectiveness. Examples include:

DoD Organization: Joint Task Force North (JTFN)

Joint Effort: DHS has an extensive history of operational collaboration with JTFN. This collaboration provides a wide variety of capabilities in operations, engineering, training, intelligence, and application of technology. Some recent examples include:

- Operations: JTFN has aided CBP in operations dealing with ground sensors, radar, aviation FLIR, and air reconnaissance.
- Engineering: JTFN has supported CBP in construction of border tactical infrastructure such as roads, lights, bridges, and barriers.
- Training: Mobile training teams have provided 92 classroom instruction missions that have covered planning, intelligence and field craft, and survival.
- Intelligence: JTFN has provided support in the form of intelligence analysts, mapping, and imagery.
- Technology: JTFN has supported 10 missions relating to tunnel detection. Currently, 62 JTFN support missions are tentatively planned for execution in FY12.

Other Organization: Alliance to Combat Transnational Threats (ACTT)

Joint Effort: This is an enforcement collaboration which leverages the capabilities and resources of more than 60 federal, state, local and tribal agencies in Arizona, and the Mexican government, to combat individuals and criminal organizations that pose a threat to communities on either side of the border. This collaboration has resulted in the seizure of more than 2.2 million pounds of marijuana, 8,200 pounds of cocaine, and 2,700 pounds of methamphetamine; the seizure of more than \$18 million in undeclared U.S. currency and 343 weapons; over 16,000 aliens denied entry to the U.S. at Arizona ports of entry due to criminal background or other disqualifying factors; and approximately 342,000 apprehensions between ports of entry.

DoD/Other Organization: DHS, DOD, and DOJ

Joint Effort: Within the El Paso Intelligence Center, the DHS Office of Intelligence and Analysis established the Border Intelligence Fusion Section (BIFS) as a collaborative effort among DHS, DOJ, and DoD, which enables the integration and synthesis of all available Southwest border intelligence from federal, state, local and tribal partners. The result is a common intelligence picture that supports enforcement activities on the Southwest border.

DoD Organization: DoD Central Command (CENTCOM)

Joint Effort: Where DoD and DHS have a shared interest in Port Security, we can combine our resources to increase our effectiveness. For example, in 2008 CBP and CENTCOM entered an agreement to scan all U.S. bound DoD containers at Port Shuaiba, Kuwait prior to landing in the U.S.

DoD Organization: U.S. Northern Command and JTFN

Joint Effort: CBP recognizes that we can increase our mission effectiveness by better operational integration among our front-line law enforcement components. While the concept is relatively new to us, DoD has extensive experience in designing and leveraging joint, multi-service capabilities. This collaboration has provided CBP's Joint Operations Directorate (JOD) Joint Field Command (JFC)

DoD's experience with unification efforts to ensure CBP has a joint and integrated approach to border security, commercial enforcement, and trade facilitation missions in the Arizona area of responsibility. As a result of working together, CBP has benefited with assistance in processes, procedures, technology solutions, and received support.

DoD Organization: U.S. Navy Survival, Evasion, Resistance and Escape (SERE)

Joint Effort: Conducted intermittently since 2009 and continuing today, this effort has provided personnel of the Rangeley Station in Houlton Sector with cold weather survival training and detection and interdiction of Special Interest Targets using Advance Evasive Tactics training.

DoD Organization: U.S. Southern Command and JIATF-S

Joint Effort: The groups have worked closely with the Homeland Security Task Force-Southeast (HSTF-SE) in coordinating multi-component/multi-agency prevention of potential or full-scale Caribbean mass migration, achieved through supporting criminal prosecutions and maintaining an active air, land, and sea presence.

Other Organization: JTFN, New York and Vermont National Guard

Joint Effort: The first of three operations, Operation Maple Guard I (conducted in 2008), combined CBP and DoD's assets in a concentrated interdiction effort. Ground based radar sensors were deployed at two locations within Border Patrol's Swanton Sector in order to gather intelligence on aircraft incursions. Interdiction aircraft and crews were deployed as a means of apprehending any identified incursions.

Other Organization: Royal Canadian Mounted Police (RCMP)

Joint Effort: Operation Maple Guard II (conducted in 2008) supported CBP in an initiative aimed at identifying, limiting, and disrupting the ability of terrorists,

traffickers, and immigration law violators to smuggle in the Swanton Sector area of responsibility using low flying non-commercial aircraft.

Other Organization: RCMP, JTFN, Vermont National Guard and State Police

Joint Effort: Operation Maple Guard III (conducted in 2010) facilitated collaboration and synchronization of assets from Canada, DoD, and CBP assets. Ground based radar was deployed at 5 locations to gather intelligence on aircraft incursions. Interdiction aircraft and crews were on stand-by as a means of apprehending the identified incursions.

Other Organization: RCMP, Canadian Armed Forces, and the Canadian Network Operation Center (NOC)

Joint Effort: This collaboration combined CBP and Canadian assets in a concentrated interdiction effort. A ground based radar sensor was deployed in Canada in order to gather intelligence on aircraft incursions. Interdiction aircraft and crews were deployed as a means of apprehending any identified incursions.

Other Organization: DoD and National Guard

Joint Effort: This collaboration provided assets and sensors towards Operation Southeast Watch, a multi-agency coordination effort to detect and interdict suspect targets of interests seeking to penetrate the border of the United States.

Other Organization: Washington National Guard Counter Drug Task Force (CDTF) and the Washington Air Guard CDTF

Joint Effort: This collaboration, conducted between 2007 and 2010, provided additional personnel and deployed the DoD Beechcraft “Big Crow” to Spokane Sector, greatly enhancing the Sector’s situational awareness and overall detection capabilities.

Other Organization: JTFN, Northeast Counterdrug Training Center (NCTC), and Wisconsin National Guard

Joint Effort: As a result of working together, DHS received training courses during FY 2011 including courses in Interview and Interrogation, Intelligence and Link Analysis, and Intelligence and Preparation of the Operational Environment.

Other Organization: Vermont National Guard Civil Support Team (CST)

Joint Effort: In 2011, the CST provided training to Border Patrol Agents stationed in Vermont, as well as local law enforcement agents. Courses covered WMD awareness, Officer Safety, Basic Combat Medic, and CST Awareness and Capabilities.

Other Organization: California National Guard (CALGUARD)

Joint Effort: CALGUARD supports the engineering missions of Border Patrol's San Diego Sector. They have supported the construction of border tactical infrastructure and facilities, such as drainage structure installation, landing mat fence, vehicle maintenance facility, two heavy equipment loading docks, and maintenance on over 90 miles of border road. Between 2006 and 2010, CALGUARD conducted 26 missions with us.

Other Organization: National Guard

Joint Effort: DHS (including CBP) and the various elements of the National Guard often collaborate in responding to natural disasters. As one recent example, the North Dakota Army National Guard provided mutual support and engagement response to natural disasters in North Dakota.

DoD Organization: Army National Guard 1-188th Air Defense Artillery Battalion (North Dakota)

Joint Effort: The battalion provided support through the use of their facilities. There is potential for expansion into an operational role if the unit's Avenger GBASR is viable and utilized for short term border security missions.

Other Organization: Minnesota Air National Guard

Joint Effort: This collaboration provided an established operational intelligence sharing environment between the Duluth Border Patrol Station and the 148th Fighter Wing. Duluth Station provides law enforcement support to wing Security Forces conducting immigration and criminal record checks for entrance via the Duluth International Airport. This venture has led to the arrest of undocumented aliens and one U.S. Citizen on an extraditable warrant.

Other Organization: Maine Army National Guard (ARNG)

Joint Effort: Between 2006 and 2007, the Maine ARNG Counterdrug Program aircraft supported the sector's counterdrug operations with aerial observation, interagency communications and other capabilities using rotary-wing assets.

Other Organization: Puerto Rican National Guard

Joint Effort: The Puerto Rican National Guard assigned a radio technician to Border Patrol's Ramey Sector. They have supported Operation Southeast Watch (2009) in eastern Puerto Rico with an Athena maritime radar platform, and Operation Island Hopper III (2011). Additionally, they have provided sniper training and use of their firing range to BORTAC agents.

Overview of USCG and DoD Interactions

The Coast Guard has long partnered with the Department of Defense, the U.S. Navy and the other military services to develop joint systems and capabilities for its cutters, aircraft and information and communications systems. These partnerships are vital to the Coast Guard's ability to meet its defense readiness mission requirements and deploy in support of Combatant Commanders. In addition, the Coast Guard is working with other DHS agencies to develop assets and capabilities that have applications across shared areas of responsibility such as border security and other law enforcement operations. In order to support these partnerships, the Coast Guard employs Coast Guard liaisons in the Department of Defense and other partner organizations.

The purpose of the Coast Guard's Research, Development, Test and Evaluation (RDT&E) Program is to support Coast Guard operational, regulatory, and acquisition activities by leveraging innovative scientific and technological solutions. The primary organization that performs RDT&E in support of Coast Guard programs is the Research and Development Center (RDC), located in New London, Connecticut. The Coast Guard also works in close cooperation with the other military services and DHS. These partnerships are providing the Coast Guard with additional capabilities to meet its RDT&E needs.

Conclusion

Chairwoman Miller, Ranking Member Cuellar, and distinguished Members of the Subcommittee, we thank you for this opportunity to testify about the work of U.S. Customs and Border Protection and the U.S. Coast Guard and our collaboration with DoD--across nearly 40 agencies and organizations--to help secure our borders.

We look forward to finding new ways to collaborate in the coming months and years. CBP and the USCG recognize the importance of eliminating redundancies and increasing efficiency within the government, and collaboration is paramount to our overall success. The complexity and shared interests of the northern, southern, and coastal borders have spurred many longstanding partnerships and such initiatives strengthen manpower, technology, and intelligence.

We look forward to answering your questions at this time.