



Testimony
Before the Subcommittee on Coast
Guard and Maritime Transportation,
Committee on Transportation and
Infrastructure, House of Representatives

For Release on Delivery
Expected at time, 10:00 a.m.ET
Tuesday, October, 27, 2015

COMBATING NUCLEAR SMUGGLING

Risk-Informed Covert Assessments and Oversight of Corrective Actions Could Strengthen Capabilities at the Border

Statement of David C. Maurer, Director, Homeland
Security and Justice



Chairman Hunter, Ranking Member Garamendi, and Members of the Subcommittee:

I am pleased to be here today to discuss the Department of Homeland Security's (DHS) U.S. Customs and Border Protection's (CBP) covert testing of capabilities to detect and interdict the smuggling of nuclear and radiological materials into the United States. The United States has long faced the threat that terrorists could smuggle nuclear and radiological materials into the United States for use in a potential attack. A terrorist's use of either an improvised nuclear device (IND) or a radiological dispersal device (RDD)—could have devastating consequences, including not only loss of life, but also enormous psychological and economic impacts. An IND is a crude nuclear bomb that could be immediately lethal to individuals within miles of the explosion, and an RDD—or dirty bomb—would disperse radioactive materials into the environment through an explosive, potentially killing or injuring people within several square miles.

U.S. efforts to counter such threats are considered a top national priority. Since 1995, DHS has invested billions of dollars in equipment and technology, as well as related training for DHS personnel, to better ensure detection and interdiction of smuggled nuclear and radiological materials. Today I will discuss the extent to which (1) CBP covert operations assessed capabilities at air, land, and sea ports and checkpoints to detect and interdict nuclear and radiological materials smuggled across the border and (2) CBP reported its covert operations results and provided oversight to ensure that corrective actions were implemented. My remarks today are based on our September 2014 report findings on these issues and the status of DHS efforts to address related recommendations.¹

In performing the work for our report, we reviewed planning, policy, and guidance documents, covert operations test summaries and reports showing the number, location, and results of covert operations conducted at U.S. air, land, and sea ports of entry and checkpoints from fiscal year

¹GAO, *Combating Nuclear Smuggling: Risk-Informed Covert Assessments and Oversight of Corrective Actions Could Strengthen Capabilities at the Border*, [GAO-14-826](#) (Washington, D.C.: September 22, 2014).

2006 through fiscal year 2013. We interviewed agency officials from CBP including the U.S. Border Patrol (USBP), Office of Field Operations (OFO), and the Operational Field Testing Division (OFTD) conducting these operations. We also interviewed officials from the Domestic Nuclear Detection Office (DNDO). More detailed information on the report's scope and methodology can be found in the published report.

The work upon which this testimony is based was conducted in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Background

CBP has primary responsibility for securing the border against threats to the nation. OFO scans passengers and cargo traveling across the border through U.S. air, land and sea ports of entry to detect and interdict smuggled contraband, including illicit nuclear and radiological materials. USBP conducts inspections for immigration purposes at checkpoints located on roads leading from the border into the United States. OFTD is responsible for conducting covert operations at U.S. ports of entry and checkpoints to test the capabilities for detecting and interdicting nuclear and radiological materials smuggled into the United States, as well as testing capabilities in foreign locations. In selecting sites for covert operations OFTD considered the universe of 655 sites existing at the time of our review. These sites included 477 facilities at 328 ports of entry—which encompassed 241 air, 110 land and 126 sea facilities—35 permanent checkpoints, as well as 143 sites consisting of domestic user fee airports and express consignment carrier facility airports as well as

preclearance locations and Container Security Initiative (CSI) ports in foreign locations.²

CBP Screening Process for Nuclear and Radiological Materials

CBP's processes for detecting and interdicting nuclear and radiological material smuggled across the border differ across ports of entry and checkpoints, but consisted of similar functions. At land and sea ports of entry, vehicles or containers entering the United States must first have passed through a Radiation Portal Monitor (RPM) that can detect the presence of neutron- and gamma-emitting radioactive material. If an RPM detected the presence of radioactive material in a scanned container or vehicle, the responding CBP officer was to use a device called a radiation isotope identification device (RIID) to identify the radiation source. For some sources, such as industrial radioactive sources, CBP officers were to contact additional specialized CBP staff to verify the type of source material in question, and if necessary verify the shipper's licensing and other information through the National Law Enforcement Communications Center. At checkpoints and air ports of entry, CBP officers and USBP agents generally relied on devices called personal radiation detectors (PRD), which can detect elevated levels of radiation. Aside from relying on different equipment to detect radiological materials, officers and agents at air ports of entry and checkpoints were to follow the same procedures as those used at sea and land ports of entry.

²User fee airports are small airports that have been approved by the Commissioner of CBP to receive, for a fee, the services of a CBP officer for the processing of aircraft entering the United States and their passengers and cargo. Express consignment carrier facilities are separate or shared specialized facilities approved by the port director solely for the examination and release of express consignment shipments. Preclearance is the CBP inspection and clearance of commercial air passengers prior to departure from foreign preclearance locations. CSI locations are selected foreign seaports in which CBP places its officials to determine whether U.S.-bound cargo container shipments from those ports are at risk of containing weapons of mass destruction and illicit drugs. The number of sites can vary depending on how they are counted. For example, depending on the operational needs of the express consignment operator, an express consignment facility can be a hub, which is a separate, unique, single-purpose facility normally operating outside of customs operating hours approved by the port director, or an express consignment carrier facility.

CBP Covert Testing Operations for Detecting and Interdicting Nuclear and Radiological Materials

CBP used covert operations at U.S. ports of entry and checkpoints to test and evaluate whether the systems in place were working as designed to detect and interdict nuclear and radiological smuggling.³ These operations included an assessment of whether the equipment and technology were working according to specification, the policies and procedures for radiation handling and inspection were adequate to cover various smuggling scenarios, and the extent to which CBP personnel complied with established policies and procedures to detect and interdict nuclear and radiological material smuggled across the border. According to CBP documents, results of covert operations can identify the need for changes in how technology is used to detect nuclear and radiological material, agency policies or procedures, or personnel training to ensure that interdiction programs are working most effectively.⁴

OFTD limited covert operations to the ports of entry and checkpoints where equipment and personnel were permanently placed. According to OFTD officials, CBP did not conduct covert operations outside of the system's current capabilities, or test the system's known vulnerabilities. For example, CBP did not conduct covert operations beyond the technical capabilities and specifications of the RPMs, RIIDs, and PRDs. CBP conducted such tests of equipment capabilities using overt operations.

From 1995 through 2013, CBP invested over \$2.5 billion to acquire, deploy, and maintain radiation detection equipment; provide training; and conduct both overt and covert tests of this equipment to assess the equipment's effectiveness. OFTD's budget for covert operations was \$1

³In response to the Security and Accountability for Every Port Act of 2006, OFTD conducted covert operations to assess the capability to detect and interdict smuggling of nuclear and radiological material at the nation's 22 busiest seaports from fiscal years 2007 through 2008. See 6 U.S.C. § 921. Since that time, CBP determined that additional testing was needed at the border and developed processes to conduct additional covert operations.

⁴CBP also conducts overt operations to test equipment and systems in place to detect nuclear and radiological smuggling.

million for fiscal years 2009 through 2013 to test CBP capabilities in several areas, including radiation and nuclear detection.⁵

Covert Operations Provided Limited Assessments of Capabilities to Detect and Interdict Smuggled Nuclear and Radiological Materials

Covert Operations Assessed Detection and Interdiction Capabilities at Certain Locations and Showed Varying Rates of Success

In September 2014, we reported that OFTD conducted 144 covert operations at 86 locations from fiscal years 2006 through 2013 at air, land, and sea ports of entry, checkpoints, and other sites to assess capabilities to detect and interdict nuclear and radiological material smuggled across the border. Most of OFTD's covert operations were conducted using radiological materials; however, OFTD officials said they conducted one or two tests each year using special nuclear material surrogates (SNM)—radiation test sources with characteristics similar to those of highly enriched uranium or plutonium.

About half of these covert operations were conducted at the southwest border, primarily in the state of Texas. CBP has conducted multiple covert operations within the same states and types of facilities. For example, from 2008 to 2013, CBP conducted 4 operations at Houston's sea ports of entry.

⁵Other areas included document fraud, bioterrorism, canine detection of contraband, agricultural inspections, non-intrusive inspection, and its Trusted Traveler and Immigration Advisory Programs. The \$1 million does not include OFTD staff assigned to conduct covert operations. CBP was unable to provide us with a specific breakdown of the funds expended solely for nuclear and radiological covert operations or costs associated with conducting overt operations.

OFTD officials told us that they used three primary factors to determine their site selection for covert operations: (1) volume of traffic and size of the facility, (2) management requests for testing, and (3) follow-up on results of previous covert operations. We found that in selecting locations for covert operations, OFTD considered its universe of 655 sites to include 477 facilities at 328 ports of entry, 35 permanent checkpoints, as well as 143 other sites. OFTD officials stated that the results of its covert operations could be used to assess capabilities at the individual locations tested; however, the results could not be used to assess capabilities across all U.S. ports of entry and permanent checkpoints.

We reported that OFTD test summaries discussing the results of covert operations showed differences across facility types in the rate of success for interdicting smuggled nuclear and radiological materials and reasons for any failure. According to an OFTD official, for a covert operation to be considered successful, a CBP officer or USBP agent has to both detect and interdict the radiation test source in accordance with CBP's Radiation Detection Standard Operating Procedures Directive. Our review of the results of 38 covert operations conducted in fiscal years 2012 and 2013 is available in the sensitive but unclassified version of this report, but has been redacted for the purposes of this public testimony.

Covert Operations May Not Have Sufficiently Accounted for the Most Critical Nuclear Materials, Potential High-Risk Locations, or Key Nuclear and Radiological Detection Technology

We reported in September 2014 that CBP had not conducted a risk assessment that could inform the decision making process for prioritizing the materials, locations, and technologies to be tested through covert operations.

DHS policy requires that components with limited resources make risk-informed decisions. However, OFTD's covert operations may not have sufficiently accounted for using nuclear materials that posed the highest risk to the country, testing capabilities in higher-risk border locations, or testing in locations that used key detection technologies. Specifically:

- The extent to which OFTD's covert operations used varying source materials was limited. Our review found that OFTD may not have given sufficient priority to testing detection capabilities for the most dangerous materials. According to the CBP officials, OFTD had both gamma and neutron radiation sources available; however, DNDO had a broader variety of sources that CBP used when conducting covert operations with DNDO once or twice a year.

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- The locations selected for covert testing may not have been sufficiently taken into account. For example, 45 of 144 OFTD covert operations, or 31 percent of all such operations, were conducted at checkpoints. While checkpoints are an important component in the nation's border security infrastructure, they constituted only about 5 percent (35 of 655) of total locations, and were generally situated from 25 to 100 miles from the border.
 - CBP use of key detection technologies may not have been sufficiently taken into account. CBP used a mix of technologies across facility types and locations that could reflect significant differences in capabilities and federal investment. However, CBP's methodology for choosing locations was not clearly linked to these differences in capability and federal investment.

DHS's May 2010 Policy for Integrated Risk Management states that components should use risk information and analysis to inform decision making, and we previously reported on the importance of using risk assessments to determine the most pressing security needs and developing strategies to address them.⁶ Moreover, CBP's fiscal year 2009 through fiscal year 2014 strategic plan required that programs use a risk-based approach to detect and prevent the entry of hazardous materials, goods, and instruments of terror into the United States, and OFTD's documented site selection process stated that they should consider available intelligence reports and risk assessments.

CBP's January 2013 Integrated Planning Guidance (IPG) for Fiscal Year 2015 through Fiscal Year 2019 included recommendations that CBP integrate risk analysis into all decision making, including a risk assessment for chemical, biological, radiological, and nuclear threats. At the time of our published report, CBP had not yet taken steps toward conducting such a risk assessment or integrating existing risk assessments into its covert testing decisions. Specifically, the IPG

⁶See GAO, *Student and Exchange Visitor Program: DHS Needs to Assess Risks and Strengthen Oversight of Foreign Students with Employment Authorization*, [GAO-14-356](#) (Washington, D.C.: Feb. 27, 2014); *Aviation Safety: Enhanced Oversight and Improved Availability of Risk-Based Data Could Further Improve Safety*, [GAO-12-24](#) (Washington, D.C.: Oct. 5, 2012); *Federal Lands: Adopting a Formal, Risk-Based Approach Could Help Land Management Agencies Better Manage Their Law Enforcement Resources*, [GAO-11-144](#) (Washington, D.C.: Dec. 17, 2010); and *Commercial Vehicle Safety: Risk-Based Approach Needed to Secure the Commercial Vehicle Sector*, [GAO-09-85](#) (Washington, D.C.: Feb. 27, 2009).

included recommendations that CBP conduct an in-depth risk and vulnerability assessment by mode and region to clearly identify the future threats that CBP will be facing to better align resources with priorities. According to OFTD, OFO, and USBP officials, they did not have risk assessments that could be used to help inform covert testing decisions. A DNDO official stated that DNDO has previously assessed the risks of nuclear and radiological smuggling through various entry points to the United States, pursuant to DNDO's responsibilities under the Global Nuclear Detection Architecture (GNDA)—the GNDA is a strategy involving an integrated system of radiation detection equipment and interdiction activities to combat nuclear smuggling in foreign countries, at the U.S. border and inside the United States.⁷ DNDO officials told us that they would share information they have with CBP; however CBP officials stated that DNDO's information may not be applicable for OFTD's risk-based site selection process.

We concluded that conducting a risk assessment that identifies priorities could help enable CBP to target the program's efforts to maximize the return on the limited resources available and recommended that CBP conduct or use a risk assessment to inform the department's priorities—related to such decisions such as test, locations, materials, and equipment—for covert operations at U.S. checkpoints and points of entry in air, land, and sea environments. DHS concurred with the recommendation and in its official response, stated that it would formulate a process for conducting or using information from risk assessments to inform its priorities and decisions on selecting test locations, materials, and equipment for covert operations. In October 2015, CBP officials informed us that they worked with other components to develop a threat matrix to help determine the sea ports of entry at the highest risk of nuclear and radiological smuggling, but that CBP had not completed its assessments for air and land ports of entry.

⁷The DHS GNDA Implementation Plan identifies specific DHS-led programs and activities that support the mission, goals, and responsibilities discussed in the GNDA strategic plan.

CBP Could Have Reported More Consistently on Covert Operation Results and Provided Greater Oversight of Corrective Actions

OFTD Covert Test Reports Were Not Timely and Did Not Encompass All Locations where Operations Were Conducted

In September 2014, we reported that OFTD had issued periodic reports on the results of its covert operations but had not met its goal for reporting these results on an annual basis for all locations where operations were conducted. According to a document on OFTD's policies and procedures for follow-up on covert testing, an OFTD goal was to compile and analyze its findings from covert operations at the end of each fiscal year to determine whether results showed trends and systemic weaknesses. To communicate these findings, OFTD's policy stated that its goal was to issue reports to CBP management that included a discussion of the findings and the recommendations necessary to address the identified deficiencies. At the time of our report, OFTD had issued three periodic reports that summarized results from covert operations testing capabilities to detect and interdict nuclear and radiological materials smuggled across the border ports of entry: (1) the Summary Report of OFTD Seaport Assessments for fiscal years 2007 through 2008; (2) the Comprehensive Report on Radiation Testing, which summarized the results of covert operations conducted at air, land, and sea ports of entry from fiscal years 2009 through 2011; and (3) the Comprehensive Report on Radiation Testing, which summarized the results of covert operations conducted at air, land, and sea ports of entry from fiscal years 2012 and 2013. OFTD officials stated that while their intention was produce comprehensive reports on an annual basis, they were unable to do so because of resource constraints.

OFTD officials stated that they had not yet issued a report on results of covert operations conducted at checkpoints and were in the process of developing the report recommendations. OFTD began covert operations to test capabilities at checkpoints in fiscal year 2009, but did not include results of checkpoint covert operations in its Comprehensive Report on Radiation Testing. OFTD officials said that they provided three briefings to CBP senior management in fiscal years 2012 and 2013 on preliminary

findings and recommendations resulting from covert operations at checkpoints conducted from fiscal years 2009 through 2013. OFTD officials said they planned to issue a comprehensive report for checkpoint covert operations for fiscal years 2009 through 2013 by the end of December 2014.

Standards for Internal Control in the Federal Government states that program managers are to receive operational information to help them determine whether they are meeting strategic and performance plans, and that pertinent information is to be identified, captured, and distributed to the right people in sufficient detail, in the right form, and at the appropriate time to enable them to carry out duties and responsibilities efficiently and effectively. Further, these internal controls help managers achieve program objectives by ensuring they receive information on a timely basis to allow effective monitoring, enhancing their ability to address weaknesses.⁸

We concluded that timely reporting of weaknesses identified by covert operations could help CBP management provide timely and necessary oversight to OFO and USBP and appropriately address high-priority border vulnerabilities. We recommended that CBP determine time frames for OFTD reporting of covert operations results and work with OFTD to address any barriers to meeting these time frames. DHS agreed with our recommendation and in its official response, CBP stated that it would develop new policies and procedures to ensure that covert testing results are comprehensive and reported in a timely manner by April 30, 2015. In October 2015, CBP officials informed us that they have issued a standard operating procedure containing reporting timeframes and are working to finalize a directive to address our recommendation.

CBP Provided Limited Oversight to Ensure Implementation of Corrective Actions

In our September 2014 report, we found that OFTD tracked some corrective actions taken by CBP components to address weaknesses identified by covert operations, but not others. For example, OFTD tracked the status of corrective actions taken by OFO management to address recommendations included in its comprehensive reports resulting from covert operations. However, we found that OFTD did not track the

⁸See GAO, *Standards for Internal Control in the Federal Government*, [GAO/AIMD-00-21.3.1](#) (Washington, D.C.: November 1999).

status of corrective actions taken by OFO at ports of entry to address weaknesses identified in covert operations that were not individually cited in these reports. Additionally, OFTD did not track the status of corrective actions taken by USBP to address the weaknesses identified through covert operations at checkpoints.

At the time of our report, OFTD officials told us that in order to develop the recommendations issued in the Comprehensive Reports on Radiation Testing, they reviewed the test summaries from all covert operations at air, land, and sea ports of entry and used their judgment to develop recommendations to address capability weaknesses related to equipment, technology, and personnel compliance with policies and procedures in the CBP radiation detection directive. The fiscal years 2009 to 2011 comprehensive report summarized results from 43 covert operations conducted at air, land, and sea ports of entry, and the fiscal years 2012 and 2013 report summarized results from 26 covert operations. The two comprehensive reports span a 5-year time period, and both identified several of the same issues: (1) CBP officers' noncompliance with radiation detection policies and procedures, (2) radiation detection equipment not always functioning as designed, and (3) CBP officer error primarily due to the lack of training. Our assessment of OFTD's fiscal year 2012 and 2013 report found that it provided CBP senior management with a more detailed analysis of covert operation results, including reasons why test sources were not interdicted, than previous reports.

We found that while OFTD was tracking the status of recommendations from their comprehensive reports, CBP was not tracking the corrective actions taken by ports of entry and checkpoint management to address weaknesses found in their individual covert tests that were not included as recommendations in OFTD's comprehensive reports. According to OFTD officials, immediately following a covert operation, OFTD would provide the results—including the methodology, nuclear and radiological source material used, as well as the weaknesses found—to OFO or USBP management at both the location where the test took place and headquarters. OFO or USBP management was responsible for determining the corrective actions needed and ensuring that the corrective actions were implemented. OFTD officials told us that OFO and USBP management was responsible for determining and implementing the corrective action needed because the cause of the weakness detected could vary. For example, an OFO manager might determine if the weakness was related to the failure of one individual to comply with a radiation detection procedure, or if the weakness was related to the

failure of a procedure affecting overall port operations. Corrective actions would be tailored by the port manager accordingly to address the underlying cause of the weakness. At the time of our report, OFO and USBP officials stated that while they had a process in place to address weaknesses identified during OFTD covert operations, they were unable to provide us with complete information about these corrective actions because they did not fully track them. OFTD officials also informed us that OFTD did not track information about corrective actions taken by OFO and USBP because doing so was outside of OFTD's responsibilities.

Standards for Internal Controls in the Federal Government states that agencies can enhance their ability to address weaknesses by establishing policies and procedures for ensuring that the findings of audits and reviews are promptly resolved, and ensure that ongoing monitoring occurs.⁹ We concluded that without an overall mechanism for addressing weaknesses identified, CBP does not have the oversight capabilities necessary to hold officials at ports of entry and checkpoints accountable for managing program operations to detect and interdict transborder nuclear and radiological threats. We recommended that CBP develop a mechanism to track the corrective actions taken to address all weaknesses identified by covert operations at the ports of entry and checkpoints. DHS agreed with our recommendation and in its official response, CBP stated that it would develop and implement a mechanism to monitor the status of corrective actions taken by all operational offices as a result of OFTD's covert testing by December 31, 2014. As of October 2015, CBP's officials had developed a database to track and monitor corrective action plans for post covert radiation testing and we are awaiting confirmation that it is in operation.

Chairman Hunter, Ranking Member Garamendi, and members of the subcommittee, this concludes my prepared statement. I would be happy to respond to any questions you may have.

⁹Specifically, managers are to (1) promptly evaluate findings from audits and other reviews, including those showing deficiencies, and recommendations reported by those who evaluate agencies' operations; (2) determine proper actions in response to findings and recommendations from audits and reviews; and (3) complete, within established time frames, all actions that correct or otherwise resolve the matters brought to management's attention. [GAO/AIMD-00.21.3.1](#).

GAO Contacts and Staff Acknowledgements

If you or your staff members have any questions about this testimony, please contact me at (202) 512-8777 or maurerd@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this statement. Other contributors included Cindy Ayers, Nima Patel Edwards, Susan Hsu, Brian Lipman, and Ned Woodward.

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