Department of Homeland Security

Office of Inspector General

DHS Needs to Manage Its Radio Communication Program Better

OIG-13-113

August 2013

OFFICE OF INSPECTOR GENERAL
Department of Homeland Security

Washington, DC 20528 / www.oig.dhs.gov

August 29, 2013

MEMORANDUM FOR: The Honorable Rafael Borras
Under Secretary for Management

FROM: Charles K. Edwards
Deputy Inspector General

SUBJECT: *DHS Needs to Manage Its Radio Communication Program Better*

Attached for your action is our final report, *DHS Needs to Manage Its Radio Communication Program Better.* We incorporated the formal comments from the Department in the final report.

The report contains two recommendations aimed at improving the Department's overall management of radio communication equipment and supporting infrastructure. Your office concurred with both recommendations. Based on information provided in your response to the draft report, we consider the recommendations resolved. Once your office has fully implemented the recommendations, please submit a formal closeout letter to us within 30 days so that we may close the recommendations. The memorandum should be accompanied by evidence of completion of agreed-upon corrective actions and of the disposition of any monetary amounts. Please email a signed PDF copy of all responses and closeout requests to OIGAuditsFollowup@oig.dhs.gov.

Consistent with our responsibility under the *Inspector General Act*, we will provide copies of our report to appropriate congressional committees with oversight and appropriation responsibility over the Department of Homeland Security. We will post the report on our website for public dissemination.

Please call me with any questions, or your staff may contact Anne L. Richards, Assistant Inspector General for Audits, at (202) 254-4100.

Attachment

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Appendixes

Abbreviations

CBP	Customs and Border Protection
CIO	Chief Information Officer
DHS	Department of Homeland Security
ESC	Executive Steering Committee
FEMA	Federal Emergency Management Agency
FLETC	Federal Law Enforcement Training Center
GAO	Government Accountability Office
ICE	Immigration and Customs Enforcement
JWPMO	Joint Wireless Program Management Office
OBP	Office of Border Patrol
OIG	Office of Inspector General
RPIS	Real Property Inventory System
TacNet	Tactical Communications Network
TSA	Transportation Security Administration
USCG	United States Coast Guard
USSS	United States Secret Service

Executive Summary

The Department of Homeland Security (DHS) operates and maintains 20 land mobile radio networks serving more than 120,000 frontline agents and officers. These users rely on radio systems for primary communications, officer safety, and mission success. DHS manages about 197,000 radio equipment items and 3,500 infrastructure sites, with a reported value of more than $1 billion. Many of these systems have exceeded their service-life and urgently need to be modernized to meet Federal and DHS mandates. DHS has estimated that full modernization of its existing end-of-life radio systems would require a $3.2 billion investment. The audit objective was to determine whether DHS is managing its radio program and related inventory in a cost-effective manner to prevent waste of taxpayer dollars.

DHS is unable to make sound investment decisions for radio equipment and supporting infrastructure because the Department is not effectively managing its radio communication program. DHS does not have reliable Department-wide inventory data or an effective governance structure to guide investment decision-making. As a result, DHS risks wasting taxpayer funds on equipment purchases and radio system investments that are not needed, sustainable, supportable, or affordable. Two Components we visited stored more than 8,000 radio equipment items valued at $28 million for a year or longer at their maintenance and warehouse facilities, while some programs faced critical equipment shortages. Portfolio management is central to making informed decisions about how to best allocate available equipment to ensure the right equipment is in place at the right locations and in the quantities needed to conduct mission operations.

We made two recommendations that, if implemented, will improve the Department's overall management of radio communication equipment and supporting infrastructure. The Department concurred with our recommendations.

Background

DHS radio systems are comprised of various personal property and real property items. Personal property items include equipment installed at fixed infrastructure sites, equipment located at dispatch operation centers or in government buildings, mobile radios installed in vehicles, and portable hand-held radios. Real property items include land, the tower structure, equipment shelters, and communication and power lines. DHS manages an estimated 197,000 radio equipment items and 3,500 radio infrastructure sites with a reported value of more than $1 billion as presented in appendix C.[1] Customs and Border Protection (CBP), Immigration and Customs Enforcement (ICE), and the United States Secret Service (USSS) held 93 percent of the total $558.5 million of the radio equipment inventories.

DHS operates more than 20 private national radio systems serving more than 120,000 agents and officers. Each Component owns and operates its own radio system(s). Most of the infrastructure for these systems was placed in service in the late 1980s, has exceeded its service-life, and does not provide sufficient coverage in remote areas. Some of this infrastructure also does not meet Federal mandates for security (i.e., encryption) and efficiency (narrow-banding), or interoperability standards (P-25).[2] Much of the wide-band, analog radios and equipment operating on or composing these radio systems are no longer produced or supported by the manufacturer, and cannibalization of existing equipment and spare inventories is cited as the only option for maintaining these networks and equipment.

DHS has estimated that full modernization of its existing end-of-life radio systems would require a $3.2 billion investment. DHS awarded a $3 billion Department-wide strategic sourcing contract in March 2012 to acquire equipment and services needed to maintain, upgrade, and modernize its legacy radio systems. As of September 2012, DHS has spent more than $33 million on this contract. [3]

The Government Accountability Office (GAO) recognizes portfolio management as a best practice in making investment decisions.[4] Portfolio management addresses an

[1] The Transportation Security Administration and United States Coast Guard provided data that did not include any reported values or costs for the equipment items listed. Therefore, the total amount presented in appendix C is understated.
[2] Project 25 (P-25) is a manufacturing standard that was developed to improve interoperable radio communications in the public safety community.
[3] A strategic sourcing contract vehicle is a contract or agreement that has been established for use by multiple DHS Components to acquire goods or services. Strategic sourcing helps to achieve improvements in price, performance, total cost of ownership, and overall business efficiency.
[4] GAO-07-388, *Best Practices: An Integrated Portfolio Management Approach to Weapon System Investments Could Improve DOD's Acquisition Outcomes*, March 2007.

organization's investments collectively at the enterprise level. It requires that items are inventoried and classified together in a portfolio. This approach provides information to prioritize and allocate resources to meet the agency's needs in an affordable manner. Portfolio management requires a strong governance structure with adequate authority and clearly defined roles and responsibilities in order to be effective.

Results of Audit

DHS is unable to make sound investment decisions for radio equipment and supporting infrastructure because the Department is not effectively managing its radio communication program. DHS does not have reliable Department-wide inventory data or an effective governance structure to guide investment decision-making. As a result, DHS risks wasting taxpayer funds on equipment purchases and radio system investments that are not needed, sustainable, supportable, or affordable. Two DHS Components we visited stored more than 8,000 radio equipment items valued at $28 million for a year or longer at their maintenance and warehouse facilities, while some programs faced critical equipment shortages. A portfolio management approach is key to achieving a balanced mix of executable programs and ensuring a good return on investments when determining needs and allocating fiscal resources. Portfolio management is also central to making informed decisions about the best way to allocate available equipment to ensure the right equipment is at the right locations and in the quantities needed to conduct mission operations.

Department-wide Inventory

DHS does not have reliable Department-wide personal and real property radio equipment inventory data. DHS Components use different systems to record and manage their radio personal property inventory. DHS has not established Department-wide polices prescribing common data elements, standardized definitions, and requirements for the management of personal property inventory. Components use their agency-specific personal property manuals to record inventory in their data systems while the DHS Office of the Chief Administrative Officer's *Personal Property Asset Management Manual* has remained in draft since 2010. As a result, DHS Components do not record consistent, accurate, and complete radio equipment and infrastructure inventory data.

Personal Property Data

DHS Components use different systems to record and manage personal property inventory data, including radio equipment. Table 1 reflects the personal property systems Components currently use to report and manage personal property inventory.

Table 1. Component Personal Property Inventory Systems

Component	System(s) Used
CBP	Systems, Applications, and Products in Data Processing
FEMA	Logistics Information Management System and Sunflower Asset Management System
FLETC	Momentum
ICE	Sunflower Asset Management System
TSA	Sunflower Asset Management System
USCG	Multiple disparate inventory databases
USSS	Enterprise Financial Management System and Sunflower Asset Management System

Source: DHS-OIG

Components' inventory data indicates they do not record radio equipment consistently into their respective personal property systems. For example, six Components did not record the condition of their radio equipment (e.g., new, scrap, etc.). Two Components did not record the current status or availability of their radio equipment. Two Components did not identify the category or type of asset, such as distinguishing radio equipment from weapons. Appendix D summarizes our analysis of the Components' personal property data elements recorded in their inventory system.

Our analysis and onsite testing of CBP, ICE, and USSS radio equipment inventories at technical maintenance facilities/warehouses indicated the inventories were inaccurate or incomplete. For example, an analysis of ICE inventory records disclosed that 1,740 equipment items, valued at $6.6 million, were listed as "in service;" however, ICE was actually storing these items at its Technical Maintenance Facility in Largo, MD, some for at least 17 months.[5] Similarly, CBP inventory records reflected 6,306 equipment items, valued at $21.5 million, were stored at the Hi-Tech maintenance facility in Orlando, FL for

[5] ICE reported the Technical Maintenance Facility in Largo, MD has since been closed and equipment from the facility transferred to the field, CBP, or moved to Mt. Weather.

16 months or longer. Of these items, 6,147 were recorded in the system as "active." The activity terms "in service" or "active" may give a false impression to decision makers that someone is currently using the equipment. As such, they may believe this equipment is not available for issuance to field users when in fact the items are sitting idle in a maintenance facility/warehouse.

USSS and CBP also did not record new radio equipment in their inventory systems. Specifically, USSS did not record 35 brand new repeaters valued at $389,380 in its inventory system until 2 years after their acquisition in March 2010. As of February 2013, CBP had not recorded 58 brand new repeaters, valued at $435,503, which its Orlando, FL facility received and stored in early 2012.

Real Property Data

DHS maintains real property inventory data in the Real Property Inventory System (RPIS); however, the data the system captures is not sufficient to manage the DHS radio communication program. The DHS *Real Property Manual* specifies the real property data elements that DHS Components are required to report in the RPIS. While the RPIS contains basic data fields for capturing elements needed to manage real property, it does not capture the comprehensive data needed to manage radio programs. Managing radio programs and infrastructure is not limited to real property information, but also includes knowing the network, the backhaul (how the signal is transmitted), operating frequencies, and the type of equipment installed at each radio site. The DHS Office of Emergency Communications' *System Lifecycle Planning Guide*, dated August 2011, points out the importance of capturing this type of information in managing a radio system.

Four DHS Components we reviewed did not report infrastructure real property inventory data consistently in RPIS. CBP was the only Component to report any land associated with its radio infrastructure. The United States Coast Guard (USCG) and USSS were the only Components to report any information regarding the date acquired or the length of time its radio infrastructure has been in service.

The four Components also reported incomplete and inaccurate infrastructure real property data, which RPIS requires. We requested and obtained infrastructure lease data from CBP, ICE, USSS, and USCG. We compared the radio infrastructure lease data for these four Components to the infrastructure real property information reported in the RPIS. We noted:

- Of the 930 CBP leases, 236 (25 percent), with annual costs of $1.3 million, were not recorded in the RPIS.
- None of the 212 USSS leases, with an annual cost of about $2.1 million, were recorded in the RPIS.
- Of the 126 ICE leases, 125 (99 percent), with an annual cost of $1.5 million, could not be verified to the RPIS data because there was no consistent unique identifier between the two sources of information.
- Of the 215 USCG infrastructure leases, 112 (52 percent), with annual costs of $3.8 million, were not recorded in the RPIS.

Radio Communication Program Governance

DHS does not have an effective governance structure over its radio communication program. Specifically, DHS has not implemented a governance structure with authority to establish policy, budget and allocate resources, and hold Components accountable for managing radio programs and related inventory. During a prior audit of oversight of radio communication interoperability, DHS said that it established a structure with authority to ensure Components achieve radio communications interoperability.[6] However, that authority is limited to the acquisition and management of future communication networks. Components are independently managing their current radio programs with no formal coordination from the Department. As a result, management and investment decisions for the current DHS radio communication program are made using inconsistent, incomplete, and inaccurate real and personal property data.

CBP operates and maintains one of the largest radio networks within DHS and the Federal Government. CBP has been working to modernize its radio systems since as early as 2007. In 2011, DHS directed CBP to establish Tactical Communications Network (TacNet) as a Department-wide project under the governance of an Executive Steering Committee (ESC) and the Joint Wireless Program Management Office (JWPMO).[7] TacNet is a new acquisition program that seeks to leverage commercial networks to develop a single network capable of supporting voice, video, and data.

[6] OIG-13-06, *DHS' Oversight of Interoperable Communications*, November 2012.

[7] The JWPMO is composed of staff from CBP's Wireless System Program Office and the DHS Office of the Chief Information Officer's Wireless Services Branch, as well as staff representatives from DHS components. Each of the Components contributes resources and defines their level of participation in accordance with a Memorandum of Agreement.

DHS directed the ESC to create a charter for the JWPMO and provide governance, review, and oversight to the JWPMO. The authority granted in the ESC charter is limited to the acquisition of future communication networks and does not establish it as a policy-making body for DHS' current radio communication program. Although the JWPMO is required to serve as a central point of coordination for the Department's acquisition of future radio systems, its charter does not establish it as a policy-making body for DHS' current radio communication program.

JWPMO cannot develop a realistic budget for future radio communication resources because of unreliable Department-wide radio inventory data. For example, a Wireless Asset Inventory Integrated Project Team has been chartered under the JWPMO to develop a common database for DHS-wide infrastructure and frequency assignments. Components are to provide information to the JWPMO because the radio system inventory information needed is housed in multiple, disparate systems with no common site name or identifier. A JWPMO official said that Components routinely have not responded to requests for data because the JWPMO lacks authority over them for the Department's current radio communication program.

Unreliable Department-wide radio inventory data has also made it difficult for DHS officials to identify radio infrastructure and other resources that Components could share to achieve cost savings or address critical shortages. For example, DHS is trying to identify opportunities for sharing resources in Florida, where there are insufficient radio frequencies to support future upgrade and expansion of both CBP and ICE radio systems. In 2012, DHS formed the Collaborative Enterprise TACCOM Integration – Florida project under the JWPMO. The project's purpose is to identify opportunities for meeting CBP and ICE needs for upgrade and expansion through resource sharing. The project will consist of a complete review of all CBP and ICE frequency assignments in Florida and a comparison of existing infrastructure and the related specific frequency assignments.

Utilization of Radio Equipment

DHS risks wasting taxpayer dollars because of its ineffective management of radio equipment. CBP and ICE stored 8,046 radio equipment items valued at $28 million at maintenance facility warehouses for a year or longer, while some CBP program offices faced critical equipment shortages. In addition, two Components purchased radio equipment that was never used in operations, while a third Component needed the same equipment. One Component

acquired more than 4,000 portable and mobile radios in 2011 and 2012, while it also had stored 278 new portable and mobile radios in its warehouse since 2009. CBP had 6,306 radio equipment items, valued at $21.5 million, stored at its Hi-Tech maintenance facility in Orlando, FL for a year or longer. Of this amount, 1,246 items, or 20 percent, valued at $4.9 million were new items, including 840 portable radios and mobile radios.[8] CBP was storing these radios while critical shortages were occurring in the field.

The Office of Border Patrol (OBP) reported that as of February 2011, it had 19,281 portable radios deployed to the field to support 20,174 agents, or a shortage of 893.[9] At this same time, inventory data for CBP's technical maintenance facility warehouse in Orlando showed 1,980 portable radios in the warehouse. CBP stored portable radios at its maintenance warehouse as spares or "safety stock" to allow for equipment breakage and failure, while critical shortages existed in the field. These 1,980 portable radios represented 10 percent of the 20,174 agents in the field, two times the 5 percent recommended by OBP as needed to support equipment breakage or failure. The Chief, OBP, issued a memo on April 1, 2011, directing that available radios from field offices with excess radio stockpiles and CBP's maintenance facility warehouse in Orlando be reallocated and distributed to those sectors experiencing critical shortages. According to two CBP officials, reallocation of radios has taken and continues to take place to mitigate the shortages in the affected sectors; however, neither official provided documentation to support whether OBP reallocated radios to all the sectors with reported shortages in 2011. Documentation CBP provided does indicate 5 of 9 southern sectors were still experiencing shortages in August 2012, 16 months later.

Two Components stored new equipment for several years while a third Component needed the same equipment. Specifically, USSS and ICE have 85 digital interface units at a combined value of $262,000 that have never been placed in operation. CBP requires this same equipment to address a critical shortage for a nationwide radio system digital upgrade project. CBP estimates that it needs 50 of these equipment items, which are no longer available for purchase from the manufacturer. USSS radio program officials have indicated that they are holding their 29 items as spares. ICE acquired their 56 units in August 2010. As of January 2013, they were still being stored at the technical maintenance facility warehouse in Largo, MD.

[8] See appendix E for details on type and amount of time the 1,246 items were stored at Hi-Tech.
[9] The portable radios in question are Motorola Model XTS 5000 which meet both Federal interoperability and advanced encryption standards. The 893 agents operated with older portable radios that did not meet these standards, while CBP was storing 1,980 of the newer XTS 5000 models at Hi-Tech.

ICE acquired 4,189 portable and mobile radios, valued at $18.9 million, in 2011 and 2012. However, our analysis determined that ICE stored 278 portable and mobile radios, valued at $1.3 million, at its Largo, MD technical maintenance facility since they were purchased in 2009. ICE purchased these radios for the Secure Communities Program. However, an official from ICE's Tactical Communications Branch said the agency did not receive funding to support the deployment of all agents for Secure Communities as planned. As a result, the 278 radios have remained in storage.

Portfolio Management Approach

GAO has recognized that a portfolio management approach is critical to achieving a balanced mix of executable programs and ensuring a good return on investment when determining needs and allocating fiscal resources. Through this approach, investments are assessed collectively from an enterprise level, rather than as independent and unrelated initiatives. The relative costs, benefits, and risks of proposed investments are weighed using established criteria and methods. The investments selected can exploit opportunities within resource constraints and move the organization toward meeting its strategic goals and objectives.

A portfolio can be defined as a collection of items that are grouped together to facilitate efficient and effective management so that fiscal, staffing, and other scarce resources can be optimally allocated to provide the most benefit or greatest value for investments made. Therefore, the first step to a portfolio management approach is to inventory and classify items in the portfolio. This approach will provide valuable enterprise-wide information to help identify problems and opportunities, develop viable options, determine relevant criteria and weights, evaluate alternatives, and make balanced and appropriate investment decisions. To be effective, portfolio management requires not only the definition and classification of items into a single portfolio, but also a strong governance structure to make portfolio-related resource allocation and investment decisions.

DHS is managing radio equipment and systems separately as personal property and real property rather than as a portfolio. Under the *Clinger-Cohen Act*, the Chief Information Officer (CIO) is responsible for providing advice and assistance to ensure that inventory management systems are designed, maintained, and used in an effective manner and that the data produced is reliable, consistent,

and timely.[10] At DHS, current responsibilities for managing the radio equipment and infrastructure inventory data are split between the personal and real property offices within the Office of the Chief Administrative Officer. As noted in the Radio Communication Governance Program section, the authority granted in the ESC and JWPMO charters is limited to future communication networks and does not establish either of them as policy-making bodies for DHS' current radio communication program. DHS Components maintain their legacy radio equipment and systems independent of each other. GAO has noted that failure to implement a portfolio management approach—assessing investments as independent and unrelated initiatives within an organization—results in less assurance that investment decisions will address the right mix of needs. It also increases the risk that more programs or projects will be started than current and likely future resources can support, thus making them not affordable within the context of overall fiscal resources.

Conclusion

DHS estimated that it would need $3.2 billion to modernize its radio systems to meet its needs, and awarded a $3 billion Department-wide strategic sourcing contract in March 2012 for this purpose. However, the cost efficiencies that DHS seeks to achieve from a strategic sourcing contract for radio equipment may potentially be negatively impacted through poor procurement or inventory management practices.

DHS needs a reliable Department-wide inventory to help it plan, budget, schedule, and acquire upgrades and replacements of its radio systems and equipment. A Department-wide inventory will help DHS prioritize its needs and plan its investments to make the most efficient use of available resources. It will also assist with planning for the acquisition and management of future communication networks. DHS also needs a strong governance structure over its radio communication program with adequate authority and resources to establish policy, make resource allocation and investment decisions, and hold Components accountable for managing radio programs and related inventories. A portfolio management approach to the DHS radio communication program would help ensure DHS receives a good return on investment when determining needs and allocating fiscal resources.

[10] Public Law 104–106, Division E, February 10, 1996; 40 U.S.C. Sections 1425(b) and 1426(1).

Recommendations

We recommend the Under Secretary for Management:

Recommendation #1:

Establish a single point of accountability at the Department level with the authority, resources, and information to ensure a portfolio approach is implemented for its radio communication program.

Recommendation #2:

Develop a single portfolio of radio equipment and infrastructure, which will—

- Identify and describe the data elements needed to manage radio equipment and infrastructure;
- Develop policies and implement procedures for standard data reporting of radio equipment and infrastructure; and
- Develop policies and implement procedures for verifying the accuracy and completeness of reported radio inventory data.

Management Comments and OIG Analysis:

The Department provided comments on this draft report. A copy of the response in its entirety is included in appendix B. The Department also provided technical comments and suggested revisions to our report in a separate document. We reviewed the Department's technical comments and made changes in the report where appropriate.

Recommendation #1: DHS concurred with this recommendation. DHS noted that it is working to develop and implement Department level portfolio management of tactical communications; the timeline and resources for which will be described in the Fiscal Year 2016 Resource Allocation Plan and related capital plan and business case decisions to support full implementation. The estimated completion date is to be determined.

OIG Analysis: DHS' planned corrective action satisfies the intent of the recommendation and is considered resolved. The recommendation will remain open until we receive the FY 2016 Resource Allocation Plan, capital plan, and business case decisions supporting the Department's implementation of tactical communication portfolio management.

Recommendation #2: DHS concurred with this recommendation and said the JWPMO has made significant progress in collecting the data necessary to develop a single profile of DHS assets, infrastructure, and services across Components. DHS also said it will complete a review of existing policies and procedures and will revise, as necessary, its personal property manual to align with the findings. The estimated completion date for the corrective action is June 30, 2014.

OIG Analysis: DHS' planned corrective action is responsive to the recommendation and we consider this recommendation resolved. The recommendation will remain open until we receive documentation that identifies and describes the common data elements needed for managing and reporting a single profile of radio equipment and infrastructure, as well as any revised and finalized implementing guidance or manuals.

Appendix A
Objectives, Scope, and Methodology

The Department of Homeland Security (DHS) Office of Inspector General (OIG) was established by the *Homeland Security Act of 2002* (Public Law 107-296) by amendment to the *Inspector General Act of 1978*. This is one of a series of audit, inspection, and special reports prepared as part of our oversight responsibilities to promote economy, efficiency, and effectiveness within the Department. The audit objective was to determine whether DHS is managing its radio program and related inventory in a cost-effective manner to prevent waste of taxpayer dollars.

We reviewed Federal, Departmental, and component policies and processes for managing personal and real property inventories. These included, but were not limited to: *Office of Management and Budget Circular A-123*; *DHS Directive # 119-03*, Personal Property Asset Management Program; *DHS Instruction 119.02.001, Real Property Manual*, and *ICE Personal Property Operations Handbook*, March 2011.

We interviewed DHS officials from the Office of the Chief Information Officer, Office of the Chief Administrative Officer, Office of the Chief Procurement Officer, and the Joint Wireless Program Management Office at their headquarters office in Chantilly, VA. We also interviewed CBP, ICE, and USSS personnel responsible for the oversight or the management of radio programs and related inventories at their offices in Washington, DC; Chantilly, VA; Largo, MD; and Orlando, FL.

We reviewed and analyzed contracts, purchase orders, lease information, and other documents related to the acquisition and storage of radio equipment and infrastructure. We reviewed and analyzed documents related to the governance and management of DHS radio programs, including Acquisition Decision Memorandums, Charters, and the Program Management Plan.

We requested all radio equipment data as of June 30, 2012, from DHS Components most likely to use radio equipment in daily mission operations. These Components included the Transportation Security Administration (TSA), the Federal Law Enforcement Training Center (FLETC), the Federal Emergency Management Agency (FEMA), USCG, USSS, ICE, and CBP. We analyzed the radio equipment data from these Components, which contained 197,119 equipment items totaling $558.5 million. We selected USSS, ICE, and CBP for detailed site visit testing of reported radio equipment inventory because these Components accounted for 156,935 equipment items, or 80 percent of total items, totaling $519.2 million, or 93 percent of total dollars.

To validate the reliability and accuracy of reported radio equipment data, we conducted physical verification of reported equipment at the USSS warehouse in Washington, DC; the ICE technical maintenance facility warehouse in Largo, MD; and the CBP National Law Enforcement Communication Center in Orlando, FL. We selected these sites for testing because these locations accounted for 16,524 equipment items totaling $63 million, or about 11 percent, of total reported equipment items and 12 percent of total reported dollars for these Components. We selected a random sample of 174 equipment items, totaling $706,636 for these three locations from the inventory data provided. However, we did not conduct detailed physical verification testing of reported ICE equipment inventory in Largo, MD, for 34 equipment items totaling $159,117. A significant number of these equipment items (18 percent) had been transferred prior to our visit. Therefore, we performed alternative audit procedures to verify the receipt of items shipped from Largo, MD.

To validate the reliability and completeness of reported radio equipment, we selected a judgmental sample of 75 items, totaling $415,549, from equipment items physically located at USSS warehouses in Washington, DC; the ICE technical maintenance facility warehouse in Largo, MD; and the CBP maintenance facility in Orlando, FL. We judgmentally selected items that appeared to be in new condition. We also analyzed USSS, ICE, and CBP inventory data to further assess the reliability of reported radio equipment inventory data and to mitigate the risk of incomplete data.

We performed limited tests to validate the reliability of reported radio infrastructure data, comparing component infrastructure and lease data to information reported in the RPIS. We also analyzed information reported in RPIS for CBP to the local inventory maintained by the National Law Enforcement Communication Center.

Although our analysis and detailed testing of reported inventory disclosed instances of incomplete or inaccurate data, as discussed in the body of our report, we determined the inventory data was sufficiently reliable for the purposes of our audit objective and to support our audit findings.

We conducted this performance audit between July 2012 and March 2013 pursuant to the *Inspector General Act of 1978*, as amended, and according to 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 upon our audit objective. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based upon our audit objective.

Appendix B
Management Comments to the Draft Report

U.S. Department of Homeland Security
Washington, DC 20528

Homeland Security

July 10, 2013

MEMORANDUM FOR: Charles K. Edwards
Deputy Inspector General
Office of Inspector General

FROM: Jim H. Crumpacker
Director
Departmental GAO-OIG Liaison Office

SUBJECT: OIG Draft Report: "DHS Needs to Manage Its Radio Communication Program Better"
(Project No. 12-157-AUD-DHS)

Thank you for the opportunity to review and comment on this draft report. The U.S. Department of Homeland Security (DHS) appreciates the Office of Inspector General's (OIG's) work in planning and conducting its review and issuing this report.

DHS leadership understands the importance of leveraging the Department's collective capability to strengthen the homeland security enterprise and is continuing to make significant progress in improving effectiveness and integration across the Components. The DHS Under Secretary for Management leads the DHS-wide effort to integrate the Department's management infrastructure, which includes the establishment of functional portfolios defined within the DHS Segment Architecture Methodology (DSAM). The DSAM represents the process for developing segment architectures for common mission and business functions across the Department. Segment architectures bridge strategic planning, mission and business operations, and information technology (IT) implementation to provide actionable blueprints in support of "One DHS."

Since its inception, DHS has steadily improved integration of its Components' unique operational missions. The Office of the Chief Readiness Support Officer (CRSO), within the Management Directorate (MGMT), is responsible for coordinating efforts to improve alignment of business support services, including management of assets and related support activities. CRSO continues to focus on improving the readiness of mission support in an affordable manner. It facilitates integration of the Components by assessing various support processes, identifying similarities, standardizing asset and related performance data standards, compiling departmental data and integrating capabilities. Recently, CRSO issued draft data accountability standards for assets that cover radio communications and numerous other asset classes, which should be finalized by August 30, 2013.

The draft report contained two recommendations with which the Department concurs. Specifically, OIG recommended that the DHS Under Secretary for Management:

Recommendation 1: Establish a single point of accountability at the Department level with the authority, resources, and information to ensure a portfolio approach is implemented for its radio communication program.

Response: Concur. DHS has established an Enterprise Architecture (EA), which defines the functional areas that support the strategy and missions of the Department. Functional areas are decomposed into specific activities, governance bodies, and artifacts that provide DHS organizations and their leaders with a basis for collaboration and reuse of resources. Using the DSAM, the Department has defined 13 Functional Portfolios with varying levels of maturity, each composed of distinct activities. Radio Communications is included within the broader Communications segment architecture—1 of 31 segments aligned with the Enterprise IT Services Functional Portfolio. Within the context of this report, "portfolio" is used to refer to the primary function of "Communications" rather than the broader Enterprise IT Services Functional Portfolio.

DHS has demonstrated through an independent assessment that it has now attained maturity Stage 4 status as proscribed by the U.S. Government Accountability Office's enterprise architecture management maturity framework[1]. This means that DHS has a foundational set of corporate and subordinate EA products that provide a meaningful basis for informing selected investments and building greater EA scope, content, use, and results.

The Department's single point of accountability, with the authority, resources, and information to ensure a portfolio approach is implemented for its radio communication program, is the Tactical Communications (TACCOM) Executive Steering Committee (ESC), which was established in 2011. It is composed of the Deputy Component Heads from each DHS Component with equity in the TACCOM portfolio segment. This ESC was approved to assume TACCOM portfolio segment authority to enable greater transparency and oversight of the Department's radio communication investments. Specific segment portfolio policy and processes are in the early stages of maturity, but current investments are managed within the framework of the Enterprise IT Services Functional Portfolio.

DHS has made significant progress in developing a comprehensive understanding of its existing capability as well as Component strategic planning for sustainment and replacement of radio communications systems. However, successful planning is dependent on the availability of budget and other resources. Current estimated time to complete the fully matured Department-level segment portfolio management for tactical communications will be based on the yet-to-be developed Fiscal Year (FY) 2016 Resource Allocation Plan (RAP) and related capital plan and business case decisions to support full implementation.

The TACCOM Portfolio Management function currently falls under the Office of the Chief Information Officer IT Infrastructure Services Governance Board (ITSGB) under the IT line of business. The Joint Wireless Program Management Office (JWPMO) ESC is exploring the

[1] ORGANIZATIONAL TRANSFORMATION: A Framework for Assessing and Improving Enterprise Architecture Management (Version 2.0) (GAO-10-846G, August 5, 2010) Washington, DC

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opportunity for the JWPMO to support the ITSGB in helping to enhance the management of the DHS Tactical Communications Portfolio. The JWPMO has assembled and vetted the resource and funding requirements necessary to assume this role. The results of this resource and funding study will be presented to the ESC in July 2013. If approved, the JWPMO will assemble all documentation and funding requirements under the FY 2016 RAP submission. Estimated Completion Date (ECD): To Be Determined

Recommendation 2: Develop a single portfolio of radio equipment and infrastructure, which will–

- Identify and describe the data elements needed to manage radio equipment and infrastructure;
- Develop policies and implement procedures for standard data reporting of radio equipment and infrastructure; and
- Develop policies and implement procedures for verifying the accuracy and completeness of reported radio inventory data.

Response: Concur. The JWPMO has made significant progress in collecting the data necessary to develop a single profile of DHS assets, infrastructure, and services in use across Components. CRSO's primary objective for our property management program is to ensure that DHS personal property assets are managed in accordance with all laws, regulations, and DHS policy, and that asset management decisions are based on sustainability, maximizing return on investment, and in the overall best interests of the government and citizens. CRSO has promulgated standards for the collection and maintenance of inventory data and will continue to work with the JWPMO, which will complete a review of existing policies and procedures within 120 days of this memorandum. Following the review, we will revise, as necessary, our personal property manual to align with the findings. ECD: June 30, 2014.

Again, thank you for the opportunity to review and comment on this draft report. Technical comments were previously provided under separate cover. Please feel free to contact me if you have any questions. We look forward to working with you in the future.

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Appendix C
DHS Radio Equipment Items and Infrastructure Value

Figure 1. Radio Equipment[11]		
Component	**Items**	**Acquisition Value**
TSA*	12,466	$ -
USCG*	14,096	$ -
FLETC	2,543	$ 4,909,011.53
FEMA	11,079	$ 34,445,709.37
USSS	28,142	$ 105,843,483.39
ICE	38,622	$ 168,070,601.92
CBP	90,171	$ 245,273,242.79
Total	**197,119**	**$ 558,542,049.00**

Figure 2. Radio Infrastructure[12]		
Component	**Sites**	**Replacement Value**
TSA	-	$ -
USSS	4	$ 1,910,000.00
ICE	80	$ 2,139,800.10
FEMA	44	$ 2,180,181.89
FLETC	11	$ 14,941,796.87
CBP	1,350	$ 25,278,247.47
USCG	2,001	$ 494,633,846.24
Total	**3,490**	**$ 541,083,872.57**

[11] USCG data did not include any reported values or costs for the equipment items listed. Therefore, the total amounts presented are understated. Subsequent to the issuance of the draft report, TSA provided an updated inventory of 12,515 equipment items totaling about $37 million.
[12] The Components did not report acquired costs in the RPIS data received; therefore, replacement value was used.

Appendix D
Analysis of DHS Component Inventory Data Elements

Figure 3. Data Elements Recorded in Component Inventory Systems								
Data Element	**USCG[13]**	**CBP**	**FLETC**	**ICE**	**TSA**	**USSS**	**FEMA**	**Total (N)**
Unique Identifier (property tag number)	N/A	Y	Y	Y	Y	Y	Y	0
Stewardship/Location	N/A	Y	Y	Y	Y	Y	Y	0
Cost	N/A	Y	Y	Y	Y	Y	Y	0
Description/Name (mobile or portable radio)	N/A	Y	N	Y	N	Y	Y	2
Acquisition Date/ In-Service Date	N/A	N	Y	Y	Y	Y	Y	1
Category/Type (radio equipment, weapons)	N/A	Y	N	Y	Y	Y	N	2
Status (active, idle, etc.)	N/A	Y	N	Y	Y	Y	N	2
Condition (new, scrap)	N/A	N	N	N	N	N	N	6
Total (N)	N/A	2	4	1	2	1	3	

[13] USCG's radio inventory resides in numerous, disparate databases and sufficiently reliable data was not available for analysis during our audit.

Appendix E
CBP New Radio Equipment Items Stored at Hi-Tech Facility

Figure 4. New Radio Equipment Items Stored at CBP Hi-Tech Facility in Years												
	>=5 Years		4 Years		3 Years		2 Years		1 Year		Total	
Equipment	Items	$ Value	Items	$ Value	Items	$ Value	Items	$ Value	Items	$ Value	Items	$ Value
Portable XTS 5000	33	30,387	1	3,711	0	0	372	936,271	10	50,185	416	1,020,554
Mobile XTL 5000	0	0	11	41,437	142	535,525	281	1,128,355	100	421,372	534	2,126,689
Consolette Base Station	88	327,439	76	303,089	0	0	0	0	57	285,433	221	915,961
Repeater	19	209,869	44	536,865	0	0	3	35,064	9	103,697	75	885,495
Total	140	567,695	132	885,102	142	535,525	656	2,099,690	176	860,687	1,246	4,948,699

Appendix F
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Appendix G
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